

**The Effectiveness of Settlement Service-delivery System for
Immigrant Wives' Integration
in South Korea**

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Abstract

Using the data of the 2012 National Survey on Multicultural Families, in this thesis, we estimated the effectiveness of the Multicultural Family Support Service (MFSS) and attempted to find a way in which MFSS can be effectively enhanced.

The effectiveness of MFSS was evaluated by the extent of integration, including citizenship, employment, Korean language skills, and life satisfaction of service-users and non-service-users, while controlling for selection bias. Based on the Propensity Score Matching results, there were insignificant differences in the integration levels between the two groups. The integration levels of service-users were no higher than those of non-service-users. As such, these results indicate that the use of MFSS by immigrant wives was not effective in enhancing the extent of their integration.

To identify ways in which MFSS can be effectively improved, this thesis focused on individual, ethnic-group, and organisational level variables that influence immigrant wives' integration, based on the open system approach of the logic model. Using cross-classified multi-level analysis, we found that i) individual level factors, including demographic, social, economic, and household resources, had an effect on immigrant wives' integration; ii) at the ethnic-group level, geographic distance, economic conditions, and political conditions had an effect on integration, but the size of the ethnic-group population did not; and iii) at the organisational level, financial resources and manpower had an effect on integration, but service delivery methods relating to the attributes of an effective service-delivery system had no impact. From these results, we consider that the effectiveness of MFSS could be improved by focusing on the factors at the individual, ethnic-group, and organisational levels that are positively associated with integration.

Based on our findings, three policy strategies are suggested to improve the effectiveness of MFSS: i) case management at the individual level, ii) cultural competence at the ethnic-group level, and iii) the use of different management practices according to regional differences at the organisational level.

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Author's declaration

It should confirm that the work in the thesis is my own has not been submitted for examination at this or any other institution for another award. In addition, all sources are acknowledged as References.

PART I: *OVERVIEW OF THESIS*

Chapter 1: *Introduction*

Recently, there have been dramatic movements by immigrants throughout the world (Massey et al., 1993). Consistent with this trend, Korean society is also confronting an influx of immigrants, such that the government has determined that Korea's evolution into a diverse and multicultural society is one of the most imperative issues in the public policy arena. According to the Ministry of Security and Public Administration (2013), about 2.8 percent of the Korean population, or 1.44 million people, were reported to be from overseas in the year 2013. The majority of these immigrants are migrant workers (approximately 36% of the foreign population in Korea), followed by marriage migrants of foreign husbands and wives of Korean nationals (approximately 16% of the foreign population in Korea), overseas Koreans (approximately 13% of the foreign population in Korea), and other immigrant groups (Ministry of Public Administration and Security, 2013). Regardless of their classifications, the immigrants are mainly from China and South-East Asian countries including the Philippines, Vietnam, and Cambodia (Ministry of Public Administration and Security, 2013).

In comparison with other immigrant groups, only those classed as marriage migrants have legal rights to long-term residency, welfare assistance, and settlement programs. In fact, the Korean government provides legal status for marriage migrants as soon as they arrive. In other words, these marriage migrants are considered to be a critical and valuable population for integration into Korea society. However, among foreign spouses, immigrant wives are prioritised above immigrant husbands in the policy arena, because the number of immigrant wives is much higher than that of immigrant husbands. The relative rise in the number of immigrant husbands and wives is revealed in a simple statistical comparison between the years 2003 and 2011. The total cases of international marriage between foreign women and Korean men were about 3 times higher than between Korean women and foreign men from 2003 to 2011 (Statistics Korea, 2012b). In 2003, 18,751 immigrant wives and only 6,025 immigrant husbands arrived in Korea, and in 2011, the Korean government allowed entry for

22,265 immigrant wives compared to 7,497 immigrant husbands (Statistics Korea, 2012b). Because of the relative higher numbers, immigrant wives are regarded as a more significant policy matter than other immigrant groups in Korea (W. Kim, 2008).

With these higher numbers has come the recognition of adjustment-related problems being experienced by immigrant wives with respect to themselves and their family members, including language barriers, cultural distress, family conflict, child rearing difficulties, and low household socio-economic status (Chun et al., 2007; Kim et al., 2010; Jeon et al., 2013). As result of the increased numbers of immigrant wives, their difficulties in adjusting to Korean society have emerged as a serious social problem.

In response, the Korean government established an integration policy and a system to provide standardised settlement services called the Multicultural Family Support Service (MFSS) in the form of Multicultural Support Service Centres (MFSC) throughout Korea. Prior to this time, there had been no national integration policy associated with the inflow of foreign wives (Central Office for Multicultural Family Support Centres, 2009).

While the government is providing settlement services for immigrant wives, some studies indicate that the service provision outcomes are not clear and that the services may not be effective for immigrant wives (Kim et al., 2010; C. Kim, 2013; Bae and Pyun, 2013). Many empirical studies in Korea have reported the ineffectiveness of certain aspects of the MFSS delivery system regarding service users, service providers, and the local community. First, in terms of service users, the delivery of standardised service hardly reflects the various individual needs and different views of these women (Jung and Jung, 2010; Kim et al., 2010; Bae and Pyun, 2013; C. Kim, 2013), nor their ethnic backgrounds (Jung, Choi and Jang, 2009; H. M. Kim, 2013a). Second, with respect to service providers, recognized problems include a shortage of professional manpower (Han, 2009; Kang, 2012; H. M. Kim, 2013b; Kang, Park and Son, 2013; C. Kim, 2013; Seo and Lee, 2014), too much focus on cultural assimilation (Seol, Lee and Cho, 2006; Kim and Hong, 2010; Ra, 2011), a lack of cultural sensitivity by the staff (Seol, Lee and Cho, 2006; Seo and Lee, 2014), insufficient sub-programs (Jung and Jung, 2010; Bae and Pyun, 2013), a lack of follow-up management (Jung

and Jung, 2010), inaccessibility of the MFSCs because of a lack of publicity (C. Kim, 2013) and geographic barriers (Y. Park, 2009; Jung and Jung, 2010; Korea Institute of Public Administration, 2012; Kang, Park and Son, 2013), a shortage of financial resource (M. H. Kim, 2011; Ra, 2011), and overlapping provision of services with the private sector at the community level (W. Kim, 2008; Bae and Pyun, 2013; H. M. Kim, 2013b; Kang, Park and Son, 2013; C. Kim, 2013). Third, regarding the community, a uniform service provision cannot respond to regional differences such as the population sizes of immigrant wives, budgetary needs, and policy requirements at the community level (Park and Choi, 2008; Korea Institute of Public Administration, 2012; H. M. Kim, 2013b; Kang, Park and Son, 2013; C. Kim, 2013). In fact, many studies have concluded that the effectiveness of the MFSS delivery system is dubious. Based on this information, two main questions are established in this thesis: 1) is MFSS effective? and 2) if not, how can the effectiveness of MFSS be improved?

The aforementioned studies concerning the evaluation of the MFSS have used only actual condition surveys, and have focused on comparing outcomes between participants and non-participants in MFSS. This comparison is inconsistent and invalid as there are systematic differences between service users and non-service users (Guo, Barth and Gibbons 2006). This problem is known as selection bias (Cnaan and Tripodi 2010), and a method to control for selection bias must be developed to estimate the net effect of MFSS. In this thesis, we use propensity score matching (PSM) to deal with selection bias when estimating the net effect of MFSS.

In addition, previous studies have estimated the effectiveness of the MFSS by separately addressing the topics and issues in service delivery. Therefore, the research evaluation data is piecemeal, without any comprehensive understanding of the issues and topics in the service-delivery system. A comprehensive approach to evaluating the effectiveness of a service-delivery system demands the application of valid and reliable evaluation methods for measuring effectiveness (Rubbin and Babbie, 1989) and an examination of a series of issues and topics as predictors of effectiveness (Martin and Kettner, 2010). We can then identify the necessary improvements to be made in the service-

delivery system, based on the results from the evaluation and predictors. Hence, in order to make a comprehensive and in-depth analysis of a service-delivery system, we must investigate its effectiveness using valid and reliable methods, and analyse the predictive variables regarding immigrant wives' integration. This thesis uses multilevel analysis to examine not only various performance outcomes of MFSS but also the extensive predictors influencing those outcomes to identify ways in which MFSS can be more effective.

This thesis provides an overview of useful evidence for estimating the effectiveness of the MFSS and identifies valid and reliable ways in which the MFSS can be enhanced, following an extensive investigation of the issues and topics relating to effective service-delivery systems. Following this overview section, the thesis is divided into six parts.

Part II provides background material regarding the MFSS, and its important problems and issues in addressing immigrant wives' integration in Korea (Chapter 2 and 3).

In Part III, the conceptual and theoretical foundation for this research is presented to provide a basic understanding of the research question regarding the estimation of the effectiveness of the MFSS. Specifically, as a basis for this research, Chapter 4 focuses on the conceptual approach used in this thesis, and explores the questions of why service participation is important, what an effective service-delivery system is, the definition of a service-delivery system, how human services are effectively established, and how to understand immigrant integration. Chapter 5 develops a theoretical framework for exploring the MFSS service delivery system, using an open system approach of the logic model.

In Part IV, based on the second research question, this thesis elaborates upon the theoretical and conceptual frameworks to account for the predictors that may affect the performance outcomes of the MFSS (Chapters 6, 7, 8, and 9). These frameworks, in turn, provide basic information for investigating the possible factors that influence the performance outcomes, in order to identify avenues in which MFSS effectiveness can be improved.

In Part V, we empirically estimate the net effect of the MFSS using PSM (Chapter 11). Chapter 10 addresses why we need to control for selection bias and which a method to

control for selection bias is used in this thesis. Based on the discussion in Chapter 10, we estimate the net effect of MFSS using PSM in Chapter 11. We then discuss whether the findings are consistent with those of previous empirical studies regarding the effectiveness of the MFSS.

To answer the second main research question about how effectiveness can be improved in MFSS, Part VI empirically investigates possible factors influencing the MFSS performance outcomes (Chapters 12 and 13). We then discuss how the findings are linked with the extant MFSS literature in the search for ways to effectively enhance the MFSS (Chapters 14 and 15).

Lastly, by focusing on the empirical findings of Chapter 13 and the discussions presented in Chapters 14 and 15, Part VII suggests alternative policy proposals to achieve an effective MFSS delivery system that reduces adjustment-related problems and promotes successful integration of immigrant wives residing in Korea (Chapter 16).

Using the research questions listed below, in our empirical study we investigated two sets of issues: i) whether the MFSS delivery is effective, and ii) how the MFSS delivery system can be effectively improved for immigrant wives' integration in Korea:

Q1 : Is MFSS effective for immigrant wives' integration in Korea?

Q 1-1: Are there differences in the extent of objective integration (e.g. citizenship, employment, Korean language proficiency) and subjective integration (e.g. life satisfaction) between service users (i.e. immigrant wives who have used MFSCs at least once) and non-service users (i.e. immigrant wives who have not used MFSCs at least once) in Korea?

Q 1-1-1: Does the service users' likelihood of being naturalised increase compared to non-service users, when controlling for selection bias?

Q 1-1-2: Does the service users' likelihood of employment increase compared to non-service users, when controlling for selection bias?

Q 1-1-3: Does the service users' level of Korean-language proficiency increase compared to non-service users, when controlling for selection bias?

Q 1-1-4: Does the service-users' level of life satisfaction increase compared to non-service users, when controlling for selection bias?

Q2 : How could MFSS delivery system be more effective? (Which factors influence immigrant integration, as an intended performance outcome of MFSS?)

Q 2-1: Which components at the individual, ethnic-group, and organisational levels have an effect the extent to which service-users become naturalised in Korea?

Q 2-2: Which components at the individual, ethnic-group, and organisational levels have an effect the degree to which service users become employed in Korea?

Q 2-3: Which components at the individual, ethnic-group, and organisational levels have an effect on the degree to which service users become fluent in the Korean language?

Q 2-4: Which components at the individual, ethnic-group, and organisational levels have an effect the degree to which service-users become satisfied with their life in Korea?

PART II: *BACKGROUND*

Chapter 2: *Background (I) – Immigrants, Past, and Presents in Korea*

The prevailing belief that the Korean society is homogenous society (W. Kim, 2008; K. Kim, 2010) has been changed by a swelling wave of immigrants into Korea in recent years (Seol, Lee and Cho, 2006; W. Kim, 2008; Kim et al., 2010). According to the Korean Immigration Service (KIS), in 2000, immigrant population legally staying in Korea reached approximately 0.2 million, or about 0.4 per cent of the total Korean population (KIS, 2000). By 2013, the number of immigrants had soared to approximately 1.44 million, or roughly 2.8 per cent of the total (Ministry of Security and Public Administration, 2013). While that number increases rapidly, the impact of immigration is imperative and growing in the Korean society (W. Kim, 2008; K. Kim, 2010). Numerous articles and books have called attention to the changes in the Korean society in terms of their impacts: first the establishment of immigration enactments in political change, second the advent of multicultural society, accompanied by marriage immigrants and their family; and third the existence of manual workers and overseas Korean nationals in the Korean labour market in the socioeconomic change (Seol, Lee and Cho, 2006; W. Kim, 2008). In fact, both such a huge flow of immigrants and the Korean society's changes accompanied caused by this are essential backdrops for this chapter.

This chapter sets central questions that serve to present issues or backgrounds on immigration in Korea: (1) who is immigrating in Korea? and (2) what are the Korean government responses towards foreign groups? The first question discusses who is arriving in Korea, as well as immigrant characteristics and Korea's classifications of immigrants. Based on primary statistical data and enactments of immigration, the differences and similarities can be compared among legal immigrants in Korea. The second question reviews the immigration policies that address how the Korean government responds to the flow of immigrants. It clarifies the Korean government's policy-strategy that manages the flow of immigrants and integrates them into the Korean society.

Mainly based on the fundamental questions, this chapter will provide discussions of important issues and backgrounds for a better understanding of immigration in Korea.¹ In the next section, the chapter begins with a description for the first question.

2.1. WHO IS IMMIGRATING IN KOREA?

It is understood that the immigration policy covers at least two issues: border management and immigrant adaptation (Hammar, 1985; Zolberg, 1999; Hollifield, 2000; Shin, 2011). First, border management policy runs the flow of immigrants, such as controlling the number of immigrating a year, the duration of their residence, and the types of immigrants (Mayers, 2000). The adaptation policy determines the extent of integration in the host society (Shin, 2011) in which levels of the government assistances are considered, such as the settlement program, labour force participation, and welfare benefits (Mayers, 2000). According to Portes and Rumbaut (2006), the levels of border management and adaptation policy are differentiated along with the classifications of immigrants because varied and different principles are applied to each classification, even due to one's country's immigration policy. In next sections, therefore, the principles embedded in the classifications of legal immigrants to Korea are examined, based on comparative perspectives. Before developing this examination, this empirical study briefly looks at historical trends of the immigrant population in Korea.

2.1.1. Immigrant population rapidly growing and changing in Korea

The figures of the foreign-born population legally staying in Korea were at a negligibly low level in the early of 1990s (H. S. Kim, 2010). Further back, only 0.1 per cent of the total Korean population were foreign-born populations in the 1980s (Jang and Jang, 2010). Since the mid-1990s, however, the number of immigrants has been dramatically changing in Korea. About 2 per cent of foreigners on the native population were admitted into Korea between mid-1990s and 2000s (KIS, 1996, 1997, 1998, 1999, 2000, 2001).

¹To expand an understanding issues and backgrounds of immigration in Korea, this thesis reviews laws and acts on immigration, via Ministry of Government Legislation which provides information about all laws and acts in Korea (www.law.go.kr).

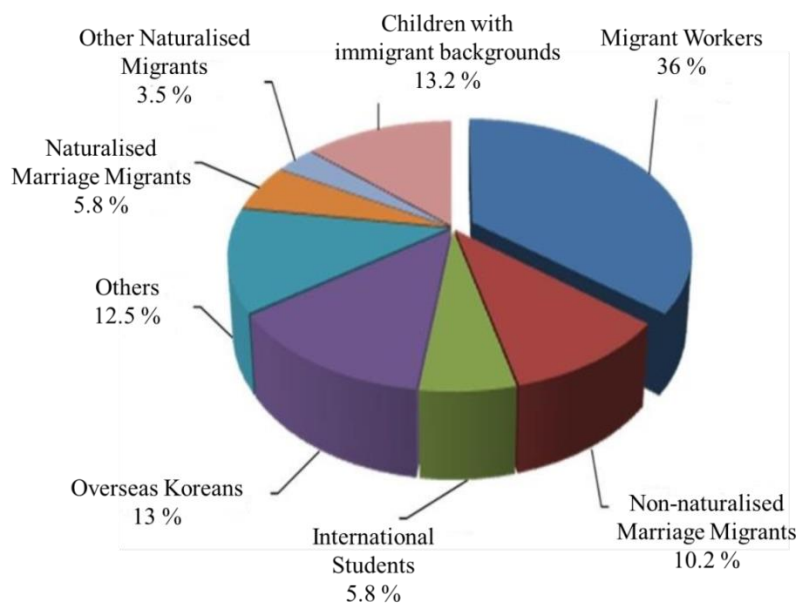
The inclined figures during these years are characterised along with three different classifications of immigration. The first refers to manual migrant workers from China and South-East Asian countries. In year 1994, the Korean government revised the Immigration Control Law which allowed manual labour workers in the smaller business areas to supplement an insufficient workforce (H. Y. Choi, 1996). This revision encouraged migrant workers to arrive in Korea and in turn a number of manual migrant workers have arrived in Korea since the revised act. The second is in reference to overseas Koreans. This population has been grown due to the revised Act on Overseas Koreans, in year 1999. The overseas Koreans are categorised into two different groups. Pre-1999 overseas Koreans were typically from the United States and emigrated to foreign countries between 1945 and 1999, while post-1999 overseas Koreans were from China and countries of the former Soviet Union, as well as moving to these countries before 1945.² The revised Act on Overseas Koreans in year 1999 expanded the scopes of overseas Koreans and now motivates those in China and former Soviet Union countries to arrive in Korea. The third is related to immigrants by an international marriage. The number of marriage-based immigrants has suddenly increased in Korea since year 2003, as an international marriage between native-born Koreans and their foreign-born partners has uplifted in Korea on the reports of the Ministry of Health and Welfare (Seol, Lee and Cho, 2006) and of the Ministry of Gender Equality and Family (Kim et al., 2010).

The recent data also showed the trend that these three groups of immigrants are the majority amongst other immigrants in Korea. According to the current registration of the foreign-born population in Korea in year 2013 (Ministry of Security and Public Administration, 2013), an overwhelming majority were manual migrant workers (520,906, 36%), followed by children with an immigrant background (191,328, 13.2%), overseas Koreans (187,616, 13%), non-naturalised immigrants by marriage (147,591, 10.2%), international students (83,484, 5.8%), naturalised marriage migrants (83,926, 5.8%), and

²Post-1999 overseas Koreans are defined as former Korean who live in overseas countries during the Second World War and Japanese colony time, a number of Koreans emigrated to China and countries in former Soviet Union to escape from rule of Japanese colony (I. Yoon, 2003; J. Jeon, 2008). In spite of emancipation from Japanese colonial rule in 1945, these Koreans were not able to come back in that obtained nationality in these countries (J. Jeon, 2008).

others (See Figure 2.1). Except for international students and children with immigrant backgrounds; manual migrant workers, immigrants by marriage, and overseas Koreans are the overwhelming majorities among immigrants in Korea.

Figure 2.1: The distribution of immigrants in Korea in 2013



(Source: Ministry of Security and Public Administration, 2013)

As noted earlier, because those groups cause the greatest numbers among the influx of immigrants in Korea, as representative classifications in Korea (Ministry of Security and Public Administration, 2013), the following descriptions will be limited by the consideration of the three groups: manual migrant workers, overseas Koreans, and immigrants by marriage.

2.2. HOW DOES THE KOREAN GOVERNMENT RESPOND TO THE ISSUES OF IMMIGRATION

Although there are different and varying criteria in classifying immigrant groups from the Korean government, in this section, the classification of immigrants into Korea is discussed simply, and according to two main dimensions. The first dimension is related to their explicit entry goal, for example; to sell labour, international marriage, and ethnic Korean background (Hi Korea: e-government for foreigner, www.hikorea.go.kr). The second refers to the extent of acceptance by the government. The extent of the acceptance is determined by

the following points: whether to be granted as long residence; whether to be allowed to obtain naturalisation; and whether to be assisted from the government versus whether to be denied by entry principles; whether to be granted as short residence; whether to be barred from naturalisation; and whether to be persecuted (Hi Korea: e-government for foreigner, www.hikorea.go.kr). Taking the two dimensions, the next pages will address these groups' backgrounds and current conditions, based on immigration enactments and statistical data, so as to expand an understanding of the characteristics of the three groups.

2.2.1. Manual migrant workers

From the data provided by the Ministry of Security and Public Administration (2013), in 2013, the classification of the manual migrant worker is shown to be the first channel for immigration in Korea. The number of foreign manual workers for Korean Chinese (228,685 or 43.9%) is the largest among the total of manual workers in Korea (520,906). Other nationalities of foreign manual workers' groups include Vietnamese (61,453 or 11%), Indonesians (27,988 or 5.4%), Chinese (21,702 or 4.1%), Filipinos (19,918 or 3.8%), Thais (17,862 or 3.4%), and others.

The principle in determining entry permission in Korea is manual workers' resources linked to human capital skills. The Korean government estimates the eligibility of a candidate based on human capital skills, including their work experiences, Korean language proficiency, and educational level (H. Choi, 2010; Y. H. Kim, 2010; Suh and Park, 2002). This means that when their human capital skills are achieved to an appropriate level the Korean government requires, they are admitted into Korea. Since 1990s the Korean government has experienced labour shortages in the agricultural and service industries as well as small and medium-sized businesses (H. Choi, 2010; Y. H. Kim, 2010; Suh and Park, 2002). Because the kinds of jobs are low-paid, labour-intensive, dangerous, dirty, and difficult works, domestic Korean workers are not available or not willing to do the jobs (H. Choi, 2010; Y. H. Kim, 2010; Suh and Park, 2002). To resolve such shortage of labour in the industries and businesses, the government imports foreign manual workers, together with the expectation of Korean economic growth. To a large extent, the Korean government believes

that the inflow of migrant workers with sufficient human capital skills is advantageous for economic reward and development (H. Choi, 2010; Y. H. Kim, 2010; Employment Permit System, www.eps.go.kr).

However, immigration enactments discourage manual foreign workers to stay longer in Korea; in fact, the residence is constrained according to their employment contracts (P. Hwang, 2010). Based on the Act on Foreign Workers' Employment ETC of 2012 and the Immigration Control Law of 2012, the Korean government constrains periods of employment contract during three years. Thus, these contract workers are granted to settle in Korea for three years as temporary workers, together with a lasting contract. Within the years, the contract may extend two more years if their Korean employers sign a contract extension. Five years are the longest the migrant workers are able to stay in Korea, and they should return to their home countries after finishing the term of their contract.

Sometimes, manual foreign workers become illegal aliens by staying longer than permitted by an employment contract. In 2012, KIS reported 177,854 deportable aliens in Korea (KIS, 2013), 53,960 of which were manual foreign workers (KIS, 2013). This indicates that many manual foreign workers illegally overstayed in Korea rather than renewed legal contract. To bar the foreign labourers from being illegal aliens, the Act on Foreign Workers' Employment ETC of 2012 limits their labour mobility in the Korea labour market. Only are they be destined to the bottom rungs of the Korean labour market, for example; working in agriculture, the service industries, or in medium-sized business. Even if they are willing to switch their jobs in the bottom line of the Korean labour market, they need to consents from their employers in Korea.

In spite of the unequal and harsh labour conditions compared to the native-born Korean workers, manual foreign workers are willing to live in Korea. In exploring the causes of their international migration, based on an economic perspective, manual migrant labourers from underdeveloped countries where poverty and unemployment are pervasive tend to cross a border to reap economic advantages at their destination, which results from a gap of income and employment opportunity between the homeland and the destination (Massey et al., 1993;

Massey, 1999; Chiswick, 2000). Due to the economic perspective, because not only are wages in the receiving country higher than that in their home countries but also the economic opportunities in the receiving country are able to reduce or relieve familial poverty in their home countries, they tend to accept harsh menial jobs after arrival to Korea. In addition, sociologists explain that networks last the flow of immigration because earlier immigrants in the destination country tend to share information and knowledge of the host society, such as labour market, settlement conditions, and journey costs, with potential immigrants back in the homeland (Portes and Rumbaut, 2006; Massey, 1999). From the standpoint of sociologists, this knowledge or information including the conditions of the Korean labour market and Korean life situations could be shared through the networks between earlier migrant workers and later migrant workers. This may stimulate new manual labourers to come to Korea and then, new manual migrant workers may follow the route of earlier migrant workers in Korea.

In order to access full Korean citizenship, manual foreign labourers must meet requirements, including residency (i.e. *denizenship*)³ and blood of parent (i.e. *jus sanguinis*)⁴ under the 2011 Korean Nationality Act. Although the avenue to become a Korean citizen is open to all immigrants who arrive in Korea with legal papers, the eligible principles vary along with the classifications of immigrants. In the case of foreign contract workers, those who stay for five years in Korea, based on denizenship, are eligible for application to qualifying examination for Korean naturalisation, which evaluates their knowledge of Korean history, basic Korean laws, and Korean culture, as well as Korean language ability, through paper-pencil-test and interview (Danuri: the portal for multicultural family, www.liveinkorea.kr). As a result of this, when foreign manual workers become a Korean citizen, their children also obtain citizenship without taking the aforementioned qualifying

³In principle of denizenship (Faist, 2000), as permanent residency is a preliminary condition, permanent residents have an opportunity to achieve nationality. However, their children are limited to access nationality although they are born in territory or their parents have full citizenship. Namely, denizenship allows individuals to obtain long-term residence without acquiring full citizenship.

⁴The principle of “*jus sanguinis*” is based on their blood (Castles and Miller, 1998; Heisler, 2000; Faist, 2000; Levitt and Jaworsky, 2007); thereby, once immigrants obtain full citizenship, their children become a citizen regardless of birth of territory.

examination based on the blood type of parents labelled “*jus sanguinis*” (J. Jeon, 2008; J. Lee, 2002).

The manual foreign workers with legal contracts are able to access social insurances such as health insurance (the National Health Insurance Act of 2012), employment insurance (the Employment Insurance Act of 2012), the pension system (the National Pension Insurance Act of 2012), and compensation insurance from industrial accidents (the Industrial Accident Compensation Insurance Act of 2012), but receive no public assistance from the Korean government (Ku et al., 2009). Synthesized, it suffices to note that they are regarded as not permanent residents but visitors in Korea, as a result they could find difficulty fully integrating into Korea.

2.2.2. Overseas Koreans

In the data from the Korean Net of Overseas Koreans Foundation (www.korean.net), in 2009, the total number of overseas Koreans was about 6.8 million around the world. From the data, most overseas Koreans have lived in China (34.2%), the United States (30.8%), Japan (13.4%), and former Soviet Union countries (7.9%). In 2013, out of a total of 187,616 overseas Koreans staying in Korea, 61.7 per cent were from China (115,731) and 23.5 per cent were from the United States (44,135), as the vast majorities in Korea (Ministry of Security and Public Administration, 2013).

As the third entry channel for immigration in Korea (Ministry of Security and Public Administration, 2013), a common explanation of why the number of overseas Koreans has increased, singles out the revision of the Act on Overseas Koreans of 1999. Overseas Koreans from China and the former Soviet Union countries were legally limited to come to Korea with the visa of overseas Koreans, whereas overseas Koreans from other western countries, especially the United States, were legally admitted before 1999. As per the reforming the Act in 1999, overseas Koreans from China and the former Soviet Union countries were permitted to come with a visa labelling them post-1999 overseas Koreans.

The basic criteria estimating the entry of overseas Koreans are central to the nature of *jus sanguinis*. Although overseas Koreans lost their previous nationality and obtained permanent status in foreign countries after Japanese colonisation (Abelmann and Kim, 2005; I. Yoon, 2003), the Korean government believes that overseas Koreans are part of the Korean ethnic groups sharing the same Korean identity (Act on Overseas Korean 1999). In this view, the significant condition for entry to Korea is Korean origin (J. Jeon, 2008; J. Lee, 2002). As such, former Koreans and their children are legally granted permission to enter Korea regardless of current their citizenship, which is based on a principle of *jus sanguinis*.

Despite the fact that they are admitted to legally live in Korea, they are not allowed to stay in Korea permanently. The 2012 Immigration Control Law allows them to stay for up to four years. They are, however, only guaranteed to stay for three years unless the government allows them to stay the extra year, then it is possible to stay for four years in Korea by way of the Control Law. However, they are rarely able to extend their residency in Korea beyond four years (P. Hwang, 2010). Given Korean citizenship, when overseas Koreans dwell in Korea for two years or more years, they are eligible to apply for the aforementioned qualifying examination of Korean naturalisation. If they successfully pass the examination, they may become a Korean citizen (P. Hwang, 2010).

Unlike the low-skilled migrants controlled over employment contract, overseas Koreans have few legal limitations when entering the Korean labour market. However, because post-1999 overseas Koreans tend to concentrate in agricultural and service industries and small or medium-sized businesses (J. Lee, 2010), the post-1999 overseas Koreans are restricted to enter in the areas of the job market in Korea by the Immigration Control Law of 2012. If both foreign manual workers and post-1999 overseas Koreans become more visible in the areas of labour market, they may be targets of resentment and opposition by Korean native-born workers in those areas (J. Lee, 2010). As such, the post-1999 overseas Koreans have constrained participation in these industries or businesses in the Korean labour market by the Immigration Control Law of 2012.

Just as foreign manual contract workers are granted permission to utilise social insurances in Korea, so do overseas Koreans. They enjoy social insurances including health (the National Health Insurance Act of 2012), employment (the Employment Insurance Act of 2012), pension (the National Pension Insurance Act of 2012), and compensation (the Industrial Accident Compensation Insurance Act of 2012) insurances. Overseas Koreans, however, have no legal right to utilise public assistance (Ku et al., 2009). This shows that they are regarded as a temporary visitor, not a permanent resident, in Korea. In addition, the government may prevent them from fully integrating in Korea.

2.2.3. Marriage migrants

The channel of entry is an international marriage for marriage-based immigrants. International marriage entitles the immigrant to a legal entry permit, so the spouses of Korean citizens are able to arrive in Korea. By the Immigration Control Law of 2012 and the Support for Multicultural Family Act of 2012, immigrants who married Korean citizens and come to Korea are called marriage migrants regardless of naturalisation. Female spouses of Korean citizens are named as immigrant wives, whereas their male counterparts are named as immigrant husbands. As shown in Figure 3.1, marriage migrants are classified into naturalised marriage migrants and non-naturalised marriage migrants, according to admitted Korean citizenship (Ministry of Security and Public Administration, 2013).

Aside from the basic statistical data on foreign-born settlers in Korea supported KIS (2012, 2013), in 2003, the Korean government allowed entry for approximately 94,000 marriage migrants (KIS, 2012) and in 2012 marriage migrants admission numbered 148,498 (KIS, 2013). In 2005, immigration was 31 per cent inclined from the prior year as a peak, but the number of marriage migrants petitions approved steadily dropped⁵. The rate of actual

⁵The Vietnamese (K. Kim, 2010) and Cambodian (Kim and Kim, 2010) governments have regulated international marriage between their women and Korean men since 2005 because worse life conditions of immigrant wives from those countries are reported such as suicide accompanied by domestic violence, divorce, family conflict, and economic limbo in Korea (K. Kim, 2010). With the regulation of the sending countries, the Korean government has regulated unlicensed date-matching agencies through Act on Regulation of Marriage Brokerage Agency of 2007. Only are immigrant wives be granted to stay longer legally in Korea (Immigration Control Law of 2012), so the agencies arrange fake international marriages in Korea (Freeman, 2005). The arrangements gradually trigger run-a-way wives in Korea (Constable, 2005). To prevent such side effects, the

marriage migrants admitted in 2012 increased only 2.1 per cent from the prior year (KIS, 2013). By 2013, more than 231,500 marriage migrants, including naturalised (83,929) and non-naturalised (147,591) marriage migrants had residence in Korea (Ministry of Security and Public Administration, 2013). Over 89.1 per cent of marriage migrants in 2013 were immigrant wives, while the remaining 10.9 per cent of marriage migrants were immigrant husbands (Ministry of Security and Public Administration, 2013). According to KIS (2014), in 2013, the vast majority of marriage migrants were Chinese (42.4%), followed by Vietnamese (26.5%), Japanese (7.9%), and Filipinos (6.5%).

The explicit entry preference for marriage migrants is international marriage, but Korean partners who marry foreign-born people must certify a continuous marital relationship with foreign spouses and a sufficient economic ability as the principles of partner-sponsored entry (the 2012 Immigration Control Law). Because, not only do some marriage migrants tend to run away after arrival in Korea as the marriage-relationship was faked for legal permanent residence (Constable, 2005; Freeman, 2005; Abelmann and Kim, 2005) but also their partners are primarily characterised into low socio-economic status, such as the low income population and those in poverty in Korea (Seol, Lee and Cho, 2006; Kim et al., 2010), the entry permits depend on ongoing marriage life in Korea and a means-test of Korean-marriage-partners. Thus, these entry principles prevent foreign wives or husbands from coming to Korea via fake marriages to gain legal permanent residence and adding nothing to the economy in Korea.

Unlike foreign manual workers and overseas Koreans, marriage migrants come legally and become granted to live in Korea permanently. To perpetuate permanent legal residence, however, they must continue marriage life in Korea, so marriage migrants who are divorced from Korean citizens encounter difficulty living legally in Korea (P. Hwang, 2010).

government regulates unlicensed date-matching agencies through the enactment. The regulations of sending countries and Korea have decreased the number of international marriage between foreign women and Korean men in Korea since 2005 (K. Kim, 2010).

Table 2.1: Characteristics of major immigrant groups in Korea

Principles	Major legal immigrant groups		
	Manual migrant workers	Overseas Koreans	Marriage migrants
Entry criteria	Human capital skills	Korean origin	Continuous marital life via international marriage and Korean partners' means-test
Length of Residence	Legal temporary residence: up to 5yrs	Legal temporary residence: up to 4yrs	Legal permanent residence
Naturalisation	Conditional accessibility by length of residence (at least 5yrs) and qualifying naturalisation test (pencil test and interview)	Conditional accessibility by length of residence (at least 2yrs) and qualifying naturalisation test (pencil test and interview)	Ease restrictions on naturalisation by relatively short-residence (marital life during 2yrs in Korea or residence during 1yr with marital life for 3yrs) and exemption from pencil test for qualifying naturalisation test
Assists from government	Social insurance	Social insurance	Social insurance, public assistance, and settlement service
Treatment of government	Partial integration	Partial integration	Full integration

The Korean Nationality Act of 2012 introduces procedures in accessing full Korean citizenship, in terms of marriage migrants. In the Act, marriage migrants, who stay at least two years verifying constant marriage life in Korea or stay for a year prior to marriage before living in Korea accompanied by a verified continuous marriage life during a further three years, are able to apply for a qualifying examination for full Korean nationality. Because they are given priority to Korean nationality over manual workers and overseas Koreans, they are exempt from the pencil-test that is one part of the qualifying examinations. Once they have children with their Korean spouses, however, their children automatically become a Korean citizen because one of their parents is a native Korean, based on *jus sanguinis*.

The advantages conferred by marriage migrants status include the right to work without any restrictions and to use social insurances including health, employment, pension, and compensation assistances. As a distinct contrast to other immigrant groups, they are able

to receive not only settlement service (the Support for Multicultural Family Act of 2009) but also public assistance (Ku et al., 2009) in Korea. Thus, the Korean government identifies that marriage migrants are the target population for adaptation to Korean society; only marriage migrants are expected to integrate fully into Korea compared to other immigrant groups (Kim et al., 2010; H. S. Kim, 2010).

To sum up, by comparing the significantly different levels of entry criteria, length of residence, naturalisation, assistances from government, and treatments of the marriage migrants to the other immigrant groups, it is suffice to say that the immigrant husbands and wives are given priority by the immigration policy of Korean government (See Table 2.1).

2.3. OVERVIEW

Since the mid-1990s consistently massive flows of immigrants into Korea have been witnessed compared to the 1980s. Aside from the statistical data reported by Ministry of Security and Public Administration (2013), the overwhelming majorities among immigrants who are legally permitted in Korea are manual migrant workers, immigrants by marriage, and overseas Koreans. In this fashion, this chapter delineated the basic contours of the characteristics of the three groups by focusing on the levels of entry criteria, length of residence, naturalisation, assistances from government, and treatments. Although differences exist among the three groups, manual migrant workers tend to share some characteristics with overseas Koreans who are in a similar position. Manual migrant workers follow temporary residence, constrained accessibility to naturalisation, and the utilisation of social insurance except for public assistance which are similar to those of overseas Koreans. However, the two groups are decisively different from immigrants by marriage for whom the Korean government provides permanent resident permit, ease accessibility to naturalisation, and welfare benefits and social insurance.

Taking the comparison, it may suffice to say that immigrants by marriage are regarded as a target population of integration in the Korean society, in the arena of immigration policy, compared to manual migrant workers and overseas Koreans. However, among the immigrants by marriage, immigrant wives are prioritised above immigrant

husbands in the policy area. In the next chapter, this thesis attempts to discuss the reasons of why immigrant wives are more important population than immigrant husbands.

Chapter 3: *Background (II) – Immigrant Wives in Korea*

As discussed from the significantly different levels of entry requirement, length of residence, naturalisation, assistances from government, and treatment by the government of marriage migrants to the other main groups of immigrants: manual migrant workers and overseas Koreans, in the previous chapter, the marriage migrants are given priority by the immigration policy of the Korean government.

Among marriage migrants, however, immigrant wives are a more critical part of the population than immigrant husbands, in the policy arena, because of the differences in number, relatively issued adjustment-related problems and the relative extent of acceptance from the government. In fact, this chapter is organised around the three topics, which encompass following questions: (1) why do immigrant wives come to Korea; (2) how do immigrant wives adjust to the Korean society; and (3) how does the Korean government respond to the issues of immigrant wives?

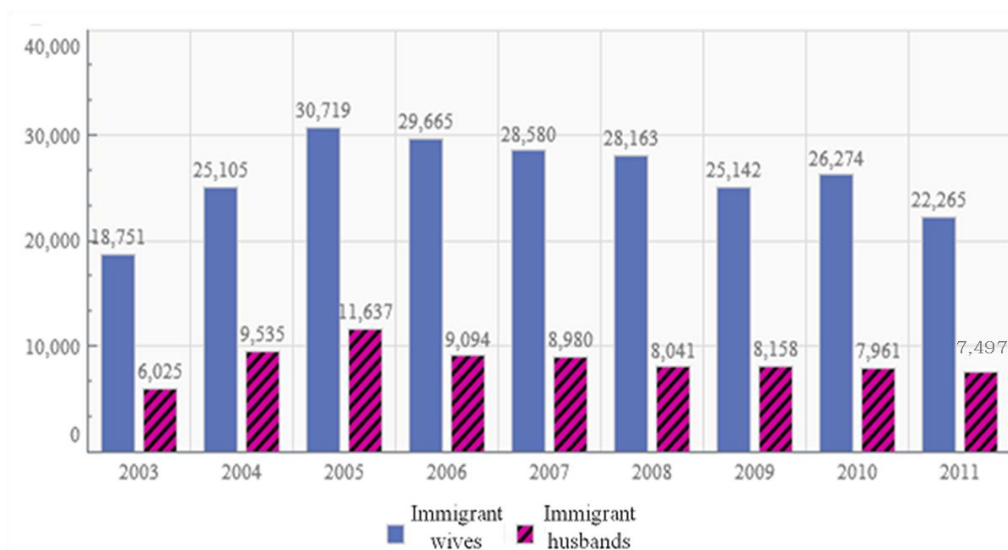
The first question addresses the reasons why immigrant wives arrive in Korea using theories and perspectives on international migration, based on a presumption that these wives are a more imperative target population in the policy area compared to other legal immigrants. The second question emphasises on immigrant wives' settlement patterns and adaptation into the Korean society. Both settlement patterns and adjustment-related problems while immigrant wives stay in Korea are described as adaptation experiences. The final question reviews the immigration policy that addresses how the Korean government responds to the issues of immigrant wives. It also clarifies the Korean government's policy strategy that reduces their adjustment-related problems and integrates them in the Korean society.

Mainly based on the fundamental questions, hence, this chapter attempts to describe the nature of the problem and the importance of the problem, in terms of why it is worth attention and why research into it matters. Before entering into the discussion of the three questions, it may be useful to start out by examining in detail why immigrant wives are important in the arena of immigration policy in Korea.

3.1. THE IMPORTANCE OF IMMIGRANT WIVES IN THE ARENA OF IMMIGRATION POLICY IN KOREA

In the immigration policy arena, immigrant wives are more of a critical population than immigrant husbands. The over-arching importance of including immigrant wives in the policy arena can be explained by three reasons: size, adjustment-related problems, and extent of acceptance.

Figure 3.1: Total cases of international marriage by gender between 2003 and 2011



(Source: Korean Statistical Information Service on Statistics Korea, <http://kosis.kr>)

The first is associated with a substantial number of immigrant wives and their families. The figure 3.1 represents that the total cases of international marriage between foreign women and Korean men have been about 3 times higher than those between Korean women and foreign men, from 2003 to 2011, although the number of foreign wives and native men has slightly decreased since 2005. In 2011, the proportion of immigrant wives (86.4%) is much higher than that of immigrant husbands (13.6%) (Statistics Korea, 2012b). Relative flows of immigrant wives are more continuous and greater in size than that of immigrant husbands. In addition, combining the number of their children, the proportion of immigrant wives and their children is almost on a par with the similar figure for the manual migrant workers whose category is the first entry channel in Korea, according to the data of

foreigners' entry, which is about 40 per cent (Statistical Information Service on Statistics Korea, kosis.kr). In fact, because immigration policy determines the flows of immigrants (Zolberg, 1999; Portes and Rumbaut, 2006), the increased number of immigrant wives may reflect the Korean government preference towards immigrant wives. In other words, the Korean government believes that immigrant wives are a significant population in the policy arena.

Also, just as the number of immigrant wives and their children increases, so do their adjustment-related problems in Korea. These become serious social issues; for example, domestic violence (Shin and Yang, 2006), conflict between mother-in-law and daughter-in-law (E. Lee, 2009), divorce (Hong, Ha and Kim, 2012), and care of children (Seo and Lee, 2006), children's adaptation-related problems in a school (Lee and Seo, 2008), and low family income or poverty (Lee et al., 2007; Lee, Choi and Park, 2009). It is inferred that the more the number of immigrant wives and their children increases, the more adjustment-related problems regarding immigrant wives and their family members become bigger issued. As such, the Korean government gradually responds to the increasing number and adjustment-related problems in the policy arena (Y. R. Kim, 2006). Not surprisingly, there have been growing calls for immigrant wives coming from a policy circle (Y. R. Kim, 2006).

Another is linked to their extent of acceptance from the government. As noted earlier in the previous chapter, only do marriage migrants have legal rights for long-term residence, welfare assistance, and settlement programs, which encourages them to incorporate into Korea (Support for Multicultural Family Act, 2012). Although marriage migrants are granted to use the legal options the Korean government provides, the legal options lean towards immigrant wives rather than immigrant husbands. The primary differences are concerned with main government department and settlement programs. In terms of immigrant wives, the Ministry of Gender Equality and Family that is one of the governmental bodies designed and carries out policy for only immigrant wives (Ministry of Gender and Equality, www.mogef.go.kr). Similarly, because settlement programs are developed by the Ministry of Gender Equality and Family, the programs are much closer to immigrant wives rather than their male counterparts (Danuri: the portal for multicultural family, www.liveinkorea.kr).

Unlike immigrant wives, there are no governmental bodies which are responsible solely for immigrant husbands as various governmental bodies deal with their issues (Seol, Lee and Cho, 2006). Because settlement programs tend to be developed for immigrant wives, immigrant husbands confront barriers in using the settlement programs (Kim et al., 2010). This is because a larger number of service-users on the settlement service are immigrant wives compared to immigrant husbands. In year 2013, 61,493 of the immigrant wives in Korea utilised MFSCs at least once, whereas only 616 of the immigrant husbands utilised the same service (Korean Institute of Healthy Family, 2013). In this view, immigrant wives are more likely to be accepted in the arena of immigration policy in Korea (Ku et al., 2009; Kim et al., 2010). By emphasising the three perspectives, hence, it may be suffice to show that immigrant wives are an important target population in the realm of immigration policy in Korea. In the next sections, this thesis attempts to focus on the reasons for international migration, adaptation-related problems, the patterns of settlement, and settlement programs as an important incorporation to policy, in regards to immigrant wives in Korea.

3.2. IMMIGRATION'S REASONS OF IMMIGRANT WIVES

Why do immigrant wives come to Korea? The most obvious reason for international marriage is through romance as an individual matter (Freeman, 2005). However, it is insufficient to explain the reasons of international migration of immigrant wives into Korea. Many academic accounts tend to share the similar basic view of international migration containing varying reasons ranging from individual decision to the contexts of the receiving countries (Massey et al., 1993; Massey, 1999; Hirschman, Kasinitz and Dewind, 1999a).

In order to extensively explain the varying explicit and implicit reasons why immigrant wives arrive in Korea via international marriage, this section divides into two approaches along with supply- and demand-side approaches. Within this approach, in order to address the reasons of international migration among immigrant wives, the supply-side is concerned with immigrant wives' conditions, while the demand-side is dependent on the contexts of Korean society. In the following it is attempted to draw varying insights for the reasons of immigrant wives' movement, in an emphasis of individual selection, household

decision, and the contexts of Korea which are relevant to socio-economic conditions, demographic features, and old-fashioned gender view at the supply and demand sides.

3.2.1. Reasons for immigrant wives' migration at the supply-side

The reasons of why immigrant wives come to Korea may stem from i) relative economic conditions and/or ii) their networks, at the supply-side.

First, differences in economic conditions between the sending countries and Korea may attract immigrant wives to seek migration through international marriage. Immigrant wives have become a part of a stereotype in Korea. The foreign women are generally from under-developed countries (Constable, 2005; Freeman, 2005; Abelmann and Kim, 2005) where most people are in destitution and unemployment is prevalent (Portes and Rumbaut, 2006). To escape the dreadful conditions, these women seek to migrate to advanced countries (Constable, 2005). However, stereotypes aside, there appear to be two different levels to why the wives migrate: individual level and household-level, based on the economic perspective on international migration (Massey et al., 1993; Massey, 1999).

At the individual level, individuals from underdeveloped countries may rationally calculate incentives and disincentives in terms of migration (Chiswick, 2000; Massey et al., 1993; Massey, 1999). From this view, a foreign woman in poor countries could rationally compare costs and benefits between their present economic conditions and the probability that they would enjoy better economic conditions in Korea (Y. R. Kim, 2006). If the expected economic changes, including employment and income in Korea, are not costs but benefits, they may move to Korea via international marriage (Y. R. Kim, 2006; J. Hwang, 2009).

Another noteworthy prediction may be addressed at the household level (Massey, 1999). In this prediction, at the household level, one precondition is required: previous households in the homelands receive remittance from immigrant wives who now live in Korea. Under the precondition, if immigrant wives in Korea send remittance to their families, a foreign woman at the marriage-age in other households who do not receive remittance may move to Korea via international marriage after witnessing relative economic chances (Lee et

al., 2006). More specifically, the international migration at the household level takes place in sequence (Massey et al., 1993). Once immigrants send remittances to their family in the home country, there appear different income levels among households in the homeland. A family who receives remittances may have upward mobility compared to other families who do not receive remittances. The more remittances increase in families who send a woman abroad to marry, the more relative deprivation is pervasive in other families who do not send a relative. In order to catch up with the levels of income of a family who receive remittances and have upward mobility, another family who does not receive remittances may decide to send a member of the family as an immigrant. This particularly holds true for immigrant wives in Korea. The relative disparity of economic conditions such as house, car, and other expensive items, in the sending countries, between a household that sends one of the family members to Korea and other households that do not send one in Korea, is a cause of international marriage (Lee et al., 2006). This is because families who do not send a foreign wife to Korea are willing to catch up with the economic level of families who do send their relative to Korea as a foreign bride (Lee et al., 2006). As a result, their movement via international marriage is likely to be initiated by the decisions of individuals or households concerned with bettering the families' economic chances.

Second, at the alternative approach regarding the perpetuation of their movement, immigrant wives' network between sending and receiving countries may be a fundamental report (Massey, 1999; Portes and Rumbaut, 2006; Hollifield, 2000). To have emerged as the network, two preconditions must have occurred: first, information or knowledge about better life conditions in Korea has been disseminated in the homeland by mass media (H. M. Kim, 2010); and, second, information or knowledge about Korean lifestyles and better economic conditions transfer to members within the networks in the sending countries (M. J. Kim, 2012). Depending on the preconditions, it is reasonable that the movement of immigrant wives via international marriage is formed by the networks. Once foreign women come to Korea through international marriage, networks with friends, families, and community members in the home countries are shaped (Choi, Jang and Kim, 2008; Seol, Lee and Cho, 2006). The more immigrant wives share their experiences in Korea such as a marital life and

Korean lifestyle with family members, friends, and community members within the networks, the more other available women of marriageable age in the sending countries arrive in Korea through international marriages (Freeman, 2005).

At the other extreme, network is combined with gender roles, as a more progressive attitude may be found in Korea as opposed to their native country, and this benefit can be achieved via international marriage. As networks vitalise, foreign women in the homeland may long for modern gender role in Korea (H. M. Kim, 2010). It is known that in the underdeveloped countries, both patriarchal family system and traditional feminine roles of wife, mother, and homemaker are dominant (Abelmann and Kim, 2005). Because the development of mass media has succeeded in disseminating information about modern gender role in an advanced country (H. M. Kim, 2010), some women in less developed countries may hope to emancipate from men and enjoy modern gender roles such as doing outside works, sharing household chores with husbands, and being respected by their husbands in an advanced country (J. Hwang, 2009). This same held true for Korean cases, in which women in poor countries may admire modern gender roles in the Korean society as shared information with mass media (H. M. Kim, 2010). In this respect, a foreign woman may expect to be emancipated from the men of their homeland and hope to take part in the modern gender roles in Korea (J. Hwang, 2009). Such expectation and hopes are formed by the networks and may increase international migration of immigrant wives through international marriage in Korea.

It may, therefore, be reasonable that the relative economic conditions and the networks are consolidated in the fact that foreign women constantly arrive in Korea via international marriage years after years.

3.2.2. Reasons for immigrant wives' migration at the demand-side

There may appear three decisive contexts in Korea, which initiates and perpetuates immigrant wives' international migration via international marriage at the demand-side: a) socio-economic conditions accompanied by demographic trends, b) agricultural conditions, and c) the roles of date-matching agencies.

First, the Korean society's three demographic conditions, characterised into low birth-rates, gap of marriage-age between men and women, and imbalanced ratio of gender, intensify international marriage between Korean men with a low socio-economic background and foreign women from underdeveloped countries in Korea (J. Hwang, 2009; K. Kim, 2010). The rapid decline of births in Korea constantly falls behind the numbers of young-age cohorts. Korean couples generally had six children in the 1960s, but that has continuously decreased in the number, since the year 2000, the number has been below one (e-National Index on Statistics Korea, www.index.go.kr). Following on from the low fertility, the age of marriage between genders has been extremely differentiated. Such different ages lead men at marriageable age to strongly compete with each other to find their brides. According to the e-National Index on Statistics Korea (www.index.go.kr), men are approximately three years older than women they marry. In 1990, men were 27.9 and women were 24.8 years old at the time of their marriage. By the year 2010, the age for a first marriage for men and women was 31.9 and 29.1, respectively. Because women at marriageable age are younger than men, the number of women available is comparatively lower than it is of men (Lee et al., 2007). In addition, gender imbalance between men and women adds fuel to the competition (K. Kim, 2010; Sung, Lee and Jo, 2012). As the Korean society prefers son to daughter under Confucianism (S. Y. Lee, 2003), the number of male offspring is much higher than it is for daughters. The gender rate at birth⁶ was 115.5 in 1994 and about 110 in 1996; by 2011, the rate declined to approximately 106 (e-National Index on Statistics Korea, www.index.go.kr). This indicates that the number of men in the marriage-eligible population is higher than women's number in the same population, as the rate of sex imbalance between men and women continues. As a result, men at marriageable age confront keen competitions in meeting their spouses (Lee et al., 2007). Not surprisingly, men with poor socioeconomic conditions rather than the middle-class or upper-class tend to find foreign brides because the men have few attractions when looking for Korean women (Freeman, 2005; Jang and Park, 2009). Consequently, the deteriorated demographic conditions of Korea generate Korean men

⁶Sex Ratio at Birth = (Total number of sons / Total number of daughters) * 100 (Statistics Korea, statkorea.go.kr)

who are low on the social ladder who then find foreign women from less developed countries to be their wives.

Second, not only stagnated rural economic conditions, but also pervasive old-fashioned gender roles in agricultural areas tend to demand immigrant wives. On the one hand, it may appear that an impulse to demand immigrant wives in rural areas originated from the worsened devastation of agricultural areas where shortages of labour, the downward of productivity, and a number of unmarried bachelors are pervasive (C. K. Park, 2006). As Korea experienced rapid industrialization in 1980s (K. Kim, 2010) and an opened agro-fishery market in the 1990s (Freeman, 2005), economic conditions in farming areas have become worse while economic quality has been relatively better in urban areas (C. K. Park, 2006; K. Kim, 2010). In these situations, since labourers have no longer economic incentives in rural areas, a myriad of farmers moved into urban areas (C. K. Park, 2006). At the other extreme, farmers attached in rural areas became placed in low socioeconomic stratum and hardly attracted Korean women at marriageable age (K. Kim, 2010). In fact, there appears a labour shortage in agricultural areas and as such productivity constantly declines in the areas (Constable, 2005; Freeman, 2005). The series of events in farming areas becomes a vicious circle in Korea. Under the serious situations in the agricultural areas, the flow of foreign women via international marriage becomes one of the solutions to figure out the serious situations in the policy arena (K. Kim, 2010). Based on the positive belief that the inflow has rejuvenated farming communities in Korea such as an augmentation of productivity along with adding foreign wives as labourers and the recovery of family via international marriages (Freeman, 2005; Abelmann and Kim, 2005), the Korean government encourages unmarried farmers to marry foreign women (K. Kim, 2010).

On the other hand, with the devastated economic conditions, and the traditional feminine roles dominated in agricultural areas lead un-married male farmers to prefer foreign women from poor countries (Abelmann and Kim, 2005; Yang and Kim, 2006). The preference is relevant to the belief that foreign women grow up in agricultural areas where the traditional feminine roles of wife, mother, and homemaker are pervasive (Abelmann and Kim, 2005; Freeman, 2005; Yang and Kim, 2006). Thus, the un-married bachelors in farming

areas tend to find a foreign wife who is more subordinated to husbands, more focused on household chores, more concentrated on mother roles in a house, and more accustomed into agricultural works (Freeman, 2005). Such preference can be understood by the historical flow of immigrant wives in Korea. In the 1980s, firstly, Korean Chinese were admitted to come to Korea via international marriage (K. Kim, 2010). Increasingly, in recent years, the trend has been continued and expanded to other underdeveloped countries such as the Philippine, Vietnam, and Cambodia (W. Kim, 2008). Under prevailing traditional gender roles in agricultural areas in Korea, thus unmarried-farmers expect to meet foreign wives who are familiar with traditional feminine roles in developing countries. This may take place and last in international marriage in farming areas in Korea. To sum up, the utter desolations and prevailing traditional gender roles in the agricultural areas provide a strong demand of foreign wives in rural Korea.

Third, date-matching agencies directly and indirectly arrange international marriage in Korea. On the one hand, officially licensed agencies help Korean men to meet foreign women (H. Kim, 2010). An official license was endowed to qualifying matchmaking agencies based on the Act on Regulation of Marriage Brokerage Agency of 2007. Under the government's control, the agencies have stimulated international marriage between Korean men and foreign women in Korea (H. Kim, 2010; C. K. Park, 2006). As licensed matchmaking agencies have rapidly increased, the rate of international marriage skyrocketed in Korea (Seol, Lee and Cho, 2006; S. M. Kim, 2009). In 1998, there were approximately 700 agencies (Kim and Kim, 2010), and, later, over 2,000 agencies were established in 2005 (Han and Seol, 2006). In 2012, about 14,000 of licensed date-matching agencies were registered by the Ministry of Gender Equality and Family (So, 2013). As discussed previously, the figure of international marriage reached its peak in 2005 (Korean Statistical Information Service on Statistics Korea, <http://kosis.kr>). Despite the fact that the figure slightly decreased between 2005 and 2012, the flow of immigrant wives has still been perpetuated. Seen from the data, the rapidly increasing number of date-matching agencies since the year 2000 could be related to constant inflow of immigrant wives through international marriage in Korea between 2000 and 2012. Thus,

officially licensed date-matching agencies help Korean men to meet foreign women, and such date-matching would lead a larger number of immigrant wives to come to Korea.

On the other hand, unlicensed date-matching agencies are likely to shape black market for channel of entry in Korea (Freeman, 2005). Once the flow of immigrant wives begins in Korea by the licensed agencies, unlicensed agencies also emerge in the market of international marriages and invigorate its market in Korea (Freeman, 2005). As discussed previously, the Korean government set iron-bounded entry principles, in which only immigrant wives are granted to obtain a permanent resident right in Korea (The Immigration Control Law of 2012). In the context, illegal date-matching agencies would form black markets to help foreign women to come to Korea illegally via international marriage (K. Kim, 2010; Lee et al., 2007). Sometimes, some immigrant wives who come to Korea with the aids of illegal-date-matching agencies disappear from their husbands labelled run-away-wives in Korea (Freeman, 2005). In fact, unlicensed agencies arranged so many fake international marriages that the number run-away-wives was increased in Korea (Constable, 2005). As the unlicensed agencies tend to shape illegitimate marriages in Korea (Freeman, 2005), foreign women could arrive in Korea via a fake international marriage. Taking the roles of legal and illegal date-making agencies, it is concluded that the date-matchmaking agencies may be key factors initiating and sustaining the flow of immigrant wives in Korea over time.

Until now, this thesis explored reasons why immigrant wives come to Korea via international marriage at the supply- and demand-sides. On the supply-side, the individual immigrant wives' decisions for better economic chances and their networks take place or perpetuate the flow of immigrant wives in Korea. At the demand-side, demographic features, socio-economic conditions and traditional gender roles of agricultural areas, and the arrangements of international marriage by date-matching agencies occur and continuing the flow of immigrant wives in Korea. However, the perspectives at the supply- and demand-sides are not fragmented, but linked each other. The synthesizing approach considering the supply- and demand-sides all together can provide comprehensive insights and expand understanding of immigrant wives' international migration from their homelands into Korea.

Taking the reasons why immigrant wives come to Korea, one may predict the modes of immigrant wives' adaptation and a policy direction towards the incorporation of immigrant wives in Korea. Ultimately, immigrant wives arrive in Korea to escape from poor life conditions and the subordination of men in the home countries, while most of their Korean partners are placed low on the socio-economic ladder in agricultural areas and prefer immigrant wives to be subordinate to them. This indicates that the contradictory expectations may result in outcomes unfavourable to both parties. Thus, the women may face many challenges while staying in Korea; therefore, the government may design policy to respond to such adaptation-related challenges. In next sections, hence, the modes of adaptation of immigrant wives accompanied by settlement patterns, as well as the Korean government's policy directions for their adaptation will be discussed.

3.3. IMMIGRANT WIVES' SETTLEMENT PATTERNS

The settlement types of immigrant wives in Korea are decisively affected by the residence held by their Korean partners. Because they come with visa that demands consistent marital life in Korea, they must live with their Korean partners in Korea to meet the visa requirement. As such, it is important to examine where Korean partners settle and why they live there. In doing so, this thesis assumes that the significant factors influencing their husband's settlement patterns are associated with urbanisation and socio-economic status together.

Urbanisation brings about two contradictory outcomes: migration to urban areas and attachment to rural areas. Both rapid industrialisation (K. Kim, 2010) and opened agro-fishery markets (Freeman, 2005) result in socio-economic differences between urban and rural areas in Korea. Such differences become the cause of urbanisation in Korea (K. Kim, 2010). Under the influence of urbanisation, although a number of former peasants migrate to the cities, both those who move to urban areas and those who attach in farming areas are placed lower on the socio-economic ladder.

On the one hand, peasants who move to urban areas hardly get to enjoy an opportunity to be upward moving in an urban area (Lee et al., 2007; D. Kim, 2010). In the

farming areas, there are few chances to find a job, and most people engage in agriculture with low pay. Such contexts encourage them to migrate to urban areas, but their life is not improved once they arrive. It is known that male workers have relative difficulty finding a job, while female workers earn low wages in the urban area (Saseen, 2012). This is due to not only there being friendly female-based jobs in the urban labour market, but also employers adhering to a policy that hires female workers whose income is relatively lower than that of male workers in the urban labour market (Saseen, 2012). In this situation, the former peasants and their families in urban areas tend to be placed in low socio-economic stratum.

On the other hand, those who still stay in rural areas confront continuous economic hardships (C. K. Park, 2006; Lee et al., 2007; Yang and Kim, 2006). Once peasants who are aimed to take economic advantages migrate to urban areas, many farming areas become ruined because of a drain of human capital resources, whereas human capital resources increase in urban areas (D. Kim, 2010). In the context, over time, the farming areas' economic-power that depends on productivity and labour force is gradually weakened, and such low economic power in the agricultural areas tends to deter farmers from having upward mobility (C. K. Park, 2006). As a result, farmers in devastated rural areas are likely to remain at their low socio-economic level.

By focusing on their socio-economic status accompanied by the result of urbanization, it is reasonable to predict who the main demanders for foreign wives are and where the main demanders reside in Korea. As discussed above, those who are at the bottom of the socio-economic ladder are not attractive to Korean women at a marriageable age and can hardly compete with those who are at the top of the socio-economic ladder in terms of marriage, regardless of geographic locations (Jang and Park, 2009; D. Kim, 2010). Thus, either farmers in rural areas or low-class Korean men in urban areas are strong demanders for foreign wives, because both male groups have low socio-economic status in urban and rural areas (H. Lee, 2005). From this point of view, because of an entry principle in which immigrant wives should live together with them, it is presumed that immigrant wives are found in every province where Korean partners with lower socio-economic status or farmers are concentrated. To verify the presumption, statistical evidence is presented, in next sections.

Table 3.1 provides striking patterns of where immigrant wives settled by 16 administration areas in Korea⁷. The table shows the absolute number of immigrant wives residing in each administration area, and the relative proportion of immigrant wives as a percentage of each area's total population, along with a number of public assistance recipients and agricultural workers among Korean people in the same 16 areas.

Table 3.1: Composition of immigrant wives of the 16 administration areas along with number of recipients in public assistance and farmers among Korean citizens

Administration areas in Korea	Total Native-born ^(a)	Total immigrant wives ^{*(a)}	% of immigrant wives on native-born ^(a)	Total recipients of public assistance ^(b)	Total Famers ^(c)
Seoul	10,249,679 (20.2)	47,073 (21.8)	0.43	194,119 (14.1)	13,602 (0.4)
Busan	3,550,963 (7.0)	9,554 (4.4)	0.46	134,837 (9.8)	24,961 (0.8)
Daegu	2,507,271 (4.9)	6,209 (2.9)	0.27	98,791 (7.2)	50,351 (1.6)
Incheon	2,801,274 (5.5)	12,779 (5.9)	0.25	67,929 (4.9)	37,750 (1.2)
Gwangju	1,463,464 (2.9)	4,356 (2.0)	0.46	59,470 (4.3)	37,994 (1.2)
Daejeon	1,515,603 (3.0)	4,712 (2.2)	0.30	45,539 (3.3)	27,605 (0.9)
Ulsan	1,135,494 (2.2)	4,096 (1.9)	0.31	16,194 (1.2)	34,078 (1.1)
Gyeonggi	11,937,415 (23.5)	59,468 (27.5)	0.36	186,896 (13.5)	412,138 (13.5)
Gangwon	1,536,448 (3.0)	5,794 (2.7)	0.50	58,949 (4.3)	191,922 (6.3)
Chungbuk	1,562,903 (3.1)	6,762 (3.1)	0.38	47,909 (3.5)	211,522 (6.9)
Chungnam	2,101,284 (4.1)	11,013 (5.1)	0.43	61,713 (4.5)	394,324 (12.9)
Jeonbuk	1,874,031 (3.7)	8,614 (4.0)	0.52	97,559 (7.1)	277,611 (9.1)
Jeonnam	1,914,339 (3.8)	9,744 (4.5)	0.46	90,643 (6.6)	395,835 (12.9)
Gyeongbuk	2,699,195 (5.3)	10,566 (4.9)	0.51	106,949 (7.8)	491,225 (16.0)
Gyeongnam	3,308,765 (6.5)	13,541 (6.3)	0.39	92,674 (6.7)	347,499 (11.3)
Jeju	576,156 (1.1)	2,138 (1.0)	0.41	21,694 (1.6)	114,539 (3.7)
All Areas in Korea	50,734,284 (100)	216,419 (100)	0.37	1,379,865 (100)	3,062,956 (100)

* Immigrant wives = non-naturalized immigrant wives + naturalized immigrant wives

(a) Source: Report on Conditions of Foreign Residents in Administration Areas, Korea in 2012 (Ministry of Security and Public Administration, 2012).

(b) Source: 2011 Actual Conditions of Public Assistance (the Ministry of Health and Welfare, 2011).

(c) Source: 2010 Agricultural and Fishery Industry Survey (Statistics Korea, statkorea.go.kr).

Based on the statistical data (Ministry of Security and Public Administration, 2012a), in year 2012, immigrant wives, including non-naturalised and naturalised immigrant wives,

⁷According to the 2012 Statistical Year Book of Ministry of Security & Public Administration (2012b), the Korean government organises 16 administration districts throughout Korea in year 2012.

were counted to be 216,419. Just as nearly 50 per cent of them lived in Seoul and Gyeonggi province, so did about 47 per cent of a native-born Korean population live there. The other 50 per cent of immigrant wives were dispersed throughout Korea. As Gyeonggi province is a greater metropolitan area, a large number of immigrant wives were concentrated near the capital of Korea, Seoul. Relatively high proportions of the total Korean population were apparent throughout Jeollabuk (0.52%), Gyeongsangbuk (0.51%), and Gwangwon (0.5%) provinces. Notably, the relatively high numbers and proportions in those areas would be associated with a low population, high poverty, and a high rate of farmers. In some instances, the relatively high number of welfare recipients (13.5%) and farmers (13.5%) lived in Gyeonggi province, and a myriad of immigrant wives also resided there. Jeollabuk province was less populated (3.7%), and somewhat high number of welfare recipients (7.1%) and farmers (9.1%) are reported. In Gyeongsangbuk province, the data showed that the largest number of workers was employed in the agricultural industry are there (16%), and the relative proportion of the total Korean population was the second highest among other areas. Gwangwon province is less populated (3%), and there appeared 0.5 per cent of the relative proportion of immigrant wives of the total Korean population. Considering the data as a comparative approach, it seems reasonable to conclude that immigrant wives tend to settle in places where Korean men who are at lower socio-economic class and employed in agricultural industry concentrate.

3.3.1. Different settlement patterns among ethnic groups

As discussed previously, immigrant wives settle in poor-urban and farming areas in Korea. However, there are different settlement patterns among ethnic groups in Korea. Table 3.2 documents the concentration in the 16 metropolitan areas of the five largest immigrant wives' groups in Korea. In the year 2012, between 216,419 of immigrant wives, 27.5 per cent of them settled in Gyeonggi province and 21.8 per cent of them were in Seoul. The two areas were a main residential place for nearly 50 per cent of them. The five largest groups including

Korean Chinese, Chinese, Vietnamese, Filipinos, and Cambodians⁸ shared a preferred place of settlement in Korea. Thus, the overwhelming ethnic groups lived in Gyeonggi province.⁹

Table 3.2: The 16 administration areas of principal settlement of the five largest immigrant wives' groups

Ethnic Backgrounds	N	% of immigrant wives	16 administration areas of principal settlement					
			First	%	Second	%	Third	%
Korean Chinese	56,602	26.2	Seoul	34.5	Gyeonggi	32.3	Incheon	5.8
Chinese	49,797	23.0	Gyeonggi	31.2	Seoul	17.6	Incheon	8.4
Vietnamese	47,187	21.8	Gyeonggi	19.3	Gyeong Nam	11.0	Seoul	9.8
Filipinos	13,148	6.1	Gyeonggi	19.3	Seoul	10.2	Jeonnam	10.0
Cambodians	5,281	2.4	Gyeonggi	15.7	Gyeong Nam	11.6	Jeonbuk	8.7
Total immigrant wives	216,419	100	Gyeonggi	27.5	Seoul	21.8	Gyeong nam	6.3

Source: Report on Conditions of Foreign Residents in Administration Areas, Korea in 2012 (Ministry of Security and Public Administration, 2012a)

Nonetheless, there appear to be two different settlement patterns among the major immigrant wives' groups: concentration in metropolitan areas and diffusion throughout Korea. Immigrant wives from China were far more concentrated in metropolitan areas than other groups of immigrant wives. Of the largest group in 2012, about 65 per cent of Korean Chinese were in Seoul (34.5%) and Gyeonggi province (32.3%). Similarly, Gyeonggi province (31.2%) was the first settlement place and Seoul (17.6%) was the for Chinese. Contrary to the immigrant wives from China, immigrant wives from South-East Asian countries were much more dispersed throughout Korea. Although the number of Vietnamese was similar to that from China, the settlement pattern is different. About a fifth of the Vietnamese were in Gyeonggi province, followed by Gyeongsangnam province (11%) and Seoul (9.8%). 19.3 per cent of Filipinos reside in Gyeonggi province and about 20 per cent of

⁸Those groups hold a majority on total of immigrant wives in Korea (Ministry of Security & Public Administration, 2012a).

⁹The trend that immigrant wives concentrate in Gyeonggi province is probably derived from the characteristics of Gyeonggi province; urban and farming areas are coexisted in Gyeonggi province (Lee and Park, 2006). Because there were a number of unmarried-bachelors who are low-class in urban and farmers in agricultural areas in Gyeonggi province as main demanders for immigrant wives, the most preferred destination of immigrant wives' groups was Gyeonggi province, regardless of ethnic groups.

them was in Seoul (10.2%) and Jeollanam province (10%). Approximately 16 per cent of Cambodians were in Gyeonggi province, another 11.6 per cent were next door in Gyeongsangnam province, which was followed by Jeollabuk province (8.7%). In sum, three of the five largest immigrant wives' groups from South-East Asian countries, including Vietnamese, Filipinos, and Cambodians, were scattered throughout Korea and not much located in metropolitan areas. On the contrary, however, both Korean Chinese and Chinese were located and concentrated in metropolitan areas.

3.3.2. The reasons of different patterns among ethnic groups

It is difficult to explain the cause of the contradictory outcomes: (1) why immigrant wives from China concentrate in metropolitan areas and (2) why immigrant wives from South-East Asian countries are relatively dispersed, rather than those who are from China. So far, no definitive answer has been given to the inconsistent outcomes. Nonetheless, it is assumed that the outcomes are affected by interdependent factors that are combined with history, socioeconomic, and gender perspectives.

First, as seen earlier, in terms of the history of the flow of immigrant wives in Korea, the time of arrival in Korea is different between immigrant wives. Immigrant wives from China are earlier immigrants, while immigrant wives from South-East Asian countries are recent. On the one hand, Korean Chinese and Chinese as immigrant wives came to occupy empty farming-lands or work in agricultural areas as earlier immigrant wives in Korea (K. Kim, 2010; Lee et al., 2007), but they may drift into urban areas after years in Korea. By focusing on immigration studies on the settlement patterns of immigrants in the destination, some scholars demonstrate that after immigrants settle in rural areas as farm workers, they gradually move to urban areas for better economic opportunities including employment and higher income (Massey, 1986). Thus, for economic incentives, immigrants tend to choose their settlement place as a city where the rate of unemployment is lower and the level of wage is higher (Scott, Coomes and Izyumor, 2005; Akabari and Harrington, 2007). Underpinning the perspective, immigrant wives from China may gradually drift into urban areas for better life conditions over time, so as to escape from poor life conditions by the continuous

downwards spiral of the agricultural economy in Korea. As discussed previously, although these women and their families enter at the bottom of socio-economic ladder in metropolitan areas, they may experience rapid upward mobility compared their experiences in rural areas. Once they find such an opportunity in metropolitan areas, they may share their experiences with family members or friends in the home countries (Lee et al., 2006). Such networks are likely to consolidate that other foreign women from the same countries arrive in metropolitan areas as recent immigrant wives. In most studies in relation to residence places of immigrants, newly arrived immigrants select their settlement places where earlier and same ethnic immigrants settle (Alba and Nee, 1997; Zhou, 1999; Waters and Jimenez, 2005; Scott, Coomes and Izyumor, 2005). According to Massey (1986), networks catalyse the fact that newcomers follow the footsteps of former immigrants. Thus, because newcomers expect declined risks on the process of adaptation in the destination, they tend to settle in a place earlier immigrants reside through networks (Massey, 1986; Zhou, 1999). Tracing the studies on the choice of settlement place, to find economic advantages, immigrant wives from China may move from rural areas to metropolitan areas and new immigrant wives from China may settle in a place where earlier immigrant wives have already been living, through operating networks (Lee et al., 2007). The process may be reasonable to address why immigrant wives from China concentrate in metropolitan areas.

On the other hand, the fact that immigrant wives from South-East Asian countries disperse throughout Korea may be associated with a bias towards those women. As earlier immigrant wives from China are likely to move to metropolitan areas, farmers in rural areas may demand new immigrant wives to fill the vacancies in agricultural areas. Also, because Korean men in urban areas, placed in low socio-economic stratum, are not attractive to Korean women, the men demand foreign wives (D. Kim, 2010). In those situations, the two types of stereotypes are operated: first, patriarchal hierarchy is formed between underdeveloped and developed countries (Constable, 2005); and second, most people are employed as a farmer in underdeveloped countries (Massey et al., 1993). Given the first bias, Korean men in urban and rural areas expect to find foreign women who are subordinated to husbands compared to other immigrant wives and native Korean women (Seol, Lee and Cho,

2006; Lee et al., 2007). In this sense, Korean men believe that immigrant wives from South-East Asian countries are more familiar with traditional gender roles of wife, mother, and homemaker. The bias lures the foreign wives from South-East Asian countries in urban and rural areas. In terms of second bias, it is believed that immigrant wives from South-East Asian countries are from rural-bounded groups in the homeland. The stereotype may lead Korean husbands in rural areas to supplement the workforce through immigrant wives from South-East Asian countries. Taking the pervasive stereotypes simultaneously, why immigrant wives from South-East Asian countries disperse throughout Korea may be explained.

To sum up, the settlement patterns of immigrant wives in Korea were discussed jointly with Korean husband's conditions and geographic characteristics in Korea. Because immigrant wives must live together with their Korean husbands under entry principle, their settlement residences correspond closely to a place where their Korean husbands live. Their settlement places are characterised by poor-urban and agricultural areas. This is because their Korean husbands are the lower class in urban areas and farmers in rural settings. However, from settlement process emerges different patterns along with immigrant wives' groups. While immigrant wives from China concentrate in metropolitan areas, immigrant wives from South-East Asian countries are relatively scattered throughout Korea. This trend is interpreted with complementary approaches based on history, socio-economic, and gender perspectives. Those who are from China firstly tend to arrive in rural areas, but gradually move to urban areas over time, for better life conditions. If they enjoy a better quality of life in metropolitan areas, they may operate networks to share their experiences with family members and friends in the home countries. As a result, the network becomes strengthened enough that new immigrant wives from the same countries come to metropolitan areas where earlier immigrant wives stay. On the contrary, those who are from South-East Asian countries stay in urban and farming areas because of pervasive stereotypes by which they are more subordinated to husbands and more experienced as farm labourers. The biases encourage Korean husbands to prefer to them regardless of urban or rural settings. For these reasons, immigrant wives from South-East Asian countries disperse relatively throughout Korea.

Overall, the entire process of immigrant wives' settlement is closely intertwined with socio-economic, cultural, and family-related issues. Indeed, not only do a sizable proportion of immigrant wives settle in poor urban or rural neighbourhoods where their Korean husbands in the underclass stay, but they are admitted for legal permanent status with the mandatory entry principle of living together with their Korean husbands after arrival in Korea. This is assuming that their settlement to new environments is unpleasant from the differences in cultures and lifestyles between the sending countries and Korea. Without doubt, a number of studies reported there are certain problems of adjustment for immigrant wives in Korea (Seol, Lee and Cho, 2006; Kim et al., 2010; Jeon et al., 2013). In the next section, hence, this thesis will explore the question of what problems immigrant wives experience in the process of adaptation to Korea.

3.4. THE DIFFICULTIES ON PROCESS OF ADJUSTMENT INTO THE KOREAN SOCIETY

More recent governmental reports have shown that immigrant wives have shared similar unpredicted situations in Korea while settling in a certain place (Kim et al., 2010; Jeon et al., 2013). In spite of different individual resources and a variety of settlement places, immigrant wives have experienced uniform adjustment-related problems in Korea. Underneath its uniformity, such problems are largely organised into three domains: family relationship, cultural difference, and socio-economic inequality (H. S. Kim, 2006).

The first is derived from their familial relationships. Living together with their Korean husbands, immigrant wives interact with not only their husbands but also mothers-in-law, as well as other in-law relatives. From the interaction, immigrant wives undergo conflicts with their husbands, mothers-in-law, and other in-law relatives (Cho, Lee and Chon, 2008; H. Lee, 2005; S. M. Lee, 2010). The reasons for conflicts are derived from differing expectations (Ko, 2010). Immigrant wives expect modern marital life in Korea such as emancipation from the patriarchal hierarchy of men from the home countries and employment outside (Freeman, 2005). Conversely, Korean partners or their parents expect that immigrant wives play patriarchal gender roles and old-fashioned wives' roles, such as reproducing children, caring for children, and enduring household chores to help husband's economic activities (Freeman,

2005; Abelmann and Kim, 2005). The confrontation from different expectations generates obvious family conflicts. What is worse, as such conflicts expand, some immigrant wives experience serious domestic violence from their Korean husbands (Abelmann and Kim, 2005; K. Kim, 2010) when those couples misunderstand because of communication problems from language barriers (Ko, 2010). Finally, such family conflicts and domestic violence may lead those couples to get divorced (Shin and Yang, 2006; Hong, Ha and Kim, 2012).

The second is associated with cultural differences. After arriving in Korea, immigrant wives confront cultural shocks and psychological distress because of the difference in cultures between the home countries and Korea (Lee et al., 2007; K. Kim, 2010). In addition, immigrant wives are generally characterised by low levels of Korean language and knowledge about Korean culture as well as the absence of prior experiences with Korean culture (E. Lee, 2009). The scarcities make communication problems, family conflicts, and psychological depression all too common (K. Kim, 2010). With their insufficient language ability and cultural knowledge, they do not have enough ways how to properly take care of their children in Korea (Bang and Huh, 2011). Their children also tend to meet language problems, as immigrant wives are not fluent in Korean language (Park, Park and Kim, 2007). Thus, as a parent, immigrant wives cannot play a role to teach their offspring the Korean language because of their own poor Korean language ability. Another issue is revealed in cultural adjustment policy. The Korean government has enforced the idea that immigrant wives abandon their origin cultures accompanied by embracing the Korean culture as one-way absorption (Freeman, 2005; Abelmann and Kim, 2005). From the prevailing belief that the Korean society is a homogenous society (W. Kim, 2008; D. Kim, 2010), the Korean government rationalises that immigrant wives will accept the Korean culture as the mainstream culture. As an emphasised unilateral cultural assimilation policy, they undergo cultural tensions while settling in Korea (Abelmann and Kim, 2005).

Finally, immigrant wives confront a poor socio-economic situation, which prevents them from having upward mobility in Korea (Freeman, 2005; Abelmann and Kim, 2005; W. Kim, 2008). As noted earlier, Korean men with low social and economic status hardly appeal to Korean women for marriage, so the men try to find foreign women through international

marriages (W. Kim, 2008; D. Kim, 2010). This indicates that the main demanders in the market of international marriages are Korean men with low social and economic status. In the situation, once most foreign brides marry Korean males with low income level, immigrant wives are placed in the same low income class in the Korean society (W. Kim, 2008; Seol, Lee and Cho, 2006). This makes it difficult for multicultural families, including immigrant wives, to get out of poverty (Lee et al., 2007; Lee, Choi and Park, 2009) as such financial problem may be passed down to their descendants. Unfortunately, it becomes the vicious circle of poverty (Lee et al., 2007).

In summation, the adjustment-related problems immigrant wives undergo in Korea can be represented in family conflicts, cultural tensions and cultural shocks between the home and the host cultures, and socio-economic difficulties. In fact, these are problems immigrant wives face that could not be averted in Korea. It is reasonable, hence, that a way in which immigrant wives become adjusted into the Korean society is a problem to overcome. In this view, to help them to deal successfully with the problems, in recent years the Korean government has provided settlement services. In fact, the Korean government has provided government-initiated settlement programs for immigrant wives, as a means to accelerate their incorporation in Korea. In the following, the chapter will try to show in detail the most recent policy for immigrant wives focusing on settlement service, because the provision of settlement service tends to directly influence the extent of incorporation in Korea.

3.5. INCORPORATION POLICY FOR IMMIGRANT WIVES

Policy for incorporation is important because the modes of immigrant incorporation are differentiated by its directions (Portes and Rumbaut, 2006). In fact, there are different legal options available to immigrants once they arrive along with governmental responses toward immigrants (Portes and Rumbaut, 2006). This determines the degree to which immigrant become integrated or satisfied with their lives in the destination (Wayland, 2010). Hence, this study explores the government's responses pertaining to settlement service depending on immigration legislations. In doing so, based on a presumption that a policy is implemented in human service, and its purpose and outcome result in human service (Y. J.

Kim, 2010), policy analysis is undertaken according to what its goals are, who is available, how is delivered, what are provided, and where resource are (Gilbert and Terrell, 2002; K. Nam, 2010). As such, this thesis is able to estimate its actual conditions and performance outcomes effectively (Gilbert and Terrell, 2002). From the analysis, finally, this thesis attempts to investigate whether the settlement service is effectively implemented, by way of reviewing relevant literatures.

3.5.1. Settlement service for immigrant wives

This section describes the performance of settlement service based on policy goal, target population, the types of benefits, service delivery system, and finance, according to the analytical tool of Gilbert and Terrell (2002).

The first is a goal of settlement service. Since 2003, the flow of immigrant wives has become massive, and with the flow their adjustment-related problems have steadily been revealed in public reports by the Ministry of Health and Welfare (Seol, Lee and Cho, 2006) and Ministry of Gender Equality and Family (Kim et al., 2010; Jeon et al., 2013). In this situation, the Korean government enacted the Support for Multicultural Family Act of 2009 aimed to eliminate the adjustment-related problems and improve their incorporation in Korea through the settlement service labelled MFSS¹⁰. Thus, the short-term goal is intended to reduce their adjustment-related problems in Korea, while the long-term goal is intended to fully integrate the wives into the Korean society, through operating settlement services (H. S. Kim, 2010).

The second is the target population of MFSS. The eligibility of settlement service is determined by marital status and family membership in Korea. Persons granted marriage migrants status and multicultural families including marriage migrants receive settlement service from the government by the law of 2009. Because the marriage migrants give a birth and live together with husbands or wives and their children, the Korean government would expand the targeting population from individual marriage migrants to their family members.

¹⁰Support for Multicultural Family Act of 2009 is intended (1) to maintain good family living, (2) to improve quality of life, and (3) to help multicultural family members to integrate in Korea (article 1).

Thus, the spouses of Korean citizens and their family members in Korea are automatically entitled to receive an official help from the government. This shows that the target population of immigration policy includes immigrant husbands and wives as well as their family members; although they themselves are given priority for integration as a targeting population.

The third is the types of benefits regarding MFSS. Because it is difficult to draw a clear line what are benefits in MFSS, this thesis infers that the sub-programs themselves are benefits in MFSS. As earlier noted, the number of immigrant wives is the overwhelming majority among marriage migrants, and their adjustment-related problems have become issues in Korea. To respond to the problem, the government revised enactment, and such the revised enactment focuses excessively on immigrant wives and their family members (K. Kim, 2010). Specifically, the revised Support for Multicultural Family Act of 2012 focuses on the roles of mother, caregiver, and wife for Korean partners in the country; for example, maintenance of equality in a familial relationship (article 7); protection of and support for victims of domestic violence (article 8); support for health management before and after childbirth (article 9); and care and education of children (article 10). Alongside with the enactment, various sub-programs are developed for the provision in the front-line. There appear detailed sub-programs classified into standard and optional programs (Danuri: the portal for multicultural family, www.liveinkorea.kr). Standard programs include Korean language education, multicultural families' adjustment to Korea, job preparation program, support of self-reliance meetings, and counselling, while optional programs involve visiting education, outreach, translation, and bilingual education. In fact, the sub-programs themselves are benefits in MFSS, which help immigrant wives to facilitate adjustment and stable lives in Korea.

The fourth is the service delivery system. MFSS, government-initiated settlement service, has been delivered systematically. Under the Support for Multicultural Family Act of 2012 (article 15), the Ministry of Gender Equality and Family is responsible for MFSS delivery. In the situation, the central government requested that the ministry plans, controls, and evaluates processes and outcomes of service-delivery (Ministry of Gender Equality and

Family, 2012). In doing so, the ministry established the Central Office for Multicultural Family Support Centers which do support MFSCs, control MFSCs, evaluate service-delivery process on behalf of the ministry, and introduce MFSCs all over the areas in Korea on on-line, Danuri: the portal for multicultural family (www.liveinkorea.kr). Thus, the Central Office for Multicultural Family Support Centers has supported nationwide MFSCs for example, proposing standardised services, developing workers' manuals, training workers, and evaluating outcomes on service provision (Ministry of Gender Equality and Family, 2012). In order to provide comprehensive settlement service in the front-line at the local level, the ministry encourages local autonomous administrators to make contracts with community-based non-profit organisations called MFSCs (Ministry of Gender Equality and Family, 2012). Although the ministry suggests that local administrators make contracts to manage MFSCs, the type of contract-out MFSC is not mandatory. As such, some local authorities are able to directly manage the centre (Support for Multicultural Families Act, article 15). For effective MFSS delivery, moreover, 16 of total MFSCs are designed as stronghold centres based on metropolitan districts in Korea in year 2012 (Ministry of Gender Equality and Family, 2012). In fact, the stronghold centres attempt to train visiting workers, manage refresher training, and support new MFSCs, as well as forming networks between MFSCs. The MFSCs at the local administrative districts throughout Korea have delivered services in the front-line under the management and monitoring of local authorities or boroughs (Ministry of Gender Equality and Family, 2012). In 2006, the total number of MFSCs was 21 throughout Korea (Central Office of Multicultural Family Support Centers, 2009). By 2012, a total 16 metropolitan cities matched 16 stronghold centres (Korean Institute of Health Family, 2013) out of 230 municipal governments in Korea (Ministry of Security and Public Administration, 2012b), and 205 MFSCs were placed in the local authorities (Danuri: the portal for multicultural family, www.liveinkorea.kr). Currently, MFSS delivery system is constructed at the nationwide level (Korea Institute of Public Administration, 2012). Overall, the flow of MFSS delivery is as follows: the Minister of Gender and Equality -> the Metropolitan city or Province authority -> City, County, and Districts -> Central Office of Multicultural Family Support Centers -> Stronghold Centers -> MFSCs -> immigrant wives and their family members (See Appendix 1).

The fifth is the finance of MFSS. The finance is largely classified in service-using fee and support from the government (K. Nam, 2010). For the management of MFSCs, the central and municipal governments supplies annual funds to MFSCs (Danuri: the portal for multicultural family, www.liveinkorea.kr), but there were no service-using-fee in using MFSCs (Ministry of Gender Equality and Family, 2010, 2011). The annual funds for managing MFSCs were distributed to all MFSCs at the same amount before the year 2012. However, since 2012 MFSCs have received differential annual support funding. In year 2010, the budget was uniform (Korea Institute of Public Administration, 2012); budgetary allocations were 80,000,000 won in Korean money¹¹ (Ministry of Health and Welfare, 2010). The central government is burdens with 70 per cent of the total annual budget while 30 per cent is supported by the municipal governments (Ministry of Health and Welfare, 2010). A peculiar case is the Seoul metropolitan government; the Seoul government was responsible for a total half of the budget attributed because the fiscal self-sufficiency rate of Seoul government may be higher than that of other local government in Korea (Ministry of Health and Welfare, 2010; Ministry of Gender Equality and Family, 2011). In the year 2012, the central government supported different funds to MFSCs according to the total number of users in each MFSC, the population of local authority, and the manpower in each MFSC (Korea Institute of Public Administration, 2012). Based on the evaluation of users, population, and manpower, MFSCs were classified into A-type and B-type, in which A-type MFSCs received 167 million won and B-type MFSCs received 139 million won, for the management of MFSCs (Korea Institute of Public Administration, 2012).

In the analysis of the goals, target population, types of benefits, service delivery system, and finance in MFSS, it may be concluded that MFSS is well-organised and quickly-constructed so as to respond to the adjustment-related problems of immigrant wives. Despite the expansion and development of MFSS in Korea, however, the question has also been raised as to whether MFSS delivery system is effective for immigrant wives' integration in the policy arena. In the following, this thesis will discuss the question.

¹¹One pound (GBP) is equivalent to about 1,800 won in Korean money (Korea Exchange Bank, <http://fx.keb.co.kr/FER1101C.web?schID=fex&mID=FER1101C>).

3.5.2. What are problems about MFSS?

During the implementation of MFSS, several studies show that the effects on MFSS provision are dubious in the policy arena (Han, 2009; Kim et al., 2010), and it is suggested that the settlement service is ineffectual (W. Kim, 2008). The reasons for the apparent ineffectiveness in MFSS are discussed, based on the framework of Gilbert and Terrell including goal, target population, benefit, service-delivery, and finance.

The first is associated with the goals of MFSS. According to Gilbert and Terrell (2002), policy goals provide an opportunity to better understand the outcomes through considering the cause-and-effect relationships between policy goals and their consequences. K. Nam (2010) puts forward that a policy goal represents clear alternatives for social problems during the implementation of a policy. Such approaches make it possible to estimate whether policy outcomes are achieved in respect to its goals, and policy becomes reshaped through the evaluation of outcomes (Martin and Kettner, 2010). However, the goals of MFSS are not clear (H. Kim, 2010). As noted earlier, the goals of MFSS are to maintain good family living conditions, to improve quality of life, and to facilitate multicultural family members which they integrate into Korea (2012 Support for Multicultural Family Act, article 1). Good family life, quality of life, and integration in Korea are important, but yield imperfect results that cannot be measured. In a similar vein, Ra (2011) suggests that it is not obvious whether such goals are attained through MFSS. With the unclear and immeasurable goals, it is difficult to estimate the net impacts of MFSS.

The second is related to target population and sub-programs. As noted earlier, the target population is immigrant husbands and immigrant wives, as well as their family members. However, it is known that MFSS focuses excessively on immigrant wives (Park and Choi, 2008; Y. Park, 2009). This is because there are a few sub-programs available to immigrant husbands and their family members compared to immigrant wives (Y. Park, 2009; Bae and Pyun, 2013). According to the 2012 report by the Korean Institute of Health Family (2013), among the total service-users who use MFSCs at least once (104,216) in 2012, the majority of service-users is immigrant wives (59 % or 61,493) followed by their children

(22.69 % or 23,650), Korean native spouses (14.04 % or 14,631), Korean partners' other in-law (2.15 % or 2,242), and immigrant husbands (0.48 % or 503). This suggests that because of a few sub-programs available to immigrant husbands and their family members, they confront barriers in using MFSCs. In fact, both immigrant husbands and their family members are relatively excluded from target population; the main target population is limited to immigrant wives.

The third is related to service-delivery system. It is explained by standardised service-provision and management methods in the process of service-delivery. On the one hand, without doubt, the uniform settlement service the government initiates little reflects differences of individuals (Jung and Jung, 2010; Kim et al., 2010; Bae and Pyun, 2013; C. Kim, 2013), ethnic groups (Jung, Choi and Jang, 2009; H. M. Kim, 2013a), and regional areas (Park and Choi, 2008; Korea Institute of Public Administration, 2012; H. M. Kim, 2013b; Kang, Park and Son, 2013; C. Kim, 2013). Characteristics of individuals, ethnic groups and the contexts of settlement residence are not equal; in turn, such different characteristics, conditions, and contexts would be decisive features affecting different modes of incorporation in Korea. For example, although immigrant wives tend to undergo similar adjustment-related problems, their demographic (e.g. age and years since migration) and socio-economic (e.g. human capital skills, including education and Korean language proficiency and social capital resources, including ethnic and non-ethnic networks in Korea) characteristics are different (Kim et al., 2010; Jeon et al., 2013). In addition, such individual resources are different among the origins of nationalities. For example, Korean Chinese are already fluent in the language while other ethnic groups have relatively little experience with the Korean tongue (Seol, Lee and Cho, 2006; Kim et al., 2010). Immigrant wives from China spatially concentrate in metropolitan areas while immigrant wives from South-East Asian countries are scattered throughout Korea. As another example, there appear different characteristics among the 16 administration areas where MFSCs are arranged and immigrant wives settle. Because about 50 per cent of immigrant wives concentrate in metropolitan areas, it may be reasonable that many MFSCs are established in those areas rather than in farming areas (Korea Institute of Public Administration, 2012). However, a MFSC is arranged in each

local authority without considering the relative population of immigrant wives. (H. M. Kim, 2013b). Thus, the provision of MFSS neglects regional features. Reflecting on the examples, the uniform service-delivery may find it difficult to respond to varied characteristics and conditions of individuals, ethnic groups, and regions.

On the other hand, literature commonly indicates that service-providers consider the attributes of professionalization; network; accessibility; equal treatment; comprehensive; and accountability for effective service-delivery as a management skill (Gates, 1980; Gilbert and Terrell, 2002; Choi and Nam, 2001). First, professional workers with a service-provider can help service-users to meet their appropriate needs because professional workers are well-skilled with the relevant technology. Second, because the resources available to service-providers are constrained, service-providers need to cooperate with other service-providers. Namely, service-delivery becomes effective through networks. Third, if there are no barriers in using service, accessibility is enhanced. This leads to the fact that a number of participants enjoy using and running the service. Fourth, service-providers must treat service-users equally regardless of gender, age, income, religion, region, and ethnic backgrounds. Fifth, service-providers provide sufficient sub-programs that reflect the needs of service-users. Finally, service-providers tend to deliver service to service-users instead of the government, so service-providers must attain policy or service goals.

In the application of the principle of good service-delivery system for effective management, prior studies demonstrated that the settlement service little responds the principles. Not surprisingly, there are shortages of manpower in MFSCs (Han, 2009; Kang, 2012; H. M. Kim, 2013b; Kang, Park and Son, 2013; C. Kim, 2013; Seo and Lee, 2014). The service-delivery system of MFSS is overlapped at the local level because without cooperation between MFSCs and community-based non-profit organisations, MFSCs and the organisations provide similar services for marriage migrants in the community (W. Kim, 2008; Kang, 2012; Bae and Pyun, 2013; H. M. Kim, 2013b; Kang, Park and Son, 2013; C. Kim, 2013). Because sub-programs of MFSS become too much leaned toward cultural assimilation (Seol, Lee and Cho, 2006; Kim and Hong, 2010; Ra, 2011), for example Korean language, learning Korean culture, and cooking Korean food, MFSCs cannot deal with the

other needs of immigrant wives (Seol, Lee and Cho, 2006). In farming areas, physical distance is such that immigrant wives find it difficult to access to MFSCs (Y. Park, 2009; Jung and Jung, 2010; Korea Institute of Public Administration, 2012; Kang, Park and Son, 2013). Conversely, the number of MFSCs is not sufficient in some metropolitan areas where a large number of immigrant wives are concentrated, which prevent immigrant wives from accessing MFSCs in the area (Korea Institute of Public Administration, 2012). Staffs in MFSCs are culturally insensitive to immigrant wives, so the staffs are not able to respond to various problems in cultural differences (Seol, Lee and Cho, 2006; K. Kim, 2010; Seo and Lee, 2014). Synthesizing the principles, hence, it is suffice to say that the management for MFSS delivery is not effective for immigrant wives (Han, 2009).

Finally, the financial resource is a problem in the process of MFSS delivery. The annual budget for the management of MFSCs is not enough (M. H. Kim, 2011; Ra, 2011, Kang, 2012). This means that MFSCs cannot expand professional manpower in the front-line, and would be limited in providing for the varying needs of immigrant wives and their family members, as well as regions (M. H. Kim, 2011). Accordingly, the shortage of finance in delivering MFSS leads to ineffectiveness (C. Kim, 2013).

In sum, there is a growing literature of evidence that MFSS provision for immigrant wives is not effective. To reach a fuller understanding of the problem, this chapter focuses on the four issues: (1) the blurred goals of settlement service, (2) limited target population accompanied by insufficient sub-programs, (3) uniform service-delivery and inappropriate service-delivery methods, and (4) the shortage of finance. In order to improve MFSS provision, hence, the four issues are of the imperative. Thus, it is inferred that MFSS provision becomes effective when the service's goal is clear; MFSCs provide a number of sub-programs for both marriage migrants and their families; MFSCs reflect different characteristics and conditions of individuals, ethnic groups, and communities; the appropriate principles in MFSS delivery system based on the attributes of professionalization, network, accessibility, equal treatment, comprehensive, and accountability are established for effective service-delivery system; and the sufficient finance is secured.

3.6. CONCLUSION

In this chapter, the three questions were discussed: (1) why do immigrant wives come to Korea; (2) how do immigrant wives adjust to Korea; and (3) how does the Korean government respond to the issues of immigrant wives?

The reasons why they come to Korea are characterised into individual selections, household decision, and the demands of Korean society. On the one hand, both the better socio-economic life in Korea and emancipation from men in the home countries take place in the decision for their international migration. In addition, the network between immigrant wives in Korea and their family members and friends in the sending countries consolidates their arrivals in Korea. Because of a sense of relative deprivation between households who receive remittances from immigrant wives in Korea and households who do not receive remittances, households who do not receive remittances may decide to send immigrant wives in Korea to catch up with the levels of economic conditions of household who have already sent immigrant wives to Korea. On the other side, the low birth rate, sex imbalance, differing marriageable populations between men and women make it difficult for Korean males at the bottom of socio-economic ladders to marry Korean females. In the context, the Korean men strongly demand foreign wives. Especially, male-farmers in farming areas where the agriculture industry is worsened can rarely marry Korean women because upward mobility is impossible. With these conditions, date-matching agencies that arrange international marriage consolidate immigrant wives' arrivals in Korea.

They are admitted for legal permanent residence with an entry principle, living together with their husbands. This shows that most immigrant wives stay in impoverish neighbourhoods because their Korean partners are placed with low socio-economic status in Korea. While immigrant wives from China were an earlier immigrant population and concentrated in metropolitan areas, immigrant wives from South-East Asian countries were a recent immigrant population and dispersed throughout Korea.

Tracing their motivations of international migration and settlement patterns in Korea, immigrant wives undergo several adjustment-related problems in Korea. Immigrant wives

similarly face communication problems, family conflicts, cultural tensions and cultural shocks between home and host cultures, and socio-economic difficulties, including being trapped in constant poverty and passing down poverty to their children. Thus, the problems are derived from the interplay between individual characteristics such as human capital (e.g. education and Korean language) or social capital (e.g. networks) resources and the contexts of Korean society such as characteristics of Korean husbands and directions of immigration policy.

In order to respond to the adjustment-related problems, the Korean government quickly established nationwide integration policy for them through providing uniform settlement service. Although marriage migrants are admitted for legal permanent residence and included for incorporation, settlement service leans towards immigrant wives vis-à-vis immigrant husbands in the policy arena.

Despite the well-organised MFSS, literatures show that the effect of settlement service is not clear during implementing MFSS. The reasons of the unclear effects of MFSS delivery are characterised in the four. First, the goals of MFSS are blurred. Second, sub-programs focus excessively on immigrant wives, so their family members and immigrant husbands confront a barrier in using MFSS. Third, the settlement service little reflects the characteristics and conditions of individuals, ethnic groups, and residencies due to the uniform service-provision. In addition, the principles for the effective MFSS delivery system are not appropriate. Finally, the shortage of finance leads to problems in managing MFSS. Taking the four issues, MFSS delivery for immigrant wives is not effective.

Therefore, this thesis attempts to examine whether MFSS is effective and then, whether the findings from the examination are congruent with previous literature. In addition, how MFSS is effectively delivered is investigated by paying attention to the four issues all together, so as to avoid the worst consequences of adjustment-related problems and promote successful integration into Korea. In doing so, appropriate theoretical perspectives and empirical evidence are needed in order to consider the four issues at the same time. In fact,

this thesis will focus on the four issues, based on theoretical and empirical studies, to shed light on the understanding of the effective MFSS delivery system.

PART III: *CONCEPTUAL AND THEORETICAL APPROACH*

As seen in the previous chapter (Chapter 3), the effects of MFSS are incomplete and confusing because of the following issues: the goals of MFSS are blurred; MFSS little reflects the characteristics and conditions of individuals, ethnic groups, and communities where immigrant wives reside; and MFSS delivery is not appropriate for immigrant wives' integration.

To deal with the issues regarding the ineffectiveness of MFSS, this thesis is concerned with the core elements of service-delivery: service-users, service-providers, management skills in service-delivery, and the contexts of service-delivery, by focusing on the effectiveness of the service-delivery system (Y. J. Kim, 2010). In fact, the service-effective-driven approach entailing the core elements is to help to evaluate the net impacts of service delivery (Patti, 1988). The approach, however, is difficult to directly explain because there remains a "black box" that is not able to measure outcomes of service or find appropriate predictors for improving the effectiveness (Meyer and O'Brien-Pallas, 2010, p. 2829; Martin and Kettner, 2010). In addition, there appears to be little agreement about how effectiveness is defined (S. M. Cho, 2007) and how effectiveness of service can be improved (Meyer and O'Brien-Pallas, 2010).

In this regard, discussion in this Part III will centre on conceptual and theoretical approach in terms of effectiveness. Thus, the first part draws a conceptual map to discuss the definition of service effectiveness, its outcome, importance of service effectiveness, and measurement of service outcome. The second part develops a theoretical framework to discuss how its net effect can be improved.

Chapter 4: *Conceptual Approach – Service Effectiveness and Outcome*

Once this research has decided to estimate the net effect of MFSS based on the effectiveness approach, this thesis is confronted with the questions of what effectiveness is, what service or policy's outcome is, why effectiveness is important in the process of service-delivery, how the outcome of service is measured, and what is MFSS's outcome?

The aim of this chapter is to discuss these questions as a conceptual framework. To begin with, a first discussion has to focus on participation in a service. This is primarily because without service-users' participation, service cannot be operated and then, it is not possible to discuss its net effect (Gates, 1980; Patti, 1988; Martin and Kettner, 2010). Following that this chapter attempts to answer aforementioned questions, as reviewing relevant articles in the area of human service. Finally, this chapter reflects these questions in MFSS for understanding its effectiveness and outcome.

4.1. SERVICE PARTICIPATION

Human service is defined as a broad area of services concerned with human including welfare, health, education, and other fields (Patti, 2000). In addition, these services share similar features, including a fundamental goal that is to change individuals' situations, labour intensive works in the practice, financial supports from governmental or external agencies, and non-uniform criterion in estimating net effects (Hasenfeld, 1972, 1978; Patti, 2000). Seen from this way, this section attempts to discuss service participation in a wide spectrum of human service.

4.1.1. Understanding service participation

In recent years, the service user has become an important partner in settings in which a human service is delivered, and the user's engagement in the service is a vital consideration (Patti, 2000). In other words, to achieve the human service goal in which service users experience positive change, their active participation is indispensable (Patti, 2000). Discussions of this issue commonly involve the following terms: service participation, visit, access, and utilisation. In this thesis, these terms are used interchangeably.

Service participation is often simply defined as the use of a human service (Y. J. Kim, 2010). However, the word service participation may be applied in several ways. The concept may refer to an individuals' behaviour when visiting facilities where a human service is delivered, or it may mean the individuals' right to use the human service (Andersen and Davidson, 2007). So service participation can refer to an individual's selective behaviour as well as the exercise of a basic human right.

However, in empirical analysis, visits to facilities have been used more widely than the simple exercise of a right, and this definition may be difficult to accurately measure. At this point, participation in service, visits to facilities, attendance rate, and the number of sub-programs are commonly used to measure access to a service, and as the main indicators in empirical studies (O, Lee, 2013). In this sense, this thesis focuses mainly on participation in a service as the meaning of a visit to a facility, in order to estimate the net effect of MFSS and determine ways in which MFSS can be effective.

4.1.2. Predictors influencing service participation

This section uses a behavioural model as an analytical framework to illustrate the possible factors that affect access to human services. The behavioural model was developed by Andersen in the late 1960s to examine the use of health services in the US (Andersen, 1995). This framework suggests the dimensions of predisposing, enabling, and need in the utilization of health services (Anderson and Newman, 1973; Andersen, 1995; Andersen and Davidson, 2007). The predisposing dimension refers to inherent features, resulting in different tendencies or need for service use. It is derived from demographic conditions, such as age, education, number of children, residence period, and ethnic backgrounds. The enabling dimension is associated with resources that encourage or discourage people from utilising a service, such as household income, employment, social networks, settlement areas, and destination-language proficiency. Lastly, the need dimension is related to the reasons for service use such as self-reported needs.

Although the behavioural model has been the most widely applied model in investigations of utilisation patterns of health services, this model has only recently gained popularity among human service researchers in Korea (Lee and Kim, 2010).

For example, Y. Lee (2009) analysed the determinants that affect access to long-term care services among people who are eligible for long term care insurance. S. A. Choi (2009) compared the utilisation patterns of social welfare services for non-low-income and low-income people. H. Bae (2011) analysed possible factors influencing social service use among seniors. Choi and Chun (2010) investigated access to rehabilitation centres by disabled people.

Accordingly, empirical studies have used the Andersen behavioural model to examine access to human services among marriage migrants. For instance, Lee and Kim (2010) examined access to social welfare services, including public assistance services, counselling services, and comprehensive services for immigrant women in Cheonam province who conducted self-surveys. For public assistance services, the number of children was one of the predisposing factors that had a positive impact on service use. With respect to enabling factors, social networks positively impacted service use, while household income had a negative impact. For counselling services, the enabling factors of household income and a Korean spouse relationship had negatively impact on the use of counselling services, whereas awareness of the service and existing social networks had positively impact on service use. In addition, there were different utilization patterns of counselling service use with respect to regions. Depression, classified as a need factor, was positively related with service use. For comprehensive services, the number of children is a predisposing factor that had a positive effect.

Kim and Choi (2012) also analysed factors affecting social service use with respect to adjustment in Korea, based on the 2009 National Survey on Multicultural Families (NSMF). With respect to predisposing factors, immigrant wives who were younger, educated, unemployed, and had a number of children increased the likelihood of their social service use. In addition, there are different modes in the use of services among ethnic groups. With

respect to enabling factors, a lower quality of residential conditions, a few years since migration, having a friend from the same origin country, and having a friend with a different ethnic background increased the probability of service use. With regard to need, a poorer health condition, having preschool children, and experiencing discrimination increased the probability of service use.

Seo and Choi (2012) analysed possible factors influencing the use of family counselling services among immigrant wives, based on the 2009 NSMF. Of the predisposing factors, the number of years since migration was a significant factor. Of the enabling factors, the settlement location, existing relationships with friends from the same origin countries, existing relationships with friends from different ethnic backgrounds, and Korean language proficiency were significant and positive factors. Of the need factors, the number of children, the relationship with the husband's parents, and experiencing discrimination were significant factors. The likelihood of the utilization of family counselling services increased when survey respondents had been in Korea for only a short time, lived in rural areas, perceived themselves as having good relationships with friends from the same origin country and with those from different ethnic backgrounds, reported having a higher level of Korean language skills, had a number of children, experienced discrimination, and had a poor relationship with the parents of their Korean spouses.

Similar results were found by H. M. Kim (2013), who investigated the utilisation patterns of family counselling services among married immigrants using the same 2009 NSMF. Among the predisposing factors, having children increased the likelihood of service use. In addition, there were different utilization patterns among gender and ethnic groups. Of the enabling factors, the probability of the service use increased by having National Basic Livelihood Security Status and a relationship with people from their home country. In addition, there were unequal utilization patterns with respect to settlement locations. Among the need factors, perceived need for the service increased the probability of its use.

Every empirical study in Korea that analysed access to human services, based on Andersen's behavioural model, demonstrated that different utilisation patterns of human

services was due to factors relating to dimensions of predisposing, enabling, and need. In fact, conceptualising and measuring the use of human services enables researchers to predict access to human services and to determine ways in which its effectiveness can be enhanced (Andersen and Davidson, 2007). Based on this discussion of service participation, this thesis explores the above questions in terms of service effectiveness.

4.2. EFFECTIVENESS

To expand understanding of the effectiveness of human service, this empirical study begins with four key questions: i) What is effectiveness? ii) Why is effectiveness important? iii) How does effectiveness measure? and iv) what is MFSS's outcome is? Through these questions, the conceptual issues of effectiveness in human service are addressed in the next sections.

4.2.1. What is effectiveness?

The definition of effectiveness varies and sometimes its conceptual boundary is blurred or debated on with diverse views (Patti, 1988; S. M. Cho, 2007). Not surprisingly, there are few standard or universal criteria that evaluate the effectiveness of human service (Patti, 1988; Patti, 2000; S. M. Cho, 2007; Choi and Nam, 2001; Y. J. Kim, 2010). The reason for non-uniform definitions regarding effectiveness is closely linked to the inherent features of human service (Patti, 2000; Y. J. Kim, 2010). In the process of human service production, in turn various actors exist (e.g. service-providers, service-users, and municipal governments), and such actors play various roles for human service production (e.g. service-delivery, service participation, and policy-making) (Y. J. Kim, 2010). As such, not only does each service-provider has different goals, resources, and service-delivery technologies, but also each service-user has varied goals, resources, skills, needs, and challenges in the process of human service delivery (Low, 2011). Sometimes, the settings of human service-delivery, which are sensitive to catchments at the community-level, such as population, policy, and budget, influence service-providers and service-users (Low, 2011). In fact, different and various service-providers, service-users, and settings in service-delivery make it difficult for effectiveness in human service to be commonly defined (S. M. Cho, 2007).

Nonetheless, effectiveness in human service is generally used as the unit of goal achievement (Martin and Kettner, 2010). By focusing on the goal achievement, in turn the effectiveness is discussed with regards to performance outcome (Jeong et al., 2007; Martin, 2000; Martin and Kettner, 2010).

Although the performance outcome is a critical and analytical tool in discussing the effectiveness in human service, literature shows apparently contradictory outcomes along with service-providers and service-users testimonials (Cameron, 1986; S. M. Cho, 2007). The first focuses on the outcomes of service-providers which are measured by varying service-providers' activities (Gates, 1980). For example, organisational structure (such as number of staff and size of divisions of works), finance (such as expenditure and funding), and job satisfaction perceived by staffs are substantial indicators in measuring effectiveness (Cameron, 1986; S. M. Cho, 2007). The second emphasises on service-users' outcomes that are measured by extent of changes in service-users (Patti, 1988, 2000; Rapp and Poertner, 1988; Geron, 1998). For example, after using human service, when service-users change their "behaviours, attitudes, skills, and environmental conditions", the degree of the change is an important criterion in measuring effectiveness (Patti, 2000, p. 15). Taken together, the effectiveness is channelled in different outcomes along with service-user-oriented and service-provider-oriented perspectives.

Despite the fact that the two types of outcomes are not prioritized, this thesis focuses primarily on performance outcome that addresses service-users' changes. This is because the nature of human service in being much closer to its service-users rather than to its service-providers (Rapp and Poertner, 1988, Patti, 2000; Y. J. Kim, 2010). Obviously, human service itself is a goal of policy that helps service-users to achieve their better life conditions, meet more positive environment conditions, be satisfied with their needs, and figure out their challenges (Jung and Jung, 2010). This goal corresponds with not only the criteria in measuring effectiveness but also a performance outcome in itself (Martin and Kettner, 2010). In addition, because human service is not operated without participation of service-users, service-users are an important element in producing its performance outcome (Patti, 1988; Gates, 1980; Choi and Nam, 2001; Martin and Kettner, 2010; Y. J. Kim, 2010). At this point,

this thesis attempts to discuss the performance outcome that demonstrates service-users' changes in addressing effectiveness in human service.

Until now, this thesis tried to define effectiveness in human service. However, it is asked why effectiveness in human service is important. In the following pages, the rationale of effectiveness in human service will be addressed.

4.2.2. Why is effectiveness in human service important?

In recent years, the effectiveness in human service is discussed as an important issue. Such discussion is derived from contradictory trends around human service: expansion and retrenchment (Patti, 1988).

The first refers to the expansion of human service. The modern society has witnessed complex and acute social problems such as chronic poverty, care deficit, ageing, family disorganisation, and inflow of immigrants (H. S. Yoon, 2006). This makes it difficult for a single individual person to deal with the social problems (Y. J. Kim, 2010). Instead, at the national level, the government needs to establish and carry out policy to respond to the social problems (Y. J. Kim, 2010). In this context, the central government designs policy and then, the policy is implemented into human service to deal with the social problems. Such situations tend to lead human service to be expanded and more developed. With the trend that the areas of human service are expanded and developed, great attention has been raised as to how the human services maximise their outcomes, in the policy arena (Jung and Jung, 2010). This closely corresponds to service effectiveness (Patti, Poertner and Rapp, 1988) and thus, the extent to which policy or human service attains their intended goals is effectiveness. Then, effectiveness is an important avenue to evaluate whether to the achievement maximised and caused the expected outcomes in policy arena or in the fields of human service (Patti, 1988). In addition, feedbacks from performance outcomes based on the effectiveness enable policy or human service to be reshaped for better outcomes (Patti, 1988). As a whole, the more human service expands and develops, the more the effectiveness is a substantial issue in human service.

Another is associated with retrenchment of human service. In terms of service-delivery, recently the central government has transferred its responsibility to local governments (Patti, 1988; K. Nam, 2010). Because the municipal governments do not have enough resources compared to the central government, curtailments of budgets in delivering human service are unavoidable (Brudney and England, 1982; Y. J. Kim, 2010). In the context, the municipal governments encourage varying non-profit and for-profit organisations at the local-level to participate in service-delivery via a contract between the organisations and local governments (Gibelman, 2000). Through the contract, the municipal governments require that the non- or for-profit organisations at the local-level attain maximised outcomes within insufficient resources while human service is delivered (Brudney and England, 1982). To receive financial supports from the municipal governments, non- and for-profit organisations are indispensable to meet their requirement (Gibelman, 2000). Thus, both municipal governments and contract-out organisations at the local-level should strive to maximise outcomes under the retrenchment, and such efforts naturally correspond to effectiveness in human service (Martin and Kettner, 2010). In a situation in which human service has been retrenched, an emphasis of effectiveness in human service is inevitable.

In sum, in an environment in which human service is expanded or retrenched, effectiveness becomes a critical issue. This is because service is itself goal of policy, so whether or not policy is successful could be estimated via service effectiveness (Y. J. Kim, 2010). In addition, when service-providers focus on effectiveness, the providers are able to attain maximised outcomes (Patti, 1988). As such, effectiveness is a criterion evaluating attainments of service-providers (Patti, 1988), as a policy evaluation (Y. J. Kim, 2010).

4.2.2.1. Paradox of three approaches

Although human service depends largely on effectiveness in the trend of expansion and retrenchment of human service, it is known that service-providers of human service are not able to survive by focusing on effectiveness alone (Patti, 1988). Thus, it is necessary to evaluate results of human service with varied perspectives (Patti, 1988), such as efficiency and service quality outlooks (Martin and Kettner, 2010). Not surprisingly, it needs to deal

with effectiveness, efficiency, and service quality simultaneously (Patti, 1988) because the three approaches tend to provide different feedbacks for service-providers in service-delivery (Martin and Kettner, 2010).

However, the three perspectives are difficult to maximise all together in one setting of human service delivery. When both efficiency and effectiveness are assessed together, the two are incompatible (Gates, 1980; Patti, 1988). On the one hand, efficiency is defined as the ratio of outputs or rate of outputs per amounts of money (Gates, 1980) while effectiveness is extent of goal-achievement (Martin and Kettner, 2010). If service-providers spend an increased amount of money to achieve their goals, it may result in inefficiency. In the empirical study, Baker and Vosburgh found a negative relationship between effectiveness and efficiency in examining the monitoring of recipients' eligibility of public assistance, in terms of caseload's size and recipients' missing rates (Baker and Vosburgh, 1977 as cited in Patti, 1988). They assumed that effectiveness is missing rates while accounting is efficiency. The less rates are missing, the higher governmental organisations spend. Thus, effectiveness and efficiency were not accumulated simultaneously in their study. In a similar vein, Ostroff and Schmitt (1993, pp. 1993-1994) reported that indicators on schools' effectiveness (e.g. "math scores, student ability through self-assessment, and students' satisfaction toward teachers") were not highly correlated with indicators of schools' efficiency (e.g. "rates of students not participating in subsidized school lunch programs and per pupil expenditure").

On the other hand, focusing on a relationship between efficiency and service quality outcomes, Martin and Kettner (2010) demonstrated that human service depending excessively on efficiency outcomes leads to low quality of service. This is due to the fact that the less service providers spend, the "less reliable and less timely" service quality (Martin and Kettner, 2010, p. 51). In addition to the difficulty of maximisation all together, the indicators virtually overlap in terms of measuring effectiveness and service quality. If effectiveness is measured in client satisfaction, which is known as an indicator evaluating the effectiveness (Patti, 1988), there appears an incomplete room to draw a clear line between effectiveness and service quality. Although service quality is described as the users' overall attitude or evaluation toward service excellence, client satisfaction shares a similar definition with

service quality (Zeithaml, Berry and Parasuraman, 1996). In fact, the indicator of service quality may be coincided with that of effectiveness. For these reasons, it is not surprising that the management of human service finds it difficult to pursue efficiency, effectiveness, and service quality at the same time.

Nonetheless, this thesis suggests that only effectiveness is being prioritised as a performance outcome of human service, rather than efficiency or service quality. This is primarily because “effectiveness is often considered the highest form” of performance outcome in human service (Martin and Kettner, 2010, p. 8). Although effectiveness takes precedence over efficiency and service quality in terms of performance outcomes in human service, it is not intended to dampen efficiency and service quality. Instead, as an alternative direction, this thesis has attempted to analyse how service effectiveness is attained without ruining other performance outcomes.

However, the measurement of effectiveness is not simple because the definition of effectiveness is less integrated and therefore, effectiveness is measured by different indicators, along with varied perspectives. In the following, the certain aspects of effectiveness and its measurement are discussed.

4.2.3. How the effectiveness in human service is measured?

As seen previously, the nature of human service is much closer to its service-users rather than the service-providers. At this point, depending on service-user-oriented effectiveness, there are two different types of outcomes. The first is subjective outcomes; the other is objective outcomes.

Subjective outcomes are lacking in objectivity and reliability, but the outcomes are useful as they reflect service-users’ decisions and needs (Brudney and England, 1982; Geron, 1998). Among subjective criteria, client or service-user’s satisfaction is widely used as an important indicator of effectiveness (Patti, 1988; Kim et al., 2013). It is known that service-user’s satisfaction is used to evaluate the levels of quality-of-life changes after service-users utilise human services (Gates, 1980; Geron, 1998; Martin and Kettner, 2010).

In opposition to subjective outcomes, objective outcomes show numerical value with universal criteria, but hardly respond to service-users' views (Burundi and England, 1982). Object outcomes focus mainly on numerical scales based on changes of service-users after using human service. Thus, the degree to which human service attains its desired goals, based on numerical values in terms of changes of service-users can be estimated (Rapp and Poertner, 1998; Martin and Kettner, 2010). In other words; the extent to which service-users change their "behaviours, attitudes, skills, and environment conditions" after utilising human service are measured (Patti, 2000, p. 15).

To draw various insights of service-user-oriented effectiveness, it is reasonable that the subjective and objective outcomes are used at the same time. Rubin and Babbie (1989) suggest that it needs at least two indicators for reliable measurement. Martin and Kettner (2010) stress that the two types of outcomes are used all together. In order to estimate effectiveness of MFSS, hence, the two types of outcomes are used complementarily in this empirical study, depending on service-user-oriented effectiveness. In the following sections, this thesis discusses its outcome, by focusing on the concept of objective and subjective outcomes based on goal-attainment and service-user approaches.

4.3. WHAT IS MFSS'S OUTCOME? – IMMIGRANT WIVES' INTEGRATION

Outcomes are intended performance "results" or "accomplishments" by human service (Martin and Kettner, 2010, p. 5; Vinokur-Kaplan and Bogin, 2000). By focusing on goal-attainment and client-centred effectiveness in service-delivery, immigrant wives' integration is regarded as a goal and outcome on MFSS in this study. This is mainly because the purpose of MFSS is to improve immigrant wives' integration in Korea according to the 2012 Support for Multicultural Family Act. In fact, the focal point in this section is the integration of immigrant wives. In order to analyse immigrant wives' integration, the empirical research evaluates not only objective integration of immigrant wives associated with structural-functional integration, but also subjective integration of immigrant wives derived from life satisfaction.

Before entering into the main discussion of integration, it may be worth taking a look at the terminological approach on integration. There is no general agreement about what the term immigrant integration is. Instead, immigrant integration is conceptualised by various theoretical perspectives. In other words, the field of integration is addressed by divergent terms and by diverse theoretical perspectives, which leads to its different definitions (Heckmann et al., 2010). Hence, the terminological approach regarding immigrant integration enables this study to compare various theoretical perspectives, with an emphasis on relative interactions between immigrants and the host country and different process of immigrants' adjustment into the host country. After the overview of terminological approach provided by varying theories of immigrant integration, this study attempts to guide how immigrant integration is measured by addressing analytical frameworks.

4.3.1. Terminological approach for immigrant integration

What is immigrant integration? What theoretical approaches does immigrant integration explain? How can immigrant integration be analysed? These questions are central in this section, but answers to these questions are not simple because varied terms and theoretical approaches are inclusive in the answers.

The term integration in the field of immigration studies is interchanged with varied alternative words including “acculturation, absorption, assimilation, acculturation, multiculturalism, inclusion, cohesion, and incorporation” (Heckmann et al., 2010, p. 7; Hamberger, 2009). The terminologies are generally used to explain relative interactions between immigrants and the host society as well as different processes of immigrants' adaptation to the host society, in which theoretical perspectives on immigrant integration vary along with the relative interactions and different processes (Dewind and Kasinitz, 1997; Spencer, 2006; Heckmann et al., 2010). In fact, this section is aimed to provide a conceptual map of divergent terminologies on immigrant integration, so as to discuss the relative interaction and different processes of adaptation. The following pages begin with brief explanations of divergent concepts of immigrant integration.

4.3.1.1. Acculturation

Acculturation perspective refers to the process of cultural change once immigrants contact or participate in another culture after their arrival in the host country (Berry, 1997, 2003). In the view of Berry (1997, 2003, 2006, 2007), acculturation is classified into four possible types including integration, assimilation, separation, and marginalisation, according to two main standards: whether to hold onto origin-culture and whether to obtain host culture (Figure 4.3). In the framework, both separation and assimilation are a unilateral process of acculturation, but the former is to keep only the origin-culture without absorbing host culture, while the latter is to participate in the host culture without holding onto origin-culture (Berry, 1997; Heckmann et al., 2010). Integration in which immigrants maintain their original culture and positively participate in the new culture simultaneously is the most valuable whereas marginalisation in which immigrants hardly maintain their own culture and contact new culture, whilst recommend, is minimal; is in the least (Berry, 1997, 2003, 2007; Stephenson, 2000; Arends-Toth and Vijver, 2006). In the account of acculturation, integration is regarded as bicultural adaptation.

Figure 4.1: Types of acculturation

		Cultural Adaptation	
		Low	High
Cultural Maintenance	High	Separation	Integration
	Low	Marginalisation	Assimilation

(Source: Berry, 2007, p. 550; Arends-Toth and Vijver, 2006, p. 39)

4.3.1.2. Exclusion versus inclusion

From the point of view of exclusion perspective, immigrants become marginalised in the receiving country (Castles and Miller, 1998). Most importantly, they have little access or participation in the host society such as nationality, election, education service, and welfare

benefits, which deprive immigrants of chances to adapt to the host country (Castles and Miller, 1998). In opposition to exclusion perspective, the inclusion perspective ensures that immigrants participate in diverse scopes of the host society as noted above. Such participation tends to improve opportunities to adapt to the host society (Fanning, Haase and O'Boyle, 2011). In fact, the inclusion as a contrary phrase of exclusion is used to emphasise equal participation or accessibility in the host society (Omidvar and Richmon, 2003; Reitz and Banerjee, 2007). Inclusion perspective, in this sense, would be much similar to immigrant integration.

4.3.1.3. Assimilation versus Multiculturalism

Assimilation perspective is relevant to the unilateral cultural absorption in mainstream society (Heisler, 2000). Under the assumption that the host culture is privy to the sending countries' culture (Alba and Nee, 1997; Spencer, 2006), immigrants are suggested to relinquish their ethnic cultures through the acceptance and adoption of the host culture, in order to become adjusted into the mainstream society. In the assimilation perspective, one-way absorption in the host culture is likely to be immigrant integration (Spencer, 2006). Unlike assimilation perspective, multiculturalism emphasises on coexistence of immigrant-own-ethnic cultures and host cultures in the receiving country (S. M. Lee, 2010; Zhou, 1999; Castle and Miller, 1998). This perspective allows immigrants to keep their culture, use their ethnic language, and invigorate ethnic-based economic industries accompanied by helping them to access or participate in the mainstream institutions or structures in the host country by relying on enacting supportive immigration legislations. The perspective believes that, in fact, both preserving ethnic heritage and embracing host culture lead to integration (S. M. Lee, 2010).

4.3.1.4. Social cohesion

Social cohesion refers to the capacity of society to enable immigrants to facilitate social networks within the host society and that leads immigrants to equally participate in the host society (Spencer, 2006). Thus, not only does a cohesive society support enhancing relationships between immigrants and native-born groups in the host society, but it

encourages immigrants to trust or feel that they belong to the host society (Parekh, 2000). As sharing “collective goals”, in this sense, intergroup conflicts between immigrants and native-born people may be gradually eliminated (Reitz and Banerjee, 2007, p. 17). Social cohesion is sometimes replaced by social capital because social cohesion is formed by interactions with groups, social systems, and institutions based on “trust” (Berger-Schmitt, 2000; Spoonley et al., 2005, p. 93; Reitz and Banerjee, 2007). The more social capital develops within a society, the broader social networks are between groups, social systems, and institutions. As such, the society may become stable via detracting from conflicts, exclusion, and hostile contexts towards immigrants (Spencer, 2006). In the framework underpinning on social cohesion perspective, immigrants are able to engage in the host society based on social networks and trust, which lead immigrants to integrate well into the host society.

4.3.1.5. Integration

Although acculturation describes the term integration, the term integration emerges in critics toward multiculturalism (Wood, 2009; S. M. Lee, 2010). That host culture and minorities’ different cultures coexist in the mainstream society may result in segregation for example; geographic segregation, economic segregation within ethnic communities, and excessive attachment to immigrant heritage (Hirshman, Kasinitz and DeWind, 1999b). Because of such critics, the state is likely to disturb immigrants from being separated from the host society as a goal of policy. It is characterised in two-way incorporation (Penninx, 2009). While the state guarantees immigrants’ rights in the host society including welfare benefits, election, and a chance of citizenship acquisition, immigrants should make efforts in adapting to the host society through using human service (S. M. Lee, 2010). In brief, the term integration includes encouragement of immigrants’ efforts for adjustment and prevention of their segregation from the host society at the same time.

4.3.1.6. Findings from the terminological approach

Proceeding from what has been said above, each of theoretical perspectives illuminates different terminologies on immigrant incorporation. Thus, the understanding of the definition of immigrant integration is fragmented by different theoretical perspectives. In

spite of divergent terminologies of immigrant integration relying on varied theories, there appears to be a somewhat closer consensus of conceptualisations underlining immigrant integration. The term immigrant integration is characterised by focusing on three fundamental elements (Heckmann et al., 2010; Spencer, 2006; Asselin et al., 2006; Penninx, 2000; Heisler, 2000): (1) interaction between immigrants and host society; (2) bilateral process in which immigrants strive for adaptation into the receiving country and, at the same time, the receiving country constructs appropriate environments for immigrants' adaptation for example resolving discriminations and barriers that prevent immigrants from engaging in the host society; and (3) implication of extensive immigrant life in the host country, ranging from individual meetings to interrelationships of social, political, economic, cultural structures in the host society. Thus, based on the common understanding from varying theoretical perspectives, immigrant integration is defined as a two-way process in which immigrants and the receiving country make efforts all together to develop interactions between immigrants and the host society without inequality and discrimination, in the broad areas of immigrant life, in the host society.

4.3.2. Analytical framework of immigrant integration

Although this approach, focusing on the terminology of immigrant integration, makes persuasive explanations regarding the definition of immigrant integration, there remains a question of how do immigrants integrate into the host society? The following sections attempt to address analytical framework to the inquiry through varying systematic dimensions of immigrant integration. Based on the dimensions, finally, it is discusses how immigrant integration is measured.

4.3.2.1. Dimensions of immigrant integration: Trends

Scholars have elaborately developed systematic dimensions to expand an understanding of immigrant integration. From their efforts, it can be possible to analyse not only the extent of integration but also process of integration into the host country, with an emphasis on varied dimensions of immigrant integration (Alba and Nee, 1997; Dion, 1996).

Given the historical approach toward the dimensions of immigrant integration, from assimilation theory, Gordon (1964, pp. 70-71) firstly established seven systematic dimensions: “cultural or behavioural assimilation, structural assimilation, identificational assimilation, marital assimilation, attitude receptional assimilation, behaviour receptional assimilation, and civic assimilation”. Through the dimensions, he identified structures’ and institutions’ barriers (e.g. barriers of “labor market, education, and political systems”) on the process of adjustment into the host society (Heisler, 2000, p. 80). However, the dimensions excessively focus on one-way cultural assimilation by which immigrants are forced to accept mainstream culture and to deny their own ethnic culture (Heisler, 2000).

Since the formulation based on Gordon’s perspective, scholars have developed varying dimensions of immigrant integration addressing the interplay between immigrants and the structures or institutes of the host society, and the bilateral process between immigrants and the host society (Entzinger and Biezeveld, 2003; Penninx, 2000; Hamberger, 2009). For example, Entzinger and Biezeveld (2003, p. 19-28) introduces legal-political, socio-economic, and cultural dimensions. Penninx (2009, p. 5) reiterates the classifications of Entzinger and Biezeveld (2003): legal-political, socio-economic, and cultural dimensions. Hamberger (2009, p. 5) echoes Entzinger and Biezeveld (2003) and Penninx’s (2009) dimensions, but further subdivides immigrant integration in political, economic, social, and cultural dimensions.

Above all, Heckmann et al. (2010) provide the clearest alternative way to categorise immigrant integration as an analytical framework, beyond the approach focusing largely on interaction between immigrants and the host society’s structures. In fact, their approach entails the aforementioned dimensions of integration that are introduced by Entzinger and Biezeveld (2003), Penninx (2009), and Hamberger (2009) and expand on more different dimensions that are not introduced by other researchers. Heckmann et al. (2010) demonstrates that immigrant integration is classified into structural, cultural, interactive, and identificative dimensions. Structural integration involves the aforementioned social, economic, and political integration, depending on structural interconnection between immigrants and the host society. Alongside with structural dimension, cultural dimension in integration is the

closest equivalent to the aforementioned cultural integration proposed by Entzinger and Biezeveld (2003), Penninx (2009), and Hamberger (2009). Other dimensions including interactive and identificative integrations, however, are an extraordinary idea. Indeed, the interactive and identificative dimensions expand an understanding of immigrant integration, focusing primarily on networks between immigrants and native-born people or groups in the host country and a sense of belonging to the host society (Spencer, 2006; Asselin et al., 2006).

4.3.2.2. Dimensions of immigrant integration: Overview

The reviewed articles on the dimensions of immigrant integration assume that immigrants primarily interplay a wide variety of structures and institutions in the receiving country including cultural, social, economic, and political structures in addressing dimensions of integration (DeWind and Kasinitz, 1997; Entzinger and Biezeveld, 2003; Penninx, 2000; Hamberger, 2009; Heckmann et al., 2010). In fact, the levels to which immigrants integrate into the host society are relevant to the extent of participation or accessibility to cultural, social, economic, and political structures in the host country (Dewind and Kasinitz, 1997). By taking a synthesising look at the authors' analytical framework, political or legal-political integration refers to rights to obtain citizenship and vote or elect in the host society, so it is understood as having citizenship and experiencing election in the receiving country. Economic integration is linked to immigrants' economic activity in the host society, so it is described as having a job and earning money in the host society. Social integration is connected with basic quality of life, so it is explained as having a right to use welfare programs and human services in the receiving country. Cultural integration is closely related to acculturation. When immigrants meet or contact different cultures continuously, they experience changes between the two cultures. Acculturation refers to such changed processes or results (Berry, 2003, 2006, 2007). Thus, these changes are interpreted as cultural integration for example; learning the language of the host society, combining clothing styles between origin and host cultures, and accepting the food culture of the host society are exemplified (Berry, 2007).

Expanding the logic beyond structural and functional integration, interactive integration is linked to the social networks immigrants have in the host country. Immigrants tend to make relationships with various people or groups including family, friends, those with ethnic affiliations, and voluntary organisations after their arrival in the host society (Portes and Rumbaut, 2006; Heckmann et al., 2010). Such interrelationships help immigrants to increase the advantages to participate in the structures of the host society through shared social supports (Heckmann et al., 2010). In the interactive integration, social networks and interrelationships are central analytical aspects. Identificative integration is concerned with feelings of belonging to the host society. The more immigrants participate in the structures of the host society and interact with one another inside the host society, the more immigrants perceive the feeling of inclusion within it (Heckmann et al., 2010). In this way, perceived feeling of belonging to the host society is an important criterion when estimating whether immigrants become integrated in the receiving country (Amit, 2012; Reitz and Banerjee, 2007).

Alongside with the discussion of the interplay between immigrants and the host society, scholars put emphasis on the contexts of reception in addressing the dimensions of immigrant integration. In fact, underpinning that immigrant integration is not unilateral but bilateral (Penninx, 2000; Spencer, 2006), it is believed that both the efforts of immigrants and the contexts of their receptions are critical elements in the process of immigrant integration (Portes and Rumbaut, 2006). When immigrants exert possible efforts to adapt to the host society, the receiving country also supports the immigrants' adaptation (Entzinger and Biezeveld, 2003; Hamberger, 2009; Heckmann et al., 2010). In doing so, the key role of the receiving country is to take away discriminatory barriers and to facilitate contexts in which immigrants easily participate or have access to social structures (Heckmann et al., 2010). In this respect, the receiving society plays a vital role to diminish unequal treatment, encourage opportunities, and form favourable situations, in the process of structural, cultural, interactive, and identificative integrations (Heckmann et al., 2010). In this view, if immigrants are constrained to participate in the labour market and earn income, or access citizenship, welfare system, and human service, as well as contacting native-born people or

groups, immigrant incorporation is being shrunk. Also, if racism and xenophobia are prevalent in the receiving country, immigrants hardly perceive a sense of belonging to the receiving country. Hence, it needs to not only eliminate the barriers, but also formulate supportive environments to increase the chances of immigrant participation in the structures existing in the host society, as well as facilitating memberships with native-born people and groups (Heckmann et al., 2010; Portes and Rumbaut, 2006).

4.3.2.3. Measurement of immigrant integration

In recent years, a number of studies raise an important issue that employs various parameters, not one of absolutes, on integration of immigrant (Heckmann et al., 2010; Malul and Rosenboim, 2010; Reitz et al., 2009). Historically, immigrant integration has been well-understood by focusing on objective indicators including income, employment, and host-country-language proficiency (DeWind and Kasinitz, 1997; Penninx, 2000; Entzinger and Biezeveld, 2003; Phalet and Swyngedouw, 2003; Hamberger, 2009). However, recently several studies posit that subjective indicators show one of the domains of immigrant integration including life satisfaction (Lester 2005; Massey and Akresh, 2006; Amit, 2010; Houle and Schellenberg, 2010). Thus, the recognition of subjective parameters has been continually expanded and became a sizeable weight in research on immigrant integration (Amit, 2010). This indicates that for analysis of immigrant integration, objective and subjective parameters are used all together (Lester, 2005).

4.3.2.4. Objective indicator on immigrant integration

In this study, objective integration is based on structural-functional approach. Society is classified into various structures or systems that have inherent functions (Miley, O'Melia and DuBois, 1995; Hirschman, 1999). Some examples suffice to indicate that the society constitutes family, school, church, and other structures or systems, which function reproduction, instruction, worship and others, relatively (Miley, O'Melia and DuBois, 1995). In the approach, once immigrants newly arrive in the destination country, they meet new structures (such as acts or laws regarding immigrants, labour market, and housing market) and institutions (such as schools and welfare service centres) in the destination countries. If

immigrants cannot perform appropriate functions in the structures or institutions, they are not able to become integrated into the host society (Heckmann et al., 2010). In addition, if immigrants meet difficulties when participating or accessing to the structures or institutions compared to native-born people, this also hinders their integration into the host society (Heckmann et al., 2010). As such, both how the receiving society accepts immigrants in the systems or institutions and which systems or institutions in the receiving society allow immigrants to participate in or have access to are significant issues on immigrant integration (Heckmann et al., 2010). Thus, structural-functional integration focuses on immigrants' participation or access into the systems or institutes in the receiving society. Then, there is no "inequality" compared to the natives regarding participation and access (Heckmann et al., 2010, p. 11). In general, as indicators measuring immigrant integration based on structural and functional perspective, socio-economic integration is measured by employment, earning, housing, and the welfare system, while legal-political integration is measured by an acquisition of citizenship and an election experience (Entzinger and Biezeveld, 2003; Hamberger, 2009; Penninx, 2000). Giving a concrete example on socio-economic field, participation in the labour market is a typical example. This is because employment enables immigrants to enjoy incentives in the destination such as making money, taking care of children, paying housing fee, and others (Asselin et al., 2006). However, it is known that there is a gap in earnings between immigrant labourers and domestic labourers (Chiswick, 1978; Borjas, 1985). Entering the labour market in the host country, immigrant workers earn below 17 per cent in comparison with native-born workers (Chiswick, 1978). Only after 10 to 15 consecutive years are the average earnings of immigrant workers are equivalent to those of domestic workers (Chiswick, 1978). In this view, an important criterion to estimate socio-economic integration is whether to attain the average wage level of domestic workers (Portes and Rumbaut, 2006). As successful participation in the labour market and the same earning with that of native-born workers, immigrants have chances to improve social status and life conditions in the host country (Asselin et al., 2006). Obviously, employment and income are important indicators of economic integration.

With employment and earnings, both housing and welfare system are necessary elements for a stable life in the host country (Heckmann et al., 2010). On housing condition, the more immigrants live in good housing conditions, the better they obtain chances to be have upward mobility in the receiving country (Zhou, 1999). By contrast, immigrants living in poor quality of housing conditions tend to have a few chances to move up the social ladder (Zhou, 1999). This is mainly due to the fact that housing conditions are linked to residence districts (Entzinger and Biezeveld, 2003). It has been observed that houses with poor conditions are located in places where immigrants in the underclasses concentrate on (Massey and Denton, 1985; Zhou, 1999). In the places, immigrants meet institutions and social systems on poor conditions, such as low quality schools and neighbourhoods. In fact, the geographic concentration leads immigrants to become trapped in poverty, resulting in exclusion from the host society (Zhou, 1999; Entzinger and Biezeveld, 2003; Asselin et al., 2006). In welfare systems including public assistance and health system, if immigrants under the poverty line are limited to use welfare benefits, their poverty conditions become exacerbated in the host country; in turn, such poverty situations may pass down their children (Zhou, 1999). In addition, it is true that the health system helps people to cope with unpredicted situations by illness (Lee and Kim, 2004). They may confront a cut-off of income due to disease or threaten livelihood by its treatment if immigrants are not able to access such health system in the receiving country (Lee and Kim, 2004). This indicates that the limitation to utilise a health system lead immigrants to be thrown into low quality of life, which alienates them from the host society (Akresh, 2009). In this manner, legal exclusion from a welfare or health system makes it difficult to maintain a stable life in the host society (Portes and Borocz, 1989; Portes and Rumbaut, 2006). It seems to be reasonable to conclude that better housing conditions and utilisations of welfare or health programs become a foothold of social mobility for immigrants, which contributes to successful adaptation in the receiving country (Heckmann et al., 2010). In evaluating socio-economic integration, hence, employment, income, housing condition, and the accessibility of welfare systems are the most widely informed indicators (Entzinger and Biezeveld, 2003; Hamberger, 2009).

Legal-political integration is connected with the legal rights of immigrants. Once immigrants become a citizen in the receiving country, they obtain rights to be treated without inequality compared with native-born people (Heckmann et al., 2010). For example, just as native-born people receive welfare benefits from the government, so do immigrants enjoy the benefits in the receiving country on becoming a citizen (Heisler, 2000; P. Yang, 1994). The same holds true for labour force participation without discriminatory barriers compared with native-born labourers (P. Yang, 1994). In effect, it is a simple that acquisition of citizenship is a precondition for safe life conditions in the host country (P. Yang, 1994; Bueker, 2005). In addition to citizenship, it is thought that participation in elections is another critical indicator to address legal-political field (Bueker, 2005). The more immigrants participate in the election, the more policy in the host country reflects the voice of immigrants (Bueker, 2005). In doing so, the level of possible policy for immigrants becomes favourable and non-discriminatory through their choices during elections (Portes and Rumbaut, 2006). Legal-political integration is measured with citizenship acquisition and election experience in the destination, hence (Entzinger and Biezeveld, 2003; Hamberger, 2009; Baubock et al., 2006).

Cultural integration derives from language acquisition of the host country (Heckmann et al., 2010; Hamberger, 2009). Thus, learning the host country's language is an indispensable and an initial step for adaptation to the receiving country (Chiswick and Miller, 2001). Once immigrants arrive in the destination country, they firstly confront a language barrier (Hirschman, Kasinitz and DeWind, 1999a). Without exceptions, most immigrants newly arrived to the destination barely speak the host language and then, the language barrier catalyses other adaptation-related problems in the host society (Protes and Rumbaut, 2006). For instance, if their language ability is not fluent, they will have difficulties to communicating with native-born people, finding work, receiving education services, accessing welfare services, and applying for citizenship (Carliner, 2000). It is certain, therefore, that immigrants cannot adjust in the host society without first acquiring good use of the host language and thus, the main criterion of cultural integration is to assess destination-language proficiency. However, it is assumed that cultural integration does not intend to dampen origin culture and immigrant mother-tongue. Although it is recommended to learn

destination-language while keeping up with the mother-tongue language (Berry, 2001), cultural integration is mainly assessed with destination-language proficiency only (Chiswick and Miller, 2001).

In summation, integration on structural-functional perspective is relevant to the acquisition of rights and the accessibility to positions and membership statuses in the receiving country through the extent of (i) participation into the labour market, housing market, and welfare system, (ii) acquisition of citizenship and experience of election, and (iii) host language proficiency.

4.3.2.5. Subjective indicator on immigrant integration

In this research, subjective integration is a life satisfaction of immigrants which is thought as one of the significant domains of immigrant integration (Lester 2005; Massey and Akresh, 2006; Amit, 2010; Houle and Schellenberg, 2010).

Before looking more closely at life satisfaction on immigrant integration, it is worth identifying the definition of life satisfaction. In defining satisfaction with life, there appears one fundamental question of “how and why people experience their lives in positive ways” (Diener, 1984, p. 542). In order to answer to the question, literature focuses on subjective well-being or happiness that is defined as the extent to which people have desire in their lives, are satisfied with their lives, and differentiate between happiness and unhappiness in their lives (Diener, 1984). In this introduction of subjective well-being, life satisfaction is encompassed in one domain of the subjective well-beings or happiness (Diener, 1984; Amit, 2010). However, the concept of life satisfaction cannot meet generality, so there appear various approaches in discussing it. One author asserts that life satisfaction is a subjective feeling of their lives (Campbell, Converse and Rodgers, 1976), while another author chooses to emphasise subjective assessment of life quality (Shin and Johnson, 1978; Youngman, 2013). Also, Campbell, Converse and Rodgers (1976) and Colver (2008) stress that life quality of individual satisfaction needs to consider a wide range of domains such as social networks, economic conditions, social values, political contexts, and others, as whole parts of life. In synthesising consideration with previous studies, the life satisfaction is described is

three ways: (1) conscious evaluation of life quality; (2) all scopes of individual life; and (3) individual subjective criteria. In this manner, life satisfaction could provide a significant approach that explains how overall life quality is assessed by the individual subjective view.

In application for immigrant integration, the life satisfaction perspective addresses the extent to which immigrants perceive their lives in the host country (Amit, 2010; Veenhoven 1996), which is not addressed by objective indicators including “income, wealth, and body mass index” (Houle and Schellenberg, 2010, p. 8). After arrival in the host country, there are certain to be problems of adaptation to the host society, for example cultural shock, language barrier, inaccessibility of social welfare service and education service, difficulty of labour force participation, and poor housing conditions (Penninx, 2000; Zhou, 1999; Heckmann et al., 2010; Spencer, 2006). In these situations, they may assess their problems in the host country as overall life with satisfaction through their subjective criteria (Amit, 2010). In addition, immigrants may perceive positive or negative emotions and feelings in relation to the context in the host country. Such emotions or feelings may affect their evaluation of life satisfaction (Houle and Schellenberg, 2010). As such, the degrees of immigrant integration could be differentiated according to the extent to which immigrants evaluate overall life quality in relation to the problems and perceive moods in the host country, accompanied by employing their subjective standard (Amit, 2010). In such view, this study employs life satisfaction perspective as a subjective domain on immigrant integration.

In this empirical study, to conduct standard measures, the indicators on the structural-functional approach are regarded as objective integration, whereas life satisfaction that evaluates the overall quality of life with subjective criteria is employed as subjective integration. This is because at least two indicators are reasonable on the standard measure (Rubin and Babbie, 1989). Involving objective and subjective indicators for measure of immigrant integration, in fact, reliability and validity can be attained in this study.

4.3.3. Operationalisation of immigrant integration in this empirical study

4.3.3.1. Ignorance of interactive and identificative domains in immigrant integration

On objective approach, in spite of the well-organised dimensions of immigrant integration as an analytical framework including legal-political, economic, social, cultural, interactive, and identificative dimensions as well as barriers including prejudice and discrimination, this study will be constrained to examine legal-political, socio-economic, and cultural dimensions. There are great reasons why this study ignores interactive and identificative dimensions, as well as discrimination. In the previous studies on immigrant adaptation, on the one hand, immigrant adaptation is influenced by social capital resources formed by social networks and interactions between immigrants and native-born people, social systems, or institutes in the destination (Heisler, 2000) and racial discrimination in the reception (Portes and Rumbaut, 2006; Zhou, 1999). This shows that the interactions and discriminations are not outcomes that estimate the extent of integration but determinants that influence integration. In this manner, instead of considering that interactive dimension and discrimination are outcomes on immigrant integration, the two are thought of as possible factors affecting immigrant integration.

However, here this thesis will neglect to pursue a direct discussion of discrimination as a possible factor on immigrant integration. Discrimination results from lack of legal support from the receiving country and unequal treatment from the natives in an interpersonal relationship in the host society (Heckmann et al., 2010). Given the legal support, because only immigrant wives are eligible to use a public assistance and settlement services compared to other legal immigrants such as migrant workers and overseas Koreans in Korea as noted earlier, it is presumed that discrimination from the insufficient legal support would be a uniform among immigrant wives. Regarding discrimination in an interaction with the natives, it is assumed that there are different paths of discrimination in an interpersonal relationship with the native. Because immigrant wives have different demographic and socio-economic backgrounds, they may perceive unequal discrimination in the interpersonal relationship with the natives in Korea. In this view, immigrant wives who perceive discrimination from the natives are less likely to interact with the native than those who not. Such difficulty in

interpersonal relationship with the native population may bar integration of immigrant wives. Therefore, the extent of interaction with the natives would reflect the level of discrimination, and the extent of interaction is thought of as a predictor accounting for integration.

On the other hand, it is known that identificative integration labelled as the perceived feeling of belonging to the host society is not achieved at once (Heckmann et al., 2010). Since the perceived sense of membership in the receiving country is certain to be the final stage of immigrant integration (Reitz and Banerjee, 2007), it results from following from structural, cultural, and interactive integrations (Heckmann et al., 2010). Reitz and Banerjee (2007), Zhou (1999) and Portes and Rumbaut (2006) contend that the feeling of belonging to the host society may be achieved in the second generation (i.e. immigrants' children) but sometimes, the feeling may not be attained in the second and third generations (i.e. grandsons of immigrants) of the family. As such, it is assumed that identificative integration is a long-term process. From the point of view, the discussion of identificative integration in this study is somewhat difficult. This is because the flow of immigrant wives is not a historical but a recent issue in Korea (Kim et al., 2010; Jeon et al., 2013). The tremendous rise in the number of immigrant wives compared to other immigrant groups is revealed after year the 2003 and their children are too young to be analysed in reports from the Ministry of Gender Equality and Family (Kim et al., 2010; Jeon et al., 2013). Hence, their short-term residence period and children's young ages make it difficult to discuss the identificative dimension in discussing immigrant wives' integration in Korea.

In considering the dimensions of immigrant integration, this study encompasses legal-political, socio-economic, and cultural dimensions, as an imperative analytical framework so as to measure degrees of objective immigrant integration. However, this study does not intend to dampen the manifold dimensions of integration. Instead, this study will serve to explain the possible many predictors in the extent and process of immigrant integration by focusing on major aspects of the dimensions of integration.

4.3.3.2. Constructing vital indicators on immigrant integration in this study

Although all indicators in the dimensions on immigrant integration are theoretically important, all indicators that measure immigrant integration in the real situations are virtually impossible to achieve all together, at the same time (Spencer, 2006). If an indicator in the field of integration is attained, other indicators in the fields of integration may also be achieved and sometimes, other indicators in the fields of integration may not be absent.

In order to develop critical indicators of immigrant integration, henceforth, this thesis is guided by the three principles: i) meeting reliability and validity; ii) considering temporal priority on immigrant integration; and iii) reflecting a goal of settlement service. The first principle, as noted above, is a reference to the standard measurement, in which objective and subjective indicators of immigrant integration are used all together. In fact, reliability and validity can be achieved by using objective and subjective indicators simultaneously (Rubbin and Babbi, 1989), in measuring immigrant integration. In a basis of the second principle, although the dimensions on objective immigrant integration are intertwined with each other (P. Yang, 1994), it is assumed that there may appear temporal priority in each dimension on objective immigrant integration and among dimensions on objective immigrant integration. For example, in the political domain, without citizenship acquisition, immigrants are not allowed to vote in the destination generally (Bueker, 2005). In the economic domain, when finding a job in the destination, immigrants are able to make money (Bommes and Kolb, 2006). In the social domain, once immigrants are naturalised, immigrants are able to access welfare service (P. Yang, 1994; Bueker, 2005); moreover, housing conditions may be improved by economic activities such as employment with income (Portes and Bach, 1980). In terms of cultural domain, the destination-language ability is the earliest step in the process of adjustment in the destination, which help immigrants to acquire citizenship, find a job, use the welfare system, and communicate with the natives (Hirschman, Kasinitz and DeWind, 1999a; Portes and Rumbaut, 2006). The third principle is associated with a goal of MFSS. As MFSS largely focuses on short-term adjustment in Korea, sub-programs are concerned with adjustment-related problems immigrant wives experience during four years after coming to Korea such as language barriers, employment, psychological distress, and family conflicts

(Ministry of Gender Equality and Family, 2013). Because this thesis is aimed to evaluate whether MFSS delivers effectively, it is vital to consider its goals that emphasises on short-term adjustment of immigrant wives.

In the synthesising consideration of the principles, this empirical study emphasises on objective indicators including citizenship, employment, and Korean language proficiency, and subjective indicators including life satisfaction, as substantial indicators in assessing immigrant wives' integration.

4.4. CONCLUSION

The contribution of this chapter comes, no doubt, from the clarity of effectiveness on service-delivery system and immigrant wives' integration. By employing a goal attainment and client-centred approach, this thesis provides a clear description of effectiveness on MFSS delivery system. Based on the approach, immigrant wives' integration is a goal and the outcome of MFSS.

However, it is difficult to show what immigrant integration is, because immigrant integration is differently described by various theoretical perspectives. Nonetheless, in this study, immigrant wives' integration is explained by the two sets of indicators: objective (e.g. citizenship acquisition, employment, and destination-language proficiency) and subjective (e.g. life satisfaction) integration. In fact, the extent to which immigrant wives acquire Korean citizenship, participate in the Korean labour market, improve Korean language skill, and are satisfied with their life in Korea is considered the outcomes of MFSS. Taking the sets of indicators, this chapter can propose that the levels of citizenship acquisition, employment, Korean language proficiency, and life satisfaction are important criteria to evaluate whether MFSS is effective.

Until now, this chapter drew a conceptual approach regarding service effectiveness and outcome. In the next chapter, based on the approach, it will develop a theoretical framework to discuss how to improve its net effect

Chapter 5: *Theoretical Approach – Causal Inference on Service-delivery System*

In discussing a way in which the effectiveness of human service can be enhanced, establishing a causal inference has become a popular approach (Rubin and Babbie, 1989). In this sense, it is widely applied to establish a simple causal relationship: human service affect its outcome (Martin and Kettner, 2010). However, the simple causal inference has to overcome several issues in the mechanism of human service.

To explain its mechanism, it is generally accepted that service-users, service-providers, and community are important actors (Y. J. Kim, 2010). In operating human service, each actor has inherent and different elements and functions (G. Sung, 1992, 1993; Low, 2011). First, service-users have various demographics (e.g. age and gender) and socio-economic characteristics (e.g. education and income) that can not only help them to use human service but also form different needs in using human service. Second, service-providers have different resources (e.g. finance, staffs, and size) and management technologies (e.g. the divisions of labour, structures, and service-delivery methods) that produce different service outcomes. Third, the communities have different available resources (e.g. a number of service-providers and service-users) and administration processes (e.g. policy and law) that influence the utilisation of the service-users and the service production of service-providers. In addition, for production of human service, one actor interacts with other actors (G. Sung, 1992, 1993; Low, 2011). For instance, service-providers receive financial helps from local governmental or external organisations at the community-level; service-providers carry out different service-delivery technologies according to service-users' need assessment; service-users are limited to participate in human service within eligible requirements in policy and law at the community-level.

In the setting in which human service is operated, taking a simple causal inference is not advisable. In fact, various and complex causal patterns must be considered to explore a way in which the effectiveness of human service can be improved, in the mechanism of human service (Martin and Kettner, 2010). In this sense, some key questions are asked: are

whole elements and functions of actors used? If not, what elements and functions of actors are selected? In the challenges of the causal relationships, the basic premise is to establish a theoretical framework that identifies what factors are used and how cause-and-effect relationships are considered (Hirshman, 1999; Rubbin and Babbie, 1989).

The aim of this chapter is to discuss theoretical framework to illustrate how the effectiveness of human service can be improved. To begin with, this chapter attempts to find a sophisticated theoretical framework. As doing so, the framework is applied to MFSS to establish causal inferences in which the effectiveness of MFSS can be improved.

5.1. THEORETICAL FRAMEWORK: REALIST EVALUATION VERSUS LOGIC MODEL

In the setting in which human service is operated, there are various and complex causal patterns for effective human service delivery (Martin and Kettner, 2010). To deal with the various and complex causal patterns, one needs to establish a theoretical framework (Hirshman, 1999; Rubbin and Babbie, 1989).

The “five steps” proposed by Walker and Avant (2005) are one possible solution to find a sophisticated theoretical framework: “(i) becoming very familiar with the level of theory development in the field and evaluating existing theories; (ii) reading widely both in and outside the field of study to make creative associations between distinct fields of study; (iii) choosing a parent theory for the derivation; (iv) identifying which content and structural elements of the parent theory will be used; and (v) recasting these elements for the phenomenon of interest” (Meyer and O’Brien-Pallas, 2010, p. 2830). In fact, we attempt to select one common theory discussed in many previous studies, to explore various and complex causal patterns in the process of service delivery in this section.

In a consideration of the guidance, this empirical study found realist evaluation and logic model as a parent theory. In the next part, the two frameworks are briefly introduced and then, this chapter suggests one theoretical framework to answer the question of how the effectiveness of human service can be enhanced.

5.1.1. Realist evaluation

A realist evaluation tool developed by Pawson and Tilley in 1997 demonstrates the causal relationship between intervention (i.e., program or service) and outcome, which is considered to be one of the theory-driven approaches to evaluation (Pawson and Tilley, 2004). In other words, a realist evaluation addresses how some activities become causes and, then, how these causes become outcomes (Westhorp, 2014).

In Pawson and Tilley's words, context and mechanism lead to outcome (Pawson and Tilley, 2004), where "outcome = context + mechanism" (Treasury Board of Canada Secretariat, 2012, p.7). An examination of context facilitates an understanding of why some programs or policies operate or do not operate in a specific context. This indicates that program designers or evaluators must consider which programs are applicable in a specific context. In fact, based on the context, program designers and evaluators can make decisions about what program or policy is available and how the program or policy is best applied in given contexts. Mechanisms are seen as whole activities for an intervention that lead to outcome as an impact on service effectiveness. At this point, a realist evaluation focuses on the questions of "how and why does this work and/or not work, for whom, to what extent, in what respects, in what circumstances and over what duration?" (Westhorp, 2014, p. 4). In doing so, the evaluation is dependent on open system theory.

Open system theory emphasises openness toward the environment and an ongoing interrelationship with it (Katz and Kahn, 1978). Since systems are defined as parts of a complex whole, systems themselves have subsystems, and a system is itself one whole (Iglehart, 2000; Mayrhofer, 2004). With this view, systems function, develop, and evolve as they interplay with other systems and environments (Katz and Kahn, 1978).

Therefore, in a realist evaluation, a program is itself a system, and actors that are mechanisms within a program are also sub-systems (Pawson and Tilley, 2004). It is through interactions between sub-systems that program outcomes are achieved (Pawson and Tilley, 2004). In sum, a realist evaluation can assess which mechanisms in which specific contexts influence which outcomes within a program or policy, based on the context-mechanism-

outcome configuration. These configurations are formulated within intervention theories and behavioural models, and underpin open system theory.

In practice, a realist evaluation is to establish middle-range theories for service evaluations, and these middle-range theories are themselves tested in service evaluations¹² (Marchel et al., 2012). Middle-range theories are dependent on previous evaluation studies or existing evaluation theories. Their implementation is as follows (Blamey and Mackenzie, 2007): First, a program or policy evaluator attempts to understand the backgrounds of a program or policy associated with questions about the nature of the goal, the target population, the location of the service, its main theoretical bases, and why the service operates in a specific context. Next, middle-range theories are established. Based on these theories, formulations regarding the different outcomes produced by various mechanisms are developed for a program in a specific context. Then, the evaluators construct a method for collecting and analysing data in order to test the established middle-range theories. Finally, the evaluators assess the context-mechanism-outcome configuration within a program based on the established middle-range theories in order to test the theories through data analysis.

The main advantage of this method is its focus on context. Researchers can not only illustrate mechanism changes and outcomes (Marchel et al., 2012), but also observe the influences of context on the mechanisms and outcomes of a program or policy (Treasury Board of Canada Secretariat, 2012). However, in practice, realist evaluation is difficult to apply because few practical procedures have been established (Marchel et al., 2012). In addition, the concept of mechanism is still a black box, making it difficult for evaluators and researchers to describe exactly what mechanisms are and which activities they include (Astbury and Leeuw, 2010). Given these shortcoming in realist evaluation, we next introduce the logic model.

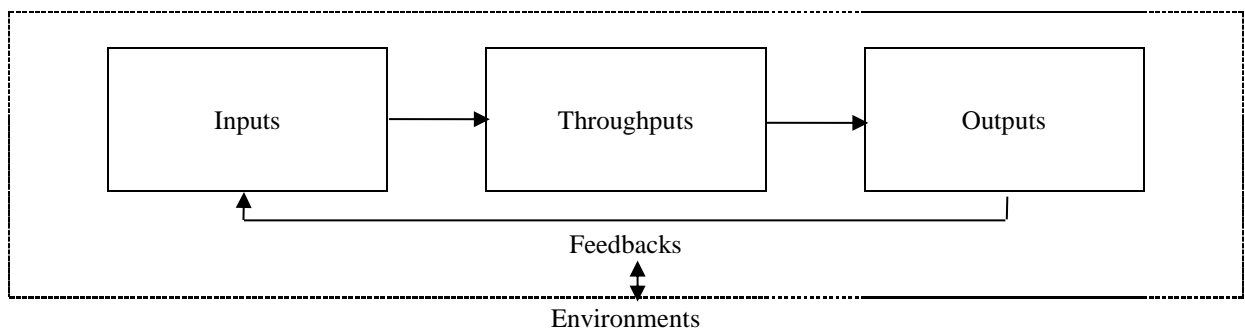
¹²Middle-range theories tend to explain “less abstract and more specific phenomena”, deal with “narrow scopes and partial views”, and be “more appropriate for empirical testing”, compared to grand theories (Peterson and Bredow, 2004, p. 28).

5.1.2. Logic Model

The logic model was introduced in the 1970s. Claude Bennett developed the current concept of the logic model in 1976, and Joseph S. Wholey first used the term "logic model" in 1979 (Taylor-Powell, Jones, and Henert, 2003). In recent years, the logic model has been applied in diverse levels and areas of human service, including the “private sector, public sector, non-profit sector, international area, and evaluation field” (Taylor-Powell, Jones, and Henert, 2003, p. 10; Randolph, 2010). The logic model is defined as “a simplified picture of a program or intervention that is a response to a given situation” (Taylor-Powell, Jones, and Henert, 2003, p. 11). Thus, it shows the consecutive stages of a program or intervention by focusing on the flow of the inputs, throughputs, and outputs of open system theory (Martin and Kettner, 2010; Y. J. Kim, 2010).

Traditionally, open system theory has been characterised as a simple and systematic energy flow that repeats cycles of inputs, throughputs, outputs, and re-inputs through systems as cycles of events (See Figure 5.1): “inputs” bring in energy from outside environments as resources and raw materials to produce outputs; “throughputs” transform imported energy so that they become available as outputs; “outputs” are the products of inputs and throughputs that enter an external environment; and “systems as cycles of events” is the feedback that reiterates processes to produce new systematic energy flows for the re-inputs, re-throughputs, and re-outputs, by interacting with the environment (Katz and Kahn, 1978, p.23-24).

Figure 5.1: Simplified representation of open system theory based on Katz and Kahn



(Source: Katz and Kahn, 1978, revised in this study)

For instance, when the flow of the logic model is applied to the production of human services (G. Sung, 1992), inputs imported from the community system involve the characteristics of the service users (e.g., needs, demographic, and socio-economic conditions) and service providers (e.g., structure, resources, and location). Throughputs refer to service-delivery methodologies at the local community level with consideration to the professional, network, accessibility, participation, comprehensiveness, accountability, and equality attributes of service delivery. Outputs are the performance outcomes corresponding to service effectiveness, which dictate the quality of a service-delivery system at the community level. Then, re-inputs occur from the reshaped catchments of the community in service-delivery systems. Depending on the interaction in an environment, re-inputs are revealed in consideration of other demographic and socioeconomic conditions of the service-users, as well as in the management by service providers, including re-financing, re-structuring, and re-establishment of service delivery principles at the local level.

With respect to the flow of open system theory in the logic model, the first step is to identify or define a problem or challenge at the community or national level (Randolph, 2010). Based on this identification or definition, the flow of inputs, throughputs, and outputs are defined with respect to how to deal with the problem or challenge as a service or program (Randolph, 2010). Thus, the logic model flow shows the relationships among the problems, activities, and results in order to achieve service or program goals (Randolph, 2010).

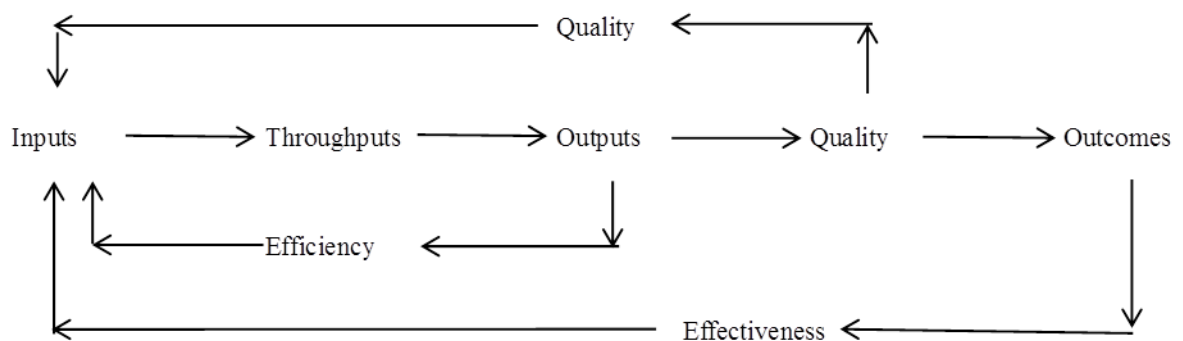
By focusing on logic model flow, different outputs may be explained by varying the inputs and throughputs in an environment (G. Sung, 1992; Meyer and O'Brien-Pallas, 2010). Here, we assume that causes are inputs and throughputs, whereas effects are outputs. Based on this assumption, outputs fluctuate significantly depending on the condition of the resources and actions of the service users and service provider that interact within an environment (G. Sung, 1992, 1993; Iglehart, 2000; Meyer and O'Brien-Pallas, 2010). In formulating causal inferences, the exploration of theories is indispensable. Based on pre-existing theories, the causal relationships between inputs and outputs, or between throughputs and outputs, can be formulated (Taylor-Powell, Jones, and Henert, 2003). In fact, program

and service evaluators and researchers test and verify these theories in their evaluations (Taylor-Powell, Jones, and Henert, 2003).

In recent years, open system theory has been expanded in the logic model. In the expanded open system theory, the flow is as follows: inputs → throughputs → outputs → service quality → outcomes (Martin and Kettner, 2010) (See Figure 5.2). Within the flow, there appears the “if-then” sequential causal inferences of the logic model (Randolph, 2010, p.547). If some resources are inputted, then some service-delivery actions as throughputs are possible. If these actions lead to outputs as products that can be assessed in terms of their efficiency or quality, then the outputs result in outcomes as impacts on service effectiveness. However, the explanation of the process of how outputs lead to outcomes remains controversial; moreover, it has also proved difficult for researchers to propose alternative explanations (Marchel et al., 2012; Treasury Board of Canada Secretariat, 2012). Thus, researchers tend to explain a service or program within the framework of the logic model, and they may therefore fail to recognise alternatives or consider important explanations that fall outside this framework (Randolph, 2010, p.547).

Because of these limitations, some scholars have suggested a new approach (i.e., theories of change) to elaborate upon the logic model (Mason and Barnes, 2007). Although the new approach includes a well-developed framework for service or program evaluation, it has been based on the logic model (Marchel et al., 2012).

Figure 5.2: Expanded open system model



(Source: Martin and Kettner, 2010, p. 5)

5.1.3. Discussion for a suitable framework in this thesis

In this section, this thesis address the challenge of determining which approach is best for improving the effectiveness of MFSS, based on an understanding of its production and service-delivery in Korea. From the earliest discussion of the five steps proposed by Walker and Avant (2005), this thesis selected the logic model as a parent theory although realist evaluation is well-used and progressively developed to explain various and complex causal patterns in the process of human service delivery.

The aim of this thesis is to explore how the effectiveness of MFSS can be improved by understanding the production of MFSS in Korea. Hence, it is reasonable to say that this thesis focuses mainly on the Korean context. Accompanied with the approach, Walker and Avant (2005), as discussed earlier in section 5.1, proposed to read widely both in and outside the field of study to make creative associations between distinct fields of study. In addition, choosing a parent theory for the derivation based on the literature review. In fact, for theory thriven, it is necessary to review a wide range of studies in the context of Korea.

Based on the two approaches, this thesis found that there has been little research as yet that employs realist evaluation while logic model has been widely employed, to explore dynamic mechanism of human service delivery in the context of Korea. A search of DBpia, KISS, and RISS of the KERIS databases, using the words ‘realist evaluation’ in both English and Korean, yielded no realist evaluation studies in the field of human services in the Korean academic literature. By contrary, the search yielded numerous logic model studies in the field in the Korean academic literature (G. Sung, 1992, 1993; Kim and Kwon, 2003; Lee, Kim, and Lim, 2009; Y. J. Kim, 2010; S. Lee, 2011; Ji, 2012). As such, it is clear that the logic model has received more attention than realist evaluation in Korea. Synthesised, logic model is considered to be a parent theory to explore the process of MFSS production or to understand its mechanism in Korea, in this thesis.

We note that in this thesis we use a logic model that is based on traditional open system theory (i.e., the flow of inputs, throughputs, and outputs), rather than the expanded open system theory (i.e., the flow of inputs, throughputs, outputs, service quality, and

outcomes). Our preference for the traditional open system theory is in response to the arguments characterizing expanded open system theory with respect to the logic model. To avoid controversy regarding the question of how outputs become outcomes in the expanded open system theory, we assume that outputs correspond with performance outcomes as impacts. This assumption is consistent with previous studies on constructing service-delivery systems. Examples of this assumption in practice include the establishment of the service-delivery system framework in welfare services (G. Sung 1992, 1993), modelling service-delivery systems in human services (Schneider and Bowen, 2009), and exploring nursing service-delivery systems (Meyer and O'Brien-Pallas, 2010). In addition, empirical studies have used this assumption in estimations of the relationship between nursing interventions and health outcomes (Doran et al., 2006), and in assessing the organisational performance outcomes of human service organisations (Packard, 2010). In these studies, outputs are viewed as a broad term that includes the service unit, efficiency, service quality, effectiveness, and outcomes. Based on all the above points, we determined that the flow of inputs, throughputs, and outputs in the logic model is the best theoretical framework for this thesis. In the following pages, we discuss the implementation of the logic model, based on traditional open system theory in MFSS.

5.2. IMPLEMENTATION OF LOGIC MODEL IN MFSS

Before looking more closely at implementation of logic model with an emphasis on the dynamics of flow of inputs, throughputs, and outputs in MFSS, it might be useful to draw out the definition of the service delivery system. Clarifying the terminological approach of service-delivery system is helpful for expanding understanding of the operation of human service, underpinning the flow in logic model (Meyer and O'Brien-Pallas, 2010). This study gives an introduction to the concept of service-delivery system, in the following.

5.2.1. Service-delivery system

There are variations of the definition of service-delivery system according to scholars. Gates (1980) and Gilbert and Terrell (2005) illustrated that a service delivery system is the setting or arrangement that connects the providers and users at the local community level.

According to G. Sung (1992, 1993), a service delivery system is defined as activities of organic bodies in the process of service-delivery. By synthesis approach, not only is the service-delivery system arrangement between service-providers and service-users or among service-providers at the local community level, but it also is a social system to conduct the execution of service-delivery on the front-line (Choi and Nam, 2001). Taking the synthesis approach, it may be reasonable that service-providers, service-users, and community can be viewed as important agents in the service-delivery system, and such agents are interconnected in the process of service-delivery.

The service delivery system is classified into administration and execution sub-systems, along with structures or functions (G. Sung, 1993; Choi and Nam, 2001). The administration sub-system plays the roles of regulating, supporting, and supervising execution sub-systems. The roles are performed by governmental bodies and local authorities. In opposition to the administration sub-system, the execution system plays the roles of providing services for service-users on the front-line. The roles are carried out by community-based organisations as service-providers on the front-line. For instance, the flow of MFSS delivery was presented in a previous chapter: the Ministry of Gender Equality and Family -> the Metropolitan city or Province authority -> City, County, and Districts -> Central Office of Multicultural Family Support Centers -> Stronghold Centers -> MFSCs -> immigrant wives and their family members. MFSCs to immigrant wives are execution sub-systems, while administration sub-systems are from the Minister of Gender and Equality to Stronghold Centers.

This thesis focuses primarily on execution sub-systems rather than administration sub-systems. There are some rational reasons why execution sub-systems are more important than administration sub-systems. First, although settlement service for immigrant wives in Korea is guided by administration subsystems, the service is usually operated by immigrant wives' participation. Without their active participation, service-providers cannot change their life more positively (Patti, 2000). In this sense, the service is delivered by coproduction between service-providers on the front-line and the immigrant wives themselves (Y. J. Kim, 2010). As such, the more service-providers on the front-line collaborate with immigrant wives, the

greater the integration of immigrant wives is (Choi and Nam, 2001). Another reason is that MFSCs on the front-line plays an important role to execute policy towards immigrant wives. MFSCs on the front-line are largely and directly responsible for immigrant wives' integration, and the degree to which immigrant wives become integrated is regarded as part of the MFSCs' performance (the Support for Multicultural Family Act of 2012). In fact, the service's initial goal is immigrant wives' integration, and such the goal itself corresponds to performance of MFSCs on the front-line. This indicates that the greater the performance of MFSCs on the front-line, the more policies towards immigrant wives is effectively carried out on the front-line. Taken together, the two reasons address much of what is substantive about execution sub-systems rather than administration sub-systems, in the service-delivery system.

Now that this section addressed service-delivery systems, the forthcoming pages will reflect the dynamics of the flow of inputs, throughputs, and outputs of logic model in MFSS delivery system.

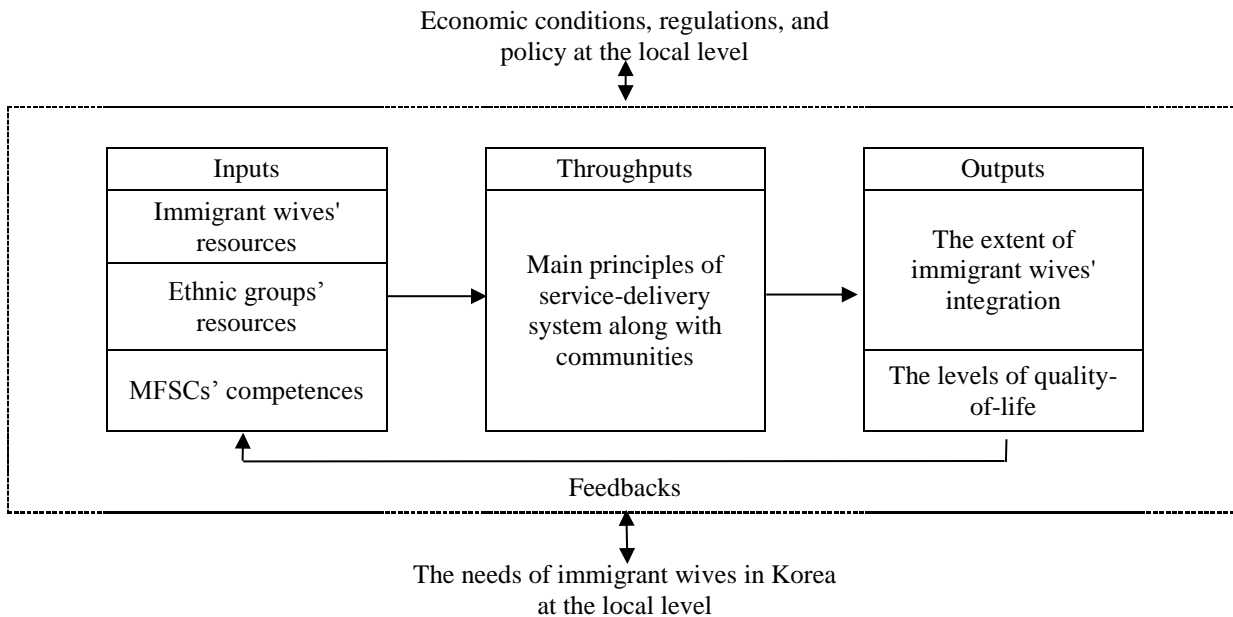
5.2.2. Recasting logic model in MFSS

By focusing on open system theory in logic model, MFSS delivery system in Korea is followed as: contextual conditions at the local community level are economic conditions, regulations, and policy regarding local authorities; inputs are immigrant wives' demographic and socio-economic characteristics (e.g. age, human capital skills, social capital resources, and family resources) and ethnic groups' inherent characteristics (e.g. aggregated resources along with ethnic groups' networks), as well as MFSCs' competences (e.g. size and annual budget level); throughputs are important principles of service-delivery system within communities where MFSCs are arranged and immigrant wives are settled; and outputs are the extent of immigrant wives' integration based on service-user-driven approaches. In considering the effectiveness of MFSS in Korea based on service-user-oriented effectiveness in turn, it is central to immigrant wives that there is change after using the service because MFSS is purposed to enhance quality-of-life and the integration of immigrant wives in Korea (the Support for Multicultural Family Act of 2012). In this sense, effectiveness is defined in degrees of the goal-achievements of MFSS based on immigrant wives' changes, and it is

measured through the extent to which immigrant wives improve their quality-of-life and integrate into Korea after involvement with MFSS.

As seen previously in logic model, the contextual conditions interplay with inputs, throughputs, and outputs. Both immigrant wives and MFSCs depend on those supporting environments of local authorities; principles for service-delivery are established along with environmental conditions of local authorities; and the resources of immigrant wives, the resources of ethnic groups, and the competences of MFSCs yield outcomes of effectiveness, relative extent of quality-of-life and integration among immigrant wives, through principles of service-delivery. The flow of inputs, throughputs, and outputs based on MFSS delivery system is represented in Figure 5.3.

Figure 5.3: MFSS delivery system in logic model



From the flow, this empirical study predicts that outputs are dependent variables while inputs and throughput are independent variables. As a result, in the MFSS delivery systems reflecting the flow of inputs, throughputs, and outputs of logic model, it is inferred that the effectiveness of MFSS becomes improved according to conditions of inputs and throughputs.

Until now, this chapter drew theoretical concept to discuss how the effectiveness of MFSS can be improved, by understanding the production of MFSS. From the theoretical concept considering logic model, a basic and simple cause-and-effect relationship is implied: inputs or throughputs influence outputs. However, the linear relationship is complex. In the operation of human service, there remain varied actors on human service (e.g. service-providers, service-users, and municipal governments) and then, the actors play varying functions (e.g. service-delivery, service participation, and policy-making) (Y. J. Kim, 2010). Without consideration of the actors and their functions, it is difficult to understand the operation of human service. In doing so, this thesis attempts to consider possible factors reflecting human service's actors and their functions that are associated with the outcomes of human service. However, there is a lack of consensus regarding the actors and their functions as determinants influencing outcomes of effectiveness (Meyer and O'Brien-Pallas, 2010). In addition, it is difficult to consider varied determinants all together because there appear a variety of cause-and-effect relationships (Martin and Kettner, 2010). For these reasons, this thesis tries to move beyond the limitations regarding the causes-and-effects relations, relying on theoretical evidence in existing literature. Thus, underpinning the logic model, the basic solution is to depend on theories and previous empirical findings for causal inferences. Therefore, in the following pages, this thesis will explore pre-existing literature that may provide some guidance for identifying causal inferences in MFSS delivery system.

PART IV: *LITERATURE REVIEW*

In Part III, this thesis conceptualised service-delivery system and effectiveness in human service. In addition, through the theoretical approach based on the logic of flow of inputs, throughputs, and outputs in logic model, it delineated a way in which human service can be effectively delivered.

From the theoretical approach, simple causal relationship was inferred in this thesis: inputs and throughputs were causes and outputs were effects. Although the causes-and-effects relationships through the framework of logic model are useful when trying to understand a basic mechanism of effective service-delivery system, the theoretical framework seems to be somewhat broader and more abstract. In turn, it requires more conceptual clarification and theoretical elaboration before further appropriate empirical tests are conducted. In a variety of empirical studies, most researchers tend to explain concepts and establish general causal relationships from a grand theory and then, “the measurements of important concepts and partial tests of selected hypotheses” are conducted (Hirschman, 1999, p.123), through varied middle-range theories and empirical evidence (Perterson and Bredow, 2004). In the following chapters in part IV, hence, conceptual or theoretical frameworks for a more detailed consideration of the measurements and hypothesis tests are discussed, relying on the concepts of inputs, throughputs, and outputs.

In the discussion, the key is to develop causal mechanisms that identify the factors of inputs and throughputs that are likely to affect the dimensions of the outputs. The fundamental ideas of the causal mechanisms are derived from the three sets of relationships: (1) individual variations influence immigrant integration; (2) there are unequal paths of immigrant integration among ethnic backgrounds and the unequal paths are influenced by the different characteristics of the ethnic groups; and (3) immigrant integration, as an intended goal and output of MFSS, is differently achieved by organisational resources and technologies in the process of service-delivery at the community-level.

In fact, the ideas are derived from the two streams of scholarship focusing on immigration and human service. Based on a theoretical approach to immigration, it is

assumed that the demographic characteristics, human capital, social capital and household resources, as well as ethnic groups' inherent characteristics and contextual differences between the sending and the receiving countries have effects on integration. Based on conceptual and theoretical approaches to human service, it is inferred that financial resources, manpower, and service-delivery technologies have impacts on the performance outputs that are considered as immigrant integration. Thus, Part IV centres on literature review to identify which factors at the individual, ethnic-group, and organisational levels influence immigrant wives' integration.

When reviewing existing literature regarding immigrant integration, this thesis relies largely on literature within the contexts of Western countries. This is because little research has been conducted to explore the inflow of marriage migrants and their adjustment-related problems in Korea as these are relatively recent issues. However, literature in the context of Korea has recently progressed in some areas of immigration, such as marriage migrants' employment and life satisfaction. In this manner, possible sets of literature review include the following conditions. First, if a few studies in the context of Korea examine immigrant integration, this thesis mainly considers possible factors that are commonly tested in literature within the contexts of Western countries. Second, when there are enough studies investigating immigrant integration in the contexts of Western countries and Korea, and similar findings are observed among literature in the contexts, all common factors are considered to be determinants accounting for immigrant integration. Third, if different findings are witnessed among literature in the contexts of Western countries and Korea, this thesis often focuses more on possible factors influencing immigrant integration within the context of Korea. This is mainly because the discussion of this thesis is derived from social issues within the context of Korea. Hence, all relevant factors that account for immigrant wives' integration are considered, as comparing literature in the contexts of Western countries and Korea.

Part IV is divided into the four sections as follows: first, factors at the individual level that may influence citizenship acquisition (i.e. political integration) and employment (i.e. economic integration) are described. Second, factors at the individual level that may affect

destination-language ability (i.e. cultural integration) and life satisfaction (i.e. subjective integration) are illustrated. Third, possible factors at the ethnic-group level that may account for immigrant integration (i.e. citizenship acquisition, employment, destination-language proficiency, and life satisfaction) are reviewed. Finally, predictors at the organisational level that may affect immigrant integration (i.e. citizenship acquisition, employment, destination-language proficiency, and life satisfaction) are explored.

Chapter 6: *Theoretical Description at the Individual Level (I) – Citizenship and Employment*

This chapter provides theoretical and empirical evidence in discussing possible individual level factors (MFSS inputs) that influence political (i.e., citizenship acquisition) and economic (i.e. employment) integration (MFSS outputs). First, we describe the theoretical frameworks for citizenship acquisition and employment and then provide empirical evidence within these theoretical frameworks.

6.1. POLITICAL INTEGRATION: CITIZENSHIP ACQUISITION

Political integration refers to the extent of immigrant participation in the political system in the host society without experiencing discrimination or inequality, as compared with native-born people (Heckmann et al., 2010). Such political integration is achieved by the acquisition of citizenship and by participating in elections (Heckmann et al., 2010; Bueker, 2005; Jones-Correa, 2001). Rather than voting, however, there is growing concern about citizenship acquisition (P. Yang, 1994). This is because citizenship not only confers equal rights with the native-born population once naturalised, but also guarantees non-discriminatory participation in a wide variety of activities as a first step to integration. For example, those who are naturalised can participate in the host country's labour market, can access human services, and can receive welfare assistance without discrimination (Bueker, 2005; Jones-Correa, 2001). Not surprisingly, citizenship therefore plays a significant role in helping immigrants to become incorporated into the culture of the receiving country (Portes and Curtis 1987; P. Yang, 1994).

Despite the important benefits of citizenship, studies have revealed a wide difference in citizenship acquisition among immigrants (P. Yang, 1994). Some immigrants opt for citizenship, but others avoid doing so. Why is there a difference in citizenship acquisition between immigrants? How can this difference be addressed to encourage the propensity for naturalisation? This section focuses on these central questions regarding the acquisition of citizenship by immigrants. The discussion is limited to the individualistic approach, however, as this thesis uses the logic model to examine how MFSS effectiveness can be enhanced. As

such, individual level characteristics are used as inputs, and citizenship acquisition is the output that indicates the effectiveness of the MFSS. Using this approach, in the first part we use the theoretical framework to answer the first question, and use the second part to answer the second question, based on empirical literature that supports the theoretical framework.

6.1.1. Theoretical framework on citizenship acquisition

For many years, academic interest in citizenship acquisition has centred on an immigrants' rational balancing of decision making with respect to the incentives and disincentives of the process of naturalisation (P. Yang, 1994; Bueker, 2005; Portes and Rumbaut, 2006). According to this view, immigrants make a cost-benefit calculation to decide whether to settle in the host country as naturalised citizens or to return to their homelands without being naturalised (Jasso and Rosenzweig 1986; Bloemraad, 2006).

From this perspective, the costs vary based on three conditions: (1) the obligation or duty related to paying taxes regularly, observing laws, and performing military service (Bloemraad, 2006; P. Yang, 1994); (2) the burdensome requirements of the naturalisation procedure that involve investments of time, money, and effort, including long periods of residence and a test of host country's language, culture, and knowledge (Jasso and Rosenzweig, 1986; Jones-Correa, 1998); and (3) the potential psychological distress associated with the loss of their original nationality by virtue of having distanced themselves from their origin country (P. Yang, 1994; Bevelander and Veenman, 2006). Conversely, there are numerous benefits associated with acquiring the rights of a citizen (Bevelander and Veenman, 2006). Once accepted as a citizen, immigrants are automatically entitled to access the welfare system, use educational services, and participate in the labour market (Heckmann et al., 2010; Bueker, 2005). As a cost-benefit calculation, immigrants who focus on its benefits may decide to pursue citizenship while others who emphasise its costs may avoid naturalisation in the host country.

While the acquisition of citizenship can certainly be addressed from the cost-benefit perspective, when calculating these naturalisation and institutional factors, the extent to which each immigrant perceives and appreciates these costs and benefits varies (P. Yang,

1994; Portes and Rumbaut, 2006; Bevelander and Veenman, 2006). Nevertheless, previous studies in Western countries have used various immigrant demographic and socio-economic characteristics as predictors (P. Yang, 1994; Portes and Rumbaut, 2006; Bevelander and Veenman, 2006).

Demographic factors include age, the presence of children, and years since migration (P. Yang, 1994; Bueker, 2005; Bloemraad, 2006). These factors have been shown to influence feelings, preferences, interests, and knowledge about naturalisation (Shyu, 2009). As such, each immigrant has varied demographic characteristics that are associated with diverse propensities toward acquiring citizenship (Shaw, Garza and Lee, 2000). Socio-economic factors include education, employment, income, language proficiency, and social networks (P. Yang, 1994; Bueker, 2005; Black, 2011). These are resources that influence the investment of time, money, and effort in the process of naturalisation (Jasso and Rosenzweig 1986; Jones-Correa 1998; Brady, Verba and Schlozman, 1995). Immigrants with higher level socio-economic factors are more often naturalised than those with lower socio-economic levels (Shaw, Garza and Lee, 2000).

Another perspective is the institutional structure. Variations in citizenship acquisition among immigrants are sensitive to the citizenship policies in the receiving country (Bloemraad, 2006; Cinalli and Giugni, 2013). Governments that require immigrants meet certain conditions in order to acquire citizenship have been shown to affect the propensity for naturalization among immigrants (Baubock et al., 2006; Zapata-Barrero, 2010). These conditions are largely grouped into four domains: the choice of birth place versus blood type, settlement time, destination-language proficiency, and administrative procedures (Bloemraad, 2006; Dronkers and Vink, 2012).

In Korea, citizenship law is based on the blood of origin (Korean Nationality Act of 2014), that is, the principle of *jus sanguinis* (Castles and Miller, 1998; Heisler, 2000; Faist, 2000; Levitt and Jaworsky, 2007) which holds that children are citizens when at least one parent is a Korean citizen. In this sense, once an immigrant obtains full citizenship, his or her children become citizens regardless of their country of birth. Thus, it is inferred that children

may be an important factor influencing the acquisition of Korean citizenship. In addition, as seen in Chapter 2, if marriage migrants live together with Korean partners at least two years and maintain married life in Korea, they are eligible to apply to take the qualifying naturalization test. In a consideration of this requirement, it may be assumed that the years since migration and divorce are predictors influencing the acquisition of Korean citizenship. With these two requirements, the qualifying test also estimates the immigrants' Korean language ability (Korean Nationality Act of 2014). When marriage migrants can establish their Korean language proficiency through the qualifying test, the probability of acquiring Korean citizenship is increased. As such, Korean language proficiency is another possible factor affecting Korean citizenship acquisition. Underpinning the institutional perspective, the presence of children, residence time, household income, Korean language skills, and divorce are possible factors affecting the acquisition of citizenship.

The following pages address these institutional-context predictors in detail, using cost-benefit estimation.

6.1.2. Empirical evidence on citizenship acquisition

Few studies have investigated the predictors influencing the marriage-migrants' naturalization process in Korea. Instead, Korean studies have more often focused on the legal and institutional issues of marriage migrants with respect to Korean citizenship. These studies have described the legal problems and improvements necessary with respect to these migrants' rights (Kim and Kim, 2011; Lim and Lee, 2014), settlement status (S. Lee, 2008; D. Kim, 2013) and entitlements (J. Hwang, 2011; J. Park, 2013) in the process of Korean citizenship acquisition. Little is known about the common-sense factors influencing their participation in the naturalization process. Hence, in this thesis we examined studies conducted by Western countries in order to explore possible factors influencing Korean naturalization.

6.1.2.1. Cost-benefit estimation

A cost-benefit estimation approach to naturalization may focus on demographic factors (e.g., age) and socio-economic factors (e.g., education, employment, household income, and social networks).

First, the age factor requires a somewhat complex investigation because prior studies show inconsistent results. Some studies have concluded that age is a positive determinant of naturalisation. Pantoja and Gershon (2006) noted that age was a positive and significant predictor of naturalisation among Latino immigrants in the United States. Using the 1999 Latino Political Survey, the dependent variables were rated on a four-ordinal scale ranging from no intention to apply for American citizenship to the acquisition of an American citizenship. Although the coefficient was weak, age had a positive impact on American citizenship acquisition. In a similar vein, the odds ratio of naturalisation also increased with age in the research results of Bevelander and Veenman (2006) from their examination of the naturalisation of Turkish and Moroccan immigrants in the Netherlands. Unlike the studies in Western countries, in a Korean study of immigrant wives, using the 2009 National Survey on Multicultural Families, Chi (2012) identified that age had a negative impact on Korean citizenship acquisition.

However, other studies have demonstrated that age has a curvilinear relationship to naturalisation. In an analysis of immigrants in the United States, P. Yang (1994) reported that the odds of naturalisation increased until age 39, after which the odds gradually decreased. In their analysis of immigrants in France between 1968 and 1999, results by Fougere and Safi (2009) support P. Yang's results, indicating that immigrants between the ages of 26 and 35 were more likely to acquire naturalisation than immigrants between the ages of 18 and 25 years. In addition, immigrants between the ages of 46 and 55 were less likely to acquire citizenship than immigrants between 18 and 25 years old. Consequently, from the inconsistencies in the above findings, the effect of age can be considered as uncertain and complex.

Despite the fact that there are differences in the effect of age on naturalisation, here we assume that the influence of age is curvilinear in relation to naturalisation. We infer that, with respect to naturalisation, there may exist different feelings, preferences, interests, and knowledge with respect to age cohorts at entry time. Immigrants who arrive at their destination at an early age may not recognise the benefits of naturalisation, not having enough experience and knowledge of the host society to do so (P. Yang, 1994). However, immigrants tend to realise the benefits of naturalisation as they remain at their destination, which may increase their likelihood of naturalisation. With increased experience and knowledge from the time of arrival to the destination, immigrants who enter middle-age in the destination country may meet the requirements of modest language proficiency and duration of settlement for making application for naturalisation (Jasso and Rosenzweig, 1986). Given this scenario, young immigrants are more likely to be naturalised. However, immigrants who are older at the time of entry may not consider acquiring citizenship because of the time necessary to attempt naturalisation and the lack of proficiency to meet the requirements of naturalisation (P. Yang, 1994). Immigrants who are middle-aged to elderly at the time of entry find have the most difficulty in acquiring citizenship. Therefore, we conclude here that, despite the conflicting empirical evidence, the effect of age is expected to be curvilinear with respect to the acquisition of Korean citizenship.

Second, in addition to the factor of age, there is a growing body of evidence that education is a positive predictor of naturalisation. Bevelander and Veenman (2006) found a positive relationship between education and naturalisation when analysing the acquisition of Dutch naturalisation by Turks and Moroccans. Despite the differences in the two groups, Turkish and Moroccan immigrants who had finished primary education, higher secondary education and university education increased their odds of naturalisation in the Netherlands, based on data from the 2002 Social Position and Use of Public Facilities by Migrants survey. This result is also consistent with the study by Fougere and Safi (2009) on the naturalisation of immigrants in France, based on a panel data set of 1 percent of the French census between 1968 and 1999. Based on the probit model, compared to immigrants who had no diploma, immigrants who had finished junior high school, a vocational high school, high school, or

post-secondary education were more likely to be naturalised. These results indicate that educational attainment has a positive and significant effect on the likelihood of naturalisation.

In the United States, scholars investigating the naturalisation of immigrants have confirmed this finding. Jones-Correa (2001) and Pantoja and Gershon (2006) demonstrated that education encouraged immigrants from Latin America to acquire citizenship. Jones-Correa measured educational level ranging from “1”, less than first grade to “22”, having obtained a professional or doctoral degree. The likelihood of acquiring American naturalisation increased with additional educational levels. Pantoja and Gershon measured educational attainment ranging from “no schooling or grade 1 to 8” to “post graduate or professional degree.” The chances of immigrants from Latin America being naturalised in the United States was also increased by educational attainment. These findings are consistent with Bueker (2005), who examined the patterns of naturalisation in the United States among 10 ethnic groups from Cuba, Mexico, Canada, and from South-East Asian countries such as India, China, and the Philippines, as well as Italy, the United Kingdom, and the former Soviet Union. The study found that immigrants who had a higher level of education were 41 per cent more likely to be naturalised. In fact, the effect of education is commonly shown to be a positive when reviewing empirical studies of naturalisation among immigrants.

This common positive sign may be associated with the role of education. Educational attainment helps immigrants to be more confident in expanding their knowledge and realising the advantages of naturalisation and to find avenues for managing the cumbersome procedures associated with the application for naturalisation, including understanding laws regarding citizenship and interpreting the destination-language on citizenship application documents (Portes and Rumbaut, 2006). When considering the role played by education, it is plausible that education has a positive and linear relationship with naturalisation.

As a third demographic factor, after age and education, empirical studies have demonstrated the relationship between employment and naturalisation to be positive and significant (P. Yang 1994; Bueker 2005; Bratsberg, Ragan and Nasir, 2002). To explain this positive relationship, simultaneous interacting functions are assumed, in which anticipated

economic incentives encourage immigrants to acquire citizenship, and citizenship stimulates them to seek greater economic incentives in the host country. Being naturalised enables immigrants to increase their chances of finding a job at their destination. For example, Bratsberg and colleagues (2002) analysed whether or not naturalisation accounts for white-collar, public-sector, and union-job status among immigrants, using data from the 1994–98 Current Population Surveys in the United States. The probability of being employed in white-collar, public-sector, and union jobs was significantly higher for immigrants who were naturalised than for immigrants who were not. This result is associated with the preference of the employers. Some employers may prefer labourers with citizenship to immigrant workers without citizenship, because non-naturalised immigrants may be more likely to return to their origin countries (Bratsberg, Ragan and Nasir, 2002). In addition, governmental employers tend to hire citizens rather than immigrants who are not naturalised (P. Yang, 1994; Bratsberg, Ragan and Nasir, 2002). Hence, those who are naturalised are more likely to find a job in the host country.

Further, being employed enables immigrants to meet the qualifications for acquiring citizenship. For example, when the 10 ethnic groups were aggregated within one immigrant group, Bueker (2005) found that the chance of being naturalised in the United States was significantly higher for immigrants who worked for pay outside the home than for immigrants who did not. It is commonly argued that one of the preconditions for acquiring citizenship is sufficient economic resources (Portes and Rumbaut, 2006). In fact, such economic resources in the host society tend to be improved by earnings with stable jobs (P. Yang, 1994). With respect to this point, those who expect greater economic incentives from labour force participation are more likely to be naturalised. In addition, those who are employed are more likely to increase their chances of naturalisation by the fact of meeting an economic precondition that is often an eligibility criterion for acquiring citizenship. When considering these simultaneous factors, we can predict that employment increases the chances of citizenship acquisition.

A fourth demographic factor, individual or family income, is found to be a strong and important determinant of naturalisation. Prior studies have demonstrated that income leads to

an increase in the probability of naturalisation (Portes and Mozo, 1985; Portes and Curtis, 1987; Jones-Correa, 2001; P. Yang, 1994; Bevelander and Veenman, 2006; Pantoja and Gershon, 2006; Bueker, 2005). For example, Portes and Curtis (1987) analysed the process of citizenship acquisition among legal Mexican immigrants arriving in the United States during the early 1970s. The authors found that the higher the monthly income of Mexican immigrants, the more likely they were to become naturalised. P. Yang (1994) reiterated these findings, indicating that the odds of being naturalised increase with each one unit increment of annual logged income. Similarly, based on the 1999 Latino Political Survey, Pantoja and Gershon (2006) investigated the process of naturalisation among Latino immigrants in the United States. In their study, having a credit card was a proxy and dummy variable for individual income level. The likelihood of American citizenship acquisition was significantly higher for Latino immigrants who had a credit card than for immigrants who did not.

It is believed that the more one's income increases, the more opportunities arise in one's adaptation to the host society (Portes and Rumbaut, 2006). Insofar as naturalisation is concerned, immigrants must invest time, money, and personal effort in becoming naturalised (P. Yang, 1994; Bloemraad, 2006). Those who have sufficient income are more likely to invest the necessary time and effort to acquire citizenship than those who do not (P. Yang, 1994). For example, in the application process for naturalisation, which can be characterised by harrowing and cumbersome procedures, great quantities of documents, and the need to understand laws, immigrants with higher income are more likely to be able to afford to hire a lawyer to help them deal with these procedures, which may lead to them more easily and quickly acquiring citizenship (Bueker, 2005). In addition, those who have a sufficient amount of money are more likely to prepare for complicated tests of culture, history, and knowledge of the host country in the process of naturalisation (Portes and Rumbaut, 2006). Based on this logic, we assume here that income has a positive effect on naturalisation.

A fifth demographic, the presence of a social network, is identified in the literature as being associated with a likelihood of citizenship acquisition. A social network is defined as the result of relationships with individuals, groups, and institutions, which provides available resources based on sharing collective norms, values, and trust in the relationships (Halpern,

2005; Nahapiet, 2011). Ethnic networks based on both the inter-relationships with ethnic friends and ethnic-specific organisations (Jones-Correa, 2001; Tillie, 2004) and non-ethnic networks based on institutions, legislation, native-born friends and transnational friends in the host society (Jones-Correa, 1998; Pantoja and Gershon, 2006) provide useful resources and information for immigrants. These resources may result in immigrants realising the benefits of naturalisation and a reduction in its costs. An increase in social networks, therefore, increases the opportunity for naturalisation.

Although previous studies have employed different tools to measure social networks, at least three dimensions including size, closeness, and diversity are commonly applied as proxy variables (Stone, 2001). Typically, a smaller size, less closeness, and less diversity indicate insufficient social networks while a larger size, greater degree of closeness, and more diversity indicate sufficient social networks. In this view, immigrants with insufficient social networks may acquire less information or knowledge about acquiring citizenship, and having less information or knowledge may make it difficult for them to become naturalised.

In general, empirical studies have separately investigated ethnic and non-ethnic networks. Emphasising non-ethnic networks among migrants from Turkey and Yugoslavia in Germany, Diehl and Blohm (2003) investigated whether those who had native-born friends showed significantly higher levels of naturalisation compared to those who had same-ethnicity friends. Their study results indicated that immigrants who had at least one German friend among their circle of friends were more likely to naturalise than those who did not. In the Korean case, Chi (2012) found that the likelihood of Korean citizenship acquisition increased when immigrant wives had Korean friends with whom they spent their leisure time. Those having non-ethnic networks were found to more likely be naturalised than those having ethnic networks.

Emphasising ethnic networks, P. Yang (1994) used logistic regression analysis to examine immigrants living in the United States between 1970 and 1974. She found that when immigrants lived in a place where ethnic members of the same group were concentrated, the immigrants were more likely to obtain citizenship. Thus, the odds of being naturalised were

increased with each unit increment in the logged number of members from the same ethnic group. Using a pooled logistic model to investigate Asian immigrants from 1965 to 1984 in the United States, the findings were equivalent to those in her former analysis (P. Yang, 2002). Specifically, each unit increment in the logged number of immigrants from the same origin increased the odds of being naturalised by a factor of 1.017. Based on the findings from Yang's studies (1994, 2002), we assume here that ethnic networks play a role in facilitating naturalisation.

In this thesis, we ignore any priority between ethnic and non-ethnic networks. Instead, we argue that both types of social networks are critical factors in the likelihood of naturalisation. Thus, it is assumed that immigrants are able to contact or meet people through ethnic and non-ethnic networks in the destination country and thereby obtain useful information and knowledge regarding the acquisition of citizenship. In other words, it is assumed that varied and high levels of ethnic and non-ethnic networks in the destination country serve to encourage immigrants to become naturalised.

Within the two types of social networks, ethnic and non-ethnic, access to social contacts and relationships with family members are regarded as important factors influencing citizenship acquisition. For example, in the study by Chi (2012), who examined marriage migrants' Korean citizenship acquisition using the 2009 NSMF, the utilizations of social services was a significant factor influencing Korean naturalization. Specifically, when marriage migrants were satisfied with their use of family counselling services, child care services, and childbirth support services, the likelihood of the subsequent Korean naturalization increased by 9 percent, 2 percent, and 4 percent, respectively. Currently, in Korea, community-based non-profit welfare centres provide these front-line welfare services for local residents (K. Song, 2006). In addition, government-initiated community centres have dealt with civil affairs and delivered front-line social education programs in Korea, such as internet education, foreign language education, and vocational education (S. Kim, 2012). Hence, those who use community-based non-profit welfare centres or government-initiated community centres are more likely to be naturalised in Korea.

Another example is the quality of relationship with the Korean spouse. Kim, Kim, and Lee (2013) conducted qualitative research to explore the process of Korean naturalization. Their research showed that immigrant wives found it difficult to acquire Korean citizenship without the support of their Korean spouses. This is because they must prove their matrimonial relationship in Korea, as one of the eligibility conditions for acquiring citizenship, and this is not possible without the cooperation of their Korean husbands. Hence, the satisfaction of immigrant wives with their spouses is one of the possible factors influencing naturalization.

Meanwhile, in discussions of the influence of social capital on political integration, religious activities feature as one of the important social networks for immigrants (Tillie, 2004), but in this thesis we neglect the religious activities of immigrant wives. One reason is that there is no common agreement about its influence in citizenship research. European scholars have demonstrated that religious activities had a negative impact on political integration (Tillie, 2004; Dronker and Vink, 2012). In particular, scholars have focused on the specific religion of Islam, and demonstrated that those who access Islamic organisations were more likely to be isolated from main European society (Tillie, 2004; Dronker and Vink, 2012). In addition, immigrants with Islamic backgrounds were not preferred in European countries, which mean that it is more difficult for immigrants to become naturalised in the European countries (Dronker and Vink, 2012). In contrast to the European context, many U.S. scholars have ignored the relationship between religious activities and citizenship (Yang, 1994; Jones-Correa, 1998; Bueker 2005; Pantoja and Gershon, 2006; Chiswick and Miller, 2008a). Among these scholars, religious activities were not discussed as one of the social networks or capital resources in their examinations of citizenship acquisition. Because there have been different scholarly approaches taken, it is difficult to determine the religious influence on Korean naturalisation. Another reason for ignoring religion is the data availability upon which this research depends. This thesis involves secondary data analysis, based on the main data source of the 2012 NSMF, which does not include any information about religious activities. Therefore, for these two reasons, this thesis ignores the influence of religious activities on Korean naturalisation.

Having examined possible demographic and socio-economic factors as empirical evidence in the cost-benefit approach to naturalization, the following sections discuss possible institutional structure factors.

6.1.2.2. Institutional structure

Investigations of institutional structure factors that influence naturalization have focused more on years since migration and destination-language skills. In addition, in a consideration of the Korean instructional context, the presence of children, and divorce are important factors influencing Korean naturalization.

First, one noteworthy factor is the length of settlement. There is general agreement regarding the positive relationship between the length of settlement and the degree of naturalisation. Bueker (2005) demonstrated a positive association with naturalisation in her examination of immigrants in the United States. Specifically, immigrants who arrived in the U.S. in 1996, 1998, and 2000 were less likely to become an American citizens than those who had arrived in 1994. The same result was found in the study by Pantoja and Gershon (2006), indicating that long-term-settlement increased the likelihood of acquiring naturalisation in the United States. Based on their ordered logistic regression analysis, the coefficient increased with additional years in the United States among Latino immigrants. Results by Jones-Corra (2001) reiterated those of Pantoja and Gershon. The years of entry were indexed in a six-part ordinal scale ranging from arrival in the United States after the year 1990 to arrival before the year 1950. The results showed that earlier years of entry increased the likelihood of U.S. naturalisation among immigrants from Latin America. Accordingly, in the case of Korea, Chi (2012) found that years since migration increased the likelihood of Korean citizenship acquisition, based on data from the 2009 National Survey of Multicultural Families (NSMF).

To understand this positive relationship, previous studies have primarily focused on the process of adaptation to the destination country. As residence time increases, immigrants may accumulate socio-economic resources and become familiar with the destination country's political system (P. Yang, 1994; Bueker, 2005; Portes and Rumbaut, 2006). These resources and familiarity may lead immigrants to meet the requirements for acquiring

citizenship in order to realise its benefits (Portes and Rumbaut, 2006). By meeting the naturalisation requirements and realising the benefits of citizenship due to developing familiarity with the political system after additional years in the destination country, the likelihood of being naturalised in the host society may increase. Seen from this point of view, we hypothesise that the length of residence has a positive impact on naturalisation.

A second institutional factor is the positive impact destination-language proficiency has on citizenship acquisition (Liang, 1994; P. Yang, 1994; Jones-Correa, 2001). Because destination-language proficiency is one of the preconditions for acquiring citizenship (P. Yang 1994; Jones-Correa, 2001), those who are fluent in the destination language are more likely to meet the naturalisation requirements and therefore the probability of acquiring citizenship is increased.

Several empirical studies support the finding of the positive relationship between proficiency in the destination-language and naturalisation. Liang (1994), focusing on the naturalisation of immigrants in the United States across 6 ethnic groups, including Mexicans, Canadians, Colombians, Koreans, Chinese, and Cubans, found that the probability of naturalisation was increased with higher levels of English language proficiency, excepting those from Canada. P. Yang (1994) also found that English proficiency facilitated naturalisation among immigrants in the United States. In comparison to immigrants who hardly speak any English, the likelihood of naturalisation of immigrants who do not speak fluently, those who do, and those who speak very fluent English increased by 81 per cent, 228 per cent, and 268 per cent, respectively. The findings in the study by Pantoja and Gershon (2006) are consistent with those of Liang and Yang. Immigrants from Latin America in the United States were more likely to acquire American citizenship when their English skills were higher. Specifically, both four-scale ordinal variables for conversational skills in English and seven-scale ordinal variables as reading skills in English showed a positive association with naturalisation. Similarly, Diehl and Blohm (2003) examined immigrants from Yugoslavia and Turkey in Germany, and found that Turkish immigrants who typically speak German at home were more likely to be naturalised than those who used their mother

tongue. Based on this empirical evidence, destination-language proficiency is assumed here to have a positive impact on naturalisation.

Third, relying on previous political participation research, there is mixed evidence regarding the net impact of the presence of children on the likelihood of naturalization.

The study of Bevelander and Veenman (2006) found that the existence of children has no significant impact on Dutch naturalisation among immigrants from Turkey and Morocco. They used data from the Social Position and Use of Public Facilities by Immigrants survey, based on samples from 13 cities. With respect to Dutch naturalisation, the existence of children was not a significant factor among Turks and Moroccans, indicating that having children had no impact on becoming naturalised. However, Diehl and Blohm (2003) reported different effects of children among immigrants. Specifically, based on data from the Socio-Economic Panel in Germany, the authors performed logistic analysis to determine the likelihood of planning to be naturalised or already being naturalised in Germany. The result showed that the presence of children increased the probability of naturalisation among migrant workers from Turkey, while the effect of children was not statistically significant among migrant workers from Yugoslavia. This implies that the effect of children is not straightforward, and differs based on the nationalities of origin.

Other studies have demonstrated a positive influence of children on naturalisation. For example, P. Yang (1994) found that the presence of children increased the likelihood of naturalisation among immigrants in the United States. In her 1994 analysis, she used data from the 5 percent Public Use Micro-data Sample of the 1980 U.S. census, and found that those immigrants who had children aged 6 to 17 in 1975 were 13.6 percent more likely to be naturalised than those who had no children. Another finding in Yang's study was that the presence of children increased the chance of naturalisation (2002), based on data from the 5 percent Public Use Micro-data Sample of the 1990 U.S. census and the longitudinal Immigration and Naturalisation Service data set. Among six groups of Asian immigrants who arrived in the United States from 1965, including Chinese, Filipinos, Japanese, Asian Indians, Koreans, and Vietnamese, those who had children were 6.6 percent more likely to acquire

American citizenship than those who had no children. From these study results, it may be assumed that children positively impact naturalisation.

Based on these inconsistent empirical findings, it is difficult to confirm any clear effect of children on the likelihood of naturalisation among immigrants. Despite the inconsistent evidence, here we infer that the presence of children facilitates the probability of naturalisation, based on its association with two expectations about immigrant parents; first, that their children put down roots in the destination country (Portes and Curtis, 1987); and second, the disincentives in the process of adjustment are not experienced by the children (P. Yang, 1994). By focusing on expectations, immigrant parents may strongly desire that their children become citizens in the destination country. Hence, we assume a positive relationship between children and naturalisation in this study.

The fourth institutional factor, divorce, is a special case for marriage migrants in Korean citizenship law. Once divorced, Korean marriage migrants face an insecure legal status (P. Hwang, 2010). If they have no children and the divorce is the fault of the marriage immigrant rather than the Korean spouse, they may not remain in Korea for more than 5 years (C. K. Lee, 2013). After 5 years, they are regarded as illegal aliens and are deported (C. K. Lee, 2013). In addition to these harrowing circumstances, Korean citizenship law may prevent divorced marriage migrants from pursuing Korean naturalization. Based on recent literature reviews, Korean studies have consistently reported that marriage migrants face difficulties in acquiring Korean citizenship when they have been divorced (J. K. Park, 2013; Kim, Lee, and Lee, 2013; D. N. Kim, 2013; S. Y. Park, 2014). As such, despite the fact that the finding of these studies was dependent on literature research alone, divorce is considered to be a possible factor influencing the acquisition of Korean citizenship. Specifically, divorce is expected to be negatively related to Korean citizenship acquisition. However, among the samples in this thesis, few immigrant wives have been divorced. In this study, we used the satisfaction of marriage migrants with their relationship with their Korean spouses as a proxy variable for divorce. We hypothesized that if marriage migrants are dissatisfied with their spousal relationship, they were more likely to be divorced. Hence, a positive relationship with their spouses may increase the probability of citizenship acquisition.

In summary, we have accessed immigrants' citizenship acquisition results from both a cost-benefits calculation and the institutional context. Because both the cost-benefit estimation and the institutional context are sensitive to individual level characteristics, there are widely different naturalisation patterns among immigrants. Thus, in this study, distinct individual characteristics including age, length of residence, children, destination-language ability, education, family income, membership in social networks, and divorce (i.e. relationship with husbands) are associated with the relative aspirations, interests, resources, and legal requirements for citizenship acquisition in the destination country, and these are factors influencing citizenship acquisition among immigrants. Having described the theoretical perspectives and existing empirical evidence with respect to political integration, next we describe the theoretical perspectives and empirical evidence relating to economic integration.

6.2. ECONOMIC INTEGRATION

Economic integration is the process by which immigrants participate in the labour market and gradually increase their earnings (Raijman and Tienda, 1999). There is an extensive body of literature concerning the often severe economic disadvantages experienced by immigrants in the job market of the destination country (Chiswick, 1978; Borjas, 1985), including low-waged jobs and unemployment (Reitz, 2007; Portes and Rumbaut, 2006; Waters and Jimenez, 2005). Furthermore, these economic disadvantages tend to be passed down to their descendants or the second generation (Zhou, 1997, 1999), thus preventing them from experiencing upwards mobility, generating higher incomes, and finding jobs in the receiving country (Zhou, 1997).

Such economic inequality is generally assessed by labour force participation and earnings data (Entzinger and Biezeveld, 2003; Asselin et al., 2006; Hamberger, 2009; Penninx, 2000). The former is related to the opportunity to sustain economic activities (Raijman and Tienda, 1999), and the latter is associated with the quality of economic conditions and circumstances (Portes and Bach, 1980). In this thesis, we selected only labour force participation for identifying the economic status of immigrants in the destination

country, because without securing a job in the destination country, there is no guarantee of earnings (Bommes and Kolb, 2006). Hence, in this thesis, we consider that being employed is a crucial foothold for developing economic prospects in the host country, rather than the level of earnings.

In exploring immigrant employment, we limit ourselves to the consideration of human capital, social capital, and household production theories that typically account for the individual resources that influence labour force participation. Underpinning the flow of inputs, throughputs, and outputs in the logic model, in this thesis, we refer to individual resources as inputs that affect the output, employment. Based on this assumption, in the following pages we describe three theoretical perspectives.

6.2.1. Theoretical perspectives on employment of immigrants

The following discussion on the labour force participation of immigrants is based on individual conditions suggested by various theoretical perspectives, including human capital (Chiswick, 1978; Borjas, 1985, 1995), social capital (Heisler, 2000), and household production (Becker, 1965) theories. The theoretical perspectives that describe the employment status (employment versus unemployment) of immigrants begin with individual disparities of skills and resources which immigrants bring with them from their home country or accumulate in the host country (Portes and Rumbaut, 2006). In this section, different perspectives are briefly presented, followed by an introduction of relevant predictors of labour market participation.

6.2.1.1. *Human capital theory*

Human capital theory emphasises relative economic status among immigrants accompanied by differing individual abilities in the perfect competitive market (Becker, 1965; Mincer, 1974; Blair, 2011). The term human capital is defined as the skills, knowledge, resources, and capabilities of an individual that enhance labour productivity (Becker, 1965). Depending on the definition, economic activities such as employment and income are outputs that are increased by the investment of education, job training, and vocational experience

(Blair, 2011). Thus, employment disparity, i.e., different productivities among individuals, is seen as a returned result from different investments of human capital resources, based on the assumption that the labour market is a perfect competitive market (Blair, 2011).

From this perspective, the education, job experiences, and vocational training that immigrants bring with them from their countries of origin and then contribute to the receiving country are significant factors to consider when addressing employment and income differences in the destination country (Portes and Rumbaut, 2006). However, the human capital resources and skills immigrants have brought from their home countries may not translate directly into high-wage jobs at the destination country due to differences in culture and economic structure between the origin and destination countries (Stewart and Hyclak, 1984; Chiswick and DebBurman, 2004; Duleep and Regets, 1997; Ferrer and Riddell, 2008). Not surprisingly, newly arrived immigrants confront language barriers (Grenier, 1984; Chiswick and Miller, 2001) and a lack of any local job experience (Portes and Bach, 1980) in the host country. From this point of view, destination-language proficiency plays a vital role in helping to transfer skills or resources acquired in the homeland to higher paying jobs in the receiving country (Dustmann, 1994; Chiswick and Miller, 1995; Chiswick and DebBurman, 2004).

In addition, time is a critical aspect for immigrants to increase their human capital skills and resources (Chiswick, 1978; Portes and Bach, 1980; Kossoudji, 1988; Alba and Nee, 1997; Friedberg, 2000). In terms of entry into the labour market, employment and income gaps between immigrant and native-born workers remain (Rajman and Tienda, 1999). However, after years in the destination country, immigrants tend to catch up with the native-born (Chiswick, 1978). To a large extent, employment and income gaps tend to improve with the number of years since migration as immigrants tend to gain human capital skills and resources with additional years spent in the receiving country (Chiswick, 1978; Kossoudji, 1989; Borjas, 1995).

Another relevant human capital variable is age, but its effect is mixed with respect to the economic assimilation of immigrants. Age is used as a proxy variable to measure

experiences in the labour market (Waldman and Avolio, 1986). Guided by this view, as age increases in the destination country, immigrants' human capital endowments with respect to destination-language proficiency, education, and occupational skills are likely to have improved (Kossoudji, 1989; Borjas, 1995). This means that the older the immigrant, the greater the labour force participation (Schoeni, 1998). According to the studies of Wong and Hirschman (1983), Evans (1984), Read (2004), however, when age is used as empirical evidence, it demonstrates a curvilinear relation to employment. One of the possible explanations is that age tends to increase the opportunity of employment during working age, but the opportunities then decrease as the age of retirement nears with respect to entering the labour market (Greenless and Saenz, 1999). Thus, until the peak point in middle age, age tends to increase the possibility of employment, but after that peak point age tends to decrease the possibility. In the cases of middle-aged married migrant women, although arguments remain, according to the studies of Chiswick and Miller (2001, 2008), immigrant wives tend to undergo career discontinuity due to childbirth and childcare responsibilities being regarded as the roles of women within the household. Under these patriarchal gender roles, for middle-aged female immigrants (Becker, 1965), age may decrease the chances of employment. Overall, if we synthesise these perspectives, the effect of age is uncertain.

Based on human capital theory, age, years since migration, education, job experiences, vocational training, and destination-language proficiency are all key determinants of employment.

6.2.1.2. Social capital theory

Human capital is based on the "individual abilities" of people, while social capital is centred on the "connections and relationships" of people (Nahapiet, 2011, p. 79). Social capital is defined as the resources available for collective interests (Coleman, 1988), and is formed by social networks resulting from relationships or memberships with people including friends, colleagues, and employers (Miley, O'Melia and DuBois, 1995) and with social systems including school, company, and community (Bourdieu, 1986), and which are based on collective trust, solidarity, interaction, and norms (Halpern, 2005; Nahapiet, 2011).

One prevalent assumption in research regarding employment is that the social capital derived from social networks influences economic activities including labour force participation and earnings (Chiswick and Miller, 1996; Aguilera, 2002; Amuedo-Dorantes and Mundra, 2007). Through the social capital created by social networks, immigrants can obtain employment-related information and knowledge (Nee and Sanders, 2001). Furthermore, as an ethnic-based business is established through the social capital of ethnic networks, not only can ethnic-based firms hire immigrants, but immigrants can be self-employed within the ethnic community (Marger, 2001). For these reasons, social capital is a substantial resource influencing the economic activities of immigrants in the host society.

The social capital of immigrants differs along two main dimensions (Putnam, 2000). The first dimension originates in the ethnic networks with homogenous memberships, such as family ties or co-ethnic friendship ties (Alba et al., 1999). Social capital in the form of homogenous memberships enables immigrants to obtain information regarding the job market, including interview tips, information about wage levels and the reputation of domestic companies, and introduction to local firms (Nee and Sanders, 2001; Sanders, Nee and Sernau, 2002). Ethnic-based entrepreneurs and ethnic-specific organisations, established in ethnic networks operations, may hire ethnic members directly (Jenkins, 1988; Portes and Rumbaut, 2006). Thus, social capital that depends on ethnic networks translates into informal information or knowledge that provide opportunities for employment (Alba et al., 1999). The second dimension is derived from networks with the native-born and social systems in the destination country (Devillanova, 2008). Social capital relating to heterogeneous members or systems may assist immigrants by providing information about the law and social services. For example, immigrants who need to use a vocational training service managed by the central or local government may acquire information about the organisational locations, entitlements, application procedures and the availability of the service from a native-born friend, a government officer, or a community centre (Nee and Sanders, 2001). In fact, the social capital of non-ethnic networks in the destination country provides immigrants with government-driven legal options or social services to increase their employment prospects (Portes and Rumbaut, 2006).

The social capital resources possessed by individuals are not uniform because each individual has different interactions and relationships (Nahapiet, 2011). Social capital theorists point to the functions of “bonding, bridging, and linking” with respect to resources (Putnam, 2000, pp. 22-23; Nahapiet, 2011, p. 81; Halpern, 2005). Bonding determines the extent to which individuals interact or form relationships with members in a group; bridging is the degree to which individuals connect with various people and groups within or outside of a network; and linking is the degree to which individuals communicate with group members. Various levels of bonding, bridging, and linking are associated with different social networks, and not all social networks have equivalent resources (Bourdieu, 1986; Putnam, 2000).

With respect to immigrants’ employment opportunities in the host labour market, prior studies have demonstrated that the size and closeness of social networks play an especially important role (Livingston, 2006; Aguilera, 2003; Bagchi, 2001). The larger the number of relationships and the closer are the members in a group, the stronger are the degrees of solidarity and trust and, thus, the greater are the social capital resources between them (Marger, 2001). Based on strong solidarity and trust, immigrants obtain useful information about finding a job in the destination country (Nee and Sander, 2001). Therefore, the larger and closer are their social networks, the more likely immigrants are to be employed in the destination country (Aguilera and Massey, 2003; Amuedo-Dorantes and Mundra, 2007). Within the logic of the social capital theory, one may predict that the size of the ethnic and non-ethnic social networks and closeness of their relationships with ethnic and non-ethnic members will positively influence employment.

6.2.1.3. Household production theory

In the household production theory, as proposed by Gary Becker (Esser, 2004), rather than using the individual as a sole factor to describe the various economic positions with respect to human capital and its effect on economic behaviour, a household is regarded as a single unit to understand the different economic positions (employment versus unemployment) (Becker, 1965). While there is no common agreement among scholars

regarding Becker's household production theory, over the years the research of many scholars has been informed by his household production theory (Chiappori and Lewbel, 2014). As such, we attempt to explain Becker's theory in the following pages.

The household production theory focuses on the matter of choice between non-market and market works (Becker, 1965), and according to Becker (1965), household economic activities are categorised into market (i.e., consumption) and non-market (i.e., production) work. Thus, making money is for consumption while spending time within a household is considered production. Whether or not to engage in these two activities is a matter of choice, and it is inferred that a household can be described by rational choice behaviour (Mattila-Wiro, 1999). Thus, based on a cost-benefit calculation, a household selects an activity characterized as being either market or non-market work (Mattila-Wiro, 1999). In this situation, it is commonly argued that the greater the income of the household, the more time is spent at home in non-market work or household production; the smaller the income of a household, the more time is spent in the labour market work (Becker, 1965; Glass, 1988; Stier and Tienda, 1992).

With this logic, there are two perspectives with which we can address labour force participation among married women. The first originates from the roles and work of women within the family. It is traditionally assumed that women spend more time in household productivity roles within the family, whereas men spend more time earning money in market work outside the household (Becker, 1965). In this respect, if the income of a household is increased, members within a household prefer to improve their quality of household production (Glass, 1988; Stier and Tienda, 1992). This leads a married woman to spend much of her time at home focusing on household productivity, including household chores and child care. In contrast, households with lower income encourage a married woman to find a job to supplement her husband's income as a matter of the household's economic survival (Glass, 1988; Stier and Tienda, 1992). However, if a family has many young children, a married woman can only participate to a limited degree in the labour market (Becker, 1965). This is primarily due to the pressures brought to bear on women to concentrate on caring for the young children at home. Women who have school-age children, however, are less likely

to be burdened with constant child rearing and are more likely to participate in the labour force (Kahn and Whittington, 1996). However, if the husband spends equal time caring for their children or doing household work, the married woman is more likely to participate in the labour market (Becker, 1965).

The second perspective in the household production theory begins with a comparison of opportunity costs and real wages. The absolute household income level that determines whether or not married women are employed or give up employment is unknown. Instead of an absolute level, the household production theory emphasises the gap between wages reserved by giving up employment and real wages obtained by continued employment (Becker, 1965). If these reserved wages are lower than real wages, married women may enter the labour market. On the flip side, if the real wages are lower than the reserved wages, married women may choose not to work (Baker and Benjamin, 1997). However, reserved wages tend to increase when a household has a number of young children, which discourages married women from participating in the labour market (Becker, 1965).

To a large extent, household income, children, and the husband's contribution to household work may impact the labour force participation and higher paying job positions of married women. In the next section, we review the empirical evidence regarding possible factors affecting employment among immigrants.

6.2.2. Empirical evidence

There is growing interest by Korean scholars in examining the participation of marriage migrants in the Korean labour market. In addition, there are similar findings in empirical studies conducted in North America, Europe, and Korea. As such, in this thesis, we consider the contexts of North America, Europe, and Korea together when discussing empirical evidence regarding employment. In the following pages, we explore a number of empirical studies within the context of the theoretical perspectives discussed above.

6.2.2.1. Human capital approach

As discussed in human capital theory, age, years since migration, education, destination-language proficiency, and job experience are regarded as vital factors influencing employment.

First, the results of empirical research show contradicting conclusions in relation to age and employment. In several papers, in which age is examined in the context of occupational experience, age is positively associated with immigrant employment in the host country. Chiswick, Cohen, and Zach (1997) compared the employment rate and employment status of native-born and immigrant populations, using samples from 1979, 1983, 1986, and 1988 from the Current Population Survey in America. Experiences in the labour market, as calculated with both age and education as proxy career variables, were found to have a positive impact on employment. Schoeni (1998), examining the labour force participation of immigrant women, based on the 1970, 1980, and 1990 U.S. Census data, reiterates the positive effect of age, indicating that the degree to which immigrant women become employed increased with age in the United States. Read and Cohen (2007), analysing differences in employment among 12 ethnic groups, using the year 2000 U.S. Census data, also found that both age and age squared were positively related to employment, regardless of ethnic group.

These conclusions have been challenged by various empirical studies that have found a curvilinear relationship between age and employment in the destination country (Wong and Hirschman, 1983; Read, 2004; Kahn and Whittington, 1996; Dustmann and Fabbri, 2005; Shumway and Cooke, 1998). Using 1970 U.S. Census data, the study of Wong and Hirschman (1983) demonstrated that older immigrant women (aged 55 to 64) were less likely to be employed compared to younger immigrant women (aged 25 to 34). Also, immigrant women of working-age (ages 35 to 44 and 45 to 54) were more likely to be employed than younger immigrant women (aged 25 to 34). In a similar vein, Read's (2004) mail-survey-based analysis of Arab-American women, Dustmann and Fabbri's (2005) study of the economic activity of married immigrant women in the U.K. based on a British Labour Force

Survey, and Kahn and Whittington's (1996) panel data analysis of Cuban, Mexican, and Puerto Rican women in the United States found that age increased the likelihood of employment, but age squared decreased employment probability. From these findings, it may be assumed that younger immigrants typically increase their human capital skills, such as education and occupational experience, which yields employment until middle or working ages, but that older immigrants who arrived to the destination country may not have enough time to work in the host labour market. Based on this assumption, it may be reasonable to assume a curvilinear relationship between age and employment.

However, it is difficult to conclude with confidence age's effect on employment because there appear to be different age effects for different ethnic groups. For example, Evans (1984) examined the different percentages of labour force participation among immigrant women living in Australia using a 1 percent public-use sample of individual records from the 1981 Census. Among immigrant women from English-speaking and Mediterranean countries, both age and age squared were negatively correlated with employment. Among non-white European immigrants and East European immigrants, age was not a statistically significant factor for employment, whereas age squared was a significant and negative factor. Similarly, based on a sample of Hispanic immigrant wives obtained from the 1980 U.S. Census, Stier and Tienda (1992) examined labour force participation of married immigrants from Mexico, Puerto Rico, and other immigrants with Hispanic origins compared to those native born in the United States. They found a negative effect of age for native-born married women, but no significant age effect for married immigrants. As such, age's effect on employment is complicated and varies across different ethnic groups.

In Korea, the results are also controversial regarding the factors that influence employment among marriage migrants. Using the 2009 National Survey, Yang and Kim (2011) found that age had a positive relationship with employment among marriage migrants. H. K. Lee's (2013) examination of immigrant wives' labour force participation in Korea, also based on the 2009 NSMF, was consistent with the study results of Yang and Kim, as were those of C. K. Park's (2013) analysis of immigrant wives' employment in Gyunggi province,

using the 2009 NSMF. Thus, three studies (Yang and Kim, H. K. Lee, and C. K. Park studies) have shown the effect of age to be positive with respect to employment. However, Kang and Lee (2012) found that age had a U-shaped relationship with labour force participation, from their examination of immigrant wives' labour force participation. They examined the decisions of husbands using a two-step hurdle model. With respect to low- and high-skilled jobs, Lee et al. (2013) used data from the survey of the Korean Labor Institute in 2011 and found that the likelihood of being employed in low-skilled jobs increased with age, while age was not a statistically significant factor with respect to the likelihood of being employed in high-skilled jobs. To summarise, the main conclusion we can draw regarding labour force participation among immigrants is that the effect of age is uncertain.

Apart from age, empirical studies commonly suggest that years since migration are positively related to economic integration (Chiswick, 1978; Borjas, 1995; Kossoudji, 1989; Friedberg, 2000). For example, in their analysis of immigrant employment among 18 Western countries between 1980 and 2001, Van Tubergen and colleagues (2004) found that immigrants residing for more than 6 years in the host country were more likely to be employed than immigrants who had resided there for less than 6 years. Foroutan (2008a, 2008b) found that immigrant women residing in Australia for more than 10 years were more likely to participate in the labour market than were immigrant women who had resided there for less than 10 years. Djamba and Kimuna (2012) found a similar result for African immigrant women who resided in the United States for more than 5 years in the United States, who were more likely to be employed than those who had been there for less than 5 years. In Korea, C. K. Park (2013) compared the likelihood of immigrant wives being employed between those who lived in rural and urban areas, using data from the 2009 NSMF. He showed that the years since migration increased the likelihood of being employed by about 30 per cent in rural areas and by about 18 per cent in urban areas. In a similar vein, H. K. Lee (2013) also examined marriage migrants' employment using the 2009 NSMF and reiterated that years since migration had a positive impact on employment. Thus, marriage migrants residing for more than 5 years in Korea had a higher probability of employment than those who had been in Korea for less than 5 years. In summary, these findings demonstrate

that employment is closely and positively related to the duration of time spent in the destination country by immigrants.

After age and years since migration, education has been identified as a predominant factor that influences economic assimilation (Blair, 2011). Since the work by Becker (1964) and Mincer (1974), schooling has been widely used as a determinant of economic outcomes (Blair, 2011). In particular, Chiswick (1978) was the first to focus on the differences in immigrants' earnings in an analysis of the 1970 Census of Population with respect to human capital endowment. The fundamental result reported by Chiswick was that schooling had a U-shaped entry effect in economic incorporation. In other words, immigrants accept undesirable jobs with lower income in the host country for a few years, but they can achieve upward mobility and improve their earnings as they continue to live, and complete additional schooling years, in the host country. A large body of research has developed since Chiswick's study, borrowing his theoretical framework and economic outcomes, and their results indicate that both the employment and earnings of male immigrants typically rise with years of schooling (Portes and Bach, 1980; Borjas, 1982, 1985; Reimer, 1983; Grenier, 1984; Chiswick, Cohen and Zach, 1997; Chiswick and DebBurman, 2004).

In addition, the findings that reflect a positive relationship between education and economic outcomes (e.g. employment and earnings) among male immigrants is consistent with numerous studies of employment among immigrant women (Foroutan, 2008a, 2008b; Read and Cohen, 2007; Read, 2004; England, Garcia-Beaulieu and Ross, 2004; Greenlees and Saenz, 1999; Evans, 1984; Wong and Hirschman, 1983; Greenwell, Valdez and DaVanzo, 1997; Parrad and Flippen, 2005).

However, because most immigrants meet with obstacles in transferring their country-of-origin human capital to the receiving country, a number of scholars have emphasised the importance of the place where immigrants obtain their human capital (Ferrer and Riddell, 2008). Studies have shown that the effects of schooling attained in the host country vs. the home country do not equally effect immigrants' earnings. Although investments in education in the home country and in the destination country are different in scale, they both have a

positive relationship with economic outcomes among immigrants (Stewart and Hyclak, 1984).

In Korea, most studies have shown that education has increased the likelihood of employment. Yang and Kim (2011), using data from the 2009 NSMF, examined human and social capital skills with respect to marriage migrants' employment in Korea. They found that the probability of employment was increased by education. Using the same data set, H. K. Lee (2013) also concluded that education increased the likelihood of employment among marriage migrants. In summary, it may be reasonable to assume that education increases the opportunity of labour force participation in the destination country.

A fourth factor, the positive effect of destination-language proficiency, is found in several empirical studies. Focusing on immigrant wives in Korea, Kang and Lee (2012) indicated that immigrant wives with higher proficiencies in the Korean language were more likely to be employed in Korea than those who were less proficient. C. K. Park (2013) also found that the likelihood of employment was increased by Korean-language skills.

The positive correlation between destination-language proficiency and employment is consistent with studies conducted in the United States. The study by Shumway and Cooke (1998) found that when Mexican immigrant wives in the United States knew only a little English, the likelihood of finding a job was decreased. Read and Cohen (2007) compared the employment of women from 12 ethnic groups in the United States and found that English-language proficiency yielded a greater chance of employment regardless of the selected ethnic group. These results are consistent with the analysis by Logan and Drew (2011) of immigrants' economic incorporation in the United States, using data from the 2000 U.S. Census. They found that immigrant women from former Soviet Union countries living in the United States could participate to a greater degree in the American labour market as their English language proficiency increased. Similarly, in their analysis of immigrants from Africa between 1980 and 2008, Djamba and Kimuna (2012) demonstrated that those who spoke English very well had a better chance of being employed than those who spoke little English.

In Europe, a study by Dustmann and Fabbri (2003) found that English-language proficiency increased the chances that immigrant employment in the U.K. According to Van Tubergen, Maas, and Flap (2004), among immigrants in 18 Western countries, including several European countries and the United States, employment was improved by destination-language ability. Consequently, based on these empirical studies, regardless of the receiving countries, there is general agreement that the probability of employment is increased by destination-language proficiency.

Finally, several empirical studies have demonstrated that labour market experience increase the probability of employment among immigrants. As discussed with respect to education for human capital, the place where immigrants acquire this human capital is also an important factor in relation to economic outcome (Friedberg, 2000; Chiswick and Miller, 2009; Basilio, Bauer, and Kramer, 2014). Despite the fact labour market experience in the home country tends to directly transfer in the home country more than that in the host country, labour market experiences in the home country does have an impact on immigrants' economic outcomes in the host country (Akresh, 2007). In Korea, Yang and Kim (2011) examined economic activity among immigrant wives, using the 2009 NSMF. Their analysis showed that job experience in the home country had a positive impact on employment. Similarly, Kang and Lee (2012) analysed immigrant wives' decisions to participate in the job market and their work hours in the labour market. Job experience in the home country led immigrant wives to have the motivation to participate in the job market and resulted in increased work hours in the labour market. The positive effect of labour market experience was reiterated in the study by C. K. Park (2013), who examined marriage migrants' employment in rural and urban areas. Those who had careers in the home country are more likely to be employed in Korea than those who have did not.

In conclusion, from the human capital perspective, age, years since migration, education, destination-language skills and labour market experience are important variables that influence the probability of employment. In the following sections, we discuss empirical evidence with respect to the social capital approach.

6.2.2.2. *Social capital approach*

In the sociology literature, studies exploring the relationship between social networks and labour market outcomes commonly report that social networks are a potential determinant of labour force participation by immigrants in the host country, irrespective of access to ethnic and non-ethnic networks (Portes and Rumbaut, 2006). Researchers have focused on three main types of networks as social network indicators: family networks, friend networks, and group or organisational networks.

Family networks consist of relationships with members of the family. According to Kang and Lee (2012) who surveyed immigrant wives' motivations for employment, immigrant wives are less likely to be motivated to participate in the Korean labour market when their Korean spouses oppose their participation. Similarly, based on the 2011 Korea Labor Institute's survey data, Lee et al. (2013) found that immigrant wives tend to find a job when their Korean spouses support their desire to participate in the job market,.

Another important family network is the relationship with mother of the Korean spouse. When the mothers of the Korean spouse take care of the children, married female immigrants are more likely to participate in the labour market (Kang and Lee, 2012). Hence, immigrant wives who have a good relationship with their Korean husbands' mothers have a greater likelihood of participating in the labour market, because their husbands' mothers assist with the rearing of children. Also in Korea, Lee and Lee (2012) investigated the effect of factors attributed to immigrant wives' employment in Ulsan, Korea, and found that when Korean spouses' mothers support immigrant wives' labour force participation, the immigrant wives are more likely to participate in the job market. In Kang and Lee's (2012) examination of the possible factors influencing work decisions and working hours among immigrant wives, when Korean spouses' mothers live with the immigrant wives, the immigrant wives tend to spend less time doing housework. In addition, cohabitation with Korean spouses' mothers not only promotes their likelihood of participating in the labour market, but also increase their working hours in the workplace. In this thesis, we assume that when immigrant

wives are satisfied with the relationship with Korean spouses' mothers, they are more likely to be employed.

Secondly, after the family network, friend networks include interactions with ethnic or non-ethnic friends. Based on data from the Mexican Migration Project, Aguilera and Massey (2003) found that undocumented Mexican migrants who had a close tie with their friends had an increased likelihood of employment in the United States. This is because their friends tended to introduce them to jobs in the receiving country. In the same data set, those who had been living in the host country longer were better able to capitalize on the information from their friends in finding a job than those who had been living there for a shorter period of time. Livingston (2006) also confirmed that such information increased the chances of employment. In Korea, in her analysis of data from the 2009 NSMF, C. K. Park (2013) also found that ethnic social networks increased the likelihood of employment among marriage migrants in Korea. Thus, when marriage migrants have a group of friends with the same nationality, the likelihood of employment is increased compared to those with no friend network.

The third type of network, the group or organisational network, involves relationships with groups or organisations, such as welfare service organisations, religious groups, and ethnic-specific organisations. Nee and Sander (2001) used event history analysis to investigate transitions in labour market participation among Koreans, Filipinos, and Chinese in the U.S. They showed that contact with an ethnic-specific association increased the chances of self-employment. In their analysis of immigrants' employment in the U.K., using data from the Fourth National Survey of Ethnic Minorities between 1993 and 1994, Kahanec and Mendola (2007) found that the probability of paid employment was increased by engaging with a club or voluntary organisation. In a same analysis, the participation in a club or voluntary organisation also increased the likelihood of self-employment. Similarly, Xue's (2008) examination of immigrants' employment in Canada, using Wave 1, 2 and 3 micro data from the Longitudinal Survey of Immigrants to Canada, showed that the frequency of activities with organisations had a significant impact on employment among female immigrants.

Although there have been empirical studies in Western countries on the impact of group or organisational networks on employment, little is known about the impact of group or organisational networks in the Korean context. Because Korean studies have focused more on family and friend networks, in this thesis, we use the data at hand to conduct an exploratory analysis of the impact of group or organisational networks on employment. We performed a secondary data analysis, using the 2012 NSMF as the main data set. However, this data provides no information regarding religious affiliation, club memberships, or ethnic-specific organizations. With respect to group or organisational networks, it includes local resident gatherings, the utilization of welfare service centres, and the use of community service centres. So here, we used these three variables as proxy variables for group or organisational networks.

In conclusion, empirical evidence for the social capital approach indicates that family networks, friend networks, and group or organisational networks may promote the likelihood of employment among immigrants.

6.2.2.3. Household production approach

Possible factors affecting household production include household income and children.

To analyse the effect of household income on employment among married immigrant women, many empirical studies have used household and husband income as one, because household income is most sensitive to the husband's income (Sorensen and McLanahan, 1987; Bianchi, Casper and Peltola, 1999; Miedema and Tastsoglou, 2000).

On this basis, husband's income is generally expected to have a negative relationship with labour force participation among immigrant wives in the host country (Ong, 1987; Glass, 1988; Stier and Tienda, 1992; Kahn and Whittington, 1996; Greenless and Saenz, 1999; England, Garcia-Beaulieu and Ross, 2004; Read, 2004; Foroutan, 2008a; 2008b). For instance, Ong (1987) analysed labour force participation among immigrant wives from China in San Francisco and Los Angeles, U.S., in which the husband's wage decreased the

probability of employment in both cities. Similarly, Read (2004), who investigated the labour force participation of Arab immigrant women in the United States, indicated that Arab immigrant women whose family income was less than \$20,000 per year were more likely to be employed while the women whose family income was more than \$50,000 per year were less likely to be employed, compared to women whose family income was between \$20,000 and \$50,000. Greenlees and Saenz (1999), in their examination of the determinants of employment among immigrant women from Mexico between 1980 and 1989, found that a husband's income decreased the odds of being employed. Using data from the first 12 waves of the German Socio-economic Panel between 1984 and 1995, Dustmann and Schmidt (2000) echoed the finding that husband income had a negative relationship with the employment of immigrant wives. In the case of immigrant wives in Korea, family income also shows a negative relationship with employment. Kang and Lee (2012) demonstrated that immigrant wives in Korea tend to participate in the labour market when the husband's income is lower. In addition, the analysis by C. K. Park (2013) revealed a significant and negative result in the relationship between family income and employment among immigrant wives in an urban area, based on the 2009 NSMF. Reviewing these findings, both husband's income and family income have a negative association with the likelihood of immigrant wives' participating in the host country's labour market.

After household income, scholars have considered the presence, number, and age of children in their examinations of the relationship between children and employment (Wong and Hirschman, 1983; Kahn and Whittington, 1996; Worswick, 1996; Shumway and Cooke, 1998; Biswal, 1999; Goyette and Xie, 1999; Dustmann and Schmidt, 2000; Read, 2004; Read and Cohen, 2007; Xue, 2008).

A review of the empirical studies on the labour force participation of married women reveals that children tend to be classified into two groups: preschool and school age (Tummers and Woittiez, 1991; Altonji and Paxson, 1992; Chiswick and Miller, 2001; Dustmann and Schmidt, 2000). This is primarily due to the fact that the larger the number of preschool-age children, the more time is required in a household for child care and the less need there is for outside employment, while the larger the number of school-age children the

larger the home budget required, so the greater the need for outside employment (Kahn and Whittington, 1996). Dustmann and Schmidt (2000) compared the patterns of employment in part-time and full-time jobs among immigrant women in Germany. They found that the probability of being employed in full-time jobs decreased when immigrant wives had children under 6 years old. This finding is reiterated in studies by Wong and Hirschman (1983) and Xue (2008), showing that the number of children under six years of age decreased the likelihood of employment among female immigrants. This conclusion is similar to those of studies by Kahn and Whittington (1996), Read (2004), and Read and Cohen (2007), which all indicate that the presence of children younger than five or six years old had a negative impact on labour force participation among immigrant wives. With regard to immigrant wives in Korea, Lee et al. (2013) supported the conclusions of previous studies in Western countries. When immigrant wives had a preschool child, their likelihood of being employed was decreased. However, if married female immigrants have children older than six years, they are more likely to participate in the labour market. In his analysis of the labour market activity of husbands and wives, Worswick (1996) found that the number of children between six and fourteen years of age increased the hours worked by immigrant wives, based on 1981 and 1991 Canadian Census data. The study results of Biswal (1999), comparing the labour supply of immigrants and native people in Canada using cross-sectional data from the Family Expenditure Survey in 1986 and 1992, were consistent with Worswick's analysis. Biswal (1999) found that the number of children over six years old increased the weeks of work by married immigrant women. In summary, regarding the relationship between labour force participation and children of immigrant wives, having children younger than six years negatively affects their employment, whereas having children older than six years positively influences their employment. When using the household production approach, household income and children are important factors influencing immigrant wives' employment.

From this synthesis of the literature on immigrant women's employment, explanatory factors regarding employment are based on human capital (e.g. age, education, years since migration, and destination-language skills, and job experiences), social capital (e.g. a relationship with husband, relationship with Korean spouses' mother, ethnic friends, non-

ethnic friends, participation in local resident gatherings, the use of welfare service centres, the use of community service centres) and household production (e.g. household income and children) approaches.

6.3. HYPOTHESES

Tables 6.1 and 6.2 illustrate the hypotheses proposed in this chapter, which are underpinned by the logic model, regarding the various causal mechanisms for the inputs and outputs, along with their expected signs. We presume that the outputs with respect to immigrant integration include citizenship and employment, which are influenced by the inputs of individual characteristics and resources.

Table 6.1: Hypotheses for citizenship acquisition at the individual level with prediction

		Political integration = Citizenship acquisition	
		Variables	Prediction
Inputs	Cost-benefit	Age and age squared	Curvilinear relationship
		Education	+
		Employment	+
		Household income	+
		Friend with same origin nationality	+
		Friend with other ethnic backgrounds	+
		Korean friend	+
		Participation in the meeting of same ethnic friends	+
		Participation in local resident gatherings	+
		Use of welfare centre	+
		Use of community centre	+
	Institutional structure	Years since migration	+
		Destination-language skills	+
		Children	+
		Divorce (relationship with a husband)	-

The tables clarify selected factors at the individual level as inputs that account for citizenship and employment, as outputs.

As summarised in Tables 6.1 and 6.2, we propose the following hypotheses:

- 1) With respect to political integration, the likelihood of immigrant wives being naturalized in Korea will be influenced positively when immigrant wives reside for longer periods of time, are educated, have a greater number of children, make

higher levels of household income, are employed, are proficient in the Korean language, are satisfied with the relationship with their husbands, have ethnic, non-ethnic, and Korean friends, participate in groups comprised of friends from the same ethnic origin, use welfare service centres, utilise community service centres, and participate in local resident gatherings. Age may have a curvilinear relationship to citizenship acquisition.

- 2) With regard to economic integration, the probability of immigrant wives being employed will be increased when immigrant wives reside for a longer period of time in Korea, are educated, are proficient in the Korean language, have job experience in their homeland, have a good relationship with their husbands, are satisfied with their relationship with their spouses' mothers, have friends from other ethnic backgrounds, the same ethnic background, and from Korea, participate in groups comprised of friends with the same ethnic background, participate in local resident gatherings, use welfare service centres, utilise community service centres, make lower levels of household income, have a greater number of children older than 6 years, and have fewer children younger than 6 years. The effect of age is unclear.

Table 6.2: Hypotheses for employment at the individual level with prediction

		Economic integration	
		Variables	Prediction
Inputs	Human capital	Age and age squared	?
		Years since migration	+
		Education	+
		Labour market experiences	+
		Destination-language skills	+
	Social capital	Relationship with a husband	+
		Relationship with mother in-law	+
		Friend with same origin nationality	+
		Friend with other ethnic backgrounds	+
		Korean friend	+
		Participation in the meeting of same ethnic friends	+
		Participation in local resident gathering	+
		Use of welfare service centre	+
	Use of community service centre	+	
	Household production	Children	Under 6yrs. (-) Over 6yrs. (+)
Household income		-	

Chapter 7: *Theoretical Description at the Individual Level (II) – Destination-language Proficiency and Life Satisfaction*

In Chapter 6, we focused on the flow of inputs, throughputs, and outputs in the logic model in order to develop and theoretically elaborate upon on the findings of immigration scholars, which have typically dealt with individual resources as inputs that influence political (i.e., citizenship) and economic (i.e., employment) outcomes as outputs. This chapter looks at other individual cause-and-effect relationships identified in the immigration literature. These individual characteristics and resources are discussed here as inputs that account for cultural integration (i.e. destination-language proficiency) and subjective integration (i.e. life satisfaction) outcomes as outputs. In the following pages, we introduce cultural integration and its multiple factors operating at the individual level.

7.1. CULTURAL INTEGRATION: DESTINATION-LANGUAGE PROFICIENCY

Developing a proficiency in the host country's language is the first step in the adjustment by immigrants to the host society (Hirschman, Kasinitz and DeWind, 1999a; Portes and Rumbaut, 2006). After their arrival at the destination country, most immigrants tend to confront adjustment-related problems due to the language barrier. For example, those who lack the ability to speak the host country's language find it difficult to communicate with native-born people, to participate in the labour market, to access welfare services, or to apply for naturalisation (Portes and Rumbaut, 2006). Thus, as a basic step toward incorporation (Chiswick and Miller, 2001), skill in the host country's language determines the extent to which immigrants will successfully adjust to the host society (Espenshade and Fu, 1997; Espinosa and Massey, 1997).

The process of obtaining destination-language proficiency among immigrants, therefore, is a substantial concern. An examination of this process can facilitate a coherent understanding of how immigrants diminish their adjustment-related problems related to destination-language barriers and improve their levels of adjustment in the host country by developing destination-language proficiency. As such, this section identifies avenues for

decreasing barriers to the development of destination-language proficiency, by emphasising the determinants of destination-language proficiency among immigrants.

Before delving into this subject, we identify the theoretical perspectives regarding destination-language proficiency among immigrants in order to consider diverse explanatory factors that influence its development.

7.1.1. Theoretical approach of destination-language among immigrants

In the abundant literature relating to the process of language acquisition by immigrants, scholars in sociology, economics, and linguistics have studied the destination-language proficiency of those entering the host country (C. Stevens, 1999).

First, from the sociological perspective, destination-language acquisition is a matter of choosing between the mother tongue and the destination language (Mesch, 2003). As the destination language is an aspect of culture, its acquisition results from the cultural choice of whether to accept the host culture (i.e., speak the destination language) or to retain the original culture (i.e., speak the origin language) (Berry, 2001, 2003, 2006, 2007). Using this perspective, sociologists have found that immigrants use their mother tongue with individuals from the same ethnic groups (Zhou, 1997) to maintain their cultural identity, ties, and bonds in the receiving country (Chiswick and Miller, 2005a; Mesch, 2003; Grenier, 1984). Hence, if immigrants select their origin language for cultural solidarity in the destination country, their use of the mother tongue may prevent them from obtaining better destination-language skills. In contrast, those who make an effort to learn the destination language are more likely to adjust to the host society.

Second, using the human capital model (C. Stevens, 1999; Espenshade and Fu, 1997) of the economists' framework, language acquisition is one of the crucial elements in human capital skill sets (Chiswick and Miller, 2003). The time and money invested in learning a new language are the costs, while the returns from learning the destination language are the benefits of economic opportunities for occupational mobility and higher income (Dustmann, 1994). Thus, improvement of destination-language proficiency involves a decision-making

process of cost-benefit evaluation (Grenier, 1984; Espenshad and Fu, 1997; Chiswick and Miller, 2001).

Lastly, linguistics emphasises different levels of maturation in learning a new language (C. Stevens, 1999). From this perspective, the levels of language acquisition vary with cohorts of age, gender differences, and language roots (Chiswick and Miller, 2001). Within this approach, immigrants who are younger and female are more likely to improve their destination-language skills than those who are older and male (C. Stevens, 1999). In addition, the relative language differences between the origin language and the destination language tend to determine the degree of language proficiency achieved by immigrants (Chiswick and Miller, 2001). For example, immigrants from Japan may find it more difficult to learn English than do immigrants from Mexico, because the linguistic roots of the Japanese and English languages are much different compared to those of Spanish and English (Chiswick and Miller, 2005b).

These three theoretical approaches provide various insights and allow for the identification of various factors that result in the acquisition of destination-language proficiency among immigrants. To understand the process of destination-language acquisition among immigrants, we next consider the insights gained by the use of these three approaches.

7.1.2. Analytical framework and empirical evidence

When reviewing the literature, numerous articles and books in the Western context have called particular attention to the predictors influencing destination-language skills (e.g. G. Stevens, 1992; Espenshad and Fu, 1997; Espinosa and Massey, 1997; Carliner, 2000; Hwang and Xi, 2008; Chiswick and Miller, 2010 in America; Dustman and Fabbri, 2003 in the U.K.; Chiswick, 1998; Mesch, 2003; Remennick, 2004 in Israel; Dustman, 1994 in Germany; Chiswick and Miller, 1995, 1996, 1999; C. Steven, 1999; Chiswick, Lee and Miller, 2004 in Australia; Chiswick and Miller, 2001, 2003 in Canada).

Unlike the literature in the Western context, there have been few attempts to address the process of Korean-language acquisition among marriage migrants in Korea. Academic

accounts have focused more on the effect of Korean language as a predictor for immigrant adjustment (e.g. Choi, 2009; Lim, Jeong, and Lee, 2010 on acculturation; Sung, 2011; Kim, Oh, and Ahn, 2012 on marital adjustment; Jo, 2010; Sung et al., 2013 on life satisfaction), and have mostly regarded it as one of the adjustment-related problems in Korea, without having conducted a systematic analysis (e.g. Seol, Lee and Cho, 2006; Kim et al., 2010; Jeon et al., 2013). To our knowledge, there has been no analysis to explain how Korean-language skills are obtained by marriage migrants. Hence, we have necessarily been constrained to the Western context rather than to Korea in our review of relevant literature.

Meanwhile, in order to comprehensively address insights across disciplines, we have formulated four key sets derived from terminologies developed by Chiswick and Miller in their analysis of destination-language proficiency, including exposure, efficiency, economic incentives, and family resources (1995, 1998, 2001).¹³ Using this terminology, we next introduce possible factors influencing destination-language ability, based on a review of empirical studies within the contexts of Western countries.

7.1.2.1. Exposure

Exposure to the destination language is related to the opportunities for its use after arrival (Espenshade and Fu, 1997; C. Stevens, 1999; Chiswick and Miller, 1995). This exposure can be broken down into time and environment for strengthening the exposure to the destination language in the host society (Chiswick and Miller, 1999, 2001).

The factor of time is estimated by years since migration, based on the assumption that destination-language proficiency will be improved by a growing number of opportunities to practice and experience the language by virtue of the years since migration (Chiswick and Miller, 1995). Thus, the improvement of destination-language skills through practice and experience may be increased by additional years in the destination country. The positive linear relationship between destination-language skills and length of settlement was first noted by Chiswick (1991), who found that although illegal immigrants from Mexico in

¹³The studies of Chiswick and Miller used the term “exposure”, “efficiency”, and “economic incentives”.

California between 1986 and 1987 could not speak English in the first year of migration, their English ability improved with the number of years in the United States. The incremental effect of years since migration has been consistently shown in large empirical studies since Chiswick's study (C. Stevens, 1999; Carliner, 2000; Dustmann, 1994; Chiswick and Miller, 1995, 1999, 2001, 2008).

In addition to time, the field of linguistics refers to the use of the mother tongue in the host country. When avoiding exposure to the mother tongue, immigrants tend to successfully improve their destination-language skills (Chiswick and Miller, 2001, 2005b). The environment is linked to the types of social networks to which they belong—either ethnic or non-ethnic networks. Ethnic networks tend to discourage the use of the destination language by immigrants. If immigrants settle in a place where people of the same ethnic origins are highly concentrated, the probability of their use of the mother tongue increases (G. Stevens, 1992; Dustmann, 1994). This is because in these places, immigrants can meet members who share the same ethnic backgrounds and are thus more likely to speak their mother tongue (Mesch, 2003; Espenshade and Fu, 1997).

Empirical studies have found that the effect of ethnic networks, including contacting ethnic associations (Chiswick, Lee and Miller, 2005b; Chiswick, Lee and Miller, 2006), ethnic mass media (Chiswick and Miller, 1996; Remennick, 2004), and having friends with the same ethnic background (Espinosa and Massey, 1997) is related to having a lower level of destination-language proficiency. Specifically, among immigrants holding a Migrating Unit Spouses visa, contact with an ethnic organisation, ethnic religious organisation, or ethnic voluntary welfare agency deters these immigrants from improving their English language skills in Australia (Chiswick, Lee and Miller, 2005b). In a similar vein, those who have contact with an ethnic organisation, ethnic religious organisation, or ethnic voluntary welfare agency are less likely to be proficient in English in Australia (Chiswick, Lee and Miller, 2006). In terms of ethnic mass media in Australia, as immigrants have contact with ethnic mass media, their likelihood of speaking, writing, and reading in their mother tongue is increased (Chiswick and Miller, 1996). Similarly, given the Hebrew language in Israel, a greater level of communication with ethnic-born people or contact with ethnic-based mass

media is associated with lesser proficiency in the Hebrew language among immigrants from Russia (Remennick, 2004). In terms of having friends with the same ethnic background, Espinosa and Massey (1997) found that Mexican immigrants who meet friends with the same background are less likely to be fluent in English in the U.S.

However, in this thesis we neglect any discussion of ethnic organisations, participation in religious organisation, and contact with ethnic-based mass media. It is difficult to obtain information about religious organisations and ethnic mass media in Korea due to a lack of data. We conducted our secondary data analysis based on data from the 2012 NSMF, which does not provide any information about ethnic organisations, participation in religious organisations, or ethnic-based mass media. As such, we developed different variables to measure ethnic networks, such as meeting with friends from the same ethnic background and the number of such friends.

Meanwhile, in areas where one ethnic group has only a small population, immigrants from this ethnic group may have a few chances to meet with others who share their same ethnic backgrounds. In this situation, immigrants will have a greater incentive to obtain destination-language skills, as well as an increased likelihood of exposure to speak the destination language (Chiswick and Miller, 2005b). In other words, immigrants would be as likely to develop destination-language skills as those who are frequently exposed to non-ethnic networks (Chiswick and Miller, 2001).

Empirical studies have illustrated that non-ethnic networks, including contact with sport associations or clubs, having friends with other ethnic backgrounds, and enrolling in a language class are associated with a higher level of destination-language proficiency. Specifically, Espinosa and Massey (1997) examined the association between non-ethnic networks and English skills in the U.S., and found that when Mexican immigrants belong to sport associations or clubs in the United States, they are more likely to be proficient in English. In addition, as Mexican immigrants meet friends with other ethnic backgrounds, their English skills improve. Mesch (2003) identified that immigrants in Israel from former

Soviet Union countries who participate in organisations that provide Hebrew language classes increase their skills in the Hebrew language.

Because this thesis relies on secondary data, we necessarily considered whether the information obtained from the main data source was in fact adequate. We determined that the main data source provided sufficiently wide-ranging information for this analysis, regarding non-ethnic networks. Non-ethnic networks include participation in local resident gatherings, the number of Korean friends, the number of friends with other ethnic backgrounds, the use of welfare centres, and the use of community centres.

In summary, non-ethnic networks lead to a greater use of the destination language, which increases levels of proficiency in the destination language, while ethnic networks are associated with less use of the destination language, which leads to less proficiency. As such, we take the approach in this thesis that non-ethnic networks have a positive impact while ethnic networks have a negative impact on destination-language proficiency.

7.1.2.2. Efficiency

Efficiency refers to the extent to which immigrants improve their destination-language skills, and it varies according to individual characteristics that influence the immigrants' destination-language learning process (Chiswick and Miller, 1999).

Several studies have examined the effect of age as an important explanatory variable in considerations of different levels of efficiency. These studies have shown that young immigrants have more advantages than older immigrants in acquiring destination-language skills (Veltman, 1988; Espenshade and Fu, 1997; C. Stevens, 1999). Age's negative effect on destination-language proficiency may be explained by three factors. First, taking the biological perspective, younger people are more responsive to acquiring new language skills than older people (C. Stevens, 1999; Chiswick and Miller, 2001). Second, from the economic incentive perspective, immigrants who come to the destination at an older age have fewer labour market advantages, so they may lack motivation to learn the destination-language as compared to immigrants who arrive at younger, more labour-oriented ages (G. Stevens, 1992;

Grenier, 1984). Third, using the acculturation perspective, older immigrants may find it more difficult to accept the new culture, which means they maintain their attachments to the origin language and avoid using the destination language (Berry, 2001, 2006). Hence, it is generally suggested that age is negatively related to destination-language proficiency.

Numerous empirical studies have also found that destination-language proficiency typically increases with years of schooling. Chiswick and Miller examined English proficiency among immigrants in the United States (1998, 2008), Australia (1995, 1996, 1999), and Canada (2001). Their studies confirmed overall that educational attainment was a positive predictor influencing English language proficiency. Analyses of the Hebrew (Mesch, 2003; Chiswick, 1998) and German languages (Dustman, 1994) have reiterated the positive relationship between educational attainment and destination-language proficiency. An equivalent result is associated with direct and indirect incentives for learning the destination-language (Carliner, 2000). Regarding direct incentives, a person can accumulate knowledge through education and this knowledge then helps him to obtain new skills (Carliner, 2000; Mesch, 2003). In this sense, the ability to learn a new language is increased by education. The indirect incentive, on the other hand, is based on the presumption that the economic premium matches educational attainment, and to achieve the economic premium, educated immigrants make the effort to learn a new language (Chiswick and Miller, 1995, 1999, 2001; Chiwick, Lee and Miller, 2004; Kossoudji, 1988). Thus, better educated immigrants expect to obtain jobs that are characterised by higher occupational positions and salaries, and the jobs that are accompanied by higher positions and earnings require destination-language proficiency (Carliner, 2000). In this situation, educated immigrants are more likely than those who are not educated to improve their destination-language skills to achieve economic premiums in the host society. Therefore, high educational attainment leads immigrants both directly and indirectly to improve their destination-language skills. Based on studies of efficiency, we can predict that the younger the immigrants and the higher their educational attainment, the higher will be their destination-language proficiency.

7.1.2.3. Economic incentives

The relationship between economic incentives and destination-language proficiency may be placed within simultaneous cause-and-effect functions. On the one hand, as discussed regarding immigrant economic integration, destination-language proficiency is an important factor influencing immigrant employment and income level in the host country. Based on the human capital model, economic incentives can be characterised as labour force participation, higher income, and upward-mobility, resulting from the acquisition of destination-language skills once immigrants arrive in the host country (Chiswick and Miller, 2001, 2010). On the other hand, the economic incentives of labour force participation and higher income are also causes that affect the development of destination-language skills. Those who expect higher economic advantages in the host country are more likely to invest time and effort into learning the destination language compared to those who expect fewer economic advantages (Chiswick and Miller, 1995, 1999, 2001; Kossoudji, 1988). In this sense, the economic advantages of labour force participation and higher income would encourage immigrants to learn the destination language.

Within the logic of these simultaneous cause-and-effect functions, employment is a possible factor related to destination-language proficiency. Numerous researchers have found that being employed positively impacts destination-language ability (Dustmann, 1994; Espinosa and Massey 1997; Mesch, 2003). When employed in the host labour market, immigrants are more likely to realise the important role of destination-language proficiency in finding a job with a better economic position. In general, to achieve better economic positions, destination-language proficiency is demanded (Carliner, 2000). Once the importance of destination-language proficiency is realised, immigrants would likely be moved to invest the time and effort to acquire destination-language skills. Hence, employment has a positive linear relationship with destination-language proficiency.

In sum, immigrants pursuing greater economic advantages are motivated to learn the new language, and destination-language proficiency leads to immigrants' having greater

economic advantages in the receiving country. The operation of these simultaneous functions means that being employed has a positive impact on destination-language proficiency.

7.1.2.4. Family resources

The influence of family resources on destination-language proficiency is discussed using the perspectives of exposure and economic incentive.

On the one hand, from the exposure perspective, it is assumed that immigrants can practice the destination language with members of their family (Chiswick and Miller, 2001). Depending on the assumptions made, many studies have demonstrated that the immigrant's spouse (Grenier, 1984; G. Stevens, 1992, 1999; Dustmann, 1994; Espinosa and Massey, 1997; Espenshade and Fu, 1997) and children (Grenier, 1984; Dustmann, 1994; Espinosa and Massey, 1997; G. Stevens, 1999; Chiswick and Miller, 1995; 2001; Dustmann and Fabbri, 2003; Chiswick, Lee, and Miller, 2005) are important predictors of the development of destination-language proficiency.

First, when discussing immigrants' spouses in relation to destination-language proficiency, there are different marital situations to consider. One is that if immigrants have married a person who is not fluent in the immigrants' origin language and has a different ethnic background, the immigrants may have a greater chance to use the destination language with their spouse following migration (Chiswick and Miller, 2001). If, on the other hand, immigrants have married a person who is familiar with the immigrants' origin language and is from the same origin country, the immigrants may have a greater chance of using their origin language with a spouse after migration (Grenier, 1984; G. Stevens, 1992, 1999; Espinosa and Massey, 1997; Espenshade and Fu, 1997; Chiswick and Miller, 2001). Hence, these contrasting situations—the extent to which immigrants' spouses are fluent in the origin language and whether or not immigrants and their spouses share the same ethnic backgrounds—are vital factors that influence destination-language proficiency outcomes.

A review of related empirical studies shows that these studies have focused on these two conditions. Grenier (1984) examined the language shift from Spanish to English among

Hispanic immigrants in the United States. When female immigrants' spouses were not Hispanic, the female immigrants tended to use English rather than Spanish. Dustmann (1994) analysed the speaking and writing abilities of migrant workers' in Germany, and found that when the migrant workers' spouses were fluent in speaking and writing German, the migrant workers were more likely themselves to develop skills in speaking and writing German. A study by G. Stevens (1999) yielded results similar to those of Grenier (1984), finding that, among immigrants in the United States, when immigrants married a native-born person, the immigrants were more likely to improve their English language skills (G. Stevens, 1999). By contrast, when immigrants married a person who was not a native born and was from an overseas country, the immigrants were less likely to improve their skills in English (G. Stevens, 1999). Similarly, Espenshade and Fu (1997) explored immigrants' English skills in the United States, and found that when the immigrant's spouse was from English-dominant countries, the immigrants' likelihood of speaking English increased.

Although a number of empirical studies have explored the influence of the immigrants' spouse with respect to destination-language proficiency, in this thesis we ignore the influence of the spouse in our consideration of destination-language skills. The main reason is related to the limitations of available data and the unique Korean context. With regard to the data limitation, this thesis has relied on secondary data analysis, based on the 2012 NSMF, which provides no data on the extent to which immigrants' spouses are fluent in the immigrants' origin language. Regarding the unique Korean context, all marriage migrants in this study have married a Korean spouse, so the origin nationality of marriage migrants is always different from that of the Korean spouses, except for the Korean Chinese (Jeon et al., 2013). This may indicate that there is an equal circumstance among marriage migrants with respect to practicing the Korean language at home, but for the Korean Chinese. As such, most marriage migrants likely use the Korean language to communicate with Korean spouses at home, and so have an equal opportunity to increase their Korean language skills. In the case of international marriages between Korean Chinese and Korean spouses, although they share the same ethnic backgrounds (as discussed in Chapter 2), Korean Chinese immigrants were already fluent in the Korean language prior to marrying their Korean spouses (Abelmann and

Kim, 2005). In this situation, therefore, it is not relevant to discuss their practice of the Korean language with their spouses after marriage. Hence, in the Korean context, it is not relevant to consider the ethnic backgrounds of marriage migrants and their spouses in discussions about the exposure of immigrant wives to the Korean language.

Secondly, there is no general agreement by authors of empirical studies regarding the effect of children on destination-language proficiency. In the studies by Chiswick and Miller (1995, 2008) and Espenshade and Fu (1997), the number of children is associated with a lower proficiency in English, while the study by Espinosa and Massey (1997) showed that the number of children born in the United States is associated with greater improvements in the English language. Regarding the Hebrew language in Israel, the number of children is an insignificant factor with respect to Hebrew-language proficiency (Mesch, 2003). The reasons for these varying results may be addressed by one of four approaches.

In the first approach, children may help immigrant parents to enhance their destination-language skills by performing the role of teacher. Because children are more responsive to learning a new language (Veltman, 1988), they are more likely to become fluent in the destination language than their parents. In addition, because children are more exposed to the use of the destination language at school (Chiswick and Miller, 2001), they are more likely to develop proficiency in the destination language than are their parents. Based on this perspective, children may teach the destination language to their parents at home (Chiswick and Miller, 2005a), which will in turn lead parents to improve their destination-language ability (Hwang and Xi, 2008).

In the second approach, the existence of children would deter female immigrants from using the destination language, due to the time spent at home with their children (Chiswick and Miller, 2001). Underpinning the household production theory as it relates to economic integration (Chapter 6), children tend to prevent female immigrants from obtaining a job because female immigrants often focus on the roles of mother and homemaker (Becker, 1965). In this situation, mothers may mainly use their mother tongue with their children at home, which leads to lower levels of destination-language proficiency.

The third approach assumes that adult immigrants have few chances to speak the destination language because their children may act as translators for their parents (Chiswick and Miller, 2001). Children become bilingual from their use of the destination language at school and their parents' mother tongue at home (Veltman, 1988). In part, parents may depend on their children's proficiency in the destination language when interacting with native-born people, because their children can understand both languages. Thus, children who serve as translators for their parents may serve to diminish the parents' opportunity to speak the destination language.

In the fourth approach, immigrant parents may want to ensure that their children maintain their ethnic culture and identity, so the parents may suggest that the children use only their origin language at home (Zhou, 1997). Given this situation, the parents and their children may communicate in their mother tongue, which may serve to decrease their destination-language ability. From these conflicting roles played by children in relation to the immigrants acquiring destination-language skills, the effect of children on destination-language proficiency is unclear (Chiswick, Lee and Miller 2005a, 2005b).

On the other hand, based on the perspective of economic incentive, previous studies have found that household income has an impact on destination-language skills (Chiswick and Miller, 2001, 2010). Family income is apparently associated with the resources available for investment in learning the destination language (Chiswick and Miller, 1999, 2001). If a family has sufficient income, the family members can use it to concentrate on obtaining destination-language skills, without the need to always be engaged in the extra activities of earning and homemaking. In other words, those who have greater economic resources are more likely to invest their time and effort into learning a new language than those who have few resources in the host country (Chiswick and Miller, 2001, 2010). Thus, the greater the family income, the greater the investment in learning a new language, so its proficiency is enhanced by sufficient household income (Chiswick and Miller, 1999, 2001). In other words, it seems that household income has a positive impact on destination-language proficiency.

In conclusion, being younger, having higher educational attainment, non-ethnic networks, a longer duration in the destination country, being employed, and having higher family income are all associated with a higher probability of being proficient in the destination language, while ethnic networks are associated with a lower probability of being fluent in the destination language. However, the effect of children on destination-language proficiency is complicated. Having discussed the individual determinants that may affect the outcome of cultural integration (i.e., destination-language proficiency), we next describe other predictors that may influence the outcome of subjective integration (i.e., life satisfaction).

7.2. LIFE SATISFACTION

Life satisfaction, one of the subjective well-being components, is defined as the extent to which people evaluate the quality of their everyday life, with their subjective criteria reflecting their prior experiences (Diner, 1984; Bartram, 2011a; Youngman, 2013). On this basis, for immigrants, the process of settlement in the destination is recognised through the experiences of everyday life after arrival (Verkuyten, 2008; Safi, 2010), and they tend to evaluate their experiences in the host country according to their subjective criteria (Amit, 2010). Hence, life satisfaction is used as an outcome for evaluating immigrant integration (Amit, 2010).

Although classical studies on immigration emphasise objective indicators such as income, employment, education, health, and destination-language ability as critical outcomes by which to gauge incorporation, recent literature has brought attention to the life satisfaction of immigrants as a subjective measure of immigrant incorporation (Verkuyten, 2008; Amit, 2010). Many scholars have explained why life satisfaction is a crucial topic to consider (Ying, 1992; Hughes and Thomas, 1998; Verkuyten, 2008; Amit, 2010; Safi, 2010; Gokdemir and Dumludag, 2012). Immigrants tend to come to the host country with the expectation of a better quality of life in the host country, as compared to that in their origin country. However, such expectations may subside after migration, as they are confronted with underprivileged circumstances such as lower social skills, poverty, unemployment, underpaying jobs, and

fewer chances for achieving upward mobility (Portes and Rumbaut, 2006). In these circumstances, immigrants are less likely to be satisfied with their lives in the host country, which in turn discourages them from incorporating themselves in the host society (Richardson, 1967; Benish-Weisman and Shye, 2011). As such, scholars suggest that life satisfaction is linked to immigrant integration.

However, there appear to be different levels of life satisfaction among immigrants (Massey and Akresh, 2006). Their relative levels of life satisfaction are determined by various factors that relate to the circumstances that immigrants face (e.g., unemployment, lower income, poorer destination-language proficiency, and fewer social relationships). These factors are associated with their own individual characteristics, which influence their subjective evaluations of their everyday lives in the host society (e.g., age, education, and years since migration) (Massey and Akresh, 2006; Sung et al., 2013). Hence, these determinants of life satisfaction can provide initial insights into whether immigrants are satisfied with their lives and how this satisfaction may be improved in the host society. The following sections introduce possible factors relating to life satisfaction, taken from empirical evidence using an individualistic approach.

7.2.1. Empirical evidence

A review of the literature reveals that numerous studies, both in the Western context and in Korea, have called attention to similar possible causal relationships of factors affecting the life satisfaction of immigrants in the destination country. Hence, in this section, we investigate the factors most commonly reported in core immigration studies using the individualistic approach, and consider the Western and Korean contexts together. The aim of this thesis is to examine the effectiveness of a settlement service for the integration of immigrant wives, based on the logic model. We regard individual characteristics and resources as common inputs that influence immigrant wives' political, economic, cultural, and life satisfaction, as outputs. Hence, in the following sections, we introduce possible life satisfaction factors that are drawn from empirical evidence based on the individualistic approach.

To explore these common life satisfaction factors, our discussion is based on three domains: demographic, family, and social domains, as derived from a study by Sung and colleagues (2013).¹⁴ Relying on these three domains, in the following sections, we introduce explanatory factors for life satisfaction.

7.2.1.1. Demographic domain

Life satisfaction is associated with individual level variables, including age, education, years since migration, destination-language skills, and employment.

First, there is no clear effect of age on life satisfaction. Traditionally, researchers have argued that age is negatively correlated with life satisfaction. Since the pioneering research on subjective well-being by Wilson (1967), many scholars conducting subjective well-being research, including life satisfaction, have assumed that younger people are more likely to be satisfied with their lives than older people (Diener et al., 1999; Helliwell, 2003). However, this result has been challenged by the findings of a number of other studies (Campbell et al., 1976; Herzog and Rodgers, 1981; Horley and Lavery, 1995), which have indicated that life satisfaction increases with age. Furthermore, recent studies also disagree with the idea of there being a linear relationship between age and life satisfaction (Blanchflower and Oswald, 2004; Y. Yang, 2008; Helliwell and Putnam, 2004). Instead of a linear relationship, they suggest that a more accurate assumption is that the relationship is U-shaped, suggesting that life satisfaction decreases with age up to middle-age, but increases thereafter. These inconsistent findings have made it difficult to predict the relationship between age and life satisfaction (Pinquart and Sorensen, 2000).

In spite of the ambiguity associated with prediction, recent findings on immigration have typically shown that age has a negative impact on life satisfaction. The survey results of Verkuyten (2008) of 141 respondents with Turkish background and 132 respondents with Dutch background showed that age was a significant and negative determinant of life satisfaction. Safi (2010), who examined the life satisfaction of first- and second-generation

¹⁴The explanatory variables influencing life satisfaction are categorized at the “individual,” “family,” “community,” and “social” level, in the study by Sung et al. (2013).

immigrants in 13 European countries, echoed the finding of Verkuyten, finding that immigrants under 28 years of age were more likely to be satisfied with their lives compared to those in the 28–40, 40–55, and 55–65 age bands. Similarly, in an analysis of immigrants from Western countries and the former Soviet Union to Israel, Amit (2010) reported that life satisfaction was negatively correlated with age. In a later analysis of immigrants from Ethiopia to Israel, she also found a similar result, concluding that age had a negative correlation with life satisfaction (2012). Regarding immigrant wives in Korea, younger immigrant wives are more likely to be satisfied with their lives in Korea than those who are older. For instance, Kim and Park (2008) and Park, Park, and Kim (2007), in their analyses of immigrant wives living in Chonam, Korea, found that age had a significant and negative effect on life satisfaction. In an investigation of immigrant wives from China, Japan and Vietnam, based on the 2009 NSMF, K. M. Kim (2012) also demonstrated a negative effect of age on life satisfaction.

The determination that age had a negative effect on life satisfaction arose from an acculturation perspective. In the process of adaptation, young immigrants are more likely to accept a new culture and are less likely to undergo adjustment-related problems than their older counterparts (Berry, 2001; Danzer and Ulku, 2008). This indicates that younger immigrants may perceive greater life satisfaction in the destination country compared to older immigrants (Jo, 2010). Despite the fact that the acculturative perspective describes age as having a negative effect on life satisfaction, there is a controversial assumption regarding the relationship between age and length of residency. Those who arrived more recently are more likely to experience hardships in the process of adjustment, including low income, acculturative stress, and discrimination as young immigrants (Safi, 2010). Perhaps, recent immigrants' expectations do not match their real life experiences in the destination country after their arrival (Bartram, 2011a). This fact may argue for the presence of a positive linear relationship between age and life satisfaction. When considering these aspects, the impact of age on life satisfaction is difficult to predict in a straightforward manner. As such, in this thesis, we examine both age and age squared as possible life satisfaction factors.

Second, education is supposed to be positively linked to life satisfaction. Many subjective well-being researchers, who also evaluate life satisfaction and happiness, have embraced the notion that better educated individuals tend to be more satisfied or happier with their lives (Wilson, 1967; Campbell et al., 1976; Herzog and Rodgers, 1981; Horley and Lavery, 1995; Diener et al., 1999; Pinquart and Sorensen, 2000; Helliwell, 2003).

Similarly, the positive effect of education has been identified by researchers focusing on immigration. Of 143 Chinese-Americans living in San Francisco, the United States, Ying (1992) concluded that social status, including educational level and income, positively affected life satisfaction. Based on data from the Quality of American Life Survey, Thomas and Holmes (1992) also found that better socioeconomic status, derived from education and income, increased life satisfaction in a comparison of life satisfaction levels between white and black Americans in 1971 and 1978. Similarly, the study by Safi (2010) also indicated that education was a positive predictor of life satisfaction among immigrants in 13 European countries, using data from three waves of the European Social Survey. Gokdemir and Dumludag's (2012) analysis of 111 Turkish and 96 Moroccan immigrants in the Netherlands reiterated that education increased life satisfaction. Tonsing (2013), in a similar result among immigrants from Pakistan in Hong Kong, found that levels of life satisfaction were enhanced with educational attainment. In a study of immigrant wives in Korea, Kim and Park (2008) compared the life satisfaction of immigrant wives in urban areas and rural areas and found that education was positively associated with life satisfaction among immigrant wives in rural areas in Cheonam province, Korea. Sung et al. (2013) similarly found that immigrant wives with higher educational levels were more likely to be satisfied with their lives in Korea than those who were less educated, based on data from the 2009 NSMF.

Given the common finding that there is a positive association between education and life satisfaction, some reasons for this finding may be inferred. Education plays a variety of roles, from creating relationships with people, finding higher paid jobs, achieving better social positions, and maintaining better health, to being less stressed in everyday life (Ross and Willigen, 1997). These factors may lead to a higher level of subjective well-being (Ross

and Willigen, 1997). Based on these findings, therefore, here we assume that better-educated immigrant wives are more likely to experience higher levels of life satisfaction in Korea.

Third, time plays a substantial role in life satisfaction among immigrants (Richardson, 1967; Amit, 2010). It is often hypothesised that immigrants tend to face adjustment-related problems and acculturative stress during the process of incorporation (Vohra and Adair, 2000), but that over time, they tend to catch up with native-born residents with respect to income, socioeconomic status, and human capital skills, as well as in establishing psychological stability from these social capital resources at the destination country (Safi, 2010).

Indeed, considerable evidence indicates that the years since migration are positively related to life satisfaction among immigrants. For instance, Thomas and Holmes (1992), who compared levels of life satisfaction between white and black immigrants in the United States, showed a positive correlation between time spent since settlement and life satisfaction. Werkuyten and Nekuee (1999) also found that life satisfaction increased with the number of years since migration among Iranian refugees in the Netherlands. In a similar vein, Vohra and Adair (2000) investigated immigrants from India in Canada and found that years since migration were positively correlated with scores of life satisfaction on a scale developed by Diener et al. (1985). Verkuyten (2008) also supports the results regarding the positive effect of increased time since settlement. Specifically, he found that the longer that immigrants from Turkey had lived in the Netherlands, the more they were satisfied with their lives there. For immigrant wives in Korea, some scholars measure the duration of marriage as a proxy variable for the length of residence because a number of immigrant wives primarily arrive in Korea through international marriage (Sung et al., 2013). In an application of the duration of marriage, Kim and Park (2008) demonstrated that duration of marriage was also positively related to life satisfaction in urban areas. From these empirical studies in Western countries and Korea, we infer that the duration of settlement is positively associated with immigrants' life satisfaction in the destination country.

Fourth, a positive correlation is also reported in empirical studies between destination-language skills and life satisfaction. The reason for this positive correlation begins with the role of the destination language. Many researchers indicate that one of the most important reasons for an unhappy life among immigrants in the receiving country is derived from the barriers of not being proficient in the destination language (Ying, 1992; Vohra and Adair, 2000). If immigrants improve their destination-language proficiency, they are able to enjoy various advantages including improved communication, labour force participation, citizenship, education, and welfare services in the host country (Portes and Rumbaut, 2006). Due to these benefits associated with destination-language proficiency, immigrants may then be satisfied with their lives in the host country. In addition, developing destination-language skills decreases the gaps between the pre-immigration expectations and the realities of post-immigration, which could result in greater satisfaction with their lives in the host society (Ying, 1992, 1996; Neto, 1995).

More specifically, Ying (1996) reported that Chinese immigrants in the United States perceived lower levels of satisfaction when confronting the language barrier. In an analysis of immigrants over 50 years old in Israel, Amit and Litwin (2010) identified that life satisfaction was increased by having destination-language skills. Amit (2010) also found that immigrants from Western countries in Israel were more satisfied with their lives as they increased their Hebrew-language skills. Similarly, Massey and Akresh (2006) supported this result, indicating that higher scores of life satisfaction with American life were reported when immigrants spoke English very well. From the literature review in relation to Korea, K. M. Kim (2012) found that life satisfaction was increased by Korean-language ability among immigrant wives from Japan, Vietnam, and China. The study of Park and Cho (2012) echoed these results, showing that Korean-language ability yielded life satisfaction in Korea. In a similar analysis, Sung et al. (2013), in a comparative study of life satisfaction among Korean Chinese, Chinese, Vietnamese, and Filipinos immigrant wives, found that these four ethnic groups were satisfied with their lives in Korea when their Korean-language proficiency improved. Based on the empirical evidence reported above, destination-language ability is expected to be significantly and positively related to life satisfaction.

Finally, previous studies have found employment to be a positive factor in life satisfaction. The study of Houle and Schellenberg (2010) reported that full-time employment was positively associated with life satisfaction among immigrants in Canada. This result is consistent with that of Safi (2010), who found that unemployed immigrants were less satisfied with their lives, in a comparative analysis of immigrants in 13 Western European countries. Melzer's (2011) analysis of life satisfaction of migrants moving from East Germany to West Germany between 1992 and 2006 also revealed a positive relationship between life satisfaction and employment. Specifically, migrants who were unemployed were less likely to be satisfied with their lives after migration than those who found work. Similarly, Herrero, Fuente, and Gracia (2011) examined the subjective well-being of Latin American immigrants in Spain and found a positive relationship between employment and cognitive subjective well-being. Obucina (2013) supported this prior empirical research, indicating that unemployment led immigrants to be less satisfied with their lives in Germany.

An assumption may be made with respect to the positive relationship between life satisfaction and employment, which is derived from the economic approach on international migration. With respect to the economic reasons for international migration, immigrants tend to cross a border in the expectation of better economic circumstances, including employment and higher income (Massey et al., 1993; Portes and Rumbaut, 2006). However, often the real economic situations do not match their economic aspirations after arrival in the destination country (Vohra and Adair, 2000; Bartram, 2011b). Such a mismatch then leads immigrants being dissatisfied with their lives in the host country. Another possible explanation for the positive relationship between life satisfaction and employment is related to the disadvantages of unemployment. Immigrants who do not have a job are limited in the scope of many of their daily activities (Tonsing, 2012). For example, an insufficient financial situation caused by unemployment may make it difficult to buy everyday necessities, pay rental fees for a house, or take care of one's children. These difficulties would discourage a sense of life satisfaction in the destination country (Tonsing, 2012). It is therefore probable that labour force participation facilitates life satisfaction.

7.2.1.2. Family domain

In the family domain, children, household income, and relationships with family members are associated with life satisfaction.

First, several studies have demonstrated that life satisfaction is decreased with children (Shin and Johnson, 1978; Glenn and Mc-Lanahan, 1981; Di Tella, MacCulloch and Oswald, 2003; Bartram, 2011b). Although there may be unwarranted claims about the effect of children in empirical studies of life satisfaction, the empirical evidence with respect to immigration indicates both positive and negative coefficients with respect to children and life satisfaction.

Studies revealing a positive effect include one by Thomas and Holmes (1992), who reported that white and black Americans with children were more likely to be satisfied with their lives than those who had no children. A study by Park, Park, and Kim (2007) found that the number of children increased life satisfaction among immigrant wives in Korea although the coefficient was somewhat small. Safi (2010), in an analysis of married immigrants in 13 European countries, found that life satisfaction levels increased among those with children. Melzer (2011) reported that the coefficient of having children increased life satisfaction among migrants from East to West Germany. In contrast, other immigration studies have reported a negative effect associated with children. For instance, in their examination of Indian immigrants in Canada, Vohra and Adair (2000) found that the variable of raising children negatively affected life satisfaction. In a similar vein, Sung et al. (2013) identified that the number of children was negatively related to levels of life satisfaction among immigrant wives from China and Vietnam in Korea. In fact, these results indicate that children have complicated effects on immigrant life satisfaction.

A number of reasons are possible for the positive and negative effects of children. On one hand, regarding the negative effect, childcare responsibilities may cause parents to experience pressure and prevent them from enjoying their leisure time, which may make it difficult to be satisfied with their lives (Angeles, 2010). On the other hand, it has been suggested that having children may enhance parents' life satisfaction since they are able to

continue their blood lineage (Sung et al., 2013). Because of the conflicting effects of children, it is difficult to assume any one clear relationship between children and life satisfaction. As such, this study attempts to consider different age cohorts and the number of children together, to test possible positive and negative effects. We examine the number of children at preschool age and at school age to determine the effect of children on life satisfaction.

Second, despite the findings reported above, the relationship between income and life satisfaction is a highly controversial topic. Several studies have argued that income increases subjective well-being (Diener et al., 1993; Bohnke, 2008; Ball and Chernova, 2008; Helliwell, 2003), whereas other studies have argued that such a positive inference is not sufficient (Easterlin, 2005; Boyce, Brown and Moore, 2010; Graham and Pettinato 2002).

However, many studies on immigration have found that life satisfaction may be improved by a higher income among immigrants in the receiving country. For example, based on data from the World Values Survey, Bartram (2011b) compared individual incomes of immigrants from Africa, Asia, and Latin America with those of native-born people with respect to life satisfaction in the United States, and found that immigrants who made higher absolute incomes were more likely to be satisfied with their lives. The same was found to be true by Gokdemir and Dumludag (2012), who found that life satisfaction was increased with those making a higher absolute income, among Moroccan immigrants in the Netherlands. Amit (2010) showed a positive effect of household income via the positive relationship between economic status and life satisfaction, by calculating economic status based on household income, consumption, and expenditure. Similarly, Melzer (2011) demonstrated that life satisfaction was increased with household income among people who move from East Germany to West Germany between 1992 and 2006. Korean studies of immigrant wives also indicate a positive association between family income and life satisfaction. For example, the study of Park, Park, and Kim (2007) showed that a higher mean family income yielded greater life satisfaction among immigrant wives in the city of Suncheon, Korea. The same pattern was reported by K. M. Kim (2012), who investigated immigrant wives' life satisfaction, based on data from the 2009 NSMF.

There are a number of possible reasons for the positive effect of family income on life satisfaction. One is based on the presumption that immigrants come to the destination country to achieve better economic circumstances. When they decide to cross a border, we know that immigrants long for better life conditions and upward economic mobility in the receiving country (Jo, 2010). As such, if immigrants realise the desired economic circumstances in the receiving country, they may be satisfied with their lives there. Another aspect is associated with the important role of income. It is commonly accepted that income plays a role in providing varied benefits for immigrants in the destination country. For instance, higher incomes tend to help immigrants obtain citizenship (P. Yang, 1994), utilise health services (Akresh, 2009), and learn the destination language (Chiswick and Miller, 2001). These advantages, accompanied by higher levels of income, may be conducive to leading a stable and satisfied life (Bommes and Kolb, 2006). In sum, it is reasonable to suggest that personal or household income has a positive association with life satisfaction among immigrants.

Third, relationships with family members are expected to be positive factors in life satisfaction. As noted in Chapter 3, immigrant wives come to Korea for the purpose of marriage. In this sense, the most important context in their process of settlement in Korea is defined by their relationships with family members (Sung et al., 2013), since marital life is formed in a family system in which family members actively interact (Miley, O'Melia, and DuBois, 1995). Hence, immigrant wives' life conditions would be most significantly influenced by the relationships between family members (Nam and Ahn, 2011).

With this perspective, Korean studies have found that a higher level of satisfaction with family member relationships leads to a higher level of life satisfaction. For example, Park, Park, and Kim (2007) used self-surveys to examine the life satisfaction of immigrant wives in Suncheon, Korea. Those who experienced conflict with their mothers-in-law were less satisfied with their lives. Kim and Park (2008) examined the associations between family conflict and life satisfaction among immigrant wives living in urban and rural areas in Chonnam, Korea. In rural areas in Korea, those who have not experienced difficulties in communicating with their Korean spouses were more likely to be satisfied with their lives. In the same data set, the authors identified that immigrant wives in rural areas who had not

experienced conflicts with family members were also more likely to be satisfied with their lives. Similarly, Chung (2008) examined Vietnamese' life satisfaction in Seoul, Korea, and found that when immigrant wives from Vietnam perceived higher levels of satisfaction with their emotional relationships with family members, they were satisfied with their lives in Korea. In addition, those who were accepted and respected by their family members were more likely to be satisfied with their lives. According to Sung et al. (2013), who investigated Chinese, Korean Chinese, Vietnamese, and Filipinos' life satisfaction, the immigrant wives from these four ethnic groups were satisfied with their lives when they reported having a good relationship with their Korean spouses. In addition, when the immigrant wives in these four ethnic groups did not experience hardships with respect to their marital life, they were more likely to be satisfied with their lives in Korea. Similarly, Kim and Lee (2013) found that a good relationship with the Korean spouse increased the level of life satisfaction among immigrant wives, based on 2009 NSMF data. Lee, Park, and Song (2014), in their study of the communication between immigrant wives and their Korean spouses, and found that effective communication between spouses increased their marital satisfaction. Reviewing these results from the existing Korean studies on immigrant wives, it is clear that good relationships with family members positively immigrant wives' life satisfaction.

7.2.1.3. Social domain

In the social domain, both social networks and religion are key factors influencing life satisfaction.

First, interactions with social networks, including friends, community members, and organisations, is positively related with life satisfaction. The positive impact of social networks is recognized in the broad field of study on subjective well-being (DeNeve and Cooper, 1998; Diener, Oishi and Lucas, 2003; Lim and Putnam, 2010). The positive relationship between social networks and life satisfaction may be postulated based on its decisive role. Social networks are formed by interactions between people, groups and social systems (Portes, 1998, Putnam, 2000, 2001; Massey and Espinosa, 1997), which provide group members with psychological stability and support (Portes, 1998). Thus, social

networks play a role in preventing the negative feelings that arise from depression and distress in everyday life (Stokes, 1983). With respect to immigrants, adjustment to a new environment is difficult and the adaptation to new circumstances can be a profound psychological shock to immigrants (Hirschman, Kasinitz and DeWind, 1999a). This assumption indicates that immigrants may encounter distress, depression, and disorder while adjusting into the host society (Portes and Rumbaut, 2006). During this traumatic process of adjustment, the social supports formed through interactions in social networks have been found to decrease the negative perceptions toward adjustment in the receiving country (Berry, 2001). In other words, social networks enable immigrants to establish psychological stability, which then leads to enhanced perceptions of satisfaction with their lives during the process of adjustment (Marger, 2001).

Following this logic, many studies on immigration highlight the positive link between social networks and subjective well-being, including happiness and life satisfaction. Thomas and Holmes (1992) found that a greater number of good friends and neighbours were positively associated with scores of life satisfaction among 597 black Americans in the United States. Yoon, Lee, and Goh (2008) discovered that social connection scores within a mainstream society and an ethnic community, specifically among 188 immigrants from Korea living in two Midwestern metropolitan areas in the U.S., as measured by the Social Connectedness Scale developed by Lee and Robbins (1995), were positively related to life satisfaction. In the study by Houle and Schellenberg (2010), social networks in Canada were measured by the frequency with which immigrants met with friends, the extent to which immigrants perceived friendliness from neighbours, and the frequency with which immigrants participated in groups or organisations. They found that immigrants who strongly perceived friendliness from their neighbours were more likely to be satisfied with their lives than those who did not perceive such friendliness. In addition, immigrants who met with their friends monthly or had no friends were less likely to be satisfied with their lives in Canada than immigrants who met with their friends weekly. This partly corresponds to the results of Amit's study (2010), which measured social networks in Israel by the responses to two questions: whether or not immigrants' friends were from the same country or had the same

background of origin, and whether or not more than 50 per cent of each immigrant community were from the same country or origin in Israel. In the analysis, immigrants who were from Western countries and lived in an ethnic community were more likely to be satisfied with their lives in Israel. This result indicates that ethnic networks are a critical determinant affecting life satisfaction. Regarding cases of immigrant wives in Korea, K. M. Kim (2012) found that meeting friends from the same country of origin was positively and significantly related to life satisfaction. Thus, the presence of an ethnic network facilitated the life satisfaction of immigrant wives in Korea. Sung et al. (2013) also found that a) Vietnamese immigrant wives tended to be more satisfied with their lives in Korea when they routinely met with friends from the same country of origin, b) Chinese immigrant wives were more likely to be satisfied with their lives in Korea when participating in community meetings and using settlement services, and (c) Korean Chinese immigrant wives were more likely to be satisfied with their lives in Korea when they regularly attended community meetings. This study demonstrates that both non-ethnic and ethnic networks are possible factors that affect life satisfaction. Thus, according to empirical research on immigrant wives in Korea, both non-ethnic and ethnic networks may be positively correlated with life satisfaction.

Second, religion has often been assumed to have a positive effect on life satisfaction. The pivotal role played by religion in life satisfaction derives from two perspectives: the development of social networks and psychological stability (Krause and Ellison, 2009; Lim and Putnam, 2010). When participating in religious groups or organisations, people tend to expand their circle of interactions with members of the same religious groups or organisations. Participation in social networks is increased through religious activities, which also tend to increase personal knowledge and information that can be applied in everyday life. Secondly, through religious activities, people are likely to receive support from fellow members, feel a sense of belonging by membership in a religious group or organisation, and develop positive feelings from their religious beliefs. Consequently, the social support, membership, and faith associated with religious activities lead individuals to evaluate their lives positively.

Taking these two perspectives in the case of immigrants, the knowledge and information accumulated by participation in religious activities are useful for adjusting to the host society (Portes and Rumbaut, 2006). In addition, social support from members of religious groups or organisations, a sense of belonging, and religious faith reduce feelings of stress as the immigrant adjusts to the host society (Portes and Rumbaut, 2006).

Several studies on immigration in western countries have found a positive association between religion and life satisfaction. For example, E. O. Lee (2007) analysed possible life satisfaction factors among Korean and Chinese older adults in the U.S. According to this analysis, the exercise of religious coping skills increased the level of life satisfaction. In addition, the level of life satisfaction was increased by the practice of forgiveness. A study by Amit (2010) investigated determinants influencing life satisfaction among Jewish immigrants to Israel. She found that their life satisfaction level was increased in correspondence with their level of religiosity. In a similar vein, Park, Rho, and Yeo (2011) used structural equation modelling to examine the relationships of religiosity, social support, and life satisfaction in elderly Korean Americans in the U.S. They found that the higher the level of religiosity, the higher the level of life satisfaction. In their study of Moroccan and Turkish immigrants in the Netherlands, Gokdemir and Dumludag (2012) found a positive association between religion and life satisfaction among Moroccan immigrants. In fact, empirical studies have consistently found a positive association between religion and life satisfaction in the western context.

However, there has been relatively little research regarding the relationship between religion and life satisfaction among immigrant wives in Korea. Of the studies that have been conducted, researchers have not found any positive association between religion and immigrant wives' life satisfaction in Korea. Specifically, Yang and Chung (2006) explored possible factors influencing marital satisfaction in Korea. Although the authors assumed that those who had a religious affiliation were more likely to be satisfied with their marital life in Korea, they found that the variable of religion was statistically insignificant with respect to marital satisfaction. Similarly, in his investigation of the factors influencing life satisfaction among immigrant wives in Gyeonggi Province, Korea, Jo (2010) found that religiosity was statistically insignificant with respect to life satisfaction. Results from the study conducted by

K. Bae (2013) also reiterated that participation in religious activities had no significant influence in the analysis of immigrant wives' life satisfaction in Korean metropolitan areas. In their analysis of possible factors affecting the marital satisfaction of immigrant wives in Seoul and Gyeonggi Province, Korea, authors Lee, Park, and Song (2014) also found that religion had no impact on marital satisfaction. In summary, the association between religion and life satisfaction in Korean studies is not consistent with that of western studies.

In considering these disparate findings in the western and Korean contexts, in this thesis we propose that two matters be understood in our empirical analysis: the research area and the actual data to be used. First, this thesis focuses on existing Korean studies in order to consider social issues in the Korean context. Second, since the 2012 NSMF does not provide information in terms of religion, and since the findings in Korean studies are not consistent with those in western countries, the association between religion and life satisfaction is ignored in this thesis.

From the above literature review, explanatory variables within the demographic (e.g. age, education, years since migration, destination-language, and employment), family (e.g. children and relationships with family members), and social (e.g. social networks and religion) domains account for life satisfaction.

7.3. HYPOTHESES

Based on the flow of inputs, throughputs, and outputs in the logic model, Tables 7.1 and 7.2 illustrate the various causal mechanisms between inputs and outputs according to the hypotheses' expected directions of association. Again, the inputs and throughputs are considered to be independent variables whereas the outputs are the dependent variables. Following this logic, this chapter has focused on the individual characteristics and resources that are considered to be inputs that influence the outcomes, or outputs, of cultural integration (i.e., destination-language skills) and subjective integration (i.e., life satisfaction). In this sense, these tables clarify two sets of hypotheses regarding: (a) the effect of individual characteristics and resources on cultural integration (i.e., destination-language skill); and (b)

individual characteristics and resources' influence on subjective integration (i.e., life satisfaction).

As summarised in Tables 7.1 and 7.2, the following describes in detail our hypotheses:

- 1) In relation to cultural integration (i.e., destination-language proficiency), years since migration, education, family income, employment and non-ethnic networks (e.g. Korean friends, friends with other ethnic backgrounds, and participation in local resident gatherings, the use of welfare service centres, and the use of community service centres) have a positive impact on destination-language proficiency, while age and ethnic networks (e.g., friends with the same nationality of origin and participation in meetings with friends with the same ethnic background) have a negative effect. However, the effect of children on cultural integration is somewhat complex.

Table 7.1: Hypotheses for destination-language skills at the individual level with prediction

		Cultural integration = Destination-language skills	
		Variables	Prediction
Inputs	Exposure	Years since migration	+
		Friend with same origin nationality	-
		Friend with other ethnic backgrounds	+
		Korean friend	+
		Participation in the meeting of same ethnic friends	-
		Participation in local resident gatherings	+
		Use of welfare service centre	+
		Use of community service centre	+
	Efficiency	Age	-
		Education	+
	Economic incentive	Employment	+
	Family resources	Children (under 6 yrs. and over 6 yrs.)	?
Household income		+	

- 2) Life satisfaction is increased with the duration of stay, education, household income, employment, destination-language ability, relationships with family members (e.g., husband, mother-in-law, children, and relatives), and social networks (e.g., friends with same nationality of origin, friends with other ethnic

backgrounds, Korean friends, participation in meetings with friends with the same ethnic background, participation in local resident gatherings, the use of welfare service centres, and the use of community service centres), but the effects of both age and children are unclear, as the evidence is conflicting.

Table 7.2: Hypotheses for life satisfaction at the individual level with prediction

Subjective integration = Life satisfaction			
	Variables	Prediction	
Inputs	Demographic	Age and age squared	?
		Education	+
		Years since migration	+
		Destination-language skills	+
		Employment	+
	Family	Children (under 6 yrs. and over 6 yrs.)	?
		Relationship with a husband	+
		Relationship with mother-in-law	+
		Relationship with children	+
		Relationship with husband's relatives	+
		Household income	+
	Social	Friend with same origin nationality	+
		Friend with other ethnic backgrounds	+
		Korean friend	+
		Participation in the meeting of same ethnic friends	+
		Participation in local resident gathering	+
		Use of welfare service centre	+
		Use of community service centre	+

7.4. OVERVIEW AT THE INDIVIDUAL LEVEL

The fundamental goal in Chapters 6 and 7 was to explore across interdisciplinary areas the individual level factors that are thought to be inputs influencing immigrant integration, which is a performance output of MFSS. In doing so, based on the perspective of logic model, we presume that the outputs may be viewed as immigrant integration, as measured by objective (e.g. citizenship acquisition, employment, and destination-language proficiency) and subjective (e.g. life satisfaction) integration, and which may be improved by the inputs of individual characteristics and resources.

Based on this presumption and the results of empirical studies, this chapter has identified theoretical subfield perspectives and introduced selected explanatory predictors of each subfield, with respect to immigrant integration. By drawing on extensive empirical studies, we have focused on the cause-and-effect relationships, and made diverse inferences regarding these subfields regarding immigrant integration, as being characterised by two apparently contradictory outcomes. These are relative and small disagreements however, because varied disciplines and perspectives often lead to different assumptions and analytical frameworks. Nevertheless, there is an overarching consensus, despite the fact that these subfields could be closer together in the field of immigrant integration. In light of the outcomes, synthesised and complementary perspectives are needed to gain further insights regarding the various patterns of immigrant integration at the individual level.

In Chapters 6 and 7, we reviewed a simple causal relationship: individual variations that influence immigrant integration. However, much of the writing on immigrant integration demonstrates that such individual characteristics and resources are aggregated in each ethnic group and, therefore, there are unequal degrees of immigrant integration among various ethnic backgrounds (Portes and Zhou, 1993; Zhou, 1999; Rumbaut and Portes, 2001; Portes and Rumbaut, 2006). Accordingly, in this thesis we assume that ethnic-group level characteristics and resources constitute other given inputs in the logic model framework. The next chapter presents the characteristics and resources of ethnic groups that may also affect immigrant integration to varying degrees.

Chapter 8: *Theoretical Description at the Ethnic-group Level*

In the preceding pages, how inputs at the individual level produce greater immigrant integration as a desired output of MFSS has been discussed. Discussion in this chapter will centre on ethnic-group level factors as inputs that go into outputs.

In considering the logic model, as noted in previous chapter 5, it is generally accepted that service-users' resources and characteristics are thought of as inputs (Hasenfeld, 1978). When immigrants are limited to consideration of service-users, it is expected that their resources and characteristics at the individual level are categorised into the ethnic-group level resources and characteristics meaning another given inputs at the framework of the logic model. Thus, the different modes of incorporation among ethnic groups in the host country may account for the performance of MFSS. In general, such unequal modes are associated with ethnic-group level factors reflecting inherent ethnic groups' features and contextual gaps between the sending and the receiving countries (Portes and Zhou, 1993; Zhou, 1997, 1999; Portes and Rumbaut, 2001, 2006).

In this fashion, this chapter examines the relationships between ethnic-group level factors as inputs and immigrant integration as outputs. The first part introduces a brief of theoretical discussions on immigrant adaptation from assimilation to segmented assimilation theories as well as the importance of American cases in immigration studies. The second part discusses the nature of assimilation theory and its theoretical explanation on immigrant adaptation, as well as its contentions resulting in different ethnic patterns of incorporation. The third part offers major theoretical concepts and propositions embedded in segmented assimilation framework that is developed to address the unequal paths of incorporation among ethnic groups. The fourth part reviews empirical research that bears on the theoretical idea and various adaptation patterns across immigrant groups. Finally, this section tries to explain the determinants contributing to distinct patterns of adaptation for immigrant wives with hypotheses whilst relying on segmented assimilation theory.

8.1. PREVIEW

After arriving in the receiving country, immigrants' adaptation to the host society is a critical issue and therefore, much scholarly work has been done on the topics of immigrant incorporation (Hirschman, Kasinitz and Dewind, 1999b; Heisler, 2000; Waters and Jimenez, 2005). Over the years, assimilation theory has received much attention in immigrant adaptation; thereby, historically assimilation theory was a common starting point for studies in relation to the adaptation of immigrants (Hirschman, Kasinitz and Dewind, 1999b; Kivisto, 2004). Indeed, following assimilation theory, researchers have investigated a process and outcome on the adjustment of immigrants, and varied interpretations addressing immigrant adaptation have been derived from assimilation theory (Heisler, 2000).

One of the outstanding features employed in the assimilation perspective is the fact that immigrants are culturally absorbed or blended into the host society in a long-term process and a single outcome of adaptation (Heisler, 2000; Hirschman, Kasinitz and Dewind, 1999b). This perspective postulates that most immigrants become adjusted into the host society once they accept the dominant host culture consistently, regardless of racial and ethnic differences.

In recent years, however, there appear different evidence against assimilation theory, which revealed different cultural assimilation processes and outcomes between ethnic groups in the host country (Rumbaut and Portes, 2001; Portes and Rumbaut, 2006; Heisler, 2000; Hirschman, Kasinitz and Dewind, 1999b; Zhou, 1999; C. Lee, 2009) and could not explain the extensive fields beyond culture, including economic, political, social, and other fields (Heisler, 2000). As such, scholars have deliberately paid attention to understanding new processes and outcomes of immigrant adaptation among racial and ethnic groups (Waters and Jimenez, 2005; Alba and Nee, 1997; Zhou, 1997). In discussing recent changes on immigrant adaptation, they emphasise on (1) interaction between the host society and immigrants, not focusing on one-way adjustment into the host country, (2) various conditions in relation to adaptation, not emphasising on only cultural conditions, and (3) different adaptation

processes between ethnic groups, not focusing on a same pattern of adaptation regardless of ethnic backgrounds (Heisler, 2000; Brubaker, 2001).

In this context, segmented assimilation theory has been emerged to delve into the complicated and diverse processes and outcomes of immigrant adaptation as one of the imperative alternative frameworks. In fact, this framework suggests that the process of immigrant adaptation is various and disparate across ethnic groups, which is influenced by the extensive contexts of the host country and innate features of immigrants' ethnic groups (Portes and Zhou, 1993; Zhou, 1997, 1999).

To begin with focusing on different ethnic groups' patterns of adaptation to the host society, this section will endeavour to elucidate instances of immigration incorporation in the United States. This is because a variety of theories of immigrant integration are firstly produced in the United States, and such theories guide analytical directions in exploring immigrant incorporation (Heisler, 2000). Despite the fact that American instances are not universal in all countries experiencing a massive wave of immigrants, immigration-related theories and perspectives that focus primarily on immigrant integration in the U.S. offers the best way to understand the process of immigrant integration in the host country (Alba and Nee, 1997). In discussing immigrant incorporation, thus, the driving approach derived from theories and perspectives relying on American instances is still dominated and cantered on immigration scholarship as a key analytical tool (Heisler, 2000; Alba and Nee, 1997).

Although there appear varying patterns of inflow and incorporation of immigrants among the immigration countries, at the other extreme, a myriad of scholars firstly and commonly attempt to review the histories of American contexts on immigration (Heisler, 2000). Through reviewing American historical contexts on immigration, the different patterns of incorporation are compared between the United States and other countries because little is known to scholars about social issues on immigration from some countries that confront social problems regarding inflow and incorporation of immigrants, which are relatively new issues (Vermeulen, 2010). When the differences and similarities of American cases of immigrant incorporation were explored, the scholars found convincing answers to new

social questions regarding immigrant incorporation and propose useful policies to respond to the social questions. It is impossible, hence, to understand immigrant integration in the host country without reviewing immigration-related theories and perspectives that focus largely on American historical contexts.

Above all things, the issues regarding immigrant incorporation start from the assimilation perspective described in numerous books and articles on immigration, which focus on one-way adjustment into the host country, cultural conditions in the process of adjustment in the host society, and a same pattern of adaptation regardless ethnic differences (Heisler, 2000). In this manner, the focal point of this thesis will begin with assimilation theory and analysis of its strengths and weaknesses. After the discussion regarding assimilation, new changes on immigrant incorporation emerged in American society that cannot be explained by assimilation perspective, which refers to bilateral adjustment, multi-faceted problems in the process of adjustment in the host society, and different modes of adaptation among ethnic groups, are discussed in next pages.

8.2. ASSIMILATION THEORY

8.2.1. The beginning of assimilation theory

There is no doubt that the best-known theory in immigration studies is assimilation theory (DeWind and Kasinitz, 1997; Heisler, 2000; Kivisto, 2004). Over the years assimilation theory has received much attention in immigrant studies and has been developed to give a convincing answer for immigrant adaptation in the host country (DeWind and Kasinitz, 1997; Kivisto, 2004).

The assimilation theory originated from Robert Park and Ernest Burgess (Park and Burgess, 1921; Hirschman, Kasinitz and Dewind, 1999b; Heisler, 2000; Kivisto, 2004). According to their words (Park and Burgess, 1921, p. 675), assimilation here is defined as “a process of interpenetration and fusion in which persons and groups acquire the memories, sentiments, and attitudes of other persons and groups and, by sharing their experience and history, are incorporated with them in a common cultural life.” They claimed that

assimilation is a process to which ethnic minorities become included into the mainstream society regardless of ethnic backgrounds (Hirschman, Kasinitz and Dewind, 1999b; South, Crowder and Chavez, 2005). In order to be included into the mainstream society, it is required that ethnic minorities give up their own inherent culture and accept that of the mainstream (Waldinger, 2003). To explain the process of assimilation, also, they provide the notion of the race-relation cycle as subsequent steps that are inevitable and systematic orders: contact, competition, accommodation, and final assimilation (Alba and Nee, 1997). Race-relation cycle begins with not only a separation from the homeland followed by contacting same ethnic groups and natives of the host country and but also an interaction with the native-born people. In the relation with ethnic groups, ethnic minorities compete with other minorities to take advantages of opportunities in the host society. Such competition becomes stabilised in accommodation in which ethnic minorities realise their social positions because the 'loser' and 'winner' both occur through such competition. Minorities accept their position and accommodate such unequal social position from the competition. However, the unequal positions among the minorities break down from relations with the natives. This is because whoever has the lower or higher positions from relations among minorities are relatively placed in lower positions when compared to the natives. Ultimately, through the relationship between immigrants and natives, final assimilation is attained. At this point, the term accommodation is a short-run or medium-run process of adjustment, while the term assimilation is for the long-run and the final process of adjustment (Hirschman, Kasinitz and Dewind, 1999b). In fact, Park and Burgess demonstrated that immigrants are more likely to become a member of mainstream society when they eliminate their own ethnic culture and have constant contact with native-born people in the mainstream society (Alba and Nee, 1997; Hirschman, Kasinitz and Dewind, 1999b).

Although they firstly developed how immigrants adapt to the host countries in the field of immigration study, much scholarly work has argued about whether immigrants' incorporation is appropriately explained with the assimilation approach. Their assumption ignores various ethnic cultures on the process of assimilation into the mainstream society. Ironically, many immigrants retain their culture, even if they adopt the mainstream culture

(Alba and Nee, 1997; Hirschman, Kasinitz and Dewind, 1999b; Waters and Jimenez, 2005). Besides, in recent years any multi-cultural and multi-ethnic societies have appeared in the United States (Hirschman, Kasinitz and Dewind, 1999b; Waters and Jimenez, 2005). Despite the critics, they provide considerable insights for scholars and expand an understanding of complex adaptation of immigrants; moreover, many theoretical approaches on immigrant adaptation were born out of them (Alba and Nee, 1997).

8.2.2. Development of assimilation theory

Since Park and Burges, assimilation theory has been elaborately developed and systematically theorised. In this context, Gordon (1964) established and formulated the notion of assimilation accompanied by systematic dimensions (Alba and Nee, 1997). He addressed seven systematic dimensions of assimilation: “(1) cultural or behavioural assimilation, (2) structural assimilation, (3) identificational assimilation, (4) marital assimilation, (5) attitude receptional assimilation, (6) behaviour receptional assimilation, and (7) civic assimilation” (Gordon, 1964, pp. 70-71).

First, cultural or behavioural assimilation is the “adoption of cultural patterns characteristics of the core groups or host society”, which is called acculturation. Second, structural assimilation is participation in mainstream groups, such as becoming a member into informal (e.g. clubs) and formal (e.g. institutions) groups. Third, identificational assimilation is “to take one's sense of peoplehood or collective identity from the host society”. Fourth, marital assimilation refers to a large number of inter-marriages between primary groups and ethnic groups, which is “amalgamation”. Fifth, attitude receptional assimilation is related to the “absence of prejudice”. Sixth, behaviour receptional assimilation is associated with the “absence of discrimination”. Seventh, civic assimilation refers to the “absence of value and power conflict between or among groups”.

In Gordon's perspective, although all types of assimilation are critical concepts, acculturation and structural assimilation are much more significant concepts in explaining immigrant adaptation to the host society than the rest (Alba and Nee, 1997). On acculturation, immigrants firstly confront a different culture after arriving in the host country which means

they are obliged to develop appropriate skills and behaviours in the host society such as learning destination-language, public etiquettes, and any customs of the host society (Gordon, 1964; Alba and Nee, 1997; Dion, 1996). In the acculturation process, he implies that a dominant culture is “white Protestant and Anglo-Saxon origins” (Gordon, 1964, p. 72), so immigrants should throw away their origin culture and embrace the mainstream culture in a process of adaptation to the mainstream society (Gordon, 1964; Alba and Nee, 1997; Dion, 1996). He permitted exceptional instances: immigrants somewhat keep their culture in special occasions including “cuisine, recreational pattern, place names, and residential architecture” (Gordon, 1964, p. 100). In spite of the exceptional occasions, he believed that immigrants are absorbed into the culture of a primary society in discussing acculturation perspective.

Structural assimilation refers to not culture, but interaction or participation (Gordon, 1964; Alba and Nee, 1997; Hirschman, Kasinitz and Dewind 1999b). As immigrants interact with mainstream groups, marital chances between immigrants and native-born people tend to increase. Also, when immigrants participate in the meetings or become a member of the mainstream society, their discrimination and prejudices as well as conflicts would be decreased after structural assimilation occurs. Once ethnic minorities accept mainstream ideologies and beliefs, the cultures of ethnic minorities mix with mainstream culture and then a new culture is created based on mainstream groups, which is defined as melting pot (Gordon, 1964; Alba and Nee, 1997).

There is no gainsaying in his contribution to development of assimilation theory. One of the imperative contributions is that scholars can analyse processes and degrees to which immigrants become assimilated into the host society in application to the multiple dimensions (Alba and Nee, 1997; Dion, 1996). In addition, the formulation helps scholars to investigate different assimilation levels of individuals in each of the dimensions of assimilation (Alba and Nee, 1997).

Negative views, however, have been raised regarding his theoretical approach toward assimilation. He neglects the beginning of American history in which ancestors from various countries arrived in the United States; thereby, various cultures were mixed when the United

States first started in history (Alba and Nee, 1997; Hirschman, Kasinitz and Dewind, 1999b). In this manner, White, Anglo-Saxon, and Protestant cannot be accepted as a mainstream culture (Hirschman, Kasinitz and Dewind, 1999b); moreover, in a one-way cultural assimilation maintaining mainstream culture and denying own ethnic culture simultaneously, it is dubious to explain whether the mainstream culture is superior to ethnic culture (Heisler, 2000). Another criticism is that although immigrant groups become erased through interactions with the mainstream groups according to his inference, the fact that there remain a variety of ethnic minority groups in the United States in recent years cannot be explained by his assumption (Alba and Nee, 1997).

8.2.3. New evidence and changes on assimilation theory

The American society has witnessed ongoing massive influxes of immigrants (Hirschman, Kasinitz, and Dewind 1999b). Because of this trend, greater attention has been shown to questions towards immigrant adaptation to the American society. In doing so, the common approach begins with a comparison between pre- and post-1965 immigrants in the United States (Alba and Nee, 1997; Hirschman, Kasinitz and Dewind, 1999b; Waters and Jimenez, 2005; Zhou, 1997, 1999), because the “liberalized provisions of the 1965 Immigration Act” (Portes and Rumbaut, 2006, p. 12) lead to different patterns of immigration inflow and adjustment in the United States.

From 1880 to 1925 a large number of immigrants from eastern and southern Europe arrived in the United States. Most of the earlier European immigrants and their children became assimilated into the US society because their culture and skin colour are similar to the native whites (Waldinger and Feliciano, 2004). In this sense, they had a chance to have upward mobility and became less discriminated against from the society (Alba and Nee, 1997). On the contrary, post-1965 immigrants are non-European, Asian, and Latin American, so, they relatively confront problems in adapting to the US society because of the colour of their skin and their differing cultures, compared to the earlier European immigrants (Alba and Nee, 1997). In addition, different modes of incorporation among ethnic groups are found (Rumbaut and Portes, 2001; Zhou, 1997, 1999; C. Lee, 2009). In fact, the unequal adaptation

patterns distinctions between post- and pre-1965 immigrant groups and across post-1965 ethnic groups cannot be understood by assimilation theory (Alba and Nee, 1997; Waters and Jimenez, 2005; Zhou, 1999). The distinct patterns of adaptation are summarised by (1) socio-economic conditions including social mobility and self-employment based on ethnic-specific economics, (2) geographic condition in relation to residential concentration, and (3) cultural condition which refers to intermarriage between ethnic groups (Waters and Jimenez, 2005; Alba and Nee, 1997; Hirshman, Kasinitz and DeWind, 1999b; Zhou, 1999). In next sections, this chapter provides evidence in terms of different adaptation patterns, which distinguish between European immigrants and non-European immigrants and across ethnic groups, in the host society.

8.2.3.1. Socio-economic conditions: Social mobility

There are different social mobility patterns between pre-1965 and post-1965 immigrants and across ethnic groups. As noted earlier, post-1965 immigrant groups find it more difficult to obtain upward mobility than the earlier European immigrants in the American society. Thus, new immigrant groups experience downward mobility after arrival and relatively need much more time to catch up to native-born Americans, rather than European immigrants (Alba and Nee, 1997; Hirshman, Kasinitz and DeWind, 1999b). In empirical studies, post-1965 immigrants would attain same-level of economic condition with native whites by increasing human capital skills after about 15 to 20 years (Chiswick, 1977, 1978). However, the increasing levels of human capital skills are different, which leads to dissimilar patterns of social mobility (Alba and Nee, 1997). Immigrants who have higher human capital resources tend to rapidly acquire English skills and participate in the American labour market while immigrant with lower human capital's ability tend to be constantly placed in the low stratum in the American labour market (Tienda and Singer, 1995; Portes and Rumbaut, 2006). For instance, as Asian and Russian-Jewish groups are distinctive groups, they observe upward mobility rather than Mexican groups in the American society (Waters and Jimenez, 2005; Heisler, 2000; Zhou, 1999). This refers to different human capital skills; Asian and Russian-Jewish immigrants have higher educational attainments, so they have many more opportunities to participate in the labour market when compared to

Mexican immigrants (Alba and Nee, 1997). Unlike Asian and Russian-Jewish immigrants, Mexican immigrant groups tend to be placed below the poverty line in the United States as they earned low income (Waters and Jimenez, 2005). In this manner, human capital skill is a key element in determining the upward or downward mobility in the host society; moreover, the unequal paths of incorporation across post-1965 ethnic groups and between pre- and post-1965 immigrants in the United States reflect on different human capital skills.

8.2.3.2. Socio-economic conditions: Self-employment based on ethnic economy

There are unequal patterns in labour force participation between pre-1965 and post-1965 immigrants and across ethnic groups. The dual labour market theory suggests that there are two types of jobs: i) labour-intensive jobs characterised in low salary, irregular, and unskilled work after arrival and ii) capital-intensive jobs characterised into high salary, regular, and skilled work (Piore, 1979). The theory identifies that immigrants are mainly placed in labour-intensive jobs (Piore, 1979). However, there appear different modes of occupational positions between pre-1965 and post-1965 immigrants (Alba and Nee, 1997). European immigrant or pre-1965 labours were able to achieve upward job mobility from labour-intensive jobs to capital intensive jobs. In opposition to European immigrants, post-1965 immigrant labours relatively tend to be placed in labour-intensive jobs and are not easy to move capital intensive jobs. In recent years, however, a large amount of literature reported that post-1965 ethnic immigrant groups do different economic activities compared to earlier European immigrant groups (Heisler, 2000). Thus, post-1965 immigrants are self-employed in a place where a number of same ethnic groups' members concentrate (Heisler, 2000; Portes and Rumbaut, 2006). For example, Korean Americans run their own businesses in Los Angeles while Cuban Americans are self-employed in Miami (Alba and Nee, 1997; Portes and Rumbaut, 2006). In fact, their self-employment relied on ethnic "resources and solidarity" which seems to be a foothold for job mobility (Heisler, 2000, p. 81; Alba and Nee, 1997). Immigrants who are self-employed are buffered from the fact that they may be place in labour-intensive jobs. In this sense, they can prepare for career mobility by learning English and training (Portes and Rumbaut, 2006). Self-employment based on ethnic economy, hence,

is one of the salient features that draws a clear line between new non-European immigrants and earlier European immigrants as well as among non-European immigrant groups.

8.2.3.3. *Geographic condition*

There are different patterns of settlements between pre-1965 and post-1965 immigrants and across ethnic groups. On the one hand, a sharp contrast between pre-1965 and post-1965 immigrants is drawn by geographic ethnic concentration. Most post-1965 immigrants chose to reside in large cities after arrival in the United States while pre-1965 immigrants were scattered throughout the United States (Waters and Jimenez, 2005). A large number of post-1965 immigrants have settled in large cities which are called as “gateway cities” including Los Angeles, New York, Miami, San Francisco, Chicago, Dallas, and Houston (Portes and Rumbaut, 2006; Waters and Jimenez, 2005, p. 109).

Geographic concentration has been fortified because recent immigrants prefer to settle in these cities (Portes and Rumbaut, 2001, 2006). The reasons for the consolidated residential concentration are closely related to the advantages offered in the places where same ethnic immigrants concentrate (Alba and Nee, 1997; Waters and Jimenez, 2005). Once immigrants arrive in a gateway city, former immigrants tend to lead new immigrants into settling in the cities via social networks (Massey et al., 1993). New immigrants are characterised as having lower destination-language skills and insufficient adjustment-related information, so they may prefer to settle in a place where members of the same ethnic group concentrate (Portes and Rumbaut, 2001, 2006). This is primarily because new immigrants can then obtain adjustment-related information and can escape from a language barrier via ethnic networks (Portes and Rumbaut, 2001, 2006; Nee and Sander, 2001). Also, if they fail to enter the American labour market, they may find a job within the ethnic community (Nee and Sanders, 2001). This makes it possible to gain a toehold for social mobility by working in the ethnic community (Heisler, 2000). These advantages constantly lead immigrants to settle in the cities (Portes and Rumbaut, 2006). Despite the advantages, ethnic concentration has the potential to hinder immigrants from adjusting into the host society (Hirshman, Kasinitz and DeWind, 1999b; Alba and Nee, 1997). Immigrants staying in the residential concentration

may lose chances to engage with the American society, which becomes segregated from mainstream society (S. M. Lee, 2010). As a result, they may be culturally and socio-economically quarantined from the mainstream society. Despite the disadvantages, post-1965 immigrants still concentrate in the cities where a large number of ethnic groups live, which can be used to distinguish them from pre-1965 immigrants.

On the other hand, there appear to be different settlement patterns between 1965-post immigrants along with the extent of segregation or concentration (Hirshman, Kasinitz and DeWind, 1999b). For example, the degree of segregation of Asian Americans and Hispanic Americans from white Americans is less than that of black Americans, but Asian and Latino immigrants hope to be exposed to American Anglo culture (Alba and Nee, 1997; South, Crowder and Chavez, 2005). This means that Asians and Hispanics tend to be concentrated and form relationships with white Americans. In opposition to Asian and Hispanic groups, African immigrants concentrate in a place where a large number of African immigrants settle, but this means they are segregated from American Anglo culture (Alba and Nee, 1997). Perhaps, Africans may hope to keep their native African culture and deny the host culture, marginalised them from Anglo Americans. In fact, the unequal settlement patterns among ethnic groups are linked to the extent of ethnic segregation or concentration.

Taking the two perspectives, one mode is associated with the spatial ethnic concentration in which pre-1965 immigrants scattered throughout many cities in the United States while post-1965 immigrants concentrate in urban areas in the United States; another different mode is associated with the extent of segregation from the mainstream in which Asian and Hispanic immigrants interact with American Anglo while African immigrants are marginalised from American Anglo.

8.2.3.4. *Cultural condition*

Differences in cultural conditions between pre- and post-1965 immigrants and across ethnic groups can help explain varying assimilation patterns in the United States.

Gordon (1964) conjectures that intermarriage between immigrant groups and mainstream groups leads to assimilation. In his hypothesis, there is a high probability of intermarriage when immigrants frequently have contact with primary groups beyond racial differences. Such pattern of intermarriage corresponds with pre-1965 immigrants while the approach is not consistent with post-1965 immigrants (Waters and Jimenez, 2005). Although post-1965 immigrants interact with American Anglo, the case of intermarriage between post-1965 and white American is not higher than that of intermarriage between pre-1965 immigrants and white American.

In addition, there are unequal paths of intermarriage across ethnic groups. Thus, some ethnic groups married not American Anglo but other ethnic groups (Glazer, 1993; Waters and Jimenez, 2005). For example, Asians and Hispanics in U.S. tend to marry white Americans compared to Africans, but Japanese prefer to marry Koreans while Mexicans prefer to marry Dominicans in the United States (Rosenfeld, 2001). This shows that cultural assimilation patterns through intermarriage are different between pre- and post-1965 immigrants and across post-1965 ethnic groups.

A closer look at these different patterns between pre- and post-1965 immigrants and across post-1965 immigrant groups indicates that a uniform and straight-line assimilation is not plausible. Instead of restricting a common path in while all immigrants assimilate into the host society resulted in White, English-speaking, and middle-class, hence, it needs to consider why some particular immigrant groups become assimilated or integrated but others rarely become assimilated or integrated into the host society. In next pages the questions are discussed.

8.3. SEGMENTED ASSIMILATION THEORY

8.3.1. Different outcomes of incorporation for immigrant groups

Segmented theory attempts to delineate different assimilation patterns not only between children of immigrants called second generation and newcomers called first generation (Zhou, 1999) but also among immigrant groups (Portes and Zhou, 1993), in the

host society. This framework accounts for three distinct outcomes in terms of immigrant groups' adaptation: a) moving up in socio-economic standing that acculturates and integrates into the white middle-class as a prevailed and conventional assimilation pattern; b) moving down in socio-economic status that acculturates and integrates into the underclass or the poor strata as an adversarial assimilation pattern; and c) rapid economic upward mobility accompanied with retaining origin values and cohesion based on ethnic networks as a new pattern (Portes and Zhou, 1993; Zhou, 1997, 1999; DeWind and Kasinitz, 1997). Thus, this model suggests that there appear at least three possible assimilation patterns among diverse immigrant groups and between the first and second generations.

In this thesis, immigrant incorporation is defined by objective and subjective incorporations. The former includes political (i.e. citizenship), economic (i.e. employment), and cultural (i.e. destination-language proficiency) outcomes, and the latter involves life satisfaction. Reviewing extensive studies with regard to these outcomes, there is a general agreement about the different paths of incorporation among immigrant groups. Thus, much scholarly work has reported the distinct patterns of citizenship acquisition (Liang, 1994; DeSipio, 1987; P. Yang, 1994; Bueker, 2005; Pantoja and Gershon, 2006; Portes and Rumbaut, 2006), employment (Xue, 2008; Nee and Sander, 2001; Chiswick, Cohen and Zach, 1997; Schoeni, 1998; Aguilera, 2002; Bauder, 2005; Duleep and Sanders, 1993; Van Tubergen, Maas and Flap, 2004; Van Tubergen, 2005; Pichler, 2011; Fleischmann and Dronkers, 2010), destination-language proficiency (Grenier, 1984; G. Stevens, 1992; Espenshade and Fu, 1997; Carilner, 2000; Chiswick and Miller, 1999, 2001, 2005a, 2005b; Dustman and Fabbri, 2003; Van Tubergen and Kalmijn, 2005, 2009; Hwang and Xi, 2008, Tran, 2010), and life satisfaction (Amit, 2010; Safi, 2010; K. M. Kim, 2012; Sung et al., 2013; Obucina, 2013) for immigrant groups in the host country.

Building on segmented assimilation theory accompanied with empirical results, therefore, this thesis predicts distinct modes of each incorporation outcome for immigrant wives' groups in Korea. The following description presents determinants addressing different paths of incorporation for immigrant groups while reviewing empirical research.

8.3.2. Contexts of reception and intrinsic group's characteristics

Segmented assimilation theory proposes that the different patterns are explained by the two sets of determinants: contexts immigrant groups confront in the destination and features immigrant groups embody at the pre-migration and post-migration (Portes and Zhou, 1993; Zhou, 1997, 1999).

8.3.2.1. Contexts of reception

The relevant contexts involve policy types of the receiving country, the extent of prejudice and discrimination embedded in the host society, and the characteristics of the ethnic community (Portes and Zhou, 1993) as well as gaps of conditions between origin and host countries in terms of reverse migration (Portes and Rumbaut, 2006). In fact, the contextual features determine different modes in which immigrant groups become assimilated or incorporated at the destination (Portes and Zhou, 1993). As a first dimension, governmental policy offers legal opportunities available to immigrants, which increases the probability of successful adjustment into the destination (Portes and Rumbaut, 2001, 2006). The governmental policy toward immigrant groups differs along three main types: “exclusion”, “passive acceptance”, and “active encouragement” (Portes and Rumbaut, 2001, pp. 46-47, 2006, p. 93; Portes and Borocz, 1989).

The first way severely restricts inflow and adaptation in the destination. The second option is defined by a constrained open border without governmental support for adaptation into the host country. For example, male manual migrant workers can arrive in Korea legally (H. Choi, 2010; Y. H. Kim, 2010), but they are barred from using public and settlement services in Korea (P. Hwang, 2010). The third governmental respond allows inflow and encourages adjustment with government support. Certain immigrant groups are granted to access to this government settlement program; for instance, only marriage migrants are eligible for accessing settlement services in Korea, compared to legal immigrant groups in Korea such as manual migrant workers and overseas Koreans (Kim et al., 2010). Given the three types of policy support, the active encouragement is much more helpful for immigrant groups than exclusion and passive acceptance. This is because the active encouragement is

more likely to allow them to use many varied resources for adaptation (Portes and Rumbaut, 2001, 2006) and then they may find it easier to achieve upward mobility in the destination with the policy support (Portes and Borocz, 1989).

The second dimension is related to the prejudice and discrimination of reception. The extent to which immigrant groups undergo prejudice and discrimination in the host society determine various modes of incorporation (Portes and Zhou, 1993). The prejudice and discrimination reflect at least three elements: skin colour, residential segregation, and social mobility. First, as a physical feature, a stereotype toward skin colour may create vulnerability in adjusting into the mainstream society (Portes and Zhou, 1993). From classical assimilation theory, there exists a rigid belief: the mainstream is white and middle-class (Gordon, 1964). The belief corresponds closely into a stereotype about a particular skin colour or racial immigrant groups (Alba and Nee, 1997); thereby, dark skin colour is a sign of an underprivileged and downtrodden group (Zhou, 1997, 1999). From the prejudice, many racial and ethnic groups have undergone discrimination, which may deny them a chance at upward mobility (Zhou, 1997, 1999). This indicates that the prejudice derived from skin colour led to discrimination, followed by different paths of incorporation among ethnic groups that are represented. Second, residential segregation tends to produce notorious prejudice toward a particular racial or immigrant groups (Portes and Zhou, 1993). In general, there are two contradictory outcomes regarding settlement patterns among immigrants in the host country: the “concentration” in which newcomers settle in an urban area where a myriad of earlier arrived immigrants live in and the “diffusion” in which newcomers scatter throughout the host country (Portes and Rumbaut, 2006, p. 43). In this respect, some immigrant groups opt to concentrate in ethnic communities, but others may seek to avoid residential concentration (Portes and Rumbaut, 2006).

However, the former brings with it a prejudice to the native-born because immigrant groups clustering in ethnic communities tend to be underprivileged and isolated from the host society (Zhou, 1997, 1999). Over time, the bias against the immigrant groups in ethnic communities may be fixed, but the native may never be friendly toward them (Zhou, 1997, 1999). Hence, the different biases in favour of or against immigrant groups may influence

distinct modes of incorporation (Portes and Zhou, 1993). Third, significant differences of social mobility exist among immigrant groups or origins of nationalities, which lead the native-born citizens having different stereotypes about immigrant groups (Zhou, 1997, 1999). Once manual migrant workers are hired in specific occupational areas in the host labour market characterised into low-skilled and poorly-paid works, native workers define the jobs which migrant workers hold as ‘immigrant jobs’ which then makes it more difficult to escape the bottom-rung of the social ladder (Piore, 1979). Because those jobs need low human capital skills, the natives may have a stereotype against workers being employed in ‘immigrant jobs’.

Over time, the stereotype is reinforced and become a negative social labelling (Piore, 1979). If a higher proportion of some immigrant groups are largely employed in socially labelled immigrant jobs, the native-born are more likely to perceive that the groups are at the bottom rung and have fewer opportunities to move up at the occupational ladder (Portes and Zhou, 1993). Unlike the manual immigrant groups, professional immigrants can make money enough with stable and capital-intensive jobs, so they achieve upward mobility as a middle- or high-class (Portes and Rumbaut, 2001, 2006). In this situation, the professional workers seem impervious to the social labelling. Those different prejudices may bring about unequal treatments toward immigrant groups (Zhou, 1997, 1999), which may influence different paths of incorporation.

The ethnic community in the destination is third dimension. In spite of the negative stereotype of ethnic concentration, as noted earlier, it also plays positive roles in helping the adaptation of newcomers (Portes and Zhou, 1993). Because newcomers may find it difficult to adapt once they arrive at the destination in the first stage, newcomers settling in an ethnic community tend to increase their social networks based on trust with same ethnic members (Zhou, 1999). This process enables them to obtain much information and many resources for adaptation that provide psychological stability and economic gains (Nee and Sanders, 2001; Marger, 2001; Portes and Zhou, 1993). However, some origins of nationalities are far more condensed than other origins, and other origin groups are much more dispersed (Portes and

Rumbaut, 2006). Such different spatial concentration may influence unequal incorporation patterns among the origins of nationalities.

8.3.2.2. Immigrant group's characteristics

Another set of determinants influencing distinct incorporation patterns is immigrant groups per se (Zhou, 1999). The intrinsic immigrant groups are relevant to resources, knowledge, culture, and aspiration that is brought from the origin countries or accumulate after arrival to the destination (Zhou, 1999; Zhou and Xiong, 2005), which result in human capital (Portes and Rumbaut, 2006) and social capital (Zhou, 1997, 1999) resources.

On the one hand, human capital resources are derived from skills, money, motivation, and social status at the pre-migration, and experiences at the post-migration, explain different modes of incorporation between immigrant groups (Portes and Rumbaut, 2006). The assimilation model focuses on individual level factors influencing incorporation such as education, destination-language skills, age at the time of migration, and duration of settlement, but different modes of incorporation are not fully accounted for among immigrant groups (Zhou, 1997, 1999). In this fashion, segment assimilation model predicts human capital resources to vary along with immigrant groups, which would determine upward and downward mobility (Zhou and Xiong, 2005). For instance, as Cubans are an older refugee groups, their length of settlement is longer than Haitian and Mexican groups; in addition, English and education levels of Cubans are higher than those of Haitian and Mexican groups in the United States (Portes and Rumbaut, 2006). Considering the differences, the earning of Cubans is higher than that of Haitians and Mexicans in the United States. The different aggregated human capital resources at the origins of nationalities level tend to account for the disparity of economic conditions, which influence their different outcomes of social mobility (Portes and Rumbaut, 2001, 2006).

On the other hand, different ethnic-based social capital resources accounts for different modes of incorporation among immigrant groups (Zhou, 1999). Mostly, the literature on social capital theory has introduced two important elements including social

networks (i.e. relationship) based on ethnic concentration and norms or value (i.e. rules) (Portes, 1998; Halpern, 2005; Nahapiet, 2011).

First, as noted earlier, there is no overall agreement in discussing social network. One assumption is that the size of the population of ethnic groups in the destination increases the likelihood of forming social networks, in which same ethnic members are excluded from the mainstream. The argument is that in a place where a large number of same ethnic members concentrate, immigrants tend to form ethnic networks in which they are self-protected and strive to interact with immigrants who share same ethnic backgrounds. Thus, in a large ethnic community, ethnic networks have a negative impact on incorporation. Another contesting assumption is that the size of the population of ethnic groups forms ethnic networks that help same ethnic members to be incorporated into the host society. The argument is that in a place where same ethnic members concentrate, ethnic networks are produced and such ethnic networks provide useful information and resources in adjusting to the host society. Thus, in a large ethnic concentration, ethnic networks have a positive impact on incorporation. Without the competing hypotheses, the size of the population of ethnic groups that may lead to increase likelihoods of forming different ethnic networks is a possible factor influencing unequal paths of incorporation among ethnic groups.

Second, distinct ethnic groups' characteristics may reflect norms or values that each ethnic group entails, which may hinder or promote their incorporation (Zhou, 1997, 1999). It is known that norms or values influence varied daily life patterns of members within an ethnic group including behaviours, thoughts, and beliefs (Portes, 1998; Halpern, 2005) and then, intrinsic traits of immigrant groups become expressed (Zhou, 1997, 1999). Seen from the perspective, if norms or values in an ethnic group are similar to those of the mainstream, the ethnic group's trait resulting from inherent norms or values could facilitate incorporation in the host country. Conversely, if the norms or values are inconsistent with the mainstream, the traits originated in the norms or values may make it difficult to fully integrate into the host society. In the next pages, this thesis explores factors drawn from empirical research addressing the reasons for the different modes of incorporation.

8.3.3. Empirical approach on segmented assimilation model

In order to address the reasons for distinct incorporation patterns among the origins of nationalities in the destination with regard of segmented assimilation theory, empirical studies attempt to find appropriate variables predicting the different modes of incorporation. In dealing with segmented assimilation model, a wealth of empirical literature is focused on contextual gaps and ethnic networks. Seen in this approach, the contextual gaps are based on contexts of reception whereas ethnic networks rely on the innate characteristics of immigrant groups.

8.3.3.1. Contextual gaps

Contextual gaps between the homeland and the destination are linked to reverse migration, which tend to determine different paths of incorporation. According to Portes and Rumbaut (2006), favourable conditions in the host country deter immigrants from returning to their countries of origins whereas unfavourable conditions in the host country lead to the opposite in which they go back to their countries of origins. Thus, relative conditions between the sending and receiving countries may affect decisions whether to return to the home countries or settle in the destination permanently. From the perspective, the disparity of conditions tends to determine distinct patterns of naturalisation (P. Yang, 1994; Bueker, 2005), employment (Van Tubergen, Maas and Flap, 2004; Fleischmann and Dronkers, 2010; Pichler, 2011), and destination-language proficiency (Espenshade and Fu, 1997; Chiswick and Miller, 2001, 2008; Van Tubergen and Kalmijn, 2005) as well as life satisfaction (Massey and Akresh, 2006), among immigrant groups. The contextual gaps between the home and the host countries are compiled into at least three sets, consisting of economic position, geographic distance, and political condition.

The first is associated with relative economic conditions between the sending and the receiving countries. The economic contextual gap tends to determine the extent to which immigrants satisfy their economic situations in the host country compared to the origin countries (Portes and Rumbaut, 2006). As such, among immigrant groups, the modes of naturalisation (P. Yang, 1994; Bueker, 2005), employment (Van Tubergen, Maas and Flap,

2004, Van Tubergen, 2005; Fleischmann and Dronkers, 2010), and destination-language proficiency (Espenshade and Fu, 1997; Van Tubergen and Kalminijn, 2005) vary along with the extent of satisfaction with the economic contexts in the destination country. By focusing on a push and pull model¹⁵ of international migration, difficult economic conditions immigrants experience in the sending country take place international migration (Massey et al., 1993; Portes and Rumbaut, 2006). Because their poor seek to migrate to advanced countries, immigrants from developing countries expect to escape from aggravated economic conditions through international migration (Massey, 1999). From this view, immigrants who move for economic reasons expect greater economic incentives in the host country and then, they tend to invest time and efforts to grasp economic benefits in the receiving country, without reverse migration (Portes and Rumbaut, 2006), in which immigrants hope to acquire citizenship (P. Yang, 1994; Bueker, 2005) and develop destination-language proficiency (Chiswick and Miller, 1995, 1999, 2001; Kossoudji, 1988). This is mainly due to both citizenship acquisition (P. Yang, 1994) and destination-language skills (Chiswick and Miller, 1995, 1999) facilitating upward mobility in the destination. Although immigrants from developing countries are placed in low-waged occupations compared to the native-born, they are likely to find it desirable to stay in the destination country permanently (Portes and Rumbaut, 2006). Despite the harsh economic conditions, in turn the salaries and work conditions in the host countries are regarded as satisfactory levels for the immigrants (Portes and Rumbaut, 2006). In this manner, these may make assumption that immigrants from poorer countries are more likely to acquire citizenship, become employed, develop

¹⁵The model touches upon international migration through both wage differentials and capital differentials between countries, which especially explains transnational labour movements (Massey et al., 1993). In the context of describing international labour flow, this view embraces both low-skilled and high-skilled workers focused on supply and demand logic. Low-skilled workers move from countries where the wage level is relatively low in the labour market to countries where the wage level is relatively high in the labour market. As continuing labour flow, wages are increased and labour supplies become decreased in “capital-poor” countries whereas wage decreases and labour demand increases in “capital-rich” countries (Massey et al., 1993, pp. 433-434). In opposition to low-skilled worker, high-skilled workers move from countries with plentiful capitals to countries that lack capitals. By focusing on human capital resources, capital-poor countries which have shortage of labour force expect to improve their human capital levels, so the countries encourages high-skilled workers in capital-rich countries to enter, while providing jobs with high wage as incentives to lure high-skilled workers from capital-rich countries (Massey, 1999). At the end of this labour flow, international migration no longer occurs because there are no differences in wages and capitals between capital-rich and capital-poor countries as stability state. Thus, wages and capitals are equalised between the countries, so people no longer move internationally.

destination-language proficiency, and become satisfied with their life in the destination country than those who are from richer countries.

The second refers to the geographic distance between the home and host nations. Relative distances of journey from the origin to the destination countries influence the decisions of reverse migration. Empirical studies demonstrate that such relative distances are associated with different outcomes of naturalisation (P. Yang, 1994; Bueker, 2005), employment (Van Tubergen, Maas and Flap, 2004; Van Tubergen, 2005; Fleischmann and Dronkers, 2010), and destination-language proficiency (Espenshade and Fu, 1997; Chiswick, Lee and Miller, 2006, 2006; Chiswick and Miller, 2008b). In addition, from the different outcomes, ethnic groups differently perceive life satisfaction in the host country (Amit, 2010). There are two conflicting assumptions. One is that migration from nearer homelands leads to lower travel costs (P. Yang, 1994) and continues relationships with friends, relatives, and family members in the homelands (Portes and Rumbaut, 2006). Another is that migrations from farther homelands result in higher travel costs which tend to encourage permanent settlement in the destination (Chiswick and Miller, 2001, 2008). In the competing assumptions, if immigrants who travelled shorter distances meet less favourable conditions in the destination, they may decide to return their home (Portes and Rumbaut, 2006). On the contrary, when immigrants from farther afield meet unfavourable conditions in the destination, they may give up returning to their home (Portes and Rumbaut, 2006). Instead, they may invest time and efforts in becoming a citizen (P. Yang, 1994; Bueker, 2005), finding a job (Van Tubergen, Maas and Flap, 2004; Van Tubergen, 2005; Fleischmann and Dronkers, 2010), developing destination-language proficiency (Chiswick, Lee and Miller, 2006; Chiswick and Miller, 2008b, 2010) for adaptation to the receiving country, which encourages them to perceive satisfaction with daily life in the host country (Amit, 2010). From this standpoint, immigrants from countries far from the receiving country are more likely to invest time and efforts in obtaining citizenship, becoming employed, acquiring destination-language proficiency, and becoming satisfied with their life in the destination than those who are from countries closer to the receiving country.

The third is associated with different political conditions between the sending and the receiving countries. Some immigrants arrive at a destination where people have freedom for elections, religions, and for conducting economic activities, so as to escape from torturous political conditions in the home country where people are discriminated against, violated, and constrained in liberty (Chiswick, 2000; Richmond, 1988; Hirschman, Kasinitz and DeWind, 1999a; Van Tubergen and Kalmijn, 2009). In this situation, immigrants for political reasons are more likely to acquire citizenship than those who arrive for economic reasons because with naturalisation, they hope to enjoy political freedom in the destination, not returning to their countries (P. Yang, 1994; Bueker, 2005). However, immigrants for political reasons are less likely to have human capital skills and economic aspirations than those who are for economic reasons (Chiswick and Miller, 2001, 2008). Such insufficient human capital skills and feeble economic motivations may deter immigrants for political reasons from being employed (Van Tubergen, Maas and Flap, 2004; Pichler, 2011), and improving destination-language ability (Chiswick and Miller, 2001, 2008; Van Tubergen and Kalmijn, 2005), which may lead them to be dissatisfied with their life in the host country (Amit, 2010; Massey and Akresh, 2006). It may be hypothesised, therefore, that immigrants from non-democratic countries in which political persecution is prevalent increase their chance of citizenship acquisition, but decrease their probabilities of employment, destination-language proficiency, and satisfaction with life in the receiving country.

Consequently, in terms of economic, geographic distance, and political conditions, citizenship acquisition in the host society is increased when immigrants are from underdeveloped, faraway, and non-democratic countries, whereas employment, destination-language proficiency, and life satisfaction in the destination country is decreased when immigrants are from developed, closer, and non-democratic countries. To sum up, relative contexts between the origin and the host countries are associated with distinct modes of incorporation for immigrant groups.

8.3.3.2. *Ethnic networks*

Immigrant groups' characteristics reflect different ethnic networks, which could lead to unequal adaptation paths among immigrant groups (Zhou, 1997, 1999; Kasinitz, Mollenkopf and Waters, 2002; Portes and Rumbaut, 2006). Although mostly immigrants confront equivalent adjustment-related problems in the destination including housing and financial problems, different culture, shortage of information about host society, communication, and discrimination, the degrees to which ethnic groups meet these problems differ along with levels of ethnic networks (Hirschman, Kasinitz and DeWind, 1999a). Thus, some ethnic groups' networks would be stronger than that of other ethnic groups, and other groups may have much weak ethnic networks (Nee and Sanders, 2001; Kasinitz, Mollenkopf and Waters, 2002), which would meet different levels of adjustment-related problems at the group level (Portes and Rumbaut, 2006).

As discussed previously, there are competing presumptions in terms of ethnic networks. Nonetheless, this thesis hypothesises that the ethnic network is positively associated with incorporation in the host society. The literature on an ethnic network has suggested that immigrants obtain a broad range of benefits including information, resources, and psychological supports from ethnic networks that facilitate incorporation (Zhou, 1999; Nee and Sanders, 2001; Portes and Rumbaut, 2006). At this point of view, strong ethnic networks that are formed by a large residential concentration, large size, and close relationships between same ethnic members may help immigrant groups to integrate into the host society, whereas weak ethnic networks associated with residential dispersion, small size, and loose relationships between same ethnic members may restrain immigrant groups from incorporating in the host country (Portes and Rumbaut, 2006). Hence, relative ethnic networks may determine different modes of incorporation for immigrant groups (Zhou, 1999; Rumbaut and Portes, 2001; Portes and Rumbaut, 2006).

Following the empirical studies, the size of ethnic network is frequently and commonly assessed as a group level determinant accounting for different modes of incorporation including naturalisation (Liang, 1994; Togeby, 1999; DeSipio, 1987; P. Yang,

1994, 2002; Bueker, 2005; Pantoja and Gershon, 2006), employments (Levanon, 2011; Van Tubergen, Maas and Flap, 2004; Fleischmann and Dronkers, 2010), destination-language proficiency (Van Tubergen, 2009; Hwang and Xi, 2008), and life satisfaction (Sung et al., 2013; Amit, 2010), among ethnic groups.

However, there are two competing empirical results about the effect of the size of ethnic networks. On the one hand, the size of ethnic networks at the group level is positively associated with the likelihood of naturalisation (Liang, 1994; P. Yang, 1994; Bueker, 2005), employment (Nee and Sanders, 2001; Van Tubergen, 2005), and the improvement of life satisfaction (Sung et al., 2013; Amit, 2010). Underpinning the results, one of the possible explanations is that interactions between ethnic members frequently occur in an ethnic residential concentration; moreover, as the size of ethnic networks becomes enlarged, a number of social capital resources are established (Kasinitz, Mollenkopf and Waters, 2002). In this fashion, larger ethnic networks would offer information and knowledge that could assist ethnic members in grasping the benefits of naturalisation (P. Yang, 1994; Bueker, 2005) and employment (Marger, 2001). Alongside with the benefits of naturalisation and employment, because ethnic networks play a role in cushioning immigrants from cultural shocks, discrimination, and prejudice in the process of adaptation to the host society, ethnic members may find a psychological stability (Portes and Rumbaut, 2006). Hence, ethnic networks are positively associated with naturalisation, employment, and life satisfaction.

On the other hand, a contesting presumption predicts a negative relation between the size of ethnic networks and destination-language proficiency (Grenier, 1984; G. Stevens, 1992, Mesch, 2003; Hwang and Xi, 2008). In discussing destination-language proficiency, the size of ethnic networks is discussed with the exposure to destination-language. If immigrants live in a larger size of ethnic community, exposure to speaking mother-tongue is greater (G. Stevens, 1992; Dustmann, 1994; Chiswick and Miller, 1996, 2001). In this context, immigrants in a place where ethnic members concentrate may not use the destination-language, but their mother-tongue and then, their destination-language proficiency may gradually decline (Grenier, 1984; Mesch, 2003; Chiswick and Miller, 1996, 2001, 2005). Reviewing empirical results, the size of ethnic networks has a positive impact

on naturalisation, employment, and life satisfaction, but has a negative effect on destination-language proficiency.

8.4. HYPOTHESES

In order to examine the cause-and-effect relationships, based on segmented assimilation theory accompanied by empirical evidence, four hypotheses are drawn for examination at the group level. The Table 8.1 shows signs of hypotheses.

Table 8.1: Hypotheses at the ethnic-group level

		Outputs			
		Objective Integration			Subjective Integration
		Political Integration (Citizenship)	Economic Integration (Employment)	Cultural Integration (Destination-language skills)	Life Satisfaction
Inputs at the ethnic-group level	Economic conditions (i.e. GDP)	-	-	-	-
	Political conditions (i.e. Democracy Index)	-	+	+	+
	Geographic distance	+	+	+	+
	Ethnic size	+	+	-	+

Summarising from Table 8.1, the following describes hypotheses in detail:

- 1) The immigrant wives' likelihoods of naturalisation, employment, Korean-language's improvement, and life satisfaction increase as levels of GDP in the origin countries decrease.
- 2) The immigrant wives' likelihood of naturalisation decreases, but the likelihoods of employment, Korean-language's improvement, and life satisfaction increase as the democratic scores at the origin countries increase.

- 3) The immigrant wives' likelihoods of naturalisation, employment, Korean-language's improvement, and life satisfaction increase as a geographic distance from the origin countries to Korea increase.
- 4) The immigrant wives' likelihood of Korean-language's improvement decreases, but the likelihoods of naturalisation, employment, and life satisfaction increase with the size of ethnic networks in the host country.

8.4. OVERVIEW AT THE ETHNIC-GROUP LEVEL

As discussed above, the preceding discussions from segmented assimilation theory and relevant empirical studies points out two sets of factors influencing the various modes of naturalisation, employment, destination-language proficiency, and life satisfaction among ethnic groups: 1) contextual factors in relation to reverse migration between the origin and the host countries; and 2) specific ethnic groups' characteristics regarding ethnic networks. In fact, the two sets of factors at the ethnic-group level thought of as inputs produce immigrant integration considered outputs, from the perspective of open system theory. Hence, ethnic-group level factors are independent variables, and immigrant integration including objective (e.g. citizenship, employment, and Korean language proficiency) and subjective (e.g. life satisfaction) integration are dependent variables. In the causal relationship, the independent variables are causes of effectiveness in MFSS delivery while the dependent variables are effects as a performance outcome that evaluates effectiveness in MFSS delivery.

In the next chapter, this thesis will address service-providers' characteristics that emphasise on the size of service-providers, the resources of service-providers, methodologies in service-delivery, in discussing relationships between inputs at the organisational level and outputs of MFSS as well as between throughputs at the organisational level and outputs of MFSS.

Chapter 9: *Theoretical Description at the Organisational Level*

This chapter focuses on organisational characteristics, resources, and service-delivery technologies that account for the outcome of MFSS, depending primarily on human service scholarship.

Although characteristics and resources at the individual and ethnic-group level are crucial determinants as given inputs influence immigrant wives' integration as outputs as noted in previous Chapter 6, 7, and 8, it is accepted that organisational characteristics and resources are also decisive predictors as inputs accounting for performance of human service as outputs (Hasenfeld, 1978; Martin and Kettner, 2010). Having discussed the associations between inputs regarding resources or characteristics at the individual and ethnic-group levels and the outputs of MFSS in Chapter 6, 7, and 8, this chapter will now turn to describing the relationships not only between inputs referred to as organisational resources or raw materials and their outputs but also between throughputs defined as service delivery methodologies and their outputs.

Therefore, this chapter primarily sets out to examine the effects of possible factors at the organisational level, which are inputs and throughputs, on integration of immigrant wives, which means outputs. In dealing with this issue, this chapter attempts to explore how the effectiveness of settlement service for immigrant wives can be improved. When discussing relations between the possible predictors at the organisational level and the outputs, the first part introduces inputs associated with resources and raw materials to be used for the production of services at the organisational level. The second part reviews the literature that addresses the attributes of service delivery methodology as throughputs that are translated into the outputs, then it presents relevant indicators of service delivery methodology. The last part represents hypotheses regarding cause-and-effect relationships between determinants at the organisational level and their outputs.

9.1. INPUTS AT THE ORGANISATIONAL LEVEL

9.1.1. Indicators in inputs

In the logic model reflecting the open system approach, inputs are concerned with resources and raw materials that are used to transform throughputs and outputs (Katz and Kahn, 1978), including “funding, staffs, facilities, equipment, and materials” within the context of management or administration in the field of human service (Martin, 2005, p. 66; Martin and Kettner, 2010, p. 5).

Despite the clear classification, an overall evaluation of performances in governmental and non-profit organisations is challenged. Firstly, there are no commonly accepted ways in which it is not possible to measure certain given inputs perfectly (Pina and Torres, 1992; Vakkuri, 2003). This is due to the fact that resources and materials in the inputs are not always able to be expressed in scores for a quantitative analysis (Chang, 1998). Secondly, with the difficulty of measurement, there may remain varied indicators, and therefore it can be difficult to use all necessary indicators (K. Son, 2003). Thirdly, if all possible components thought of as inputs are not necessary for a performance evaluation, it may become difficult to choose the most critical components (Vakkuri, 2003). Finally, the assumption that given inputs always affect given outputs in the service delivery process is not always true (Martin and Kettner, 2010).

Notwithstanding the limitations, previous research has emphasised that funding and manpower take precedence over other components in inputs from the open system perspective. There are two reasons regarding the importance of funding and manpower. First, funding identified with budget and expenditure is assumed to provide comprehensive information regarding direct or indirect scales of investment in governmental and non-profit organisations (Pina and Torres, 1992). It cannot be overemphasised that funding is the most principle matter because all scopes of administrative decision-makings are sensitive to funding (Gates, 1980; Patti, 2000; Gibelman, 2000). Indeed, levels of funds tend to determine the ranges and scopes of a variety of administrative works including programs’ planning or designing, staffing, the service delivery process, and ordering priorities or interests (Ezell,

2000). Within the level of funds, in turn, the culminations of goal, designing, program scales, and coverage of the proportions of target population are virtually determined (Martin and Kettner, 2010). Due to the crucial roles of funding, therefore, it is used as an important scale for measuring inputs at the organisational level in this thesis (Y. M. Kim, 2004; Mon and Kang, 2004). Second, manpower is concerned with labour-intensive tasks at the practice of administration in a governmental or non-profit organisation (Y. M. Kim, 2004; E. Kim, 2012). One of the intrinsic characteristics of public or non-profit organisations in the area of human service depends excessively upon labour-intensive methods (Patti, 2000). A wide variety of and a number of service-providers, including teachers, counsellors, nurses, doctors, social workers, and other workers, tend to engage in the single setting of service-delivery (Y. M. Kim, 2004; Mon and Kang, 2004). In the setting, performance outputs are achieved through a number of workers' efforts or activities (Hasenfeld, 1972, 1978; Patti, 2000). Because of the service-delivery process characterised into labour-intensive works, therefore, the labour force is generally accepted as a significant indicator in measuring inputs.

When reflecting the two factors on inputs, it is simply assumed that outputs are accomplished by both funding and work force. Thus, in the open system approach, the higher the levels of manpower and funding, the greater the outputs become. In the following, this chapter provides a review of literature focusing commonly on funding and labour force as inputs in governmental and non-profit organisations.

9.1.2. Empirical studies

9.1.2.1. Prerequisite conditions

Through reviewing the literature based on the manpower and expenditures as inputs in the governmental and non-profit organisations, the literature centres around two main different research analyses: data envelopment analysis (DEA)¹⁶ and quantitative analysis.

¹⁶According to Martin (2002, p. 46-47), "DEA makes relative efficiency comparisons between decision making units (DMUs) providing the same or similar services" as a non-parametric analysis. In the analysis, the service-providers can be decision-making units that are thought of as DMUs. "It is assumed that performance differences appear among the like organisational units and measured differences can be seen as reflections of

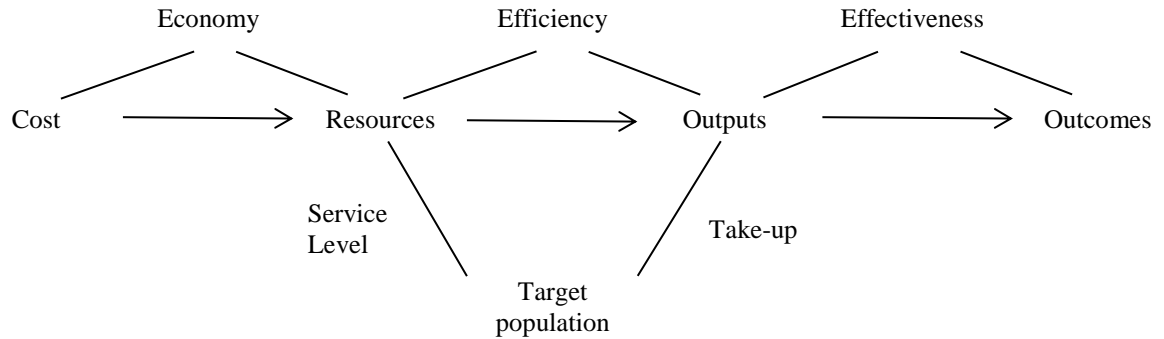
Although the two approaches are primarily dependent on the open system perspective in which inputs produce outputs, there may appear particular differences between the two approaches. First, in terms of performance measurement, DEA tends to focus on efficient outputs while quantitative analysis is more likely to consider various outputs including efficiency, service quality, and effectiveness (K. S. Song, 2006). Second, quantitative relationships between every input and all outputs are likely to be required in quantitative analysis independently, but DEA does not necessarily require the cause-and-effect associations between all inputs and every outputs (Y. M. Kim, 2004). Synthesised, regardless of efficiency, service quality, and effectiveness as outputs, all possible relationships from averagely measured inputs and outputs are entailed for quantitative analysis depending upon population parameter techniques, whereas relative efficiency from given or selected inputs and outputs are compared between selected samples on DEA which relies on non-parametric techniques (Martin, 2002).

As noted earlier in the Chapter 4, this thesis is not aimed to consider just one dimension, but to review the three dimensions of efficiency, service quality, and effectiveness together. In doing so, although DEA is primarily focused on efficiency results that are different from other performance perspectives including service quality and effectiveness (Pina and Torres, 1992; Martin, 2002; Vakkuri, 2003), this chapter assumes that efficiency outputs are related to that of effectiveness. The reason is consistent with “the expanded system model” proposed by Martin and Kettner (2010, p. 5) and “three E’s model of performance” suggested by Audit Commission in UK (Audit Commission, 1989 as cited in Roger, 1990, p. 61).

As noted earlier in Chapter 5, the expanded system model is dependent on the traditional open system model that consists of essential components: inputs, throughputs, outputs, and feedbacks, as well as adding two more elements: quality and outcomes. In fact, the expanded system model includes efficiency, service quality, and effectiveness all together; moreover, efficiency is associated with the results of effectiveness.

real performance differences among them” (Vakkuri, 2003, p. 251). Such DEA is used for different efficiency analysis among public, profit, and non-profit organisations in the areas of human service (Martin, 2002).

Figure 9.1: Three E's model of performance



On the other hand, the three E's model, comprising of costs, resources, outputs, and outcomes, involves the dimensions of economy, efficiency, and effectiveness based on open system model. Both costs and resources are thought as inputs, but throughputs are not considered (See Figure 9.1). The three E's model demonstrates clear cause-and-effect associations among costs, resources, outputs, and outcomes, in which effectiveness is taken to mean the last results from efficiency (Rogers, 1990).

From the standpoints, it expects that resources and materials in inputs affect not only efficiency results but also service quality and effectiveness outcomes. In addition, the three dimensions cannot be evaluated separately of one another, so meaning that assessment in terms of the three dimensions needs to be considered all together (Gates, 1980).

In exploring empirical studies, this section will cover a wide spectrum of human services including schools, hospitals, welfare centres, and government agencies. This is primarily because organisations in the human service tend to share similar features: these organisations find it difficult to prepare self-operation finance independently, which lead them to receive financial aids from governmental or external constituencies; these organisations depend heavily on labour intensive works in which various and many experts on the front-line provide human services for service-users; and their initial goal is to help service-users (Hasenfeld, 1972, 1978). In addition, there are no universally accepted criteria in evaluating the extent to which inputs lead to outputs in the area of human service (Patti, 2000; Boyne, 2003; Martin and Kettner, 2010). Following the similar features, various

organisations in the area of human service will entail, in exploring varied determinants in the three dimensions: efficiency, service quality, and service effectiveness. Thus, this section attempts to provide results of empirical studies concerned with determinants influencing outputs in the three dimensions, in the field of human service. The first part in this section begins with previous literature on DEA.

9.1.2.2. Empirical evidence on DEA

What follow is empirical studies that examine the effects of expenditure and manpower on performance outputs using DEA technique. In the empirical results on DEA, given inputs tend to lead to greater outputs.

When discussing the relative efficiency of welfare centres in Korea, numerous researchers have used similar factors in inputs and outputs. Moon and Kang (2004) analysed 38 welfare centres in Busan Metropolitan city, Korea. In their study, variables in inputs were classified into discretionary factors that are considered to be controlled, such as the number of labourers, level of budget, and employers' working time, and non-discretionary factors that are not possible to control such as land, water, and other environmental factors. For relative efficiency, they focused on discretionary variables, including annual settled accounts, the number of workers, and the number of annual volunteers. The outputs, which were divided into family, children, youth, the aged, and community programs, included the number of each programs' users. From the DEA, they concluded that 12 of welfare centres were efficient, in which the labour force and the level of budget increased the efficient outputs.

K. Son (2003) compared four different models in the examination of 45 welfare centres in Busan, Korea. The first model used the number of social workers and the labour cost as inputs, and the total number of program users was used as outputs. In the second model, inputs included the total number of staffs and the total expenses for the work while outputs involved the total number of program users. The third model used inputs of the total number of volunteers and staffs, as well as the total period of operation, while the outputs were the total number of program users. In the fourth model, the total number of staffs and volunteers, the total period of operation, and the total expense for the work were inputs

whereas the total number of program users was the outputs. The results indicated that 16 to 25 of welfare centres were relatively efficient, in which the inputs of the four models improved the outputs.

The study of K. Song (2006) reiterated the research design of Mon and Kang (2004). He investigated the efficiency of 25 welfare centres in Daegu Metropolitan city, in Korea. In his study, the total annual expenditures excluding labour costs, the number of workers including social workers and general or administration staffs in a welfare centre, and the number of volunteers a year in a welfare centre were used as inputs. The outputs were the same as the study of Moon and Kang. Among 25 centres, comparative efficiency was above the average, indicating that proposed inputs including costs and labour force increased the outputs. Other similar studies in which labour force and expenditure were used for inputs that influence factors in outputs can be found in the research by Joo and Kim (2003), Shin and Kim (2009), E. Kim (2012), K. Kim and Y. Kim (2013), in Korea.

Except for Korean studies, other empirical studies on DEA found similar results. With an emphasis on expenditure, Pina and Torres (1992) pointed out that the most important inputs were personal, medication, and other costs, based on the belief that cost accounting provides varied information for health care centres which were supported by the government funds in Spain. Through DEA, they found that the outputs that included average number of consultations per community, average number of consultations per professional per working day, and percentage of programmed consultations were maximised by the costs as inputs.

By focusing on the workforce, Chang (1998) examined comparative efficiency among chosen state-owned hospitals from 1990 to 1994 in Taiwan using DEA. In the examination, labour force including full time physicians, nurses, and workers in the practice of administration were important factors thought of as inputs that were associated with the number of clinical service-users as outputs.

Following the empirical studies on DEA, it may be reasonable to conclude that manpower and expenditure thought of as inputs improved outputs. Having discussed

empirical evidence on DEA, the following pages turn to the empirical evidence of correlation or regression analysis.

9.1.2.3. Empirical evidence on correlation or regression analysis

The empirical studies using correlation or regression analysis is concerned with the relationship between organisational characteristics as inputs and measured effectiveness as outputs, depending on open system model. In the consideration of parameters, the empirical results are categorised into at least two groups according to the use of labour force and financial resources as given inputs.

First, the relationship between the labour force and the outputs is the lack of consensus. Among empirical results, on the one hand, the positive relationship was reported, indicating that an increase in the number of staffs was appeared to improve the outputs. By the study of Kim and Lee (2006) primarily investigating the relationships between networks of 380 community-based welfare centres and organisational effectiveness, organisational characteristics were assumed as possible factors for effectiveness. The effectiveness was measured as the total number of service-users a day as a dependent variable; moreover, organisational characteristics included workforce, community features, and characteristics of networks as independent variables in the effectiveness. They found that the total number of full time workers had a positive impact on the organisational effectiveness. Similarly, the study of J. Choi (2002) analysed whether chain-affiliated community welfare centres improved performance results among 237 centres throughout Korea. He used the scales of nationwide organisational evaluation project that measured efficiency, effectiveness, and service quality of organisations. From the data source, as an organisational effectiveness was a main dependent variable, the effectiveness of welfare centres were divided into “good” and “bad” for logistic analysis. Also, the number of workers being employed per welfare centre was one of the independent variables. In his analysis, although the total number of full time workers in a welfare centre was a control variable, the relationship between effectiveness and the number of full time workers was positively significant. Thus, the finding indicated that labour force itself increased effectiveness.

The same is true for the study by Judge (1994), who assessed non-profit hospitals in Carolina, U.S. by investigating relationships among organisational size, border compositions, and environmental scarcity. The average number of employees was a proxy variable tailed for the size of the hospital, and financial performance was measured by summed average levels of sales, sales growth, and utilisation as effectiveness of each hospital. In the examination, the result showed that organisational size led to greater levels of financial performance.

The similar finding is reported by the study of Christenson and Sachs (1980) investigating the relationship between organisational size and public service quality among 100 counties in North Carolina, U.S. The size was tailed in the number of staff in an administrative organisation as its proxy variable, and service quality was measured by respondents' perception toward 8 main services including the welfare service, library, school, medicine, recreational facilities, cultural opportunity, public place, and enforcement. The service quality was increased by the number of staff, indicating that labour force as an input had a positive association with service quality as outputs. Summarised, the empirical studies demonstrated that the labour force thoughts of as inputs improved the effectiveness, efficiency, and service quality as outputs.

On the other hand, wealth studies hardly provide clear supports in relation to the fact that manpower had a positive impact on outputs. Glisson and Martin (1980) analysed whether organisational structure, size, and history affected organisational efficiency among 30 organisations in human service, in the United States. Using path analysis, one of the inputs was the total number of staff, and the average number of clients per worker per week was regarded as organisational efficiency. They analysed the relationships between given inputs and outputs using correlation techniques before path analysis. Their result indicated that the association between the inputs and the efficiency was not correlated.

Similarly, the study of Schinnar et al. (1990) explored relations between organisational characteristics and the effectiveness of a partial care program in mental health. The number of full time workers was measured as one of the organisational factors, and program effectiveness was measured through index including average per cent and average

frequency to which clients meet health needs as an output. They concluded that the labour force was not significantly related to the effectiveness.

The finding was consistent with the result of Lan and Rainey (1992). They measured the perceived extent to which managers achieved their organisations' goals among public organisations including governmental agencies, non-profit organisations including hospitals and schools, and profit organisations including banks organisations in New York, U.S. Organisational size was measured as the number of full time employees and assumed as a control variable, but its effect was not significant on effectiveness.

The finding parallels the study of Kang and Chung (2002) who examined whether organisational characteristics were associated with the quality of outputs among community welfare centres in Seoul, Korea, using the 2001 Seoul Evaluation Data. Labour force, including the number of social workers, as one of the inputs, did not improve client satisfaction thought of as the quality of outputs. Thus, their study showed no significant relationship between labour force and client satisfaction. Reviewed with proposed empirical evidence, although many believed that manpower leads to greater outputs, it is not always obvious to support the causal relationship between the labour force and outputs comprised of efficiency, effectiveness, and service quality.

Second, there is no general agreement about a relationship between the financial resource of an organisation and its effectiveness among researchers. Some researchers have identified that expenditure as an input was positively correlated with performance outputs. By the study of Kim and Lee (2006) investigating an association between budget level and the number of service-users per day in community-based welfare centres throughout Korea, although the effect of budget level was weak, a positive and significant relationship between budget and service-users was identified.

Also, Meier and Keiser (1996) analysed why 50 state-based agencies for the child-support program in the United States differently collected funds from the central government. In their analysis, average expenditure was significantly associated with collecting funds,

indicating that the increase of the funds was closely related to the annual expenditure of each agency. In fact, the larger budget thought of as an input would help agencies collect higher levels of funds as outputs.

The similar finding was reiterated by the study of Dean and Peroff (1977) that examined the effectiveness of welfare services among 48 states in the United States. The outputs were treated as welfare payment and the total number of welfare service-users, and one of the inputs was the state's spending per capita. They concluded that the spending per capita increased welfare payment and the number of welfare service-users.

In an important sense, many prior works have assumed that expenditures of school concerned with inputs produces better students' performances including school records and lower ratios of drop outs thought of as outputs. Meier, Wrinkle, and Polinard (1999) tested causal links between expenditures per student for instruction, teacher salary, and school financial aids from the state government and pass rates of regular exam, among schools of 527 districts in Texas, the United States. Through weighted least squares analysis, the percentage of the passing exam of students was increased with the expenditure for instruction per student.

According to Bohte (2001) who analysed a link between bureaucracy and student performance at the local level in Texas, the United States, district instructional expenditures per student also improved student's exam scores.

Similar results were found by Smith and Larimer (2004). They analysed the relationship between bureaucracy and school performance in 1,000 districts in Texas, the United States between 1991 and 1996. In their study, outputs involved regular tests' passing percentage, dropout rates, and daily attendance rates, whereas inputs included the percentage of staff employed per district, the percentage of staff employed as teachers, percentage of student population per district, and expenditures for instruction per student. The passing rate of regular test and daily attendance rate were increased while dropout rate was decreased, by

instructional expenditure per student. In fact, these studies indicated that expenditures of schools could be transformed into a greater level of outputs.

Unfortunately, there has appeared a negative or no significant relationship between financial resources and performances. Machado (2001) examined whether expenditure per patient was correlated with performance among 38 alcohol abuse centres delivering outpatient treatment programs to patients in Maine, the United States. The examination showed that expenditure per patient as an input was not significant with abstinence rates as an output.

Christenson and Sachs (1980) also found a similar result. In the examination of 100 counties in North Carolina, the United States, an input was each county's expenditure per capita, and output was quality of service. They highlighted that the expenditure was not correlated with quality of service.

Such a view accords well with the research of education production. In fact, earlier works on education have demonstrated weak or no significant causal links between expenditures and performance outputs. Meier, Polinard, and Wrinkle (2000) found that expenditures per student for instruction, teacher salary, and financial aids from the state government as given inputs were not significantly related to the rate of exam pass as a given output, among 1,000 districts in Texas, the United States.

Ostroff (1992) examined causal relationships among job satisfaction, attitudes, and school performances using survey data from 364 schools in the United States and Canada. Although expenditure per student was a control variable, the expenditure had a negative impact on dropout rates and had no effect on attendance rate.

Hanushek (1986) reviewed 147 studies regarding school performances and concluded that "there appears to be no strong or systematic relationship between school expenditures and student performance" (p. 1162). Taken together, although many empirical studies suggested a positive relationship between expenditures of organisations and performance

outputs, it is difficult to always be supported. Also, empirical results showed weak or no significant cause-and-effect relationships between expenditures and performance outputs.

In the proceeding pages, this section was attempted to consolidate an assumption that inputs improve outputs through reviewing empirical evidence along with the two research approaches: DEA and quantitative analysis. Underpinning the fundamental perspective from the open system theory, it is assumed that inputs including manpower and financial expenditure lead to better outputs in the dimensions of efficiency, service quality, and effectiveness.

However, it was not always true and cannot make a clear conclusion between empirical studies along with analytical techniques. In other words, both labour force and expenditures concerned with inputs produce better outputs in the three dimensions of efficiency, service quality, and effectiveness among empirical research employing DEA, whereas empirical evidence using correlation or regression technique were not clear whether such inputs promote greater outputs in the three dimensions. Despite dubious results on quantitative analysis, this thesis simply assumes that inputs improve outputs. This is primarily due to this thesis article being based on the open system model, in which inputs produce outputs; in addition, the results of DEA are commonly dependent upon the positive relationship between inputs and outputs. Namely, it seems to be reasonable that given inputs including workforce and expenditures produce the best outputs in the three dimensions of efficiency, service quality, and effectiveness, by focusing largely on the open system theory alongside with empirical results of DEA. Having discussed inputs at the organisational level, this section will now proceed to describe throughputs concerned with the attributes of service delivery system.

9.2. THROUGHPUTS: THE ATTRIBUTES FOR EFFECTIVE SERVICE-DELIVERY SYSTEM

The open system model focuses simply on the fact that inputs are transformed into outputs via throughputs (Katz and Kahn, 1978), which is based on the logic model. At this point, in the field of human service, throughputs include service-delivery methods (e.g. the attributes of service-delivery system) during which inputs (e.g. human and financial

resources) are converted into outputs (e.g. performance outcomes comprised of efficiency, effectiveness, and service quality) (Martin and Kettner, 2010). Discussion in next sections will be concerned with the attributes for an effective service-delivery system as a service-delivery method.

9.2.1. Conceptual approach: The attributes in an effective service-delivery system

For service-delivery, it is generally understood that service-providers and service-users are arranged in the context of the local community (Gilbert and Terrell, 2002). In fact, the process of service-delivery is comprised of the three core elements of service-providers, service-users, and local community; moreover, constant interactions among the three elements are emphasised (Iglehart, 2000; Meyer and O'Brien-Pallas, 2010), through the lens of the logic model. In the setting, therefore, it is important that the three elements are not considered independently from one another but come together in the service-delivery system.

From reflecting on the concurrence of the three elements of service-delivery based on open system model, numerous studies have proposed the attributes of an effective service-delivery. Gilbert and Terrell (2002, p. 163) demonstrated that effective service-delivery is comprised of four components: “continuity, a lack of fragmentation, accountability, and accessibility”. Gates (1980, pp. 52-53) reiterated the four components and added one more component: “comprehensiveness”. Choi and Nam (2001, pp. 88-92) suggested eight components for effective service-delivery: “professionalisation, adequacy, comprehensiveness, continuity, integration, equality, accountability, and accessibility”. Ha and Lee (2011) focused on participation aside from former introduced the attributes of service-delivery. Rich research on the attributes of service-delivery has iterated those components (G. Choi, 2001; B. Cha, 2006; J. Seo, 2008; Sim and Choi, 2010; J. Y. Lee, 2010; Y. Moon, 2010). This section begins with definitions of each component to address why researchers have paid attention to those components for effective service-delivery.

First, if service-delivery is comprehensive or appropriate, service-providers are able to provide service-users with services that incorporate sufficient quantities, meet adequate quality standards, and assure enough time (Gates, 1980). It is known that not only do service-

users have various needs but the challenges service-users confront are linked to other challenges (Miley, O'Melia and Dubois, 1995). As such, human service should deal with as many as possible of the varied needs and intertwined challenges of the service-users, not focusing on only serious needs or challenges (Choi and Nam, 2001). In this formulation, service-providers need to consider comprehensiveness and adequacy in the setting of service-delivery, in which service-users are more plentiful, to cover varying needs and complicated challenges.

Second, service-delivery is concerned with professionalisation because of the inherent characteristics of human service. In the process of service-delivery, it is true that there is no general agreement about standardised and universal treatment skills among service-providers in the field of human service (Gates, 1980). Although each service-provider has had their own technologies or skills of service-delivery guided by how they provide services, such technologies or skills make it difficult to commonly apply experience to other organisations (Patti, 2000). One possible explanation is that no one has the same needs and challenges, so service-providers cannot share same intervention skills when dealing with different service-users (Miley, O'Melia and Dubois, 1995; Y. J. Kim, 2010). This leads service-providers to depend largely on professional groups including social workers, teachers, doctors, nurses, and therapists who have an official license (Y. J. Kim, 2010). In the setting of service-delivery, it is simply assumed that professional groups are more likely to deal with the varied needs and complicated challenges of service users than those who not (Choi and Nam, 2001). Hence, being professional is an essential aspect for effective service-delivery.

Third, continuity and integration refers to a network with other service-providers within the local community in the process of service-delivery (Gates, 1980; Y. J. Kim, 2010). It is known that not only do all service-users rarely have same needs and face similar challenges but also those needs and challenges possessed by service-users are interplayed (Miley, O'Melia and Dubois, 1995). In order to respond to the multi-needs or resolve the complex challenges, service-providers tend to be typically cooperated (Alter, 2000). This is because a single service-provider who tends to undergo insufficient financial and manpower resources cannot deal with the complexity of the needs and challenges (Gilbert and Terrell,

2002). In this situation, as an alternative, when service-providers collaborate with other service-providers at the local community, the collaboration may decrease service gaps without discontinuity (Patti, 2000). As an example, there may exist various services including job placement, job training, and child-caring for a single mother under unemployment at the local community. However, not only does the single service provision find it difficult to treat various needs and challenges but a single service-provider will find it difficult to provide all the services needed for a single mother. Because of the limitations, cooperative service provisions based on interrelationships among service-providers at the local community lead to more effective service-delivery (Gates, 1980; Patti, 2000). Thus, continuity that results from networks of service-providers at the local community is a vital element. Alongside with the continuity, integration is another important component, which refers to the duplication and omission of services (Gates, 1980). To illustrate, if service-providers at the local level provide only destination-language learning program for immigrants who meet other difficulties while staying in Korea, the language programs may end up being overlapped and then, other programs including job training and counselling are omitted. Hence, integration is a way to decrease fragmentations of service, and then the likelihoods of duplication and omission may decrease. In fact, continuity and integration are achieved by networking among service-providers at the community level (Y. J. Kim, 2010).

Fourth, what must be considered for effective service-delivery is equality. Equality in service-delivery suggests that service-providers deliver human services to service-users without discrimination (Choi and Nam, 2001). There are rapid changes around service-providers in the human service fields (Gates, 1980), for instance, an aging society, low birth rates, culturally diversity from an influx of immigrants, economic up and downs, and other social problems (Patti, 2000; Y. J. Kim, 2010; Gates, 1980). The impact of the changes takes place in various dis-valued groups to whom service-providers in the field of human service should pay attention (Patti, 2000). However, some fragile groups may undergo barriers when utilising human services because of their conditions including gender, age, income, religion, regional position, and ethnic backgrounds (Y. J. Kim, 2010). To reduce the barriers, it is clear that service-providers should allow the frail and needy people in human service to participate

in the service, regardless of those conditions (Choi and Nam, 2001). In this respect, the equality component on service-delivery helps service-users to access to human service, as a critical element for effective service-delivery.

Fifth, participation is based on the belief that human service is coproduced by service-providers and service-users (Patti, 2000). This implies that the absence of service-users in the process of service-delivery makes it difficult to attain any goal of human service. In fact, the initial goal of service-providers in the field of human service is to change service-users in a positive way (Patti, 1988). To attain the goal, it strongly requires service-users' engagement in the process of service-delivery as a precondition (Patti, 2000; Y. J. Kim, 2010). In this sense, effective service-delivery is considered to be how service-users can be actively participated in the service-delivery.

Sixth, accessibility is related to the degrees to which service-users utilise human service. There remains unequal access to human service between service-users because of the varied barriers in human service use (Gates, 1980). The barriers are divided into conditions of service-users and service-providers. The former is associated with characteristics of service-users. Thus, the barriers are differentiated between individual predisposing characteristics (e.g. gender, age, and origin), enabling abilities (e.g. education and income), and needs towards service use (e.g. relatively perceived needs of service use) (Andersen and Newman, 1973; Akresh, 2009). The latter is concerned with the characteristics of service-providers at the local level (Gates, 1980) such as geographic location of service-providers, the distribution of service-providers, and the expenditure by service-providers also at the local level (Andersen and Davidson, 2007). Hence, when service-users find it difficult to access a service, for effective service-delivery, it needs to be considered how barriers derived from service-users and service-providers become decreased.

Finally, accountability means having responsibility for service-delivery (Choi and Nam, 2001). It is generally accepted that the initial goal of service-providers in the area of human service is centred on service-users' positive changes (Patti, 1988, 2000). In the process of service-delivery, therefore, the service-providers are responsible for reflecting the

needs of service-users and leading to changes in positive ways in which service-users are able to develop continuously. According to Gilbert and Terrell (2002), accountability is taken as a last result achieved by the other components including comprehensive and appropriate, professionalisation, continuity and integration, equality, participation, and accessibility.

Now that this section knows the attributes for effective service-delivery, to understand the relationship between attributes in effective service-delivery system and performance outcomes, the following pages will describe the relationships based on empirical evidence. However, this thesis will neglect the component of accountability in discussing empirical studies on attributes of service-delivery. As discussed earlier, accountability is a last result as attained six components: comprehensive and appropriate, professionalisation, continuity and integration, equality, and participation. If the six components are not achieved, accountability is also not attained. On the contrary, if the six components are carried out appropriately, it is possible to achieve accountability. Hence, this thesis focuses on the six components as a precondition for effective service-delivery.

9.2.2. Empirical studies in regard to the attributes in an effective service-delivery system

In this section, the attributes of service-delivery are comprised of six components: a) comprehensive and appropriate, b) professionalisation, c) continuity and integration, d) equality, e) participation, and f) accessibility. By focusing on the six components, this section attempts to explain empirical studies.

Although the each component was defined at the fundamental level, there is little agreement on the measurement of attributes of service-delivery. Nonetheless, wealth research has assessed the attributes by using a qualitative approach that is taken from levels of Likert scales. Thus, researchers ask direct questions to respondents whether service-delivery is comprehensive or appropriate, professional, continuous, equal, useable, and accessible with Likert scales. In this section, therefore, this thesis draws on a growing literature using the Likert scales in exploring the associations between the attributes and performance outcomes in the area of human service, in Korea.

Y. Mon (2010) analysed relationships between professionalisation, integration, and comprehensiveness and job stress or job satisfaction, by examining governmental servants who are working for the welfare service in Busan, Korea. To measure the three components, relevant questions in each attribute based on previous empirical studies were created and measured by using 5 point Likert scale based on the survey. The Cronbach's alpha coefficient¹⁷ was 0.72, 0.76, and 0.74, respectively, which met high reliability regarding measurement of the attributes. When she used structural equation modelling, professionalisation, integration, and comprehensiveness were significantly and positively associated with job satisfaction.

Sim and Choi (2010) examined an association between the attributes of service-delivery and job satisfaction of social workers at the governmental organisations in the three cities in Gyeonggi, Korea. The attributes including professionalisation, accessibility, integration, accountability, and adequacy were measured with 5 point Likert scale as developed with relevant questions in each attribute depending on prior studies. In an exploratory factor analysis, Cronbach's alpha coefficient was over 0.6, indicating that each attribute met reliability. In addition, scores of Kaiser-Meyer-Olkin (KMO)¹⁸ was about 0.8, showing that the measurement became validity. Each attribute has different effects on job satisfaction along with the three cities. In Pocheon city, adequacy, accessibility, and integration had a positive impact on job satisfaction. In Yangju city, only accessibility had a positive impact on job satisfaction. In Uijungbu city, adequacy and professionalisation both had a positive impact on job satisfaction.

Sim and Kim (2011) investigated whether the attributes of service-delivery influenced job satisfaction and service-users' satisfaction in the area of elderly service through survey research in the three cities in Gyeonggido, Korea. The attributes were comprised of professionalisation, accessibility, integration, accountability, and continuity. The five

¹⁷The adequate instrument needs at least 0.7 value of Cronbach's alpha coefficient, in which the reliability of the instrument is the level of satisfactory (Nunnally, 1978 as cited in Ferketich, 1990).

¹⁸KMO is to evaluate the validity of sampling adequacy for exploratory factor analysis. If the scores are over 0.7, the sampling for exploratory factor analysis is suitable (Kaiser, 1974 as cited in Dziuban and Shirkey, 1974).

components are measured through 25 questions with using 5 point Likert scales. They investigated reliability using exploratory and confirmatory factor analyses. By the exploratory factor analysis, Cronbach's alpha coefficient was over 0.7. As did confirmatory factor analysis, indices of goodness-of-fit were applicable. The results showed that the five components of the attributes met reliability. Using structural equation modelling, professionalisation and accountability positively increased job satisfaction. In terms of service-users' satisfaction, accessibility negatively influenced, but accountability positively influenced it.

Lee and Lee (2012) examined the relationships between attributes in service-delivery system and service-users' satisfaction and between the attributes and stakeholders' job satisfaction, in the scope of a long-term care service for the elderly. In the analysis, the attributes comprised of integration, accessibility, professionalisation, accountability, appropriateness, and continuity were measured through 36 questions with 5 point Likert scales. Through exploratory factor analysis, Cronbach's alpha coefficients were 0.91 in integration, 0.838 in accessibility, 0.903 in professionalisation, 0.907 in accountability, 0.874 in appropriateness, and 0.921 in continuity, respectively. The Cronbach's alpha coefficients were acceptable, indicating that the indices of goodness-of-fit were reliable. Their results showed that all attributes positively influenced service-users' satisfaction and stakeholders' job satisfaction.

Ha and Lee (2011) explored the effectiveness in the service-delivery system for the elderly by focusing on the staff as service-providers. Its effectiveness was measured by perceived extent of effectiveness in the service, perceived extent of goal attachment, perceived extent of service-users' need satisfaction, and perceived extent of effectiveness in service-delivery, with Likert scale. The attributes of service-delivery system for the elderly were comprised of service professionalisation, accessibility, adequateness, participation, comprehensiveness, equality, and staff's professional capability, which were measured by Likert scales. In a factor analysis in regard to the attributes, the score of KMO was about 0.928 and each attribute of Cronbach's alpha coefficient was over 0.6, respectively. The scores indicated that the attributes measured with Likert scales met reliability and validity. In

their result, service professionalisation, accessibility, participation, comprehensiveness, and staff's professional capability were significantly and positively related to effectiveness in the service-delivery system for the elderly.

Following the empirical studies, there is no general agreement about the relationships between the attributes of effective service-delivery system and performance outcomes comprised of efficiency, effectiveness, and service quality. The different findings would have resulted from “contingent” of time, places, and population on research (Hirschman, 1999, p. 120; Rubin and Babbie, 1989, p. 141), as well as measurement's difficulties on abstract concepts (Rubin and Babbie, 1989). The first in relation to the word ‘contingent’ is derived from research design and data collection, while the latter associated with the word ‘abstract’ is an issue of measurement (Hirschman, 1999). Although the empirical results did not reach a general consensus because of the contingency and measurement's difficulties, this thesis assumes that the attributes for effective service-delivery system have positive relations with effectiveness. There are two reasonable explanations for the assumption. First, as discussed in Chapter 3, based on open system model in which the attributes thought of as throughputs are translated in effectiveness in service-delivery regarded as outputs, it can be hypothesised that the attributes as an independent variable would affect the effectiveness as a dependent variable. Second, numerous researchers have emphasised on the attribute of an effective service-delivery system (Gates, 1980; Choi and Nam, 2001; Gilbert and Terrell, 2002; Sim and Kim, 2011; Ha and Lee, 2011). Thus, they have commonly demonstrated that in the setting of a service-delivery system, the attributes lead to effectiveness in service-delivery. Taking the explanations, therefore, it may be reasonable to assume that the attributes have a positive impact on performance outcomes. Now that this section knows the attributes for effective service-delivery, in the following, research hypotheses are summarised at the organisational level, depending on the discussion of empirical studies.

9.3. OVERVIEW AND HYPOTHESES AT THE ORGANISATIONAL LEVEL

As described above, the theoretical discussion based upon the insights of logic model represents two variables in inputs and one variable in throughputs at the organisational level:

1) two substantial organisational resources including workforce and expenditure, viewed as inputs; and 2) the attributes of service-delivery reflecting the components of comprehensive and appropriate, professionalisation, continuity and integration, equality, participation, and accessibility, thought of as throughputs.

In application to MFSS, the three variables are causes as inputs and throughputs, whereas objective (i.e. citizenship, employment, and Korean language proficiency) and subjective (i.e. life satisfaction) integration are effects as outputs. From the perspective of logic model in which inputs and throughputs account for outputs, three hypotheses at the organisational level are outlined with signs of hypotheses in Table 9.1.

Table 9.1: Hypotheses at the organisational level

		Outputs			
		Objective Integration			Subjective Integration
		Political Integration (Citizenship)	Economic Integration (Employment)	Cultural Integration (Destination-language)	Life Satisfaction
Inputs (Organisational resources)	Work force (the number of immigrant wives per MFSCs at each metropolitan area)	-	-	-	-
	Expenditure per immigrant wife	+	+	+	+
Throughputs	The attributes of service-delivery	+	+	+	+

The following describes the list of hypotheses in detail:

1) The immigrant wives' likelihoods of naturalisation, employment, Korean language's improvement, and life satisfaction increase as the number of immigrant wives per MFSC at the community level is decreased.

2) The immigrant wives' likelihoods of naturalisation, employment, Korean language's improvement, and life satisfaction increase as service-providers spend higher levels of expenditures.

3) The immigrant wives' likelihoods of naturalisation, employment, Korean language's improvement, and life satisfaction increase as the attributes of service-delivery system is increased.

Until now, this thesis focused on determinants at the individual, ethnic-group, and organisational levels that may affect the integration of immigrant wives as an intended output of MFSS in previous Chapter 6, 7, 8, and 9. In fact, it framed the three sets of causal mechanisms based on theoretical and conceptual descriptions in the fields of scholarships of immigration and human service at the same time. Depending primarily on the causal mechanisms established in the previous chapters, the following chapters will conduct an empirical testing whether MFSS is effective and attempt to find an avenue in which MFSS can be effectively enhanced for immigrant wives' integration in Korea.

PART V: *EMPIRICAL TESTING (I): EVALUATING EFFECTIVENESS OF MFSS*

Chapter 10: *Method for Empirical Testing of Evaluating Effectiveness in MFSS*

In this chapter, the question of whether MFSS is effective is examined as an essential research question. As noted in the Chapter 4, based on the goal-attainment and client-centred approach, immigrant wives' integration is an intended goal and output in MFSS. In order to answer the question, therefore, the proposed statistical model focuses primarily on a comparison of levels of objective (e.g. citizenship, employment, and destination-language proficiency) and subjective (e.g. life satisfaction) integrations between those who use MFSS and those who do not.

For such empirical testing, the first section attempts to answer the question of what valid estimation for the effect of service or policy is. The second section formulates research design, research hypotheses, data source, issues of analysis, analytical strategies, and operationalisation of variables.

10.1. VALID ESTIMATION FOR THE EFFECT OF SERVICE OR POLICY

To measure the outcome of MFSS, this thesis developed legitimate indicators (e.g. citizenship, employment, destination-language ability, and life satisfaction) thought of as its outcomes, based on the goal-attainment and client-centred approach. Although the indicators are likely to be reasonable to measure its outcome, there appears a question of how its net effect is estimated, as controlling for biases to validity. In the following sections, this thesis attempts to answer the question.

10.1.1. Background for evaluation the effect of service or policy

To estimate the net effect of a service or policy, researchers have focused on comparing outcomes between participants and non-participants in a service or policy (Guo, Barth, and Gibbons, 2005). Accordingly, at the front line, evidence is gathered to show that an intervention actually improves service-users' lives or behaviours. In addition, by using

observational data with non-randomised assignments, workers at the front-line are expected to show evidence of a causal relationship (Dudley, 2010).

In order to infer cause, the classical method uses a regression model to account for differences in the mean outcomes of participants and non-participants in services, or between the mean outcomes of recipients and of non-recipients of a policy (Austin, 2011). Specifically, we begin with an equation from the classical regression model, following the approach of Guo, Barth, and Gibbons (2005): $Y_i = \beta_0 + D_i + \beta_i X_i + \varepsilon_i$. In the formula, D_i is a dichotomous variable that is related to whether an individual participates in a service or is affected by a policy, where D_i is “1” if individual i utilises a service or is affected by a policy and is “0” otherwise. In the model, $Y_i(1)$ is the outcome for people who use a service or policy (i.e., $D = 1$), and $Y_i(0)$ is the outcome for non-participants in a service or policy (i.e. $D = 0$), with the controlling explanatory variables X_i (ε_i is residuals) (Guo, Barth, and Gibbons, 2005). In fact, the net effect of a service or policy can be measured by a comparison of $Y_i(1)$ and $Y_i(0)$.

However, the estimation of the ordinary-least-square (OLS) in a regression model cannot accurately show a causal inference, because its estimation is inconsistent and is subject to bias (Guo and Fraser, 2010). In particular, all relevant explanatory variables are not included in X ; there remain unmeasurable variables. In this sense, X cannot explain the systematic differences between $Y_i(1)$ and $Y_i(0)$, and ε_i is correlated with D_i (i.e. $Cov(\varepsilon_i, D_i) \neq 0$) (Guo, Barth, and Gibbons, 2005). As an example, in the case of job training programs, it may be assumed that non-service users have lower levels of education, but service users may have higher levels of education. In this case, service users differ from non-service users with respect to educational, and this unmeasured educational attainment in pre-service or pre-policy (ε_i) can influence an individual’s participation in a service or policy (D_i). In such a case, the estimation of OLS is degraded. As a result, the regression model is mis-specified, and shows a correlation between ε_i and D_i that leads to an inconsistent and biased estimation (Guo, Barth, and Gibbons, 2005).

In fact, the estimation challenges of the classical regression model are related to selection bias (Heckman and Smith, 1995; Winship and Morgan, 1999; Guo, Barth, and Gibbons, 2005). Selection bias is defined as “when the assignment of research participants to the experimental or control group is done in a way that does not guarantee equivalence, and subsequently, the experimental group may be more likely to change than the control group as a result of these differences and not because of the intervention” (Cnaan and Tripodi, 2010, p. 206). Hence, there has been increasing interest in developing methods that control for selection bias when estimating the net effect of a service or policy.

10.1.2. Alternative approaches for selection bias

10.1.2.1. Counterfactual framework

To manage selection bias, we first consider a counterfactual framework, whereby we follow an approach introduced by K. S. Choi (2007). Considering the aforementioned regression model, the ‘average treatment effect’ (ATE) of a service or policy can be written as: $\tau_i = Y_i(1) - Y_i(0) = E[Y_i(1)|D_i = 1, X] - E[Y_i(0)|D_i = 0, X]$. In this formula, $E[Y_i(0)|D_i = 0, X]$ is counterfactual. As discussed above, the ATE is biased because participants and non-participants of a service or policy are not homogenous (i.e. $Cov(\varepsilon_i, D_i) \neq 0$). As such, researchers have focused on the ‘average treatment effect on the treated’ (ATT) among service participants only, which is defined as: $\tau_{ATT} = E(\tau|D_i = 1) = E[Y_i(1)|D_i = 1, X] - E[Y_i(0)|D_i = 1, X]$. From the equation, $E[Y_i(0)|D_i = 1, X]$ is the counterfactual mean, which indicates the potential outcome obtained if participants do not utilise a service or are not affected by a policy. Thus, ATT is the differences between the real and potential outcomes. The vital problem of ATT may be expressed as: $E[Y_i(0)|D_i = 1, X]$, which represents unobservable outcomes. ATT can also be expressed as: $\tau_{ATT} = E[Y_i(1)|D_i = 1, X] - E[Y_i(0)|D_i = 0, X] + E[Y_i(0)|D_i = 0, X] - E[Y_i(0)|D_i = 1, X]$, or as: $\tau_{ATT} = ATE + E[Y_i(0)|D_i = 0, X] - E[Y_i(0)|D_i = 1, X]$. Again, $E[Y_i(0)|D_i = 0, X] - E[Y_i(0)|D_i = 1, X]$ can be transformed into B : $\tau_{ATT} = ATE + B$. In the equation, ATT is assessed as controlling the selection bias if B is zero. However, B indicates unobservable outcomes, and D_i is classified by self-selection without random assignment. Therefore, it is not possible to control selection bias.

In this context, researchers have devoted considerable effort into developing methods to verify that B is equal to zero. One such method is an experimental design with random assignment (Heckman and Smith, 1995; K. S. Choi, 2007). In this experimental design, participants and non-participants in a service or policy are divided by random assignment, which increases the probability that individuals either belong to each group or participates in each group (Cnaan and Tripodi, 2010). The random assignment can control systematic differences resulting from unobserved variables and self-selection, when the two groups are homogenous. In this situation, when outcomes between the two groups are compared to estimate the effect of services, selection bias is controlled (Austin, 2011). In fact, in the experimental design with random assignment, ATE (i.e., $Y_i(1) - Y_i(0) = E[Y_i(1)|D_i = 1, X] - E[Y_i(0)|D_i = 0, X]$) is directly calculated without bias (Austin, 2011). For this reason, we know that experimental designs with random assignment are best for controlling biases that confound the net effect of a service or policy (Cnaan and Tripodi, 2010; Austin, 2011). However, researchers tend to come up against some limitations in designing experiments with random assignment because of their high cost, time consumption, ethical issue, and complicated procedures (Cnaan and Tripodi, 2010).

These limitations deter researchers from designing and conducting experiments with random assignment, and instead they have attempted to estimate the effect of a service or policy by comparing the outcomes of service users and non-service users through observation. Observational data are gathered by “surveys, census, and administrative recodes” (Winship and Morgan, 1999, p. 660; Guo, Barth, and Gibbons, 2005). However, these observational data do not allow researchers to randomly assign service users and non-service users (Winship and Morgan, 1999), which result in the biases that confound the accurate assessment of the net effect of a service or policy (Austin, 2011). In this thesis, because we use observational data to estimate the effect of MFSS, it was impossible to design our experiment with random assignment. As such, we must consider alternatives for dealing with bias when estimating the net effect of MFSS.

Another way to control for bias is to use advanced statistical methods in the analysis of observational data from non-random experiments (Cnaan and Tripodi, 2010). The

challenges associated with randomised sampling have led researchers to develop rigorous and efficient estimation methods for non-random experimental designs, such as the difference-in-difference (DID), selection model (i.e., treatment effect model), and propensity score matching (PSM) approaches (Cameron and Trivedi, 2005; K. S. Choi, 2007; Guo and Fraser, 2010). Although these three (i.e four) methods are excellent tools for controlling biases that influence the validity of evaluations of the effect of a policy or service in non-random experimental designs, the methods selected depend on the data structure and the situation at hand (S. H. Lee, 2010). In the following sections, we introduce each method with respect to their data structures and existing situations.

10.1.2.2. DID

DID is defined as the difference in the average outcome between participants in a pre-test and a post-test, minus the difference in the average outcome between non-participants in a pre-test and a post-test. This method can reduce or minimize selection bias by controlling for time-invariant unobserved characteristics (Cameron and Trivedi, 2005; K. S. Choi, 2007). The DID equation was developed by K. S. Choi: $(Y_{1t} - Y_{1t'}) - (Y_{0t} - Y_{0t'})$. In the formula, t is the post-test value, while t' is the pre-test, and Y_1 indicates participation whereas Y_0 indicates non-participation in a service or policy. DID is used with longitudinal data due to its requirement for pre- and post-tests (Guo, Barth, and Gibbons, 2005). However, there is growing controversy as DID cannot actually estimate the effect of a service or policy using outcomes measured by non-continuous variables, such as binary or ordinal variables (Puhani, 2012). We attempted to estimate the effect of MFSS in this thesis study, using cross-sectional data. However, indicators measuring the effectiveness of MFSS include both binary variables (e.g., citizenship and employment) and ordinal variables (e.g., destination language skills and life satisfaction). As such, it was difficult to apply DID in this thesis.

10.1.2.3. Selection model and treatment effect model

In this section, the selection model or the treatment effect model is discussed with STATA program.

The selection model developed by Heckman has been widely applied to deal with selection bias (Guo and Fraser, 2010). This selection model identifies unobserved variables associated with selection bias, in order to control the selection bias (K. S. Choi, 2007). The original Heckman selection model includes two equations: an OLS equation to consider the explanatory variables influencing an outcome variable; and the logic or probit regression equation that considers variables influencing the selection process (Guo and Fraser, 2010). The next sections attempt to introduce the original selection model that estimates average wage among women with considering selection bias, in which this thesis follows the equations of K. S. Choi (2007).

A discussion of the Heckman selection model begins with the classical regression model. The classical OLS equation is written as: $Y_i = \beta X_i + \varepsilon_i$. In the formula, Y_i is wage and X_i represents the explanatory variables for wage. However, the decision to participate in the labour market cannot be defined as a latent variable. The latent variable for the decision to participate is defined as: $D^*_i = \gamma' \omega_i + \mu_i$. D^*_i is the extent of the need for participation, and ω_i represents the explanatory variables influencing the need. Participation ($D_i = 1$) or non-participation ($D_i = 0$) in the labour market is influenced by D^*_i . Thus, $D_i = 1$ (i.e., participation in the labour market) if D^*_i is higher than zero ($D^*_i > 0$), and $D_i = 0$ (i.e., non-participation in the labour market) otherwise ($D^*_i \leq 0$). In this context, if ε_i and μ_i are not correlated, the classical regression model is appropriate for estimating wage, without the need to use a selection model. In a contrast, if ε_i and μ_i are correlated, a selection model must be used.

Hence, the Heckman selection model is simply written as: $Y_i = \beta X_i + \varepsilon_i$. In the equation, X_i represents the explanatory variables for wage. The value of Y_i is measured when D^*_i is higher than zero ($D^*_i > 0$), so wage is defined as: $\text{wage} = \beta X_i + \rho \sigma_\varepsilon \lambda + \varepsilon_i$. In the formula, ρ is the coefficient of the correlation between ε_i and μ_i , σ_ε is the standard error of ε_i , and λ is the expected value of ε_i as an inverse mills ratio. For the estimation of wage, Heckman assumes that ε_i and μ_i are independent of X and γ and are normally distributed, when the mean equals zero. Based on these assumptions, the Heckman selection model first calculates λ using probit or logit regression analysis, and then uses a classical model

including λ to consistently estimate wage. If λ is statistically significant, a selection model is required, and if λ is not statistically significant, OLS estimation alone is sufficient.

Although the treatment effect model is derived from the Heckman selection model, the two models have some differences (Cong and Drukker, 2001; Guo and Fraser, 2010). In the Heckman selection model, a dummy variable with respect to treatment (i.e. treatment = 1 and non-treatment = 0) is directly included in the first OLS equation (Guo and Fraser, 2010). As such, an outcome is observed according to the treatment dummy variable. The treatment effect model is also expressed in two equations that are similar to the Heckman selection model. To describe the treatment effect model, we refer to the approach of Guo and Fraser. The first OLS equation is written as: $Y_i = \beta X_i + w_i \sigma + \varepsilon_i$. In the formula, X_i represents the explanatory variables of Y_i , and w_i is the dummy variable of the treatment. Because w_i is a latent variable, the second selection equation is written as: $w_i^* = z_i \gamma + u_i$, where w_i^* is the extent of need to participate in the service or policy, and z_i represents the explanatory variables influencing the need. Hence, the value of Y_i is measured using two equations. First, when w_i^* is higher than zero ($w_i^* > 0$) or w_i^* is equal to one ($w_i^* = 1$), outcome is defined as: $Y_i = \beta X_i + (z_i \gamma + u_i) \delta + \varepsilon_i$. Second, when w_i^* is lower than zero ($w_i^* < 0$) or w_i^* is equal to zero ($w_i^* = 0$), outcome is defined as: $Y_i = \beta X_i + \varepsilon_i$. These two equations follow Heckman's assumption that ε_i and u_i are independent of X and z and are normally distributed when the mean equals zero. Taking the strategies of the Heckman selection model, the treatment effect model calculates λ (i.e., inverse mills ratio) using probit or logit regression analysis. Then, the effect of the treatment is estimated using OLS with λ . If λ is statistically significant, a selection model is required. The treatment effect model estimates treatment effect while controlling for selection bias, such that researchers can apply this model to estimate the net effect of a service or policy.

However, the analysis of the treatment effect model is technically limited for non-continuous outcomes (e.g., dichotomous and ordinal variables) in STATA software. Although **ssm**, which is a “wrapprr” program of **gllamm**, has been suggested for the treatment effect model with non-continuous outcomes (Miranda and Rabe-Hesketh, 2006), much time is required to perform **ssm**. In this thesis, as a preliminary test, we first employed the treatment

effect model using **ssm**. However, because **ssm** was too time consuming and produced no results, it was not practical to estimate the treatment effect of MFSS with **ssm**.

In a second preliminary test, we carried out a linear regression on the endogenous treatment effects using the STATA command **etregress** (See Appendix 2a-1, 2a-2, and 2a-3). Ordinal outcomes, including Korean language proficiency and life satisfaction, were regarded as continuous variables with the assumption that predicted probabilities did not fall outside the unit interval. In other words, if the independent variable coefficients for Korean language proficiency and life satisfaction were the same for the ordinal linear regression and linear regression results, we considered it reasonable to regard ordinal outcomes as continuous outcomes (Ferrer-i-Carbonell and Frijters, 2004). For Korean language proficiency, the overall independent variable predictions were the same for the ordinal logit and OLS analyses. For life satisfaction, the overall independent variables' predictions were the same for the two analyses, except for the two dummy variables of education and the utilization of welfare centres. Hence, we regarded the two outcomes as continuous outcomes in this thesis. When using **etregress**, we found it difficult to analyse the outcome of Korean language proficiency, which is one of the outcomes of MFSS and also a possible factor influencing the utilisation of MFSS¹⁹. Since it was not possible to analyse the outcome of Korean language proficiency, much time was spent without generating any results. In terms of life satisfaction, controlling for unobserved variables that may influence the net effect of MFSS resulted in a selection bias (i.e., $\lambda \neq 0$ or λ is significant), such that the results revealed MFSS as not being effective (See Appendix 2a-3).

In a third preliminary test, we used structural equation modelling with the STATA command **gsem**, as suggested by Drukker (See Appendix 2b-1 and 2b-2). The command

¹⁹In the STATA version 12, the command **treatreg** was used in examining the endogenous effect of MFSCs in the outcome of Korean language. The command **treatreg** was replaced by the command **etregress**, in the STATA version 13. The result of **treatreg** indicated that Korean language proficiency is one of the outcomes of MFSS and possible factors influencing the utilisation of MFSS at the same time, which cannot be possible to analyse the outcome of Korean language proficiency. When this thesis used **etregress**, it requires much time without analysis results.

gsem enabled the analysis of the outcomes of citizenship and life satisfaction²⁰, although it was not possible to analyse the outcomes of employment and Korean language proficiency. This is because the non-recursive relationships between employment and the utilisation of MFSS, or between Korean language proficiency and the utilisation of MFSS, were not allowed in **gsem**. Thus, employment and Korean language proficiency were not only defined as outcomes of MFSS, but were simultaneously defined as independent MFSS variables, which precluded the analysis of all MFSS outcomes. With regard to citizenship and life satisfaction, when controlling for selection bias (i.e. $\rho \neq 0$ or ρ is significant), those who had utilised MFSCs at least once were less likely to be naturalised or satisfied with their lives in Korea than those who had never utilised MFSCs. This result also reveals that the net effect of MFSS was not positive.

Finally, for binary outcomes, such as citizenship and employment, we used the STATA command **biprobit**, and for ordinal outcomes, such as Korean language proficiency and life satisfaction, we used the STATA command **treatoprobit**, as developed by Christian (2015) (See Appendix 2c-1 and 2c-2). The analysis of the binary outcomes showed that the utilisation of MFSCs at least once had a negative effect on citizenship, and that a two-stage selection model is required due to the influence of unobserved variables on the net effect (i.e. $\rho \neq 0$ or ρ is significant). However, the analysis of the outcome of employment produced no results, despite the considerable time spent. The analysis of the ordinal outcomes showed that the correlation between the utilisation of MFSCs and life satisfaction was negative, and a two-stage selection model was required (i.e. $\rho \neq 0$ or ρ is significant), indicating that the net effect of MFSS as not effective. However, the treatment effect model for the outcome of Korean language proficiency could perform the analysis with the command **treatoprobit**, because there are too many categories of Korean language proficiency to analyse the model using ordinal logit analysis. In summary, we found it difficult to analyse the net effect of MFSS using a selection model (i.e., treatment effect model).

²⁰Although life satisfaction was ordinal scale, in this analysis, the scale was regarded as continuous scale.

But for its technical limitations, the selection model can address an identification problem with respect to multicollinearity (Cameron and Trivedi, 2005). To do so, at least one explanatory variable is necessary, which accounts for selection, but not outcome (Satori, 2003). This means that the selection equation must include at least one independent variable, but the outcome equation does not include the independent variable (Satori, 2003; Cameron and Trivedi, 2005). However, there is no agreement about how we find the independent variable (Satori, 2003). In summary, the use of the treatment effect model to estimate the net effect of MFSS would not be appropriate.

10.1.2.4. PSM

To minimize selection bias, PSM is used to emulate an experimental design with randomised assignment. Unlike randomised experimental designs, non-random experimental designs result in bias from unobserved variables and self-selection (Guo and Fraser, 2010; Austin, 2011). To control for extraneous variables and self-selection, PSM identifies a group of non-participants who use a service that is similar to the group of participants who use a service, and the outcomes of these two groups are compared to determine the effect of service (Rubin, 2001).

The PSM approach is dependent on the two fundamental assumptions: (1) “conditional independence” and (2) “common support” (Rosenbaum & Rubin, 1983; Caliendo & Kopeinig, 2005, p. 4). To explain the two assumptions, this thesis follows Caliendo and Kopeinig (2005). First, conditional independence requires that for all observed characteristics (X), participation in a service or policy (D) is independent of the potential outcomes ($Y(0), Y(1)$), which is expressed as: $Y(0), Y(1) \perp D \mid X$. This formula indicates that participation ($D = 1$) and non-participation ($D = 0$) can be classified according to all the observed characteristics (X), and X is independent of the outcome, i.e., the effect of a service or policy. This assumption is discussed as the aforementioned ATT in section 10.1.2.1, and is denoted as: $\tau_{ATT} = E[Y_i(1)|D_i = 1, X] - E[Y_i(0)|D_i = 1, X]$. Although $E[Y_i(0)|D_i = 1, X]$ is not observed, the problem of observation is solved under the assumption. Thus, the presumption shows that $E[Y_i(0)|D_i = 1, X]$ is the same as $E[Y_i(0)|D_i = 0, X]$. In other words,

the mean potential outcome from participants who do not utilise a service or are not affected by a policy is equal to the mean outcome of the non-participants, for all observed relevant characteristics (Yoo and Kang, 2010). However, matching participants and non-participants is not feasible in cases where there are numerous observed characteristics (Rosenbaum & Rubin, 1983; Caliendo and Kopeinig, 2005). For example, if characteristics (X) include 9 variables that are expressed by a binary number, the possible number of matches will be 2^9 (i.e., $2^9 = 512$). In fact, the actual number is limited to all possible characteristics (X) for the matches. To deal with this limitation, PSM transforms observed characteristics into one indicator, called a propensity score (Rosenbaum & Rubin, 1983; Caliendo and Kopeinig, 2005; Morgan and Harding, 2006). In an application of the above assumption, $(Y(0), Y(1) \perp D | X)$, a propensity score ($P(X)$) can match the participation ($D = 1$) and non-participation ($D = 0$), and $P(X)$ is independent of the outcomes of effect of a service or policy, which is denoted as: $Y(0), Y(1) \perp D | P(X)$. As a result, if a group of non-participants and a group of participants have the same propensity score, the selection bias can be controlled.

Second, common support ensures an equal chance of participation for given characteristics (X), which is denoted as (Caliendo and Kopeinig, 2005): $0 < P(D = 1 | X) < 1$. The propensity score is the likelihood of participation in a service or policy for given observed characteristics or variables (X), and its values range from 0 to 1 as a continuous variable. Individuals in a group of non-participants are matched to individuals in a group of participants who have similar or the same propensity scores. In this situation, for a given (X), the likelihood of participation of individuals in non-participation and participation groups commonly overlaps (Rosenbaum and Rubin, 1983). In other words, individuals have an equal chance of belonging to either a participant or non-participant group by the value of their propensity score for all observed characteristics. This technique mimics randomised allocation to decrease selection bias.

Depending on the fundamental assumptions, ATT in PSM is defined as (Caliendo and Kopeinig, 2005): $\tau_{ATT}^{PSM} = E[Y_i(1)|D_i = 1, P(X)] - E[Y_i(0)|D_i = 0, P(X)]$. Thus, ATT in PSM is the mean difference of outcomes between participants and non-participants

distributed by their propensity scores. In conclusion, PSM enables non-random experimental designs to control for unmeasured characteristics that account for selection bias and confound straightforward evaluations of the effect of a service or policy (Guo, Barth, and Gibbons, 2005; Austin, 2011).

Until now, we have discussed advanced statistical methods for controlling selection bias in observational data in non-random experiments. In fact, it is reasonable to say that PSM is more practical for non-continuous outcomes and for cross-sectional data structures because its performance is relatively less constrained, as compared with DID and the treatment effect model (Caliendo and Kopeinig, 2005; Guo, Barth, and Gibbons, 2005). In consequence, we selected PSM for estimating the effect of MFSS, depending on data structure (i.e., cross-sectional data) and situations at hand (i.e., non-continuous outcomes). In the next sections, we describe our implementation of PSM.

10.1.3. The implementation of PSM

According to D'Agostino (1998) and Caliendo and Kopeinig (2005), there are four steps in the implementation of PSM. The first step is to calculate the propensity score. The second step is to match those who participate in a service or receive a policy with those who do not, based on their calculated propensity scores. In fact, the second step is essentially a strategy of resampling from the original samples. The third step is to analyse the effect of the service or policy, by comparing the outcomes of the matched samples. The final step is to conduct post-estimation analysis. In the following sections, we briefly describe these four steps with reference to some important issues.

10.1.3.1. First step: calculation of propensity score

In the first step, PSM starts from a conditional independent assumption, written as (Rosenbaum and Rubin, 1983): $e(x_i) = Pr(W_i = 1|x_i)$, where $e(x_i)$ is the propensity score for individual (i) as a conditional probability of participation ($W_i = 1$) versus non-participation ($W_i = 0$) for all observed and relevant characteristics (x_i). With this assumption, logit and probit analyses are generally conducted to calculate the propensity score, since they both

estimate the likelihood of whether or not an event occurs (Caliendo and Kopeinig, 2005). Thus, for a dependent variable expressed in dichotomous form, both logit and probit analyses are applicable (Caliendo and Kopeinig, 2005). In applications for propensity score using logit analysis, logit analysis is defined as (Rosenbaum and Rubin, 1983): $\ln \left[\frac{e(x_i)}{1-e(x_i)} \right] = \ln \left[\frac{Pr(W_i=1|x_i)}{1-Pr(W_i=1|x_i)} \right] = a + \beta_1 x_1 + \dots + \beta_i x_i$, where $\ln \left[\frac{e(x_i)}{1-e(x_i)} \right]$ is the probability of participation in a service or policy. Thus, in logit analysis, the dependent variable is dichotomous, where $W_i = 1$ is participation and $W_i = 0$ is non-participation in a service or policy, and x_i is all the observed characteristics.

The conditional independent assumption indicates that participation in a service or policy is not correlated with the propensity score, and the effect of a service or policy is independent of the propensity score (Guo, Barth, and Gibbons, 2005). Based on this assumption, the propensity score is calculated, based on the observed characteristics, using either logit or probit analysis (Guo, Barth, and Gibbons, 2005). This shows that matching from the propensity score can only control for differences between participants and non-participants for the observed characteristics (Guo and Fraser, 2010). For instance, when calculating the propensity score, including only age and education in the logit analysis, and not considering other variables as observed characteristics showing differences between participants and non-participants in the absence of a service or policy, these two variables are not sufficient for calculating an appropriate propensity score. Therefore, PSM is not an efficient method for estimating the effect of a service or policy in this case, because the selection bias of unobserved characteristics may influence the effect (Guo and Fraser, 2010). Therefore, all important and relevant variables should be included when calculating the propensity score in logit analysis (Guo, Barth, and Gibbons, 2005). In fact, it is best to include all variables that influence either participation in a service or the outcome of a service when estimating the propensity score (Caliendo and Kopeinig, 2005).

10.1.3.2. Second step: matching

Once the propensity scores are estimated, matching then distributes participants and non-participants, based on those with similar propensity scores in the two groups (Rosenbaum & Rubin, 1983, 1985). However, there is some variability in matching regarding how participants' neighbours are defined and how "weights are assigned to these neighbours" (Caliendo & Kopeinig, 2005, p. 8). The commonly applied methods of propensity score matching are nearest neighbour, caliper, stratification and interval, kernel and local linear, and weighting matching (Caliendo & Kopeinig, 2005). However, each of these methods has its merits and drawbacks, or "tradeoffs" (Caliendo & Kopeinig, 2005, p. 9), and there is as yet no widely preferred matching method (Morgan and Harding, 2006; Yoo and Kang, 2010). In the next sections, we briefly introduce the basic concepts of each method, including its merits and drawbacks, based on the study of Caliendo and Kopeinig (2005).

First, nearest neighbour (NN) matching is a way of selecting an individual in a group of non-participants of a service or policy as a matching partner with a group of participants of a service or policy, considering the similarity of the propensity scores between non-participant and participant partners (Austin, 2011). With a certain number of partners, it is possible to use replacement for the matching (Morgan et al., 2010). Using replacement, non-participation cases can be matched to more than one participation case (Morgan et al., 2010). This method can decrease bias in estimations of the net effect of a service (Frisco, Muller, and Frank, 2007). However, the higher the number of partners used, the lower may be the accuracy of the matching (Caliendo and Kopeinig, 2005). The problem in NN matching is the potential for bad matches, or big propensity score differences, between non-participants and participants (Caliendo and Kopeinig, 2005). For instance, when few non-participants with a low propensity score remain, but there are many participants with a high propensity score, these non-participants are matched to participants with a high propensity score (Caliendo and Kopeinig, 2005). In these situations, the likelihood of bad matches is increased in using NN matching.

The second method, caliper and radius matching, can reduce the likelihood of bad matches that occur in the NN matching method, by designating an absolute extent of the propensity score allowed between matched individuals (Austin, 2011). Thus, an individual in a group of non-participants of a service or policy is matched with an individual in a group of participants whose propensity score is most similar, and which is placed within a specified common distance called the caliper distance. Radius matching is conducted within a specified value given by the caliper (Leuven and Sianesi, 2003). Within this value, both non-service users and service users are either selected or excluded for matching (Guo, Barth, and Gibbons, 2005). When a minimum caliper number is selected, conditional bias is decreased. Compared to NN matching, caliper matching can both decrease the likelihood of bad matches and increase matching quality, but it is difficult to determine the appropriate caliper distance (Smith and Todd, 2005). Nonetheless, according to Austin (2009), to decrease conditional bias, a value of 0.02 or 0.03 is most appropriate for best matching results.

The third method, stratification and interval matching, groups individuals of non-participants and participants into uniform strata or intervals, according to a certain standard for the estimated propensity score, in which the impact of the grouped individuals within each interval is estimated by comparing the mean difference of the outcomes with respect to the characteristics observed in non-participants and participants (Yang, Stemkowski, and Saunders, 2007). Thus, the overlap of the propensity score becomes grouped in intervals or strata by using the function of the observed characteristics of the non-participants and participants (Caliendo and Kopeinig, 2005). Typically, five intervals are suggested, which are sufficient to remove 95 percent of the bias for observed characteristics when calculating the propensity score (Caliendo and Kopeinig, 2005). Yang, Stemkowski, and Saunders (2007) described the strengths and weaknesses in the stratification and interval matching method. The authors state that because non-participants and participants are grouped by the function of the observed characteristics, their propensity scores can reliably eliminate bias from observed characteristics. In addition, within each interval, non-participants and participants can have the closest propensity scores. However, if there are numerous observed characteristics, it is not easy to split the overlap of the propensity scores appropriately within

each interval and to reliably calculate the mean difference of the outcomes with respect to the observed characteristics of the non-participants and participants.

The fourth method, kernel matching and local linear regression matching, developed from the non-parametric matching method (Guo, Barth, and Gibbons, 2005). It matches each individual in a group of all individual participants to a group of non-participants (Guo, Barth, and Gibbons, 2005). For this match, a weighted average of all individual non-participants is calculated and, then, the weighted average is compared to each individual participant (Caliendo and Kopeinig, 2005). Thus, each participant is matched with the weighted average of all the non-participants. The weight given to non-participants is in inverse proportion to the closeness of the propensity scores of the non-participants and participants (Frisco, Muller, and Frank, 2007). For all non-participants, a great amount of information is included (Caliendo and Kopeinig, 2005), which improves “power and efficiency for estimation” (Frisco, Muller, and Frank, 2007, p. 6). However, because all individual non-participants are used, some matches may be bad (Caliendo and Kopeinig, 2005).

Unfortunately, there is uncertainty about how to determine which matching algorithm is best (Caliendo and Kopeinig, 2005). In addition, when using exact matching, many cases may be excluded. When there are many cases or great amounts of information, inexact matching is necessary (Caliendo and Kopeinig, 2005). Hence, it is recommended that results from various matching algorithms be compared (Sosin, 2002; Caliendo and Kopeinig, 2005).

10.1.3.3. Third step: estimation of net effect of a service

In the third step, with the matched samples, the effect of a service or policy is analysed through bivariate analysis (Guo, Barth, and Gibbons, 2005), in which the mean differences in the propensity scores between the resampled participants and non-participants are compared. For non-continuous outcomes²¹, the frequencies or percentages between the two groups are compared, and for continuous outcomes, the mean differences are directly compared (Guo, Barth, and Gibbons, 2005).

²¹For an ordinal outcome, such as life satisfaction scored between 1 and 5, the ordinal outcome is regarded as a continuous outcome in the bivariate analysis (Rubin and Babbie, 1989).

10.1.3.4. Fourth step: post-estimation analysis

Post-estimation analysis examines whether or not the estimation results of a service's net effect are valid, under the fundamental PSM assumptions of conditional independence and common support.

The post-estimation analysis includes “checking common support, a balancing test, estimation of treatment effects, and sensitivity analysis” (Caliendo and Kopeinig, 2005, p. 23). Checking common support means testing the region of common support between the resampled participants and non-participants in a service, since the ATT and ATE are calculated in the region of common support. The balancing test assesses matching adequacy. Because propensity scores are differentiated according to the distribution of explanatory variables of participation and non-participation, this test assesses whether the distribution is balanced among the participants and non-participants. Actually, the balancing test checks the assumption of the homogeneity of resampled participants and non-participants after matching. The third type of post-estimation analysis, the estimation of treatment effects, considers whether or not the estimated variance of the treatment effect is biased, because the variance of the treatment effect is sensitive to the propensity score, to the region of common support, and to the matching methods. Lastly, sensitivity analysis tests whether unobserved variables influence the effect of a service, and also whether the exclusion of individuals from the region of common support influences the effect of a service.

To control for selection bias and estimate the effect of MFSS on validity, we selected the PSM method. In subsequent sections, we discuss the research design, hypotheses, sampling, analytical strategies, and operationalization of variables using PSM.

10.2. RESEARCH DESIGN

As noted above, the main research question is whether MFSS is effective for immigrant wives' integration. To answer the question, this chapter investigates whether immigrant wives' integration is attained as an outcome of MFSS; further, this study addresses whether the current settlement service-delivery system is appropriate for immigrant wives'

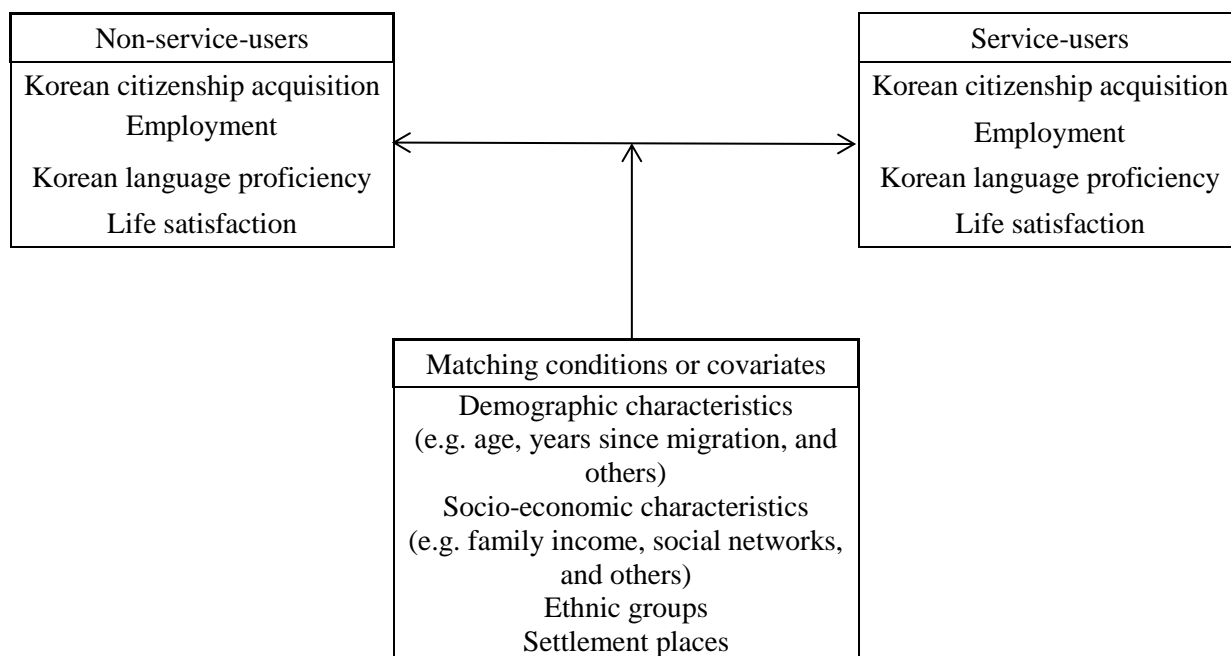
integration in Korea. In turn, as the effectiveness of MFSS corresponds with goal-attainment, the different levels of integration between service-users and non-service-users are compared. If the outcome levels of service-users are higher than that of non-service users after utilising services, it is inferred that the service-delivery or service-production is effective. In opposition to the assumption, if the levels are not different between service-users and non-service users or the levels of service-users are lower than that of non-service users, it is suggested that there remains no effectiveness of service-delivery. As compared to the levels of outcomes associated with immigrant wives' integration including objective (e.g. citizenship, employment, and destination-language) and subjective (e.g. life satisfaction) integrations between those who utilise MFSS and those who do not utilise MFSS, hence, the empirical study is concerned with what outcomes are achieved by MFSS, relying on the perspective of effectiveness.

Nonetheless, the findings from simple comparisons of outcomes are woefully incomplete to address the question of whether MFSS is effective. It is feeble to imply that the different degrees of integration domains are attained solely by MFSS, without considering the conditions (Cnaan and Tripodi, 2010): (1) there may be important variations before using the service between the two groups and (2) the results may be achieved by other factors regardless of the effect of service. In fact, the conditions are related to selection bias which leads to inconsistent and biased estimation.

To overcome the selection bias, this thesis considered PSM. Its simple idea is to find non-participants in a service who are similar to participants in a service on all possible characteristics that account for participation in the service and the outcomes of the service at the same time (Caliendo and Kopeinig, 2005). In terms of service utilisation and service effectiveness, previous studies identify that individual demographic and socio-economic characteristics are known as possible predictors accounting for not only utilisation but also the effectiveness of a service (Andersen and Newman, 1973; Andersen, 1995; Andersen and Davidson, 2007). In addition, there are unequal utilisation patterns among ethnic groups and settlement places (Andersen, 1995; Andersen and Davidson, 2007). Given immigrant integration, prior studies demonstrate that demographic and socio-economic characteristics

are common determinants influencing dimensions of immigrant integration (Zhou, 1999; Waters and Jimenez, 2005; Portes and Rumbaut, 2006). Also, there remain different modes of immigrant integration between ethnic groups and settlement places (Portes and Rumbaut, 2006). Thus, an ethnic group itself and the settlement place per se are possible factors in influencing immigrant integration. In agreement with past studies, this thesis attempts to match samples on all possible characteristics, including demographic features, socio-economic features, ethnic groups, and settlement places. As doing so, between matched samples, the outcomes of integration domains are compared, as minimizing selection bias (See Figure 10.1).

Figure 10.1: Research design for evaluation of effectiveness on MFSS



10.3. RESEARCH HYPOTHESES

By taking a goal-attainment and client-centred approach, immigrant wives' integration including objective (e.g. citizenship acquisition, employment, and destination-language proficiency) and subjective (e.g. life satisfaction) integration are thought of as a goal and output of MFSS in this empirical study. From this point of view, it is assumed that

the extent of integration between service-users and non-service-users are different, as performing PSM.

Thus, if the extent of integration of service-users is higher than that of non-service-users, it is concluded that MFSS is effectively delivered. In an opposition, if the level of integration of non-service-users is higher than that of service-users, MFSS is assumed not to be effective. In addition, when there are no significant differences in terms of integration between service-users and non-service-users, it also concludes that MFSS is not effective. However, prior studies on immigrant wives in Korea have consistently reported that MFSS delivery is not effective, as discussed in the Chapter 3. Based on the previous empirical studies discussed, this thesis establishes hypotheses in terms of effectiveness in MFSS delivery.

The following illustrates hypotheses in detail:

- 1) The extent of Korean citizenship acquisition is not different between service-users and non-service-users, or the extent of service-users is lower than that of non-service-users.
- 2) There is no significant difference in terms of the extent of employment between service-users and non-service-users, or the extent of service-users is not higher than that of non-service-users.
- 3) The extent to which immigrant wives develop Korean language ability is not different between service-users and non-service-users, or the extent of service-users is not higher than that of non-service-users.
- 4) The extent of life satisfaction is not different between service-users and non-service-users, or the extent of service-users is lower than that of non-service-users.

10.4. SAMPLING AND DATA SOURCE

The main data source is derived from the 2012 NSMF.²² The data set examined a broad variety of immigrant wives' conditions such as demographic characteristics, Korean citizenship acquisition, economic activities, Korean language ability, and life satisfaction, and the utilisation of MFSC in Korea.

Using multistage sampling (first stage is cluster sampling and second stage is stratified sampling), the 2012 NSMF collected data from 15,341 households that included 15,001 marriage migrants who are categorised into 2,470 immigrant husbands and 12,531 immigrant wives. However, there appear 207 non-responses from some questions regarding the satisfaction of relationships with family members. In this thesis, 207 non-responses are excluded from analysis²³.

In comparing the domains of immigrant wives' integration between service-users and non-service-users to answer the question of whether MFSS is delivered effectively, finally 12,324 of the immigrant wives (6,012 of service-users who used MFSCs at least once and 6,312 of non-service-users who have never used MFSCs) were selected.

10.5. ANALYTICAL STRATEGIES

This study is intended to analyse whether MFSS delivery is effective through comparing domains of immigrant wives' integration between service-users and non-service-users. For this, the empirical testing compares each domain of integration comprised of citizenship, employment, destination-language, and life satisfaction between service-users and non-service-users, along with two sets of analysis: simple comparison and PSM.

²²The survey has carried out each three year by the Ministry of Gender Equality and Family.

²³The non-responses are not large, which may not lead bias in conducting analysis in this thesis. In addition, this thesis will use PSM which leads to minimize bias from non-responses in survey data (K. O. Lee, 2009). This is because participants and non-participants in a service are resampled through matching (K. O. Lee, 2009). As doing so, resampled groups can be used for the analysis, with ignoring the non-responses that may lead to bias.

10.5.1. Analytical strategies for simple comparison

The simple comparison between service-users and non-service-users begins with descriptive, chi-square, and independent T-test analyses. The analyses compare the compositions of immigrant wives' integration as performance outcomes of effective service-production between the two groups.

To estimate the effectiveness in MFSS delivery, the levels of citizenship (descriptive and chi-square analyses), employment (descriptive and chi-square analyses), Korean language proficiency (descriptive and independent T-test analyses), and life satisfaction (descriptive and independent T-test analyses) are compared between those who have used MFSCs at least once and those who have never used MFSCs via the analyses. As discussed earlier in section 10.1, the simple comparison is limited to directly estimate the differences in each domain of immigrant wives' integration between the two groups, as net effect of MFSS. This is because such comparison can meet selection bias. Hence, the results of these analyses are used for a standard in comparing the results of PSM.

10.5.2. Analytical strategies for PSM

In order to compare the domains of immigrant wives' integration between the two groups controlling over selection bias, PSM is carried out with using a command, **psmatch2**, in STATA version 13. Leuven and Sianesi (2003) provided the **psmatch2** that enables researchers to use different matching algorithms, carry out analysis of PSM with non-continuous outcomes, and conduct various post-estimation analyses. The following sections will describe the strategies of PSM based on the four steps for its implementation.

10.5.2.1. First step: developing propensity score

To estimate the propensity score, we employ four logit analyses for a dichotomous participation variable in MFSS (participation versus non-participation). To estimate the propensity score using logistic regression analysis, we include the important and relevant variables associated with participation in MFSS and four outcomes of integration (i.e. citizenship, employment, Korean language skills, and life satisfaction) at the same time.

However, in each logistic regression analysis, we use a different set of variables because some variables are possible factors predicting MFSS outcomes or the outcomes of the other variables. For example, employment is one of the outcomes of MFSS, but it is also an explanatory variable associated with citizenship, destination-language skills, and life satisfaction, and thus is considered to be one of their outcomes.

In addition, previous studies have identified various predictors influencing each domain of immigrant integration (as discussed in Chapter 6 and Chapter 7). In fact, the variables predicting propensity scores are differently selected based on the previous studies. The existing literature on service utilization and effectiveness demonstrates that demographic conditions and socio-economic resources are important variables influencing service participation (as discussed in Chapter 4). In addition, there are different patterns of service utilisation among ethnic backgrounds and settlement locations (as discussed in Chapter 4). Similarly, as seen earlier in Chapter 6 and 7, prior studies on immigrant integration have identified that demographic and socio-economic characteristics commonly account for dimensions of immigrant integration (i.e. citizenship, employment, destination-language skills, and life satisfaction). Also, there are unequal modes of integration among ethnic groups (as discussed in Chapter 8) and settlement locations (as discussed in Chapter 9).

Thus, the logistic regression equation for propensity scores is:

$$\ln \left[\frac{e(x_i)}{1-e(x_i)} \right] = \ln \left[\frac{Pr(W_i=1|x_i)}{1-Pr(W_i=1|x_i)} \right] = a + \beta_i x_i,$$

where the dependent variable is dichotomous, where $W_i = 1$ is participation in MFSS and $W_i = 0$ is non-participation, and x_i is all the observed characteristics predicting the propensity scores. For life satisfaction, x_i includes age, education, years since migration, children, employment, household income, destination-language skills, meetings with friends having the same country of origin, engaging socially with local residents, having friends with the same ethnic backgrounds and friends with other ethnic backgrounds, having Korean friends, the relationship with a husband, the relationship with a mother-in-law, ethnic groups, and settlement locations. For citizenship, x_i involves all variables used for life satisfaction,

excluding the variable of relationship with a mother-in-law. For employment, x_i retains all variables used for life satisfaction, excluding the variable of employment. For Korean language skills, x_i involves all variables used for life satisfaction, excluding the variables of Korean language proficiency, relationship with a husband, and relationship with a mother-in-law.

10.5.2.2. Second step: matching algorithms

In this thesis, we use three matching methods, including NN matching²⁴, radius matching²⁵, and kernel matching. As discussed in section 10.1.3.2, each matching algorithm has advantages and disadvantages, which makes it difficult to select the most appropriate PSM matching method. In this situation, one solution is to conduct various matching algorithms and then to compare their results (Sosin, 2002; Caliendo and Kopeinig, 2005).

10.5.2.3. Third step: analysis for the net effect of MFSS

In this thesis, we determined the average differences of MFSS outcomes between resampled MFSS participants and resampled non-participants in MFSS, based on their propensity scores. Then, by performing bivariate analysis, we compared the average levels of Korean citizenship acquisition, employment, Korean language proficiency, and life satisfaction of the two groups.

10.5.2.4. Fourth step: post-estimation analysis for the net effect of MFSS

To make a post-estimation analysis, we checked the common support, conducted a balancing test, estimated the treatment effects, and conducted a sensitivity analysis.

First, to check the common support, we calculated the number of service users excluded from the region of common support (Bryson, Dorsett, and Purdon, 2002). Once the propensity score had been estimated through logit analysis, non-service-users who have

²⁴In this thesis, the non-service-users who are not used for matching are excluded in the analysis. In addition, five neighbours are used to calculate the matched outcomes in the analysis.

²⁵The value of caliper is used as 0.01, to give more restrictive conditions for exact matching, in this thesis.

similar or the same propensity scores can be matched to service users. However, in the process of matching, if the number of non-participants who have similar or the same propensity scores is small, the matching number is low. Thus, a number of service users are excluded after the matching. This indicates that common support conditions have problems (Bryson, Dorsett, and Purdon, 2002). Hence, it needs to calculate unmatched samples among resampled service-users to check common support.

Second, the “balancing test” is carried out by a T-test, a pseudo- R^2 test, a likelihood ratio test for joint significance, and a standardised bias test (Caliendo and Kopeinig, 2005, pp. 15-16). The objective of the balancing test is to compare differences between the original participants and the original non-participants before matching, and between the resampled participants and resampled non-participants after matching. When there are differences between matched samples with respect to their propensity scores, the quality of the propensity-score-based matching is not sufficient for estimating the net effect of MFSS. In conducting a balancing test, first, each variable used in calculating the propensity score is compared before and after matching by performing a T-test. If after matching the difference in the values of a variable between resampled participants and non-participants is not statistically significant, the quality of their matching is sufficient. The pseudo- R^2 test indicates the relative weight of each variable used in calculating the propensity score in the probability of participation in a service. Because both participants and non-participants are homogenous in their distribution of all the explanatory variables after matching, the value of the pseudo- R^2 after matching is much more likely to be less than that before matching. Similarly, the likelihood ratio test for the joint significance of all variables used in calculating the propensity score compares the ratio before and after matching. For good matching quality, the value of the likelihood ratio after matching should be lower than its value before matching. Furthermore, when we perform an F-test on the joint significance of the explanatory variables, “the test should not be rejected before, and should be rejected after matching” (Caliendo and Kopeinig, 2005, p. 16). Standardised bias means “the difference between sample means in the treated and matched control subsamples” for each given variable used in calculating the propensity score, and is calculated “as a percentage of the

square root of the average of sample variances in both groups” (Caliendo and Kopeinig, 2005, p. 16). When the matching quality is appropriate, the value of the standardised bias is also decreased after matching.

Third, to estimate the treatment effects is to test whether or not the estimated variance of the treatment effect is biased. With PSM, the net effect of a service or policy and its standard error are not directly tested (Caliendo and Kopeinig, 2005). This is because the estimation of the effect of a service or policy is sensitive to the propensity score, the region of common support, and the orders of the individuals in the matching process. In this thesis, we used bootstrapping repetition technique to test the standard error of treatment effect. “Repeating the bootstrapping N times leads to N bootstrap samples and in our case N estimated average treatment effects. The distribution of these means approximate the sampling distribution (and thus the standard error) of the population mean” (Caliendo and Kopeinig, 2005, p. 18). We performed 1,000 bootstrapping repetitions²⁶, and then used the standard errors from the bootstrapping to test for statistical significance.

Finally, for the sensitive analysis, we compared the results of different matching algorithms and three bandwidth values (i.e., 1%, 5%, and 10%) from the kernel matching (Guo, Barth, and Gibbons, 2005). On the one hand, as discussed in section 10.1.3.2, the regions of common support differ in each matching algorithm, which leads to different estimations of the propensity score. As a result, the estimation of net effect of a service or policy may vary, depending on the matching algorithm used. However, if the results of the average treatment effect (net effects of a service or policy) are consistent regardless of the matching algorithm used, the results are valid. On the other hand, depending on the bandwidth, both the variance and bias vary in the density function estimates in kernel matching (Caliendo and Kopeinig, 2005). When the value of the bandwidth is higher, variance and bias decrease. Thus, while the amount of information used to estimate average treatment effect might be decreased, the resulting estimation could be a better fit. In contrast, when the bandwidth value is higher, variance and bias increase. So even if the amount of

²⁶This thesis follows Mogan et al. (2010). In conducting PSM, they obtained standard errors with bootstrapping with 1,000 repetitions.

information for estimating the average treatment effect increases, it is more difficult to achieve a better fit. Hence, we tested different bandwidth values, and then compared the average treatment effect results. If the results were consistent, we assumed them to be valid.

Until now, analytical strategies for comparison between service-users and non-service-users to estimate the net effect of the MFSS delivery are discussed. In the following pages, this thesis will attempt to address operationalisation of the variables used for analysis.

10.6. OPERATIONALIZATION OF VARIABLES

This section addresses how variables are measured for analysis. The variables are grouped into (1) the use of MFSS and variables measuring immigrant wives' integration (i.e. citizenship, employment, Korean language proficiency, and life satisfaction) and (2) all variables used for propensity score.

10.6.1. The variables for MFSS's participation and immigrant wives' integration

The use of MFSS – As a dichotomous variable, immigrant wives who used MFSCs at least once in 2012 were assigned a value of “1”. Those immigrant wives who never used MFSCs in 2012 were assigned a value of “0”.

To measure immigrant wives' integration, indicators of citizenship, employment, Korean language ability, and life satisfaction are used, based on theoretical frameworks discussed in Chapter 4. The operationalization of each of these measures is provided below:

Citizenship – a dichotomous variable in which immigrant wives who obtained citizenship at any time in 2012 were assigned a value of “1” and those women declared a citizen at all in 2012 were assigned a value of “0”.

Employment – a dichotomous variable in which immigrant wives who were employed at any time in 2012 were coded as “1” and those wives not employed at all in 2012 were coded as “0”.

Korean language proficiency – self-evaluated scores of immigrant wives ranging from 4 to 20. The Korean language proficiency is calculated from a series of four scopes including speaking, listening, reading, and writing parts on a scale of 1 to 5. These parts are converted in one score as aggregated scores of the speaking, listening, reading, and writing parts.

Life satisfaction – the extent to which immigrant wives are satisfied with their overall life quality in Korea rated on a scale of 1 to 5.

10.6.2. All variables used for propensity score

The variables used for propensity score simultaneously account for the probability of participation in the MFSS and domains of immigrant wives' integration (e.g. citizenship, employment, Korean language skills, and life satisfaction), which are based on previous studies within the context of Korea (as discussed in Chapter 4, 6, 7, 8, and 9). Again, the operationalization of each of these measures is provided below:

Age – immigrant wives' age in 2012.

Years since migration – the number of years after coming to Korea.

Educational attainment – measured at the highest level of school completed: no schooling = 1, elementary = 2, middle school = 3, high school = 4, college or undergraduate school = 5, postgraduate school = 6. The variable is transformed in a dummy variable, in which the reference is no schooling.

Household income – in the 2012 NSMF, approximate monthly average household income before tax is categorised: “1” = below 0.5 million won in Korean money, “2” = 0.5 million to less than 1 million won in Korean money, “3” = 1 million to less than 2 million won in Korean money, “4” = 2 million to less than 3 million won in Korean money, “5” = 3 million to less than 4 million won in Korean money, “6” = 4 million to less than 5 million won in Korean money, “7” = 5 million to less than 6 million won in Korean money, “8” = 6 million to less than 7 million won in Korean money, and “9” = more than 7 million won, with

won being the currency of Korea. The variable is re-categorised, based on average household income among Korean families²⁷: “1” = below 1 million won, “2” = 1 million to less than 2 million won in Korean money, “3” = 2 million to less than 3 million won in Korean money, “4” = 3 million to less than 4 million won in Korean money, and “5” = more than 4 million won, with won being the currency of Korea. The re-categorised variable is transformed in a dummy variable, in which the reference is “1” = below 1 million won.

The number of children – the number of children in 2012 as responded how many children you have with your spouses.

The participation in the meeting of friend from the same origins of nationalities – it is a yes/no answer to the question whether you participate in the meeting of friends sharing same ethnic backgrounds. Yes is coded as “1” and No is coded as “0”.

The participation in local residents gathering – it is a yes/no answer to the question whether you participate in the meeting of local residents at the community-level. Yes is coded as “1” and No is coded as “0”.

The number of friends with same origin nationalities – it is a yes/no answer to the question of do you have a friend who share same origin nationalities in the four situations, including i) individual and family trouble, ii) employment, iii) children education, and iv) leisure, hobby, and recreation. Yes is coded as “1” and No is coded as “0”. A series of four situations are summed in one score ranging from 0 to 4²⁸.

The number of friends with other ethnic backgrounds – it is a yes/no answer to the question of do you have a friend with other ethnic backgrounds in the four situations, including i) individual and family trouble, ii) employment, iii) children education, and iv)

²⁷Among Korean families with more than two members, the monthly household income was about 3.84 million won on average, in 2012 (Korean Statistical Information Service, kosis.kr).

²⁸The measurements of the number of friends with same origin nationalities, the number of friends with other ethnic backgrounds, and the number of Korean friends follows the study of Kim and Choi (2012).

leisure, hobby, and recreation. Yes is coded as “1” and No is coded as “0”. A series of four situations are summed in one score ranging from 0 to 4.

The number of Korean friends – it is a yes/no answer to the question of do you have a Korean friend in the four situations, including i) individual and family trouble, ii) employment, iii) children education, and iv) leisure, hobby, and recreation. Yes is coded as “1” and No is coded as “0”. A series of four situations are summed in one score ranging from 0 to 4.

The relationship with a husband – in the 2012 NSMF data, the extent to which immigrant wives are satisfied with the relationship with their husbands is assessed on a scale of 0 to 5.

The relationship with mother-in-law – in the 2012 NSMF, the extent to which immigrant wives are satisfied with the relationship with their mothers-in-law is assessed on a scale of 0 to 5.

Ethnic groups – five dummy variables: “1” = immigrant wives from Vietnam, Cambodia, the Philippine, Thailand, or other Southeast Asian countries, and “0” = other ethnic groups or nationalities. Marriage migrants from Southeast Asian countries were associated with newcomers, high poverty and settlement in farming areas, compared to marriage migrants from countries, such as China, Japan and former Soviet Union countries (Seol, Lee and Cho 2006; Kim et al. 2010; Jeon et al. 2013). In addition, among immigrant wives from South-East Asian countries, the number of service-users is higher than that of non-service-users (Jeon et al., 2013).

Settlement locations – a dummy variable: “1” = immigrant wives who live in metro areas (e.g. Seoul and Gyeonggi province) and “0” = other places. The relatively high numbers and proportions of marriage migrants are concentrated in those areas (Kim et al. 2010; Jeon et al. 2013). Accordingly, the relatively high numbers of MFSCs are arranged in those areas, compared to other areas in Korea (www.liveinkorea.kr).

Now that this section has discussed methodology including research design, data source, analytical issues for valid estimation of net effect of MFSS, analytical strategies, and operationalization of variables, for examination of the question of whether or not MFSS is effective, the next chapter describe the findings.

Chapter 11: *Findings and Discussions of Empirical Testing for Evaluating Effectiveness in MFSS*

To answer the research question of whether or not MFSS is effective via empirical testing, this thesis attempted to compare the levels of citizenship, employment, Korean language proficiency, and life satisfaction between those who use MFSCs at least once and those who never use MFSCs, with analytical technique discussed in Chapter 10.

In fact, this chapter addresses findings from this empirical testing to answer the essential research question. And then, this chapter discusses the effectiveness on MFSS by showing how the findings are linked with the existing literature regarding MFSS.

11.1. FINDINGS

11.1.1. Findings from descriptive analysis

Before comparing the degrees of integration comprised of Korean citizenship acquisition, employment, Korean language proficiency, and life satisfaction between service-users and non-service-users, this chapter explores the distributions of all explanatory variables used for analysis, as well as the outcomes of MFSS, via descriptive analysis.

The distributions of variables are shown in Table 11.1. Out of a total sample 12,324, about 48 per cent have utilised a MFSC at all. About 40 per cent are naturalised, and half of immigrant wives are employed in Korea (49.07 per cent). The Korean language ability is averagely marked at 13.89 between 4 and 20 scores. The mean life satisfaction is 3.68 between 1 and 5. On average, immigrant wives are 36 years old (mean = 36.03). Most immigrant wives have one child (mean = 1.12), and have lived for 8 years in Korea (mean = 8.02). The majority of immigrant wives graduated a high school (41.48 per cent), followed by college or an undergraduate school (26.90 per cent) and a middle school (20.20 per cent). Most multicultural families earn monthly income between 1 million to 2 million won (31.01 per cent) or 2 million to less than 3 million won (32.86 per cent) (Korean currency). About 58 per cent have an experience participating in the meeting of friends who share same

nationalities, and about 17 per cent have an experience participating in the meeting of local residents.

Table 11.1: The results from descriptive analysis

Variables (N = 12,324)	Mean (SD) / %
Age	36.03 (10.91)
<i>Education</i>	
no schooling	1.62
elementary school	8.00
middle school	20.20
high school	41.48
college or undergraduate school	26.90
post-graduate school	1.79
Years since migration	8.02 (6.72)
The number of children	1.12 (0.96)
<i>Household income</i>	
below 1 million won	10.56
1 million to less than 2 million won	31.01
2 million to less than 3 million won	32.86
3 million to less than 4 million won	15.49
more than 4 million won	10.08
The participation in the meeting of friend from the same origins of nationalities	57.98
The participation in local residents gathering	17.06
The number of friends with same origin nationalities	1.32 (1.38)
The number of friends with other ethnic backgrounds	0.09 (0.44)
The number of Korean friends	1.44 (1.44)
The relationship with a husband	3.91 (1.29)
The relationship with mother-in-law	3.01 (1.77)
Metro	43.20
Vietnamese	16.73
Filipinos	12.31
Thais	3.29
Cambodians	7.13
Other South-East Asian countries	1.31
Korean citizenship acquisition	38.75
Employment	49.07
Korean language proficiency	813.89 (4.44)
Life satisfaction	3.68 (0.95)
Use of MFSS	48.78

On average, the number of friends with same origin nationalities is 1.32, and the number of Korean friends is 1.44. However, the number of friends with other ethnic backgrounds is 0.09, indicating that immigrant wives have few friends with other ethnic backgrounds in Korea. About 43.2 per cent live in metro areas while about 41 per cent are

from South-East Asian countries. Among immigrant wives from South-East Asian countries, 16.73 per cent are from Vietnam, 12.31 per cent are from the Philippine, 3.29 per cent are from Thailand, 7.13 per cent are from Cambodia, and 1.31 per cent are from other South-East Asian countries. On average, the relationship with a husband is 3.91, indicating that a number of immigrant wives are satisfied with the relationship with a husband. On average, the relationship with mother-in-law is 3.01, indicating that immigrant wives are not highly and not lowly satisfied with the relationship with mother-in-law.

Until now, this chapter presents the basic distributions of variables used for analysis. In order to estimate the net effect of MFSS, the following sections will describe different degrees of integration domains (i.e. Korean citizenship acquisition, employment, Korean language proficiency, and life satisfaction) between service-users and non-service-users, based on PSM.

11.1.2. Findings from PSM

11.1.2.1. Propensity score

As noted in section 10.5.2.1, when conducting PSM, first the propensity score is estimated. In this thesis, to develop the propensity scores, we conducted four logit analyses of the probability of participation in MFSS, according to the four domains of immigrant integration (i.e., Model 1 = citizenship, Model 2 = employment, Model 3 = Korean language skills, and Model 4 = life satisfaction). In these analyses, we used the variables that account for immigrant wives' integration and participation in MFSS, based on previous studies, at the same time to estimate the propensity score.

Table 11.2 presents the coefficient results from the four logic analyses. The overall directions of the coefficients in the logic analyses are same for Model 1 (citizenship acquisition), Model 2 (employment), Model 3 (Korean language proficiency), and Model 4 (life satisfaction). Overall, when immigrant wives are younger, have a higher number children, have resided for a shorter period of time in Korea, have lower levels of Korean language skills, regularly meet with friends having the same nationality origins, participate in

local resident gatherings, have a higher number of friends with the same ethnic background, have a higher number of friends with other ethnic backgrounds, have a higher number of Korean friends, do not live in metro areas, and are from Southeast Asian countries, the probability of participation in the MFSCs is increased. In addition, those whose income is more than 3 million won are less likely to participate in MFSCs than those who make less than 1 million won.

After describing the results of the four logic analyses for the estimations of the propensity scores, we next illustrate these results with regard to the net effect on the MFSS.

Table 11.2: The coefficient results of logit analyses for the estimation of propensity scores

Variables (N = 12,324)	Model 1 = Citizenship Acquisition	Model 2 = Employment	Model 3 = Korean language Skills	Model 4 = Life satisfaction
Age	-0.027***	-0.027***	-0.028***	-0.027***
<i>Education (reference = no schooling)</i>				
elementary school	-0.108	-0.108	-0.166	-0.108
middle school	0.027	0.027	-0.047	0.027
high school	0.091	0.091	0.011	0.091
college or undergraduate school	0.333	0.332	0.261	0.333
post-graduate school	0.238	0.236	0.152	0.237
Years since migration	-0.039***	-0.039***	-0.045***	-0.039***
The number of children	0.363***	0.362***	0.362***	0.363***
<i>Household income (reference = below 1 million won)</i>				
1 million to less than 2 million won	-0.026	-0.025	-0.026	-0.026
2 million to less than 3 million won	-0.091	-0.090	-0.095	-0.091
3 million to less than 4 million won	-0.176**	-0.175**	-0.188**	-0.176**
more than 4 million won	-0.433***	-0.431***	-0.448***	-0.433***
The participation in the meeting of friend from the same origins of nationalities	0.532***	0.532***	0.545***	0.532***
The participation in local residents gathering	0.399***	0.398***	0.380***	0.398***
The number of friends with same origin nationalities	0.118***	0.118***	0.123***	0.118***
The number of friends with other ethnic backgrounds	0.199***	0.199***	0.205***	0.199***
The number of Korean friends	0.058***	0.058***	0.045***	0.058***
The relationship with a husband	-0.005	-0.006		-0.005
The relationship with mother-in-law		0.001		0.007
Metro	-0.813***	-0.813***	-0.813***	-0.813***
Vietnamese	0.563***	0.564***	0.649***	0.563***
Filipinos	0.685***	0.686***	0.784***	0.685***
Thais	0.701***	0.702***	0.811***	0.701***
Cambodians	0.815***	0.815***	0.893***	0.815***
Southeast Asian countries	0.764***	0.764***	0.855***	0.764***
Employment	0.006		-0.013	0.006
Korean language skills	-0.036***	-0.036***		-0.036***
Constant	0.737***	0.735***	0.349	0.735***
Log likelihood	-6,981.249	-6,981.258	-7,002.935	-6,981.248
Model chi-square	3,114.89***	3,114.87***	3,071.52***	3,114.89***
Pseudo R ²	0.182	0.182	0.180	0.182
Degree of freedom	26	26	24	27

*** p < 0.01; ** p < 0.05

Table 11.3: The estimated effects of MFSS through PSM

	Korean Citizenship acquisition			Employment			Korean language proficiency			Life satisfaction		
	Service-users	Non-service-users	Difference	Service-users	Non-service-users	Difference	Service-users	Non-service-users	Difference	Service-users	Non-service-users	Difference
Before matching	0.333	0.440	-0.107***	0.454	0.525	-0.071***	12.828	14.894	-2.066***	3.695	3.658	0.037**
NN matching	0.333	0.327	0.006	0.455	0.442	0.013	12.828	12.916	-0.088	3.695	3.709	-0.014
(neighbour 5) Radius matching (caliper 0.01)	0.333	0.325	0.007	0.455	0.442	0.013	12.828	12.897	-0.069	3.695	3.707	-0.012
Kernel matching (bandwidth 0.01)	0.333	0.326	0.007	0.455	0.441	0.013	12.828	12.898	-0.069	3.695	3.706	-0.011
Kernel matching (bandwidth 0.05)	0.333	0.327	0.005	0.455	0.441	0.013	12.828	12.899	-0.071	3.695	3.708	-0.013
Kernel matching (bandwidth 0.1)	0.333	0.328	0.004	0.455	0.442	0.012	12.828	12.920	-0.092	3.695	3.708	-0.013

*** p < 0.01; ** p < 0.05

c.f. Chi-square test is conducted for Korean citizenship acquisition and employment while T-test is performed for Korean language proficiency and life satisfaction.

11.1.2.2. Results regarding the net effect of MFSS

In the following pages, we provide the results of bivariate tests conducted before matching and after matching, with respect to citizenship acquisition, employment, Korean-language proficiency, and life satisfaction. These results are summarised in Table 11.3.

First, the difference in the extent of Korean citizenship acquisition between service users and non-service users was statistically significant before matching ($\chi^2 = 148.887, p < 0.01$). Specifically, service users were 10.7 percent lower than non-service users in the ratio of Korean naturalisation. After matching, service users scored 0.6 percent (NN matching), 0.7 percent (radius matching), 0.7 percent (kernel matching with bandwidth 0.01), 0.5 percent (kernel matching with bandwidth 0.05), or 0.4 percent (kernel matching with bandwidth 0.1) higher on their ratio of Korean naturalisation than non-service users. However, based on the bootstrapping test, the mean difference in their ratios of Korean naturalisation was not statistically significant, regardless of having matching algorithms.

Second, before matching, the simple average difference indicated that those who used MFSCs at least once scored 7.1 percent lower on their rates of employment than those who never used MFSCs, and this difference is statistically significant ($\chi^2 = 61.7, p < 0.01$). After matching, service users scored 1.2 percent (kernel matching with bandwidth 0.1) or 1.3 percent (NN matching, radius matching and kernel matching with bandwidth 0.01 and 0.05) higher on the ratio of employment than non-service users. However, in the bootstrapping test, these mean differences were not statistically significant after matching.

Third, before matching, service users scored 2.07 points lower than non-service users when we compared the mean difference in Korean language proficiency between the two groups, and this difference was statistically significant at the $p < 0.01$ level ($t = 26.508$). Once the propensity scores of immigrant wives were matched regarding their participation in MFSS, those who used MFSCs at least once scored 0.088 points (NN matching), 0.069 points (radius matching and kernel matching with bandwidth 0.01), 0.071 points (kernel matching with bandwidth 0.05), or 0.092 points (kernel matching with bandwidth 0.1) lower on Korean

language skills than those who had never used MFSCs. In the bootstrapping test, these mean differences were not statistically significant at the $p < 0.05$ level.

Fourth, before matching, the mean difference of life satisfaction between service users and non-service users was 0.04 points (service users = 3.70 versus non-service users = 3.66), which was statistically significant at the $p < 0.05$ level ($t = -2.168$). Once matched with NN matching, radius matching, and kernel matching algorithms, the mean differences between service users and non-service users were -0.014 points (NN matching), -0.012 points (radius matching), -0.011 points (kernel matching with bandwidth 0.01) and -0.013 points (kernel matching with bandwidth 0.05 or 0.1). In the bootstrapping test, the mean differences were not statistically significant.

Having compared the mean differences of the four domains of integration between service users and non-service users before and after matching, we next address the validity of the bivariate test among matched samples, as a post-estimation analysis of PSM.

11.1.2.3. Post-estimation PSM analysis results

The purpose of PSM is to compare the mean differences among matched samples to estimate the net effect of a service, under the assumptions of conditional independence and common support (as discussed in section 10.1.2.4). In this sense, the post-estimation analysis checks whether or not the matched samples, or the matching methods used, meet the two fundamental assumptions of conditional independence and common support. For the post-estimation analysis, we check the degree of common support, perform a balancing test, estimate the treatment effects, and conduct a sensitivity analysis.

First, we assess the common support condition by checking the number of unmatched cases among resampled service users (Bryson, Dorsett, and Purdon, 2002). Table 11.4 displays the number of samples of participants before and after matching, as well as the rate of cases excluded from the region of common support of the total number of samples before matching, along with the four domains of integration. The rate gains range from 0.01 to 0.03. Because the number of cases discarded from the region of common support among service

users is so small after matching, we can reasonably conclude that the common support conditions have posed few problems in the analysis.

Table 11.4: The cases of service-users excluded from the region of common support

	Number of service-users		Lost in %
	Before matching	After matching	
Korean citizenship acquisition	6,012	6,011	0.01
Employment	6,012	6,011	0.01
Korean language skills	6,012	6,010	0.03
Life satisfaction	6,012	6,011	0.01

Second, the balancing test includes an independent T-test, a pseudo- R^2 test, a likelihood ratio test for joint significance, and a standardised bias test. In the independent T-test, we first compared the average scores of all the explanatory variables. Although, the results of the independent T-test in the domains of integration are slightly different among the matching algorithms, the results have similar patterns. A number of explanatory variables for service users and non-service users have different mean scores before matching, whereas most of all explanatory variables of the two groups have similar mean scores after matching. When the mean scores of the explanatory variables are not significantly different for the two groups after matching, it is assumed that the matching quality is sufficient for estimating the net effect of MFSS.

With respect to the T-test as a component of the balancing test, in this thesis, we merely introduce the results of kernel matching with a 0.01 bandwidth, along with the four domains of integration, which are shown in Tables 11.5a (Korean citizenship acquisition), 11.5b (employment), 11.5c (Korean language skills) and 11.5d (life satisfaction). Results for the NN matching, radius matching, and kernel matching, with bandwidths of 0.05 and 0.1, are displayed in Appendix 3.

The overall patterns in the kernel matching with a 0.01 bandwidth are the same across the four domains of integration. Thus, the mean scores of the explanatory variables are not statistically significant after matching, except for the variables of Vietnamese and Korean

language skills. This indicates that the matching quality has few problems for estimating the net effect of MFSS. For example, the overall t-value pattern results for the variable of years since migration are similar to those for the integration domains. Regarding Korean citizenship acquisition, before matching, the mean difference for years since migration between service users and non-service users was -2.603 points (service users = 6.684 versus non-service users = 9.287), which was statistically significant at the $p < 0.01$ level ($t = -21.90$). Once matched, the mean difference was 0.135 points (service users = 6.684 versus non-service users = 6.549), which is statistically insignificant ($t = 1.46$). These results were repeated in the employment, Korean language skills, and life satisfaction domains. In addition, the bias value shows similar results. The fifth and sixth columns of Table 11.5a display the bias results of the variables. Before matching, the bias value for the variable years since migration was -39.7. As its value was 2.1 after matching, the absolute value of the reduction ratio for bias was 94.8. Thus, this positive value indicates a decrease in bias after matching, which poses few problems for estimating the net effect of MFSS.

However, there are some significant variables after matching, which indicate that the matching quality is not good. Both Vietnamese and Korean language skills have statistically significant values in the integration domains after matching. Specifically, in the consideration of immigrant wives from Vietnam, before matching, the mean difference for citizenship acquisition between service users and non-service users was 12.3 percent (service users = 0.230 versus non-service users = 0.107), which is statistically significant at the $p < 0.01$ level ($t = 18.56$). After matching, the mean difference was 1.9 percent (service users = 0.230 versus non-service users = 0.249), which is also statistically significant at $p < 0.05$ ($t = -2.35$). This result shows that the matching quality was not sufficient for the dichotomous variable for immigrant wives from Vietnam. However, the absolute value of the reduction ratio of the bias was positive, at 85.1. This positive value indicates the presence of few problems and that the quality of matching is appropriate for estimating the net effect of the MFSS. In the employment, Korean language skills, and life satisfaction domains, the Vietnamese variable was also statistically significant at the $p < 0.05$ level, but the absolute value of the reduction ratio of the bias was positive at 85, 87.3, and 85.1, respectively. Such positive values suggest

that the matching quality is appropriate. In another example, the variable of Korean language skills was statistically significant in the domains of Korean citizenship acquisition, employment, and life satisfaction, after matching. However, the absolute value of the reduction ratio of the bias was 81.9, 81.6, and 81.5, respectively. These positive values indicate the presence of few problems in estimating the net effect of MFSS.

Table 11.6 presents the results of the pseudo- R^2 test, the likelihood ratio test for joint significance, and the standardised bias test. Regardless of the matching algorithms used, the values of the pseudo- R^2 , and LR χ^2 , and standardised mean bias in the four integration domains before matching was decreased after matching. This is a satisfactory result indicating good matching quality. More specifically, the value of pseudo- R^2 was either 0.180 or 0.182, before matching, and its value was reduced by 0.001 to 0.003, after matching. The standardised mean bias was also decreased. The value of the standardised mean bias ranged from 20.4 to 21.5, before matching, and its value was reduced by 1.4 to 2.2, after matching. In a similar way, the value of LR χ^2 after matching was also reduced in the four integration domains. For Korean citizenship acquisition, the LR χ^2 score was 3,110.97, before matching, which was reduced by 51.37 (NN matching), 49.09 (radius matching), 49.47 (kernel matching with bandwidth 0.01), 48.96 (kernel matching with bandwidth 0.05) and 56.07 (kernel matching with bandwidth 0.1), after matching. For employment, the LR χ^2 score was 3,110.97, before matching, and this value reduced by 48.81 to 55.83, after matching. For Korean language proficiency, the LR χ^2 score was 3,066.09, before matching, and this value was decreased by 18.04 to 26.41, after matching. For life satisfaction, the LR χ^2 score was 3,110.98, before matching, and after matching, the value was decreased by 47.16 to 56.07.

However, results from conducting an F-test to determine the joint significance of the explanatory variables were only partially satisfactory. This is because significant values remained in the Korean citizenship acquisition, employment and life satisfaction domains after matching. In contrast, the value for the domain of Korean language skills was insignificant. Although the results from the likelihood ratio test for joint significance was not satisfactory in all integration domains, other test results, including the pseudo- R^2 test and

standardised bias test, yielded satisfactory results regarding matching quality. On the whole, the results clearly indicate that the matching quality has few problems and is sufficient for estimating the net effect of MFSS.

Third, we estimated the treatment effects in order to test for standard errors from bootstrapping. As seen in Table 11.3, there are positive differences between service users and non-service users in the Korean citizenship acquisition and employment domains, and negative differences in the Korean language proficiency and life satisfaction domains, after matching. However, these differences are shown to be statistically insignificant, and therefore it is unclear whether these positive and negative scores are related to the net effects of the MFSS.

Finally, as a sensitivity analysis, we compared the results of the matching algorithms and those of the bandwidth specifications. As shown above in Table 11.3, regardless of the matching algorithms or bandwidth specifications, the mean differences are the same. Thus, in the domains of Korean citizenship acquisition and employment, positive differences between service-users and non-service users are indicated for different matching algorithms and varying bandwidth specifications. In contrast, in the domains of Korean language proficiency and life satisfaction, negative differences between the two groups are indicated for different matching algorithms and varying bandwidth specifications. From the different matching algorithms results, we can infer that the common support conditions are not sufficiently sensitive. In addition, from the varying bandwidth specifications result, we assume that unobserved variables do not influence the effect of the MFSS.

11.1.2.4. Final results: the estimation of the effect of MFSS with research hypothesis test

Using the PSM analytical technique, we have quantified the net effect of the MFSS by comparing the MFSS outcomes of resampled service users and resampled non-service users. As predicted, the levels of Korean citizenship acquisition, employment, Korean language proficiency and life satisfaction between service users and non-service users were not significantly different. We can conclude that accessing the MFSS to achieve immigrant wives' integration in Korea is not effective or that its effect is dubious. Having described our

findings from an examination of whether MFSS is effective for immigrant wives' integration, we now address findings from previous studies regarding MFSS.

11.2. DISCUSSION FROM FINDINGS

This section is intended to discuss the findings, by focusing on the question of whether MFSS is effective and adding more elaborated explanations rooted in the broader literature. In fact, this section attempts to note the similarities and differences of each domain of integration between service-users and non-service-users, accompanied by discussions of previous studies on the effectiveness of MFSS in Korea.

This thesis reviewed common features between the findings of this empirical study and the arguments of literature on the effectiveness of MFSS in Korea. The findings are in congruence with other studies in the field of settlement service for immigrant wives in Korea, indicating that the effect of MFSS for immigrant wives' integration is dubious or the service is not effective (Y. Park, 2009; Kim and Hong, 2010; Jung and Jung, 2010; Lee and Kim, 2011; M. H. Kim, 2011; Ra, 2011; Korea Institute of Public Administration, 2012; C. Kim, 2013; Kang, Park and Son, 2013).

Y. Park (2009) contemplated MFSS via reviewing relevant acts, statistical data, and previous studies. She concluded that the impact of MFSS is not clear in the policy area. The reason for this uncertain effect were associated with uniform service-provision that focuses on cultural assimilation and leans towards immigrant wives hardly reflects different individual needs, ethnic backgrounds, and regional differences. In addition, she demonstrated that in managing MFSCs, the shortage of professional manpower, geographical inaccessibility, and insufficient sub-programs led to the ineffective impact of MFSS. Similarly, the study of Jung and Jung (2010) examined the current conditions of MFSS as exploring relevant acts, statistics, and existing studies. They found a number of problems from the service-user's and service-providers' aspects in using MFSS. At the service users' aspect, MFSS hardly reflects the needs of marriage migrants, the different characteristics of ethnic groups, and different regional characteristics; and usually their family members cannot access MFSCs as well. From the service-providers aspect, a lack of follow-up management

and insufficient sub-programs are barriers in using MFSS. Because of the problems, they suggested that the policy impact of MFSS is not effective.

The study of Kim and Hong (2010) identified that the effect of MFSS is dubious in the policy area. The study explored the effects and problems of MFSS through interviewing the staffs employed at three MFSCs in Daegu. Their results indicated that the dubious impact is associated with too much focus on sub-programs for immigrant wives' assimilation in Korea, the shortage of cultural competence among staffs, and duplex service-provisions regardless of considering other private organisations in Daegu.

Ra (2011) investigated the roles of MFSCs for immigrants' integration through literature review and statistical data. In his study, MFSCs for immigrants' integration is not appropriate because MFSCs experienced the shortage of finance and provided sub-programs that lean towards cultural assimilation. In a similar vein, M. H. Kim (2011) examined the current status of MFSS. In his examination, the effect of MFSS is not appropriate in the policy area. This is because MFSCs have problems including financial shortage, the cultural insensitivity of the staff, and overlapped service-provision without considering non-profit organisations which provided similar sub-programs in the community where the organisations and MFSCs are arranged at the same time.

The study of C. Kim (2013) analysing MFSS delivery system via reviewing previous studies iterated aforementioned studies' results. The study concluded that the service delivery system is not effective because of insufficient number of professional workers, the lower level of participants from inappropriate advertisement, and the ignorance of different regional conditions.

The studies of Lee and Kim (2011), Korea Institute of Public Administration (2012), and Kang, Park and Son (2013) also reported that the net impact of MFSS is not appropriate or appears dubious in the policy area. This is because MFSCs underwent a shortage of professional workers, did not cooperate with private organisations which provide similar services in the community where both MFSCs and private organisations are arranged

simultaneously, and provide uniform service while neglecting different regional conditions and contexts.

Synthesising, the findings in this empirical study lead to answer the question of ‘Is MFSS effective?’ Thus, the answer of the question is that MFSS is not effective, which is consistent with the previous studies on MFSS. Therefore, by focusing on the reasons as noted in the previous studies, it is important to iron out the ineffectiveness. However, the aforementioned studies would not only evaluate piecemeal knowledge via reviewing pre-existing literature, relevant acts, and current statistical data, but also demonstrate the reasons of ineffectiveness without testing comprehensive understanding of several issues and topics in the service-delivery system. To conduct a comprehensive approach on effective service-delivery system, it must be known to measure effectiveness under validity and reliability (Rubbin and Babbie, 1989) and consider a series of predictors associated with the effectiveness (Martin and Kettner, 2010). In the next part, therefore, the second research question of how MFSS delivery system can be effectively improved for immigrant wives’ integration will be investigated, with consideration of a series of determinants that influence the outcomes of effectiveness of MFSS, under reliability and validity.

Table 11.5a: Result of t-test for balancing test of Korean citizenship acquisition

Variables for Korean citizenship acquisition	Matching	Average scores		% bias	% reduct bias	T-test
		Service-users	Non-service-users			
Age	Before matching	32.602	39.288	-64.6	95.4	-35.71***
	After matching	32.603	32.290	3.0		1.95
<i>Education (reference = no schooling)</i>						
elementary school	Before matching	0.080	0.080	-0.2	-163.7	-0.13
	After matching	0.080	0.078	0.6		0.35
middle school	Before matching	0.207	0.197	2.5	84.9	1.41
	After matching	0.207	0.206	0.4		0.21
high school	Before matching	0.403	0.426	-4.7	74.2	-2.63***
	After matching	0.403	0.409	-1.2		-0.67
college or undergraduate school	Before matching	0.280	0.258	4.9	89.8	2.72***
	After matching	0.280	0.278	0.5		0.27
post-graduate school	Before matching	0.012	0.023	-8.3	98.9	-4.59***
	After matching	0.012	0.012	0.1		0.07
Years since migration	Before matching	6.684	9.287	-39.7	94.8	-21.90***
	After matching	6.685	6.549	2.1		1.46
The number of children	Before matching	1.317	0.938	40.4	94.7	22.45***
	After matching	1.317	1.300	1.7		0.92
<i>Household income (reference = below 1 million won)</i>						
1 million to less than 2 million won	Before matching	0.336	0.285	11.1	87.9	6.15***
	After matching	0.336	0.330	1.3		0.72
2 million to less than 3 million won	Before matching	0.346	0.312	7.4	83.1	4.08***
	After matching	0.346	0.352	-1.2		-0.67
3 million to less than 4 million won	Before matching	0.145	0.164	-5.4	99.7	-3.00***
	After matching	0.145	0.145	0.0		0.01
more than 4 million won	Before matching	0.076	0.125	-16.4	98.9	-9.06***
	After matching	0.076	0.075	0.2		0.11
The participation in the meeting of friend from the same origins of nationalities	Before matching	0.685	0.480	42.4	93.5	23.53***
	After matching	0.685	0.671	2.8		1.57
The participation in local residents gathering	Before matching	0.196	0.147	13.0	90.3	7.20***
	After matching	0.196	0.191	1.3		0.65
The number of friends with same origin nationalities	Before matching	1.543	1.101	32.4	97.2	17.99***
	After matching	1.543	1.531	0.9		0.47
The number of friends with other ethnic backgrounds	Before matching	0.122	0.066	12.9	99.7	7.16***
	After matching	0.122	0.121	0.0		0.02
The number of Korean friends	Before matching	1.390	1.484	-6.5	69.6	-3.59***
	After matching	1.390	1.362	2.0		1.08
The relationship with a husband	Before matching	3.996	3.820	13.7	82.8	7.60***
	After matching	3.996	4.027	-2.4		-1.47
Metro	Before matching	0.294	0.564	-56.8	96.8	-31.47***
	After matching	0.294	0.302	-1.8		-1.03
Vietnamese	Before matching	0.230	0.107	33.3	85.1	18.56***
	After matching	0.230	0.249	-5.0		-2.35**

Table 11.5a: Result of t-test for balancing test of Korean citizenship acquisition (continue)

Filipinos	Before matching	0.178	0.071	33.0	89.4	18.40***
	After matching	0.178	0.167	3.5		1.65
Thais	Before matching	0.040	0.026	8.3	80.9	4.60***
	After matching	0.040	0.043	-1.6		-0.77
Cambodians	Before matching	0.108	0.037	27.6	86.9	15.42***
	After matching	0.108	0.098	3.6		1.68
Other South-East Asian countries	Before matching	0.158	0.010	4.7	86.4	2.61
	After matching	0.016	0.017	-0.6		-0.32
Employment	Before matching	0.454	0.525	-14.2	83.0	-7.87***
	After matching	0.454	0.442	2.4		1.33
Korean language proficiency	Before matching	12.828	14.894	-47.9	81.5	-26.51***
	After matching	12.829	12.447	8.8		5.05***

*** p < 0.01; ** p < 0.05

Table 11.5b: Result of t-test for balancing test of employment

Variables for employment	Matching	Average scores		% bias	% reduct bias	T-test
		Service- users	Non- service- users			
Age	Before matching	32.602	39.288	-64.6	95.4	-35.71***
	After matching	32.603	32.293	3.0		1.95
<i>Education (reference = no schooling)</i>						
elementary school	Before matching	0.080	0.080	-0.2	-167.2	-0.13
	After matching	0.080	0.078	0.6		0.35
middle school	Before matching	0.207	0.197	2.5	84.4	1.41
	After matching	0.207	0.206	0.4		0.21
high school	Before matching	0.403	0.426	-4.7	73.7	-2.63***
	After matching	0.403	0.409	-1.2		-0.68
college or undergraduate school	Before matching	0.280	0.258	4.9	89.7	2.72***
	After matching	0.280	0.278	0.5		0.27
post-graduate school	Before matching	0.012	0.023	-8.3	98.6	-4.59***
	After matching	0.012	0.012	0.1		0.08
Years since migration	Before matching	6.684	9.287	-39.7	94.7	-21.90***
	After matching	6.685	6.548	2.1		1.47
The number of children	Before matching	1.317	0.938	40.4	95.8	22.45***
	After matching	1.317	1.301	1.7		0.91
<i>Household income (reference = below 1 million won)</i>						
1 million to less than 2 million won	Before matching	0.336	0.285	11.1	87.7	6.15***
	After matching	0.336	0.330	1.4		0.73
2 million to less than 3 million won	Before matching	0.346	0.312	7.4	83.4	4.08***
	After matching	0.346	0.352	-1.2		-0.66
3 million to less than 4 million won	Before matching	0.145	0.164	-5.4	99.5	-3.00***
	After matching	0.145	0.145	0.0		0.01
more than 4 million won	Before matching	0.076	0.125	-16.4	99.1	-9.06***
	After matching	0.076	0.075	0.2		0.09
The participation in the meeting of friend from the same origins of nationalities	Before matching	0.685	0.480	42.4	93.4	23.53***
	After matching	0.685	0.673	2.5		1.57
The participation in local residents gathering	Before matching	0.196	0.147	13.0	90.7	7.20***
	After matching	0.196	0.191	1.2		0.63
The number of friends with same origin nationalities	Before matching	1.543	1.101	32.4	97.1	17.99***
	After matching	1.543	1.530	0.9		0.49
The number of friends with other ethnic backgrounds	Before matching	0.122	0.066	12.9	99.8	7.16***
	After matching	0.122	0.121	0.0		0.01
The number of Korean friends	Before matching	1.390	1.484	-6.5	69.3	-3.59***
	After matching	1.390	1.361	2.0		1.09
The relationship with a husband	Before matching	3.996	3.820	13.7	83.3	7.60***
	After matching	3.996	4.027	-2.4		-1.42
The relationship with mother-in-law	Before matching	3.203	2.817	22.0	93.0	12.18***
	After matching	3.203	3.230	-1.5		-0.91
Metro	Before matching	0.294	0.564	-56.8	96.9	-31.47***
	After matching	0.294	0.302	-1.8		-1.01

Table 11.5b: Result of t-test for balancing test of employment (continue)

Vietnamese	Before matching	0.230	0.107	33.3	85.0	18.56***
	After matching	0.230	0.249	-5.0		-2.37**
Filipinos	Before matching	0.178	0.071	33.0	89.4	18.40***
	After matching	0.178	0.167	3.5		1.66
Thais	Before matching	0.040	0.026	8.3	80.7	4.60***
	After matching	0.040	0.043	-1.6		-0.78
Cambodians	Before matching	0.108	0.037	27.6	86.6	15.42***
	After matching	0.108	0.098	3.7		1.71
Other South-East Asian countries	Before matching	0.016	0.010	4.7	86.6	2.61***
	After matching	0.016	0.017	-0.6		-0.31
Korean language proficiency	Before matching	12.828	14.894	-47.9	81.6	-26.51***
	After matching	12.829	12.449	8.8		5.02***

*** p < 0.01; ** p < 0.05

Table 11.5c: Result of t-test for balancing test of Korean language proficiency

Variables for Korean language skills	Matching	Average scores		% bias	% reduct bias	T-test
		Service-users	Non-service-users			
Age	Before matching	32.602	39.288	-64.6	95.4	-35.71***
	After matching	32.604	32.295	3.0		1.95
<i>Education (reference = no schooling)</i>						
elementary school	Before matching	0.080	0.080	-0.2	-226.2	-0.13
	After matching	0.080	0.078	0.8		0.43
middle school	Before matching	0.207	0.197	2.5	69.6	1.41
	After matching	0.207	0.204	0.8		0.42
high school	Before matching	0.403	0.426	-4.7	76.5	-2.63***
	After matching	0.403	0.408	-1.1		-0.61
college or undergraduate school	Before matching	0.280	0.258	4.9	98.1	2.72***
	After matching	0.280	0.280	0.1		0.05
post-graduate school	Before matching	0.012	0.023	-8.3	98.4	-4.59***
	After matching	0.012	0.012	-0.1		-0.09
Years since migration	Before matching	6.684	9.287	-39.7	95.7	-21.90***
	After matching	6.685	6.575	1.7		1.20
The number of children	Before matching	1.317	0.938	40.4	97.9	22.45***
	After matching	1.316	1.308	0.9		0.46
<i>Household income (reference = below 1 million won)</i>						
1 million to less than 2 million won	Before matching	0.336	0.285	11.1	84.9	6.15***
	After matching	0.336	0.329	1.7		0.90
2 million to less than 3 million won	Before matching	0.346	0.312	7.4	80.1	4.08***
	After matching	0.346	0.353	-1.5		-0.79
3 million to less than 4 million won	Before matching	0.145	0.164	-5.4	96.6	-3.00***
	After matching	0.145	0.144	0.2		0.10
more than 4 million won	Before matching	0.076	0.125	-16.4	98.3	-9.06***
	After matching	0.076	0.075	0.3		0.17
The participation in the meeting of friend from the same origins of nationalities	Before matching	0.685	0.480	42.4	95.4	23.53***
	After matching	0.685	0.675	2.0		1.12
The participation in local residents gathering	Before matching	0.196	0.147	13.0	97.8	7.20***
	After matching	0.196	0.195	0.3		0.15
The number of friends with same origin nationalities	Before matching	1.543	1.101	32.4	99.8	17.99***
	After matching	1.543	1.542	0.1		0.04
The number of friends with other ethnic backgrounds	Before matching	0.122	0.066	12.9	97.6	7.16***
	After matching	0.121	0.120	0.3		0.15
The number of Korean friends	Before matching	1.390	1.484	-6.5	66.9	-3.59***
	After matching	1.390	1.359	2.1		1.18
Metro	Before matching	0.294	0.564	-56.8	98.4	-31.47***
	After matching	0.294	0.298	-0.9		-0.54
Vietnamese	Before matching	0.230	0.107	33.3	87.3	18.56***
	After matching	0.230	0.246	-4.2		-2.00**
Filipinos	Before matching	0.178	0.071	33.0	93.1	18.40***
	After matching	0.178	0.170	2.3		1.08

Table 11.5c: Result of t-test for balancing test of Korean language proficiency (continue)

Thais	Before matching	0.040	0.026	8.3	77.9	4.60***
	After matching	0.040	0.044	-1.8		-0.89
Cambodians	Before matching	0.108	0.037	27.6	85.6	15.42***
	After matching	0.108	0.097	4.0		1.84
Other South-East Asian countries	Before matching	0.016	0.010	4.7	68.5	2.61***
	After matching	0.016	0.017	-1.5		-0.72
Employment	Before matching	0.454	0.525	-14.2	84.0	-7.87***
	After matching	0.454	0.444	2.2		1.19

*** p < 0.01; ** p < 0.05

Table 11.5d: Result of t-test for balancing test of life satisfaction

Variables for life satisfaction	Matching	Average scores		% bias	% reduct bias	T-test
		Service- users	Non- service- users			
Age	Before matching	32.602	39.288	-64.6	95.4	-35.71***
	After matching	32.603	32.294	3.0		1.95
<i>Education (reference = no schooling)</i>						
elementary school	Before matching	0.080	0.080	-0.2	-161.8	-0.13
	After matching	0.080	0.078	0.6		0.35
middle school	Before matching	0.207	0.197	2.5	84.9	1.41
	After matching	0.207	0.206	0.4		0.21
high school	Before matching	0.403	0.426	-4.7	74.3	-2.63***
	After matching	0.403	0.409	-1.2		-0.67
college or undergraduate school	Before matching	0.280	0.258	4.9	89.7	2.72***
	After matching	0.280	0.278	0.5		0.27
post-graduate school	Before matching	0.012	0.023	-8.3	98.8	-4.59***
	After matching	0.012	0.012	0.1		0.06
Years since migration	Before matching	6.684	9.287	-39.7	94.8	-21.90***
	After matching	6.685	6.549	2.1		1.46
The number of children	Before matching	1.317	0.938	40.4	95.7	22.45***
	After matching	1.317	1.300	1.7		0.93
<i>Household income (reference = below 1 million won)</i>						
1 million to less than 2 million won	Before matching	0.336	0.285	11.1	88.0	6.15***
	After matching	0.336	0.330	1.3		0.71
2 million to less than 3 million won	Before matching	0.346	0.312	7.4	83.3	4.08***
	After matching	0.346	0.352	-1.2		-0.66
3 million to less than 4 million won	Before matching	0.145	0.164	-5.4	99.7	-3.00***
	After matching	0.145	0.145	0.0		0.01
more than 4 million won	Before matching	0.076	0.125	-16.4	98.9	-9.06***
	After matching	0.076	0.075	0.2		0.11
The participation in the meeting of friend from the same origins of nationalities	Before matching	0.685	0.480	42.4	93.5	23.53***
	After matching	0.685	0.671	2.8		1.56
The participation in local residents gathering	Before matching	0.196	0.147	13.0	90.4	7.20***
	After matching	0.196	0.191	1.2		0.65
The number of friends with same origin nationalities	Before matching	1.543	1.101	32.4	97.3	17.99***
	After matching	1.543	1.531	0.9		0.47
The number of friends with other ethnic backgrounds	Before matching	0.122	0.066	12.9	99.8	7.16***
	After matching	0.122	0.122	0.0		0.01
The number of Korean friends	Before matching	1.390	1.484	-6.5	69.6	-3.59***
	After matching	1.390	1.362	2.0		1.08
The relationship with a husband	Before matching	3.996	3.820	13.7	82.8	7.60***
	After matching	3.996	4.027	-2.4		-1.47
The relationship with mother-in-law	Before matching	3.203	2.817	22.0	93.0	12.18***
	After matching	3.203	3.230	-1.5		-0.91
Metro	Before matching	0.294	0.564	-56.8	96.8	-31.47***
	After matching	0.294	0.302	-1.8		-1.03

Table 11.5d: Result of t-test for balancing test of life satisfaction (continue)

Vietnamese	Before matching	0.230	0.107	33.3	85.1	18.56***
	After matching	0.230	0.249	-4.9		-2.35**
Filipinos	Before matching	0.178	0.071	33.0	89.4	18.40***
	After matching	0.178	0.167	3.5		1.65
Thais	Before matching	0.040	0.026	8.3	80.8	4.60***
	After matching	0.040	0.043	-1.6		-0.77
Cambodians	Before matching	0.108	0.037	27.6	86.9	15.42***
	After matching	0.108	0.098	3.6		1.67
Other South-East Asian countries	Before matching	0.016	0.010	4.7	86.6	2.61***
	After matching	0.016	0.017	-0.6		-0.31
Employment	Before matching	0.454	0.525	-14.2	83.1	-7.87***
	After matching	0.455	0.443	2.4		1.32
Korean language proficiency	Before matching	12.828	14.894	-47.9	81.5	-26.51***
	After matching	12.829	12.447	8.9		5.05***

*** p < 0.01; ** p < 0.05

Table 11.6: The results of pseudo-R², and LR chi², and standardised mean bias tests

	Balancing test	Korean citizenship acquisition	Employment	Korean language proficiency	Life satisfaction
Before matching	pseudo-R ²	0.182	0.182	0.180	0.182
	LR chi ²	3,110.97***	3,110.97***	3,066.09***	3,110.98***
	Mean bias	21.2	21.5	20.4	21.3
NN matching (neighbour 5)	pseudo-R ²	0.003	0.003	0.001	0.003
	LR chi ²	51.37**	50.19***	19.47	47.16***
	Mean bias	1.8	1.7	1.5	1.6
Radius matching (caliper 0.1)	pseudo-R ²	0.003	0.003	0.001	0.003
	LR chi ²	49.09***	49.13**	18.04	49.09**
	Mean bias	1.9	1.9	1.4	1.9
Kernel matching (bandwidth 0.01)	pseudo-R ²	0.003	0.003	0.001	0.003
	LR chi ²	49.47**	49.41**	18.18	49.42**
	Mean bias	1.9	1.9	1.4	1.9
Kernel matching (bandwidth 0.05)	pseudo-R ²	0.003	0.003	0.001	0.003
	LR chi ²	48.96**	48.81**	18.65	48.96**
	Mean bias	2.0	2.0	1.5	2.0
Kernel matching (bandwidth 0.1)	pseudo-R ²	0.003	0.003	0.002	0.003
	LR chi ²	56.07***	55.83***	26.41	56.07***
	Mean bias	2.2	2.2	1.8	2.2

*** p < 0.01; ** p < 0.05

PART VI: *EMPIRICAL TESTING (II): ENHANCING EFFECTIVENESS IN MFSS*

Chapter 12: *Method for Empirical Testing of Improvement of Effectiveness on MFSS*

In Part V, this thesis estimated whether MFSS is effective and found ineffectiveness in the production of MFSS from the empirical testing. In order to iron out this ineffectiveness, Part VI attempts to answer the second research question of how MFSS delivery system can be effectively enhanced. To answer the question via empirical testing, this thesis focuses on possible factors improving immigrant integration thought of as the outcome of MFSS and its goal. As doing so, this chapter presents research methods including research design, data source, analytical issues, analytical strategies, operationalisation of variables, and issues of measurements of variables. The following pages begin with research design for empirical testing.

12.1. RESEARCH DESIGN

As seen in Chapter 4, from the perspective of goal-attainment effectiveness, the essential question to be asked is ‘how can MFSS delivery system be effectively attained in its goals regarding integration of immigrant wives?’. As such, this thesis focuses on possible factors accounting for immigrant wives’ integration considering characteristics and resources of service-users and service-providers as well as service-delivery methods at the same time, in order to find alternative ways in which MFSS delivery system can be enhanced for immigrant wives’ integration. Because such research approach about how effectiveness in MFSS service delivery system improves is empirically unstudied in the context of Korea, an exploratory study is conducted to give well-placed hints in effective MFSS delivery system. Therefore, this thesis reviews as many variables that have been commonly tested in existing literature on immigration and service-delivery system as possible.

Starting from the discussion, this section identifies how the research design is constructed to answer the main research question. In the nature of empirical research, most researchers attempt to embrace a dominant theory that helps empirical researchers to predict

clear cause-and-effect relationships (Hirschman, 1999). As discussed in section 5.1.3, this thesis tries to apply one forceful theory; open system approach in the logic model.

Based on the open system approach in the logic model, the cause of effectiveness in service-delivery is to maximise outputs regarding inputs, relying primarily on a simplified and systematic picture of the flow of inputs, throughputs, and outputs (Martin and Kettner (2010). In addition, the throughputs are a transformation from inputs to outputs; thereby, outputs are the performance outcomes that address the extent of effectiveness through inputs and throughputs (G. Sung, 1993). In fact, either inputs or throughputs are independent variables while outputs are dependent variables (Gates, 1980) in which effectiveness is improved by inputs and throughputs. Synthesised, open system approach in the logic model enables this study to explore causal relationships in MFSS delivery system.

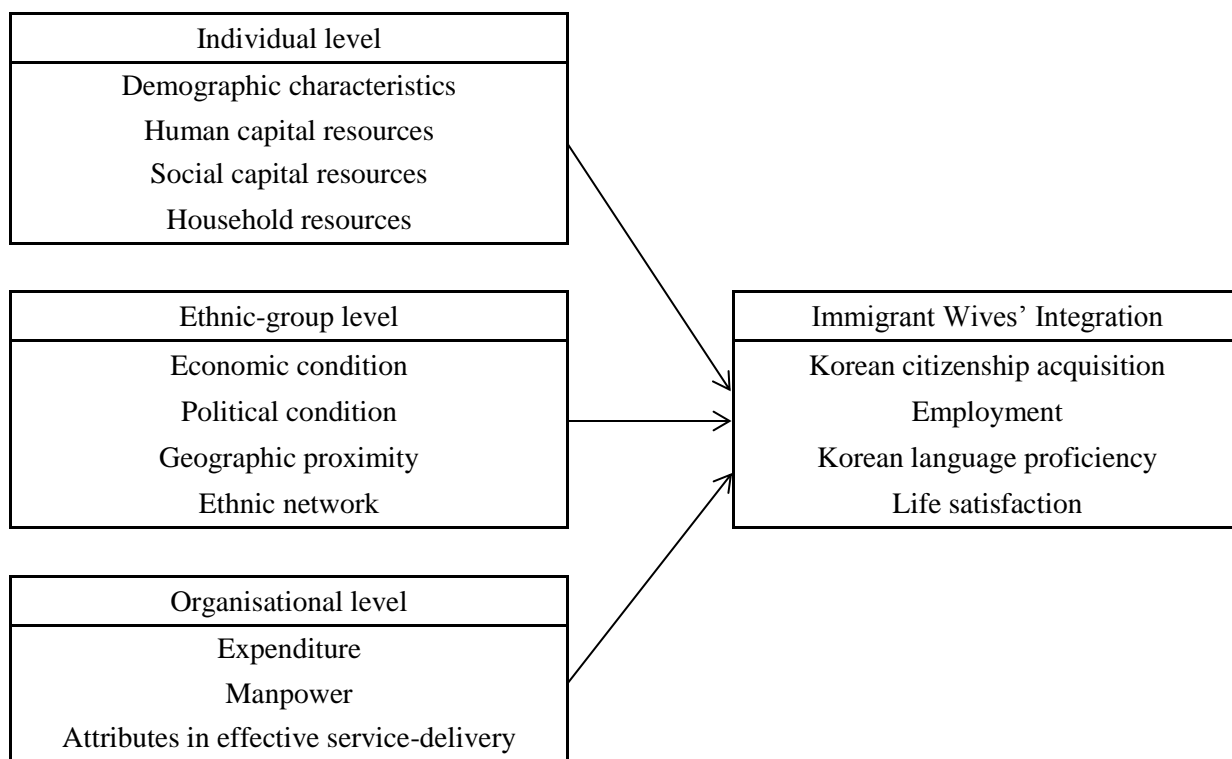
However, “for the measurements of important concepts” it needs elaborated theories (Hirschman, 1999, p.123). In addition, for the understanding of various “empirical predictions” (Hirschman, 1999, p.123), it needs to establish detailed hypotheses based on various theories and empirical studies (Rubin and Babbie, 1989). In doing so, indicators are developed in inputs, throughputs, and outputs for measurements based on theories and empirical studies derived from the two streams of immigration and human service scholarships. In fact, the indicators are expressed in various simple causal relationships, reflecting theoretical arguments and empirical research findings derived from the two streams of scholarships.

As discussed in Chapter 6, 7, 8, and 9, independent variables are grouped in individual (e.g. characteristics of demographic, human capital, social capital, and household production), ethnic group (e.g. political condition, economic conditions, geographic proximity, and ethnic networks), and organisation (e.g. expenditure, manpower, and attributes of effective service-delivery system), whereas dependent variables are classified in objective (e.g. citizenship, employment, destination-language proficiency) and subjective (e.g. life satisfaction) integration, as seen in Chapter 4. Underpinning the ideas of immigrant integration and effectiveness in service-delivery, the three sets of bivariate relationships are

framed as partial hypotheses: a) individual level factors; b) ethnic-group level factors; and c) organisational level factors have effects on objective and subjective integration.

After synthesis, the three sets of cause-and-effect relationships are considered to find ways in which MFSS delivery system can be enhanced (See Figure 12.1).

Figure 12.1: Research design to find a way in which MFSS delivery system are effectively delivered



12.2. SAMPLING AND DATA SOURCE

12.2.1. Sampling

To find ways in which MFSS delivery system can be effectively enhanced based on cause-and-effect relationships between possible factors at the individual, ethnic-group, and organisational levels and each domain of integration, this thesis used the 2012 NSMF as a main data source. In the data source, a sample of 5,685 is selected among service-users who use MFSCs at least once (N = 6,027) because of data limitations. First, because there are non-responses in some variables, such as relationships with a husband, mother-in-law, and

relatives, the non-responses are excluded in the analysis. Second, this study constrained samples of participants who were nested in 10 origins of nationalities²⁹ and lived in 16 megalopolises in order to conduct cross-classified multilevel data analysis. The NSMF data represent 10 origins of nationalities including Korean Chinese³⁰, Chinese, Japanese, Mongolian, Vietnamese, Filipinos, Thais, Cambodians, Uzbekistanis, and Russians, but other ethnic groups make it difficult to draw clear lines. For example, immigrant wives from Hong Kong and Taiwan have been categorised into one group, whereas immigrant wives from the United States and Canada have categorised into another group. In addition, the 2012 NSMF announced only 16 area codes regarding 16 administration areas where immigrant wives are settled and MFSCs are arranged. In this reason, service-users and MFSCs are aggregated in 16 administration areas. Therefore, this study selected 5,685 cases that included 10 origins of nationalities and that resided in 16 megalopolises, without non-responses. Although such sample selection may lead this thesis to meet bias (Berk, 1983), in estimating predictors influencing immigrant wives' integration among service-users for effective MFSS delivery system, it may be appropriate to give hints to explore effective MFSS delivery system which is new or unstudied areas in the context of Korea, as an exploratory study (Rubin and Babbie, 1989).

12.2.2. Data sources in the analysis

Although the main data source comes from the 2012 NSMF (Jeon et al., 2013), which was used in an analysis in Part V, varied data sources have been attached and combined.

First, the main data this study uses for an analysis is derived from the 2012 NSMF. The data set surveyed a broad area of immigrant wives' conditions such as demographic characteristics, social life, economic activities, welfare needs, utilisation of MFSCs, and experiences of discrimination as well as household resources in Korea. Hence, independent

²⁹Hierarchical liner model needs at least 10 groups at the group level or level-2 (Snijders and Bosker, 2012).

³⁰Since Japan's colonial period or the Second World War, Koreans have scattered to China. A number of Korean Chinese have still stayed in China (Abelmann and Kim, 2005).

variables at the individual level and dependent variables among immigrant wives are constructed from the main data set.

Second, other data sources at the ethnic group and organisational levels are attached based on the same set. Ethnic-group level variables are attached in various other data sources examined from the year 2012 to match the investigation period of the 2012 NSMF. Other data sources at the ethnic-group level are detailed in the part of measurement of variables. The organisational level variables mainly come from the Annual Report for Performance Outcomes of Multicultural Family Support Centers (ARPO) launched by the Central Office for Multicultural Family Support Centers in the year 2012 (Korean Institute for Healthy Family, 2013) in considering the sample collection period of the data from NSMF. As a total survey, ARPO assesses 200 MFSCs established based on 200 local authorities in Korea. The report provided detailed information via the evaluation of MFSCs including the annual number of users, level of service satisfaction, outcomes of sub-programs, comparative performance outcomes among 200 MFSCs, and the details of sub-programs that MFSCs perform. Accompanied with ARPO, Statistics on Foreign Residents by Local Governments (SFRLG) in 2013 (Ministry of Security and Public Administration, 2013) is used to calculate the number of immigrant wives along with 16 megalopolises. The report investigates foreign residents with immigration backgrounds based on 16 administration districts (i.e. megalopolises) and over 200 local authorities in Korea between May and July in 2012. The number of immigrant wives in each administration district in SFRLG is combined with ARPO according to area codes (i.e. 16 administration area codes) in the two data sources. Finally, the measured performance outcomes of MFSCs from ARPO and SFRLG in 2013 are aggregated according to 16 megalopolises. After that, organisational level variables along with the 16 areas are formulated.

Third, NSMF and ARPO data sets are combined for examining causal relationships between determinants at the individual, ethnic-group, and organisational levels and each domain of immigrant wives' integration at the same time. In combining the two data sets between NSMF and ARPO, however, it is important to keep in mind matching between service-users and MFSCs. In this study, it is strongly inferred that service-users only utilise

MFSCs which are arranged in a place where they live. The hypothesis is derived from two perspectives: demand-driven and supply-driven perspectives. On the one hand, supply-driven perspective refers to individual immigrant conditions with reference to policy-making. According to the Support for Multicultural Family Act of 2012, local policy for immigrant wives has been developed to respond to their conditions within jurisdiction. In part, as local authorities reflect the conditions of their immigrant wives (e.g. population and needs) in the policy-making process, sub-programs in MFSS are likely to become specialised and MFSS delivery methods to be better suited for the immigrant wives. By this logic, immigrant wives may prefer to use MFSCs which are arranged in the local community where they live in. On the other hand, demand-driven perspective is related to the structural conditions of MFSCs, especially physical accessibility. One of the substantial problems in the utilisation of the service is geographic barriers (Gates, 1980; Choi and Nam, 2001; Y.J. Kim, 2010). Thus, the distance from MFSCs to the residential areas where immigrant wives live may affect the utilisation of MFSCs. This assumes that immigrant wives rarely use MFSCs which are arranged in the outer circles of the residences of immigrant wives, due to limitations of travel time and its cost. By applying this to demand-driven and supply-driven perspectives, it can be concluded that mostly immigrant wives access a MFSC in proximity to where they live.

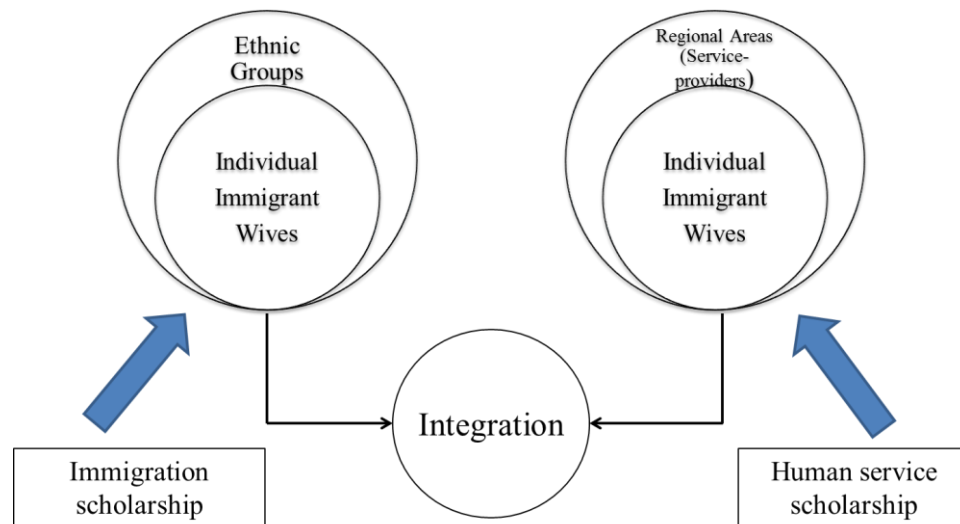
Taking this assumption, the two data sets are merged. In effect, individual immigrant wives who use MFSCs at least once are nested in ethnic groups and 16 megalopolises, respectively. At this point, each id number of 10 ethnic groups in the 2012 NSMF is matched with data at the ethnic-group level. In addition, because both data sets of the 2012 NSMF and ARPO in 2012 provide each areal number of the 16 megalopolises, the two data sets are merged according to the areal numbers.

12.3. ISSUES OF ANALYSIS

The data structure in this empirical study is cross-classified. Thus, the units of immigrant wives at the individual level are cross-classified by the two different units of ethnic-group level and the regional areas where service-providers are arranged, at the same time. In addition, detailed hypotheses are grouped along with cross-classified data structures.

In the first multi-level data structure where immigrant wives are nested in ethnic groups, elaborated empirical predictions are derived from immigration scholarships. In another multi-level data structure where immigrant wives are nested in administration areas, elaborate hypotheses are formulated from human service scholarship. In this sense, cross-classified multi-level analysis is carried out in this chapter (See Figure 12.2).

Figure 12.2: Cross-classified data structure in this empirical study



Explanations of why this research uses cross-classified multi-level analysis originate from the limitations of the classical methods of multivariate analysis. It is generally known that individuals are included in varied groups and environments. Some examples suffice to show that students are nested in schools, people are nested in communities, and employees are nested in companies. In this situation, individuals within the same groups or clusters could share similar characteristics to each other rather than individuals in different groups or clusters. This indicates that individuals within the same groups or clusters are under the influence of groups or clusters, while there remain differences between groups or clusters. In analysing the hierarchical structure of data or multilevel data, however, there appears to be a fundamental issue regarding “unit of analysis” (Raudenbush and Bryk, 2002, p. 5).

In the classical analysis method, researchers rely primarily on two approaches for multilevel data: disaggregation and aggregation approaches (Raudenbush and Bryk, 2002).

On the one hand, the disaggregation approach is initiated by the fact that all group level data are disaggregated. Here only the individual level data can be analysed, accompanied by neglecting group memberships. In using OLS analysis, however, problems often arise in the disaggregation approach. The approach is exemplified in the study on the effect of schooling years on earning, by using the OLS technique that predicts a causal relationship (Field, 2005). One earning model is designed to show how the schooling years of individual students affect their earnings as individual employees. The OLS equation is expressed as: $Earning = b_0 + b_1 * schooling\ years + error$. Although the OLS statistical technique assumes that any observed data at the individual level are independent, the independence of observations fails to meet the assumption that residuals are independent (Field, 2005). As noted earlier, employees within the same companies would show similar characteristics to each other as employees are nested in companies. In fact, the multilevel structure of data does not conform to the independence of observations in the application of the disaggregation approach. The other problem with the disaggregation approach is large individual samples. When there is a large sample in the estimation of OLS, standard errors of estimate tend to be underestimated, which may cause inaccurate hypothesis testing (Field, 2005).

The aggregation approach, on the other hand, is based on ignoring individual level data. In opposition to the disaggregation approach, it only analyses conduct in group level data. The aforementioned example that expects earnings from individual schooling time is transformed by OLS formula through an aggregation approach: $Mean\ of\ earning\ in\ companies\ (grand\ mean) = b_0 + b_1 * mean\ of\ schooling\ years\ of\ employees\ in\ a\ company\ (group\ mean) + error$. The equation on the aggregation approach is generally discredited as a Level-2 formula in multilevel data analysis (Raudenbush and Bryk, 2002). As the total sample number is based on a company, not an individual employee, the size of sample is much smaller. The small sample size makes it difficult to estimate the coefficient of schooling years in a company accurately (Raudenbush and Bryk, 2002). In addition, as neglecting individual level data, variations at the individual level cannot be analysed as predictors; thereby, only group level variations in the total variation can be interpreted (Raudenbush and Bryk, 2002).

The problems with classical methods including disaggregation and aggregation are a lack of clear direction for any analysis of the nested structured of data. In order to find an alternative solution associated with capturing the problems from the disaggregation and aggregation approaches, considerable scholarly efforts have developed a new statistical method. Thus, Hierarchical Linear Modeling (HLM) is devised, which is an advance over the classical statistical approaches. Hong (2012) describes that HLM is able to handle the aforementioned problems in the disaggregation and aggregation approaches because of its inherent features. First, independence of observations at the individual level is not necessary. Instead, independence of observations at the group level is mandatory. As such, hypothesis testing then becomes appropriate. Second, large sample size at the group level is not demanded. HLM technique estimates groups' relations, so there appear various patterns of the relations within a small number of samples at the group level, which coincides with the information of a large number of samples at the group level. In this manner, a small number of group level sample sizes in HLM are not confounded in hypothesis testing. Third, HLM technique is able to divide variance components into individual and group levels. This indicates that the proportions in the total variances of a dependent variable are calculated into individual level and group level. Thus, HLM is able to pursue comparisons of explainable variances between the individual level and group level; moreover, the technique of HLM enables factors at the individual and group levels to be analysed in the combined sole model, without separating estimations about the two separated models.

In the light above, HLM technique is attractive for analysing causes-and-effects relationships to find a way in which MFSS delivery system can be enhanced. This study considers that immigrant wives are nested in aggregated composites of ethnic groups or in arrays of 16 megalopolises where MFSCs are arranged. Thus, units of immigrant wives at the individual level are cross-classified by units of ethnic-group level and the 16 megalopolises where MFSCs are arranged. Because immigrant wives, ethnic groups, and MFSCs are not only important elements of MFSS delivery system in the local community but also possible factors influencing the extent of effectiveness in MFSS, the characteristics of the three units are investigated at the same time in a single model.

To estimate the cross-classified data structure, HLM technique is appropriate (Raudenbush and Bryk, 2002). In fact, HLM technique enables this empirical study to take various advantages. One is that it estimates the differences of ethnic groups in immigrant wives' integration controlling over the effect of MFSCs in the 16 megalopolises; moreover, it also estimates the differences of MFSCs in the 16 megalopolises in immigrant wives' integration controlling the effect of ethnic groups. Another is that variance components between immigrant wives, ethnic groups, and the 16 megalopolises where MFSCs are arranged are estimated to compare the relative importance of units. Hence, in this empirical study, HLM technique is used as an appropriate method to analyse cross-classified data structure.

12.4. ANALYTICAL STRATEGIES

This section introduces analytical strategies to answer the question of how MFSS can be effectively improved. To answer the question, cause-and-effect relationships between the levels of immigrant wives' integration and determinants at the individual, ethnic-group, and organisational levels are investigated. Because of cross-classified data structure in this empirical analysis, cross-classified HLM technique is used, with HLM program version 7.

This thesis will test five HLM models, along with each domain of integration (i.e. citizenship acquisition, employment, Korean language skills, and life satisfaction). Model 1 is unconditional model without any predictors at the individual, ethnic-group, and organisational levels. Model 2 includes individual level variables. Model 3 adds ethnic-group level variables controlling over individual level variables. Model 4 includes organisational level variables without ethnic-group level variables, as controlled over individual level variables. Model 5 (i.e. the full model) incorporates all possible predictors at individual ethnic-group, and organisational levels.

In the process of analysis, unconditional models are estimated first. Concerning latter, conditional models (i.e. Model 2, 3, 4, and 5) are estimated when variance of ethnic groups and the 16 areas where MFSCs are arranged in unconditional model is statistically significant. Unconditional model illustrates how much variance in the outcomes of individual

immigrant wives' integration lies in ethnic groups and the 16 areas where MFSCs are arranged, with significant tests. In fact, it is to test the variance of the ethnic groups, the 16 areas, and ethnic groups-by-16 areas. If the variance is statistically significant, the outcomes describing immigrant wives' integration are randomly varied between ethnic groups and between metropolitan areas as well as between interactions of ethnic groups-by-metropolitan areas. In this thesis, however, the random effect of interaction of ethnic groups-by-metropolitan areas is ignored. This is because the sizes of the interaction accompanied by the number of ethnic groups are not enough among the 10 ethnic groups (See Appendix 4). Such small size makes it difficult to separate variance reliably. Therefore, this limitation leads this chapter to focus on parsimony³¹ with neglecting the random effect.

Before entering into HLM analysis, this thesis conducts correlation analyses to predict relationships between dependent variables and independent variables at the individual, ethnic-group, and organisational levels. The relations among independent variables at the individual, ethnic-group, and organisational levels have a strong correlation (See Appendix 5). For example, age and age square were strongly correlated ($r = 0.986$, $p < 0.01$); the correlation between geographical distance and size of ethnic groups was strong ($r = -0.770$, $p < 0.01$); and financial resources and number of immigrant wives per MFSC had a strong correlation ($r = 0.703$, $p < 0.01$). The results imply that there appears collinearity. As such, because in HLM analysis, it needs to moderate the collinearity, all independent variables are centred by each variable's grand mean (Raudenbush and Bryk, 2002).

As seen earlier in Chapter 6 and 7, because there appear to be different predictors at the individual level on each domain of immigrant integration, the different predictors at the individual level are considered, along with each domain of immigrant integration.

In addition, because the scales of measurement of citizenship, employment, Korean language, and life satisfaction are different, techniques of analysis vary along with the scales. Both citizenship and employment are measured as a binary variable. For example, "1" means

³¹In the principle of parsimony, it is assumed that some social events are interpreted in a simple term in which assumptions can be generalized and observation is easily possible as a simple phenomenon (Epstein, 1984).

citizenship acquisition and being employed while “0” means no citizenship acquisition and being unemployed. To estimate the binary variables, logistic multi-level analysis is performed. Meanwhile, Korean language proficiency is measured with a Likert scales ranging from 4 to 20, and life satisfaction is measured between 1 and 5 with a Likert scale. Thus, these variables of Korean language proficiency and life satisfaction are measured as an ordinal variable. It is believed that the categories in the Likert scale include a hidden latent variable (Powers and Xie, 2000). When the latent variable is measured over a threshold, the value of the category is changed. In this sense, the categories in the Likert scale are partially measured, but the categories are regarded as a potential continuous variable (Powers and Xie, 2000). To estimate ordinal data entailing potential continuous variables, the cumulative ordinal model is used. In fact, to estimate the ordinal variables, ordered logit multi-level analysis is conducted.

12.4.1. Unconditional model

The unconditional model excludes all possible predictors at the individual, ethnic-group, and organisational levels, so as to estimate whether variance of citizenship, employment, Korean language ability, and life satisfaction is different between ethnic groups and across megalopolises where MFSCs are arranged. As noted earlier, cross-classified logistic multi-level analysis is performed for citizenship acquisition and employment, and cross-classified ordered logit multi-level analysis is performed for Korean language proficiency and life satisfaction. Hence, this thesis provides different equations, along with analytical methods.

12.4.1.1. Unconditional model for citizenship and employment

The unconditional model for citizenship and employment is followed as:

As a level-1 model, formulation is

$$\eta_{ijk} = \pi_{0jk},$$

where

η_{ijk} is the expected log odds of citizenship acquisition and being employed; and π_{0jk} is the expected log odds of becoming integrated, comprised of citizenship and employment in cell jk , that is, immigrant wives who belong in ethnic groups j and live in megalopolises k .

The indices i, j , and k illustrate immigrant wives, ethnic groups, and megalopolises, where there are

$i = 1, \dots, n_{jk}$ immigrant wives within cell jk ;

$j = 1, \dots, J = 10$ ethnic groups; and

$k = 1, \dots, K = 16$ megalopolises.

Level-2 or Between-Cell indicates that variation between cells accounts for effects of ethnic group and megalopolises:

$$\pi_{0jk} = \theta_0 + b_{00j} + c_{00k},$$

$$b_{00j} \sim N(0, \tau_{b00}),$$

$$c_{00k} \sim N(0, \tau_{c00}),$$

where

θ_0 is the some possibility of citizenship acquisition and being employed of all immigrant wives;

b_{00j} is the random main effect of ethnic group j , which displays the contribution of ethnic group j averaged over all megalopolises, and normal distribution is assumed with mean 0 and variance τ_{b00} ;

c_{00k} is the random main effect of megalopolises k , which means the contribution of megalopolises k averaged over all ethnic groups, and normal distribution is assumed with mean 0 and variance τ_{c00} .

When Level 1 model and Level 2 model are combined, the equation is

$$\eta_{ijk} = \theta_0 + b_{00j} + c_{00k}.$$

From the combined equation, three intra-unit correlations are estimated. Thus, variance components of citizenship and employment enable this thesis to estimate intra-unit correlation coefficients of individual immigrant wives, ethnic group, and megalopolis, respectively. Because a logistic regression model is not possible to estimate variance of individuals, the fixed number which is “3.29” is used as the variance of the individual (Snijders and Bosker, 2012, pp. 224-227). By considering the fixed number, intra ethnic group, intra megalopolis, and intra ethnic group-by-megalopolis correlations were calculated.

The intra-ethnic-group correlation lies the correlation between outcomes of two immigrant wives who settle in same megalopolis while they belong to different ethnic groups.

The formula is

$$\hat{\tau}_{b00} / \hat{\tau}_{b00} + \hat{\tau}_{c00} + 3.29.$$

Similarly, the intra-megalopolis correlation lies the correlation between outcomes of two immigrant wives who belong to the same ethnic group while they live in different megalopolises.

The formula is

$$\hat{\tau}_{c00} / \hat{\tau}_{b00} + \hat{\tau}_{c00} + 3.29.$$

The final intra-ethnic group-megalopolis correlation lies the correlation between outcomes of two immigrant wives who belong to the same ethnic group and settle in same megalopolis.

The formula is

$$\hat{\tau}_{b00} + \hat{\tau}_{c00} / \hat{\tau}_{b00} + \hat{\tau}_{c00} + 3.29.$$

12.4.1.2. Unconditional model for Korean language proficiency and life satisfaction

Before entering in unconditional model for Korean language proficiency and life satisfaction on cross-classified ordered logit multi-level analysis, this thesis briefly explains ordered logit analysis. This thesis follows Raudenbush and Bryk (2002) as well as Bauer and Sterba (2011). The ordered categories are denoted as $m = 1, 2, \dots, M$. Immigrant wives' responses for Korean language proficiency and life satisfaction are R . The probability of responses, R , or categories, m , is denoted as

$$\varphi_1 = \text{Prob} (R = 1),$$

$$\varphi_2 = \text{Prob} (R = 2),$$

⋮

$$\varphi_m = \text{Prob} (R = m).$$

The probabilities are transformed in cumulative probabilities “to develop a single regression equation that captures the ordered nature of the data” (Raudenbush and Bryk, 2002, p. 319).

$$\varphi_m^* = \text{Prob} (R \leq m) = \varphi_1 + \varphi_2 + \dots + \varphi_m.$$

In the cumulative equation, M is omitted because its score would be “1”, which is denoted as $M-1$ (Bauer and Sterba, 2011). The cumulative probabilities are similar to logistic regression equation

$$\eta_m = \log \left(\frac{\varphi_m^*}{1 - \varphi_m^*} \right) = \log \left(\frac{\text{Prob} (R \leq m)}{\text{Prob} (R > m)} \right)$$

for $m = 1, 2, \dots, M-1$. Thus, the simple logistic regression equation is

$$\eta_{mi} = \theta_m + \beta x_i.$$

As the equation called proportional odds model, θ_m is intercept for a “threshold” indicating each category, m . And each category’s common slope is β (Raudenbush and Bryk, 2002, p. 319). The expected log-odds of each threshold are compared. In this situation, “expected differences in log-odds between thresholds differing on X do not depend on a particular category” (Raudenbush and Bryk, 2002, p. 320). In fact, it is assumed that “ X affects the odds ratio in the same way for every category, m ” (Raudenbush and Bryk, 2002, p. 320). Under the assumption, X is interpreted as predictors of cumulative probabilities (Bauer and Sterba, 2011). Based on the logic of ordered logistic analysis, unconditional model for Korean language proficiency and life satisfaction in terms of cross-classified ordered logit multi-level model is followed as:

The level-1 formulation is

$$\eta_{mijk} = \pi_{0jk} + \sum_{m=2}^{M-1} D_{mijk} \delta_m,$$

where

η_{mijk} is the expected cumulative log-odds of Korean language proficiency and life satisfaction; and π_{0jk} is the intercept or expected cumulative log-odds of Korean language proficiency and life satisfaction in cell jk , that is, immigrant wives who belong in ethnic groups j and live in megalopolises k . The indices $m, i, j,$ and k illustrate ordered categories, immigrant wives, ethnic groups, and megalopolises, where there are $m = 1, \dots, M$ ordered categories of Korean language proficiency ($M=16$) and life satisfaction ($M = 5$); $i = 1, \dots, n_{jk}$ immigrant wives within cell jk ; $j = 1, \dots, J = 10$ ethnic groups; and $k = 1, \dots, K = 16$ megalopolises. D_{mijk} is a dummy variable indicating whether expected cumulative log-odds belongs to a certain category or lower category to one of the higher categories. Hence, the formulation is summarized as:

$$\eta_{1ijk} = \pi_{0jk},$$

$$\eta_{mijk} = \pi_{0jk} + \sum_{m=2}^{M-1} \delta_{mjk},$$

In the equation, $M = 16$ for Korean language proficiency and $M = 5$ for life satisfaction.

Level-2 or Between-Cell indicates that variation between cells accounts for effects of ethnic group and megalopolises:

$$\pi_{0jk} = \theta_0 + b_{00j} + c_{00k}, \quad b_{00j} \sim N(0, \tau_{b00}), \quad c_{00k} \sim N(0, \tau_{c00}),$$

$$\delta_{mjk} = \delta_m,$$

where

θ_0 is the model intercept, the expected cumulative probabilities of Korean language proficiency and life satisfaction of all immigrant wives;

b_{00j} is the random main effect of ethnic group j , which displays the contribution of ethnic group j averaged over all megalopolises, and normal distribution is assumed with mean 0 and variance τ_{b00} ;

c_{00k} is the random main effect of megalopolises k , which means the contribution of megalopolises k averaged over all ethnic groups, and normal distribution is assumed with mean 0 and variance τ_{c00} ;

δ_m is the difference necessary to adjust from a certain probability function or one probability function in lower categories, to one probability function in higher categories. $m = 2, 3, \dots, 15$ for Korean language proficiency and $m = 2, 3, 4$ for life satisfaction.

The combined model is

$$\eta_{mijk} = \theta_0 + b_{00j} + c_{00k} + \sum_{m=2}^{M-1} D_{mijk} \delta_m.$$

From the combined equation, three intra-unit correlations are estimated. Thus, variance components of Korean language proficiency and life satisfaction enable this thesis to estimate intra-unit correlation coefficients of individual immigrant wives, ethnic group, and megalopolis, respectively. Because cumulative probability on ordered logit analysis leads to logistic regression analysis (Bauer and Sterba, 2011), this thesis uses a way in which the variance of individuals is fixed as 3.29 used in logistic multi-level analysis (Snijders and Bosker, 2012, pp. 224-227). With the fixed number, the calculation of intra ethnic group, intra megalopolis, and intra ethnic group-by-megalopolis correlations on cross-classified ordered logic multi-level analysis are equal to a way of cross-classified logistic multi-level analysis for citizenship and employment in this thesis.

Next, conditional model is developed considering each domain of integration such as citizenship, employment, Korean language ability, and life satisfaction.

12.4.2. Conditional model

A different set of possible factors are included in conditional models, along with the domain of citizenship, employment, Korean language proficiency, and life satisfaction. This is because some variables are itself one domain of immigrant integration or possible factors influencing immigrant integration. In addition, there are different predictors among citizenship, employment, Korean language proficiency, and life satisfaction, when this thesis reviewed previous studies discussed in Chapter 6, 7, 8, and 9. Such differences are illustrated in conditional models, along with the domain of immigrant wives' integration.

12.4.2.1. Conditional model for citizenship acquisition and employment

When individual level determinants on citizenship acquisition and employment are included at the level-1 model, the equation is

$$\eta_{ijk} = \pi_{0jk} + \pi_{ijk}\alpha_{ijk}, \quad \text{for } i = 1,2, \dots, 16 \text{ or } i = 1,2, \dots, 18,$$

where η_{ijk} is the expected log odds of citizenship acquisition and being employed. π_{0jk} is the intercept and π_{ijk} includes predictors' coefficients on logistic regression from the relationships between η_{ijk} and α_{ijk} .

Here α_{ijk} represents included predictors at the individual level. All individual level predictors are centred in grand-mean scores, and the predictors at the individual level are differently included along with the domain of citizenship and employment. For example, to estimate a chance of Korean citizenship acquisition, 16 predictors (e.g. age, age square, education, employment, household income, friend with same origin nationalities, friend with other ethnic backgrounds, Korean friend, participation in the meeting of same ethnic friends, participation in the local residents, use of welfare centres, use of community centres, years since migration, the number of children, Korean language skills, and relationship with a husband) are included. On employment, 18 predictors (e.g. age, age square, years since migration, education, labour market experience, Korean language skills, relationship with a husband, relationship with mother-in-law, friend with same origin nationalities, friend with other ethnic backgrounds, Korean friend, participation in the meeting of same ethnic friends, participation in the local residents, use of welfare centres, use of community centres, the number of children under 6 years old, the number of children over 6 years old, and household income) are involved.

Predictors in terms of ethnic group and MFSC are involved in the level-2 model or between cell-model. The formula is

$$\pi_{0jk} = \theta_0 + \beta_p x_j + \gamma_q w_k + b_{00j} + c_{00k}, \quad \text{for } p = 1,2,3,4 \text{ and for } q = 1,2,3$$

with

$$\pi_{ijk} = \theta_i, \quad \text{for } i = 1,2, \dots, 16 \text{ or } i = 1,2, \dots, 18,$$

where θ_0 is the intercept that is the same as π_{0jk} . In this study, all individual level predictors explaining slopes are fixed. β_p is the fixed effect of x_j including economic condition, political condition, geographic proximity, and ethnic networks at the ethnic-group level, indicating that all ethnic groups are constant between immigrant wives. γ_q is the fixed effect of w_k including expenditure, manpower, and the attributes of service-delivery at the organisation-level, indicating that all megalopolises in terms of MFSCs are constant between immigrant wives. b_{00j} and c_{00k} is the random effect of ethnic group and megalopolis where MFSCs are arranged, respectively, in π_{0jk} after accounting for x_j and w_k . Because of the small sizes of ethnic groups and administration areas, taken individual level variable coefficients are fixed. In addition, from the small sizes, it is assumed that the effect of the predictors of ethnic groups is not different between megalopolises, and similarly, the effect of predictors of megalopolises is not different between ethnic groups. These procedures enable this thesis to meet parsimony (Raudenbush and Bryk, 2002). Alongside with the assumptions, all predictors in the level-2 model are centred in grand-mean scores.

When level-1 and level-2 models are mixed, the equation of the full combined model is

$$\eta_{ijk} = \theta_0 + \theta_i \alpha_{ijk} + \beta_p x_j + \gamma_q w_k + b_{00j} + c_{00k},$$

for $i = 1, 2, \dots, 16$ or $i = 1, 2, \dots, 18$, for $p = 1, 2, 3, 4$, and for $q = 1, 2, 3$.

Here η_{ijk} is the expected log odds of being integrated in Korea among immigrant wives. θ_0 is the intercept in the model and θ_i is coefficients of individual level predictors, α_{ijk} . β_p is the coefficients of ethnic-group level predictors, x_j , whereas γ_q is the coefficients of organisational level predictors based on megalopolis, w_k . After accounting for x_j and w_k , b_{00j} and c_{00k} is the random effects of ethnic group and megalopolis, respectively on η_{ijk} . In the next section, this thesis describes conditional models for Korean language proficiency and life satisfaction.

12.4.2.2. Conditional model for Korean language proficiency and life satisfaction

The level-1 model is denoted as

$$\eta_{mijk} = \pi_{0jk} + \pi_{ijk}\alpha_{ijk} + \sum_{m=2}^{M-1} D_{mijk}\delta_m,$$

where η_{ijk} is the expected cumulative log-odds of Korean language proficiency and life satisfaction. π_{0jk} is the intercept. D_{mijk} is a dummy variable indicating whether expected cumulative log-odds belongs to a certain category or lower category to one of the higher categories. For Korean language proficiency $M = 16$ and for life satisfaction $M = 5$. δ_m is the difference necessary to adjust from a certain probability function or one probability function in lower categories, to one probability function in higher categories. π_{ijk} is coefficients on α_{ijk} which are explanatory variables at the individual level. All explanatory variables at the individual level are centred in grand-mean scores. As noted earlier, there are different explanatory variables between Korean language proficiency and life satisfaction. Hence, the predictors at the individual level are differently included along with the domain of Korean language proficiency and life satisfaction. For Korean language proficiency, α_{ijk} includes 14 explanatory variables (e.g. years since migration, friend with same origin nationalities, friend with other ethnic backgrounds, Korean friend, participation in the meeting of same ethnic friends, participation in the local residents, use of welfare centres, use of community centres, age, education, employment, the number of children under 6 years old, the number of children over 6 years old, and household income). For life satisfaction, α_{ijk} involves 19 explanatory variables (e.g. age, age squared, education, years since migration, Korean language proficiency, education, the number of children under 6 years old, the number of children over 6 years old, relationship with a husband, relationship with mother-in-law, relationship with children, relationship with husband's relatives, friend with same origin nationalities, friend with other ethnic backgrounds, Korean friend, participation in the meeting of same ethnic friends, participation in the local residents, use of welfare centres, and use of community centres).

For the level-2 or between cell-model, explanatory variables regarding ethnic group and MFSC are included. The equation is

$$\pi_{0jk} = \theta_0 + \beta_p x_j + \gamma_q w_k + b_{00j} + c_{00k}, \quad \text{for } p = 1,2,3,4 \text{ and for } q = 1,2,3$$

with

$$\pi_{ijk} = \theta_i, \quad \text{for } i = 1,2, \dots, 14 \text{ or } i = 1,2, \dots, 19,$$

where θ_0 is the intercept that is the same as π_{0jk} . All individual level variables for Korean language proficiency or life satisfaction explaining slopes are fixed. β_p is the fixed effect of x_j including economic condition, political condition, geographic proximity, and ethnic networks at the ethnic-group level, indicating that all ethnic groups are constant between immigrant wives. γ_q is the fixed effect of w_k including expenditure, manpower, and the attributes of service-delivery at the organisation-level, indicating that all megalopolises in terms of MFSCs are constant between immigrant wives. b_{00j} and c_{00k} is the random effect of ethnic group and megalopolis where MFSCs are arranged, respectively, in π_{0jk} after accounting for x_j and w_k . As seen in the conditional model in citizenship and employment, this thesis attempts to meet the principle of parsimony. As doing so, it is inferred that the effect of the predictors of ethnic groups is not different between megalopolises, and similarly, the effect of predictors of megalopolises is not different between ethnic groups. In addition, all explanatory variables in the level-2 model are centred in grand-mean scores.

Full combined model is

$$\eta_{ijk} = \theta_0 + \theta_i \alpha_{ijk} + \beta_p x_j + \gamma_q w_k + \sum_{m=2}^{M-1} D_{mijk} \delta_m + b_{00j} + c_{00k},$$

for $i = 1,2, \dots, 14$ or $i = 1,2, \dots, 19$, for $p = 1,2,3,4$, for $q = 1,2,3$,

and for $M = 16$ or $M = 5$.

Here η_{ijk} is the expected cumulative log-odds of Korean language proficiency and life satisfaction. θ_0 is the intercept in the model and θ_i is coefficients of individual level explanatory variables, α_{ijk} . β_p is the coefficients of ethnic-group level explanatory variables, x_j , whereas γ_q is the coefficients of organisational level explanatory variables based on megalopolis, w_k . After accounting for x_j and w_k , b_{00j} and c_{00k} is the random effects of ethnic group and megalopolis, respectively on η_{ijk} . D_{miijk} is a dummy variable indicating whether expected cumulative log-odds belongs to a certain category or lower category to one of the higher categories. δ_m is the difference necessary to adjust from a certain probability function or one probability function in lower categories, to one probability function in higher categories.

Having described analytical strategies for cross-classified structure data, in finding a way in which MFSS delivery system can be improved effectively, the following pages will operationalise variables used for analysis.

12.5. OPERATIONALISATION OF VARIABLES

For operationalisation of variables, variables are categorised into (1) dependent variables comprised of citizenship, employment, Korean language proficiency, and life satisfaction and (2) independent variables at the individual, ethnic-group, and organisational levels.

12.5.1. Dependent variables

Immigrant wives' integration is measured by using the four indicators of citizenship, employment, Korean language ability, and life satisfaction, based on the theoretical frameworks discussed in Chapter 4. In this section, citizenship, employment, Korean language ability, and life satisfaction are measured by the indicators used in Chapter 10. However, the directions of coefficients of ordered logic analysis in HLM program are opposite to directions in STATA program. The HLM program shows the change of the odds from a higher category to a lower category in conducting ordered logit analysis. Hence, the scales of Korean language proficiency and life satisfaction are transformed into reverse order.

In order to avoid the repetition of operationalisation in terms of citizenship and employment as noted in Chapter 10, this section will be limited to describing the operationalisation of Korean language proficiency and life satisfaction. The operationalization of Korean language proficiency and life satisfaction regarding measurement is provided below:

Korean language proficiency – The score of reading, writing, listening, and speaking in Korean language is summed on scores ranging from 4 to 20. The scores are naturally used when Korean language proficiency is a predictor on citizenship, employment, and life satisfaction. However, the scores are transformed into reverse order to interpret the directions of coefficients in HLM program. Thus, “4” = 20, “5” = 19, “6” = 18, “7” = 17, “8” = 16, “9” = 15, “10” = 14, “11” = 13, “12” = 12, “13” = 11, “14” = 10, “15” = 9, “16” = 8, “17” = 7, “18” = 6, “19” = 5, and “20” = 4.

Life satisfaction – the extent to which immigrant wives are satisfied with their overall quality of life in Korea rated on a scale of 1 to 5. Life satisfaction scale is also transformed into reverse order to interpret the directions of coefficients in HLM program. Thus, “1” = 5, “2” = 4, “3” = 3, “4” = 2, and “5” = 1.

12.5.2. Independent variables at the individual level

In the analysis of HLM, total 19 individual level variables are included (e.g. age, age squared, education, years since migration, Korean language proficiency, education, the number of children under 6 years old, the number of children over 6 years old, relationship with a husband, relationship with mother-in-law, relationship with children, relationship with husband’s relatives, friend with same origin nationalities, friend with other ethnic backgrounds, Korean friend, participation in the meeting of same ethnic friends, participation in the local residents, use of welfare centres, and use of community centres). However, different individual level variables are involved, along with the domain of citizenship, employment, Korean language proficiency, and life satisfaction. Each hypothesis discussed in Chapter 6 and 7 illustrates the different individual level variables, along with the domain of immigrant integration.

Just as individual level variables are used in comparing the extent of immigrant wives' integration between service-users and non-service-users in Part V, so do same individual level variables that are used in this section. In addition, some individual level variables are added in the analysis of HLM. Hence, here this thesis will neglect to present the operationalisation of the individual level variables that used in Part V (i.e. Chapter 10). Except for the individual level variables used in Part V, extra individual level variables are operationalised in this section. Meanwhile, dichotomous variables explaining ethnic groups and settlement locations are used in comparing the extent of immigrant integration between service-users and non-service-users in Part V. However, the two variables are excluded in the analysis of HLM. HLM is able to pursue comparisons of explainable variances between the individual level, group level, and organisational level regarding settlement locations, in unconditional models. Thus, the proportions in the total variances of a dependent variable are calculated into individual level, group level, and organisational level regarding settlement locations. Hence, it does not need to include the two dichotomous variables (i.e. ethnic groups and settlement locations). The operationalization of each of individual level variables' measures is provided below:

Age – immigrant wives' age in 2012. To test a curvilinear relationship between age and immigrant wives' integration, an additional variable *Age square* is developed from the same variable. Age square is constructed with the calculation of squared age divided by "100".

The number of children – the number of children in 2012 as responded how many children you have with your spouses. In estimating the effect of the number of children on employment, Korean language proficiency, and life satisfaction, children age is considered, based on perspectives of theoretical and empirical studies as noted in Chapter 6 and 7. Thus, the effects of the number of children below 6 years old as a pre-schooler and the number of children over 6 years old as a school-age child are analysed on employment, Korean language proficiency, and life satisfaction, respectively.

The relationship with children – in the 2012 NSMF, the extent to which immigrant wives are satisfied with the relationship with their children is assessed on a scale of 0 to 5.

The relationship with relatives – in the 2012 NSMF, the extent to which immigrant wives are satisfied with the relationship with husband’s relatives is assessed on a scale of 0 to 5.

Use of welfare centres – as a dichotomous variable, immigrant wives who used welfare centres at least once in 2012 were assigned a value of “1”. Those immigrant wives who never used welfare centres in 2012 were assigned a value of “0”.

Use of community centres – as a dichotomous variable, immigrant wives who used government-initiated community centres at least once in 2012 were assigned a value of “1”. Those immigrant wives who never used community centres in 2012 were assigned a value of “0”.

12.5.3. Independent variables at the ethnic-group level

For causal relationships between ethnic-group level determinants and integration comprised of citizenship, employment, and destination-language proficiency, and life satisfaction to find a way in which MFSS delivery system can be enhanced, economic condition (e.g. GDP per capita), political condition (e.g. democratic index), geographic condition (e.g. geographic distance), and ethnic networks (e.g. the size of population of each ethnic group) are measured at the ethnic-group level. Again, the operationalization of each of ethnic-group level variables’ measures is provided below:

Economic condition – the 2012 of GDP per capita from World Bank, in US dollars, except for the group of Korean Chinese.³² For Korean Chinese, GDP per capita of Girin province, China in 2012 is used as transformed into US dollars. This is because Yanbian

³²Source: GDP of World Bank 2012 (World Bank, <http://data.worldbank.org/indicator/NY.GDP.PCAP.CD>) and 2012 statistics of national economy and social development in Girin province, Chain (Ministry of Foreign Affairs, (www.mofa.go.kr/webmodule/htsboard/template/read/korboardread.jsp?typeID=24&boardid=11661&seqno=6625&c=&t=&pagenum=1&tableName=TYPE_KORBOARD&pc=&dc=&wc=&lu=&vu=&iu=&du=)).

Korean Autonomous Prefecture (i.e. Korean Chinese Autonomous Prefecture) existed in the province and thus, a large number of population of Korean Chinese or approximate 60 per cent on the total of Korean Chinese living in China has settled in the province (Ministry of Foreign Affairs, www.mofa.go.kr).

Political condition – the Democracy Index 2012 of Economist Intelligence Unit. The index measures democratic scores among 165 countries based on the five scopes: electoral process and pluralism, civil liberties, the functioning of government, political participation, and political culture. The index's scores mean that the higher index is, the more democratic the countries will be³³. In this section, it is assumed that democratic countries are more likely to maintain political stability than non-democracy countries. As such, the higher scores, the more political conditions are stable.

Geographic condition – the geographic distances from capital city of homelands to Seoul, Korea as kilometres³⁴.

Ethnic networks – the size of the population of each ethnic group including legal immigrants in Korea in 2012³⁵.

The values of GDP per capita, geographic distance, and the size of population of each ethnic group do not meet normality. Especially, the distribution of the value is heavily skewed in the normality test. As such, the values are attempted to be a logarithmic transformation of those variables to reduce bias derived from skew the distribution. Since the variables are in log forms, those variable coefficients are interpreted in percentage rather than absolute differences on immigrant wives' integration.

³³Source: Democracy Index 2012 of the Economist Intelligent Unit (The Economist Intelligent Unit, https://portoncv.gov.cv/dhub/porton.por_global.open_file?p_doc_id=1034).

³⁴Source: Distance From To (www.distancefromto.net).

³⁵Source: Korean Immigration Service Statistics 2012 (Korean Immigration Service, 2013).

12.5.4. Independent variables at the organisational level

12.5.4.1. Backgrounds

Organisational level variables are measured based on the 16 megalopolises in Korea. The reason is related to administration districts in Korea. MFSS delivery is executed based on the 16 administration districts (Danuri: the portal for multicultural family, www.liveinkorea.kr). In the 16 districts, 16 of Stronghold Centers are established, and the Centers support MFSCs within a district in MFSS delivery. In fact, within the districts, budget distribution to local authorities, management of MFSCs, grasping demands, and the development of specialised programs of local authorities are carried out for MFSS delivery (Danuri: the portal for multicultural family, www.liveinkorea.kr). For these reasons, it is speculated that MFSCs within a district share equal features to each other rather than MFSCs arranged in the different districts. From this point, different features among 16 districts in MFSS delivery may be revealed. Depending on the presumptions, MFSCs' characteristics within a district are aggregated, and then, the aggregated characteristics are compared between 16 districts in an unconditional model. To find alternative ways in which MFSS delivery system can be enhanced, three variables including expenditure, manpower, and the attributes of service-delivery are employed, underpinning upon theoretical and empirical studies.

12.5.4.2. Issue of the measurement of the attributes of service-delivery

Although the assessment of the attributes of service-delivery described in Chapter 9 is likely to be reliable and feasible, the assessment through self-reported Likert scales has some disadvantages. One of the major disadvantages is that each component is measured with a single question to explain the attributes, but the measurement cannot meet validity (Rubin and Babbie, 1989). To measure the abstract, it needs at least two or more questions, and then the measurement with at least two or more questions can meet validity (Rubin and Babbie, 1989). Another disadvantage is that self-reported scores make it difficult to meet objectivity (Martin and Kettner, 2010). Because of the drawbacks, this chapter attempts to measure the attributes of effective service-delivery by developing quantitative indicators with at least two

factors as much as possible to meet objectivity and validity in measurements (Rubin and Babbie, 1989).

12.5.4.3. Triangulation principle

This thesis attempts to construct a variable to measure the attributes of a service-delivery system, based on the triangulation principle accompanied by reviewing theoretical framework and empirical research findings.

It is generally known that several concepts are impossible to measure directly in social science research, such as happiness, love, shyness, and justice. To measure such abstract concepts, researchers tend to use proxy variables that are one of the alternative solutions to explaining unmeasurable concepts in the field of social science (S. M. Cho, 2007). In measuring sceptical concepts in social science research, it seems reasonable that there are no perfect measurement methods to explain one abstract concept, which is the cause of measurement errors. As such, in order to minimise measurement errors regarding measurement difficulties, “more than one measurement option should be used”; this is the triangulation principle (Rubin and Babbie, 1989, p. 277). Thus, the triangulation principle requires that proxy variables should be used together in measuring one abstract concept in social science research (Rubin and Babbie, 1989; S. M. Cho, 2007).

However, the triangulation principle has limitations on a composite measure in which multiple indicators are summed in one value. One problem is a lack of consensus regarding how multiple indicators are developed in a composite number. In combining indicators, it is debatable whether to give a same weight or relative weights (Marks et al., 2007). Another problem is a lack of correlation between used multiple indicators. For example, education, household income, and employment are thought of as a part of social-economic status, but the relationships between indicators have a lower level of correlation (Shavers, 2007). In order to resolve the shortcomings, it is proposed that appropriate indicators are selected and combined under its relevant studies (Shavers, 2007; Rubin and Babbie, 1989). In doing so, it would be in a better position to resolve the shortcomings of triangulation principle.

This study attempts to meet the triangulation principle, so at least two indicators are used together to measure the attributes of a service-delivery system under literature review. Thus, this study would be able to avoid the apparent errors in measuring obscure concepts regarding the attributes of a service-delivery system, via using at least two proxy variables together, relying on a literature review in choosing appropriate variables and developing a composite number with such variables.

12.5.4.4. Construction of indicators on quantitative approach

In order to develop quantitative indicators addressing the attributes of a service-delivery system, this thesis was guided by the two principles: i) reading existing empirical research measuring the attributes of service-delivery within and beyond the settlement services and ii) trying to entail the perspective of open system approach of logic model on the measurement. The first is to review prior research to expand an understanding of how the attributes of service-delivery system are assessed, and the latter is to consider service-providers, service-users, and communities all together as important elements of the process of service-delivery in the open system approach of the logic model.

Under the principles, an article of Lee and Kim (2011) is selected as a primary literature because it dealt with the comprehensive attributes of a settlement service-delivery system for immigrant wives based on the open system approach of the logic model. As a government report by the Audit and Inspection Research Institution on the Board of Audit and Inspection of Korea, that selected the article proposed an extensive tool of performance evaluation for an effective settlement service-delivery system. The tool emphasised on the sequence of inputs, activities, outputs, and outcomes. Especially, in the tool, inputs were thought of as manpower and financial resources; activities included appropriateness (e.g. reflection of service-users' needs), network (e.g. connection with other service-providers), sufficiency (e.g. the number of programs, the quality of program, the number of professional staff, and the quality of professional staff), and accessibility (e.g. the number of MFSCs at the local community); outputs involved efficiency (e.g. service-users in the number of total immigrant wives at the local community and service-users' satisfaction), and equality (e.g.

extent to which service-users lean too much toward a specific ethnic group and ratio of service utilisation among communities); and outcomes considered the degree to which desired goals were attained by the service.

Depending on the selected article, this section develops quantitative indicators drawing from the census data, service-providers' evaluation reports, research of target population at national-level, and other varied data sources. In order to construct the indicators, because MFSCs are differently arranged in 16 administration areas, the indicators consider the different number of MFSCs along with 16 administration areas. Thus, each indicator is given a calculated in an average score for each administration area which considered the different number of MFSCs in 16 areas (See Appendix 6).

First, comprehensive and appropriate include the number of special programs per service-provider along with the 16 metropolitan areas. Second, professionalisation involves i) the number of immigrant wives per counsellor of MFSCs along with the 16 metropolitan areas, ii) the number of immigrant wives per Korean language teacher of MFSCs along with the 16 metropolitan areas, and iii) the number of immigrant wives per family-life instructor of MFSCs along with the 16 metropolitan area. Third, continuity and integration is measured by the number of networks per service-provider along with the 16 metropolitan areas. Fourth, equality consists of i) average scores of the Hirschman-Herfindahl index (HHI)³⁶ or Hirschman index (HI) along with the 16 metropolitan areas and ii) the number of interpretation and translation services per service-provider along with the 16 metropolitan areas. Fifth, participation is i) the number of service-users per service-provider along with the

³⁶The index is used to measure the extent of monopoly in an industry, in which each company's market share in an industry is assessed (Graddy and Chen, 2006). In this study, the HHI evaluates whether or not one ethnic group shares in each MFSC. HHI is calculated on the sum of the squares of the shares of the each of the ethnic groups dealt with in each MFSC. The formula is

$$HHI = \sum S_i^2,$$

where S_i is the share of each of the ethnic groups who are service-users covered by each MFSC. Higher scores of the index indicate that service-users are a homogenous group, whereas lower scores of the index show that service-users are heterogeneous groups, in a MFSC. The obtained value of HHI of each MFSC is aggregated along with the 16 administration districts on average. In this point, its lower value in a megalopolis is expected to deliver MFSS with the attribute of equality compared to a megalopolis with higher value of HHI. Hi score is just transformed into the score of HHI which is transformed in \sqrt{HHI} proposed by Hirschman. Hence, the two indices show whether or not service-users are homogeneous or heterogeneous groups. To develop composite scores of the attributes of an effective service-delivery system, the HI score is used.

16 metropolitan areas, ii) the number of volunteers per service-provider along with the 16 metropolitan areas, and iii) the number of self-help meetings per service-provider along with the 16 metropolitan areas. Sixth, accessibility is comprised of i) the frequency of public information activities per MFSC along with the 16 metropolitan areas, ii) the frequency of outreach per service-provider along with the 16 metropolitan areas, and iii) the percentage of annual service-users in the total population per service-providers along with the 16 metropolitan areas. In this thesis, accountability is omitted because it is taken as a final result achieved by other components, as discussed previously.

To compare the scales of each component, all constructed indicators are converted into reciprocal and standardised scores along with the 16 metropolitan areas. Finally, the scores are summed into one scale as the composite scores of attributes of a service-delivery system. The index's higher score indicates that MFSCs entail higher levels of the attributes in MFSS delivery. On the contrary, lower score shows that MFSCs include lower levels of the attributes in MFSS delivery (See Appendix 7).

Composite scores of attributes of service-delivery – the sum of standardised scores of each component including a) comprehensive and appropriate, b) professionalisation, c) continuity and integration, d) equality, e) participation, and f) accessibility.

Financial resource – the annual budget level per MFSC in each administration district. It is simply calculated in the fact that the budget MFSCs receive from the central government or local governments yearly is aggregated as a total budget of an administration district and divided by a number of MFSCs arranged in an administration district. The aggregated scores are transformed into a standardised score.

Manpower – the number of immigrant wives per MFSC in each administration district. The number is transformed into a standardised score.

The variables of financial expenditure and manpower as well as the composite scores of the attributes of a service-delivery system are transformed into standardised base variables in which equal weights are constructed, as the average is zero (the value of mean = 0) and

standard deviation is one (the value of standard deviation = 1). The standardised scores are expressed in the three modes in relative comparisons between the 16 megalopolises: (1) a score of “0” is the score on average among selected samples; (2) a score over “0” means positive or higher effects relatively; and (3) a score below “0” means negative or lower effects relatively. The standardised scores enable this thesis to compare relative characteristics of expenditure, manpower, and the attributes of service-delivery system among the 16 administration districts.

Now that this section discussed research design, data source, analytical issues, analytical strategies, operationalisation of variables, and issues of measurements of variables, the following chapter will proceed to describe findings in investigating associations between predictors at the individual, ethnic-group, and organisational levels and domains of immigrant wives’ integration with using HLM technique, which is, to find alternative ways in which MFSS delivery system can be improved.

Chapter 13: Findings of Empirical Testing for Improvement of Effectiveness on MFSS

To answer the question of how effectiveness in MFSS could be improved, this thesis focuses on determinants at the individual, ethnic-group, and organisational levels that may influence immigrant wives' integration comprised of citizenship, employment, Korean language proficiency, and life satisfaction. In fact, which determinants increase its effectiveness is analysed through HLM technique.

The findings from the HLM analysis are described in this chapter. The first part begins with a presentation of findings from descriptive analysis. The second part describes the results of the cross-classified multi-level analysis, along with unconditional and conditional models.

13.1. DESCRIPTIVE ANALYSIS

13.1.1. Features at the individual level

Before turning to examination of research hypotheses in a multilevel model framework, this section attempts to provide descriptive accounts of the selected immigrant wives (N = 5,685) who are cross-classified in 10 ethnic groups and in 16 metropolitan areas.

Table 13.1a illustrates the compositions of immigrant wives with regard to demographic and socio-economic characteristics at the individual level. Among the selected samples, close to 34 per cent of immigrant wives obtain Korean citizenship, indicating that about a third of immigrant wives become a Korean citizen. Those wives who are employed represent about 46 per cent and in turn, a half of immigrant wives work in the Korean labour market. Scores of Korean language ability including speaking, listening, reading, and writing ranging from 4 to 20 are 12.83 on average. This figure shows that although their Korean-language proficiency is slightly higher than absolute median scores that are "12", their proficiency in the Korean language can be reported as "not good and not bad". These women are somewhat satisfied with their life in Korea as the scores of life satisfaction are averagely 3.69 between 1 and 5.

Table 13.1a: Characteristics of selected immigrant wives

Variables (N = 5,685)	Mean (SD) / %
Age	32.53 (8.83)
Age square / 100	11.36(6.50)
<i>Education</i>	
no schooling	1.81
elementary school	8.25
middle school	21.55
high school	40.39
college or undergraduate school	27.00
post-graduate school	1.00
Years since migration	6.59 (4.86)
The number of children	1.32 (0.95)
The number of children below 6 yrs.	0.78 (0.77)
The number of children over 6 yrs.	0.54 (0.89)
<i>Household income</i>	
below 1 million won	9.74
1 million to less than 2 million won	33.91
2 million to less than 3 million won	34.78
3 million to less than 4 million won	14.35
more than 4 million won	7.21
The participation in the meeting of friend from the same origins of nationalities	69.09
The participation in local residents gathering	19.58
The number of friends with same origin nationalities	1.57 (1.42)
The number of friends with other ethnic backgrounds	0.12 (0.48)
The number of Korean friends	1.38 (1.42)
The relationship with a husband	3.99 (1.13)
The relationship with mother-in-law	3.19 (1.63)
The relationship with children	3.77 (1.83)
The relationship with relatives	3.48 (1.26)
Use of welfare centres	25.40
Use of community centres	68.92
Korean citizenship acquisition	33.81
Employment	45.65
Korean language proficiency	12.83 (3.87)
Life satisfaction	3.69 (0.94)

Immigrant wives are about 33 years old on average and in turn, they are not described as old. The mean years since migration are 6.59 years, identifying that since 2005, most of these immigrant wives have arrived in Korea. The average number of children is about 1.32, demonstrating that most multicultural families inclusive of immigrant wives have only one child. Among them, the number of children below 6 years old is 0.78, and the number of children over 6 years old is 0.54, on average. This figure addresses that their children are not

school-aged but preschool-aged. Majority of immigrant wives graduate a high school (40.39 per cent), followed by college or undergraduate school (27 per cent), a middle school (21.55 per cent), and an elementary school (8.25 per cent). Most multicultural families including immigrant wives make monthly income between 1 million to 2 million won (33.91 per cent) or 2 million to less than 3 million won (34.78 per cent) (Korean currency). In fact, their earning levels are not higher in comparison with 4.1 million won that is the monthly average earnings of a native-Korean household income change in 2012 reported by the Statistics Korea (2012a). Two thirds of immigrant wives (69.1 per cent) experience participation in the meeting of friends who are from the same ethnic backgrounds. However, only 20 per cent of immigrant wives experience participation in local residents gathering. The figures display that although a number of immigrant wives would interact with friends with the same origin's backgrounds, a few immigrant wives could interplay with Korean natives in the community. On average, the number of friends with same origin nationalities, the number of friends with other ethnic backgrounds, and the number of Korean friends is 1.57, 0.12, and 1.38, respectively. A myriad of immigrant wives have at least one friend who share same ethnic backgrounds and have at least one Korean friend, in Korea. While 25.4 per cent utilise welfare centres at least once, 68.92 per cent use government-initiated community centres at least once. On average, the relationship with a husband, mother-in-law, a son, and relatives is 3.99, 3.19, 3.77, and 3.48, respectively. Although a number of immigrant wives are satisfied with the relationship with family members in Korea, they are relatively less satisfied with the relationship with mother-in-law.

Now that the characteristics of immigrant wives (i.e. service-users) at the individual level have been examined using descriptive analysis, the characteristics of ethnic groups among service-users are described in next few pages.

13.1.2. Features at the ethnic-group level

Table 13.1b shows the different levels of citizenships, employment, Korean language proficiency, and life satisfaction among 10 ethnic groups who utilised a MFSC at least once.

In fact, the Table displays the considerable variations among 10 ethnic groups in the domains of integration.

Amongst the selected samples of 10 ethnic groups, the vast majority group are Vietnamese (N = 1,385). Other highly populated groups include Filipinos (N = 1,071), Chinese (N = 777), and Cambodians (N = 647). On the contrary, former Soviet Union countries including Russians (N = 68) and Uzbekistanis (N = 188) are registered with lower populations relatively.

Table 13.1b: Differences of service-users' integration among 10 ethnic groups

Ethnic groups	C (n = 773)	KC (n = 492)	J (n = 568)	M (n = 250)	V (n = 1,385)
Citizenship (%)	42.17	70.33	5.28	27.20	28.23
Employment (%)	46.05	57.93	45.25	53.20	42.17
Korean language skills (Mean / SD)	13.36 (4.45)	17.17 (3.65)	14.25 (3.51)	13.90 (3.63)	11.58 (3.28)
Life satisfaction (Mean / SD)	3.66 (0.97)	3.57 (0.93)	3.50 (0.92)	3.57 (0.91)	3.76 (0.93)
Ethnic groups	F (n = 1,071)	T (n = 243)	Cam (n = 647)	U (n = 188)	R (n = 68)
Citizenship (%)	47.90	16.87	24.11	20.21	19.12
Employment (%)	51.54	55.97	31.84	34.57	30.88
Korean language skills (Mean / SD)	11.94 (3.23)	12.01 (3.27)	11.60 (3.15)	12.93 (3.49)	13.41 (3.21)
Life satisfaction (Mean / SD)	3.69 (0.95)	3.76 (0.88)	3.84 (0.91)	3.78 (0.89)	3.63 (0.91)

C = Chinese, KC= Korean Chinese, J = Japanese, M = Mongolians, V = Vietnamese, F = Filipinos, T = Thais, Cam = Cambodians, U = Uzbekistanis, and R = Russians.

The mean percentage of Korean citizenship acquisition among the 10 ethnic groups is 33.81 ranging from 5.28 per cent of Japanese to 70.33 per cent of Korean Chinese. The mean value of employment is 45.65 per cent from a low of 30.88 from Russians to a high of 57.93 from Korean Chinese. Between 4 and 20, the mean value of Korean language proficiency is 12.83, in which the lowest group is the Vietnamese (mean = 11.58) and the highest group is the Korean Chinese (mean =17.17). The average value of life satisfaction is 3.69 between 1 and 5, ranging from 3.50 of Japanese to 3.84 of Cambodians. Despite the fact that significant testing is not carried out, it is inferred that there remain unequal modes of citizenship,

employment, Korean language skill, and life satisfaction among the 10 ethnic groups, based on the descriptive analysis.

Table 13.1c illustrates the results for the features of the 10 ethnic groups incorporating geographic distance of origin country to Korea, GDP per capita of origin countries, democratic index, and each relative ethnic group’s population density. Among the ethnic groups, average distances from a capital city to Seoul, Korea are 2,896.2 kilometres, but standard deviation is 1,882.77. The figure of stand deviation indicates that geographic distances from the country of ethnic groups to Korea are greatly varied. Averagely GDP per capita is 9,005.6 US dollars and standard deviation was 13,801.22. This also points to excessive variations of GDP per capita amongst the ethnic groups. Democratic index is 4.66 on average between 0 and 10, suggesting that the political condition of origin countries is generally ordinary. Out of total 1,445,130 immigrant wives who were legally permitted to settle in Korea in 2012 (KIS, 2013), the mean population among 10 ethnic groups selected in this thesis is 105,692.1. Considering the excessive standard deviation, however, the relative size of each ethnic group may be very variable. Without regarding democratic index, the variables of geographic distance, GDP per capita, and the size of each ethnic group are transformed in log scores because these variables cannot meet a normal distribution, and the transformed average values are 7.75, 8.43, and 10.91, respectively. The following pages turn to descriptive results at the organisational level.

Table 13.1c: Characteristics of 10 ethnic groups

(N =10)	Mean	SD
Distance from the origin country to Korea (kilometres)	2,896.20	1,882.77
Ln Distance	7.75	0.75
GDP per capita (US \$)	9,005.60	13,801.22
Ln GDP per capita	8.43	1.15
Democracy index (0 to 10)	4.66	2.08
Population of ethnic groups	105,692.10	139,782.60
Ln Population of ethnic groups	10.91	1.20

13.1.3. Features at the organisational level along with 16 areas

Table 13.1d shows the different paths of citizenship, employment, Korean language proficiency, and life satisfaction among 16 metropolitan areas where MFSCs are arranged. Among the selected sample (N = 5,685), the Gyeonggi metropolitan area alone was a main settlement place where nearly one fifth of them resided (N = 1,133), while less than 100 immigrant wives are found in areas of Daejeon (N = 90) and Jeju (N = 81). Other immigrant wives are scattered throughout extra areas ranging from 116 in Ulsan to 496 in Seoul.

In terms of the variations of citizenship acquisition between the 16 areas, 42.58 per cent of immigrant wives living in Busan obtain Korean citizenship, but 23.49 and 25.93 per cent of immigrant wives become a Korean citizen in Daegu and Jeju areas, respectively. In other places, it appears between 30.44 and 37.93 per cent, which is similar to the 33.81 per cent that is an average value of Korean citizenship acquisition. Although an average 45.65 per cent of 5,685 immigrant wives are in the Korean labour market in 2012, there are unequal paths of employment among the 16 areas. Labour force participation is the highest in Gyeongbuk (53.01 per cent) followed by Gwangwon (51.36 per cent), Jeonbuk (48.48 per cent), and Chungnam (48.25 per cent). Daegu (43.98 per cent), Gyeonggi (44.04 per cent), Chungbuk (46.01 per cent), Jeonnam (47.54 per cent), Gyeongnam (45.79 per cent), and Jeju (46.91 per cent) are in similar proportions with the 45.7 per cent that is the average value of employment. However, other places are considerably below the average value: Seoul (41.94 per cent), Busan (40 per cent), Incheon (40.59 per cent), Gwangju (39.04 per cent), Daejeon (35.56 per cent), and Ulsan (32.76 per cent). The values of Korean language proficiency are slightly varied along the 16 areas ranging from 12.40 in Ulsan to 13.34 in Chungbuk. Immigrant wives living in Daegu, Daejeon, Ulsan, Gyeonggi, Jeonbuk, Jeonnam, Gyeongbuk, Gyeongnam and Jeju are less likely to be proficient in Korean language skills because the levels of Korean language skills in the areas are lower than 12.83 that is the average value. Given life satisfaction, 3.68 is its average value of life satisfaction among the 5,685 sample of immigrant wives, which tends to correspond to the values of the 16 areas. Thus, the values of the 16 areas are slightly varied between 3.51 in Daejeon and 3.87 in Ulsan. Immigrant wives living in Seoul, Busan, Daegu, Daejeon, Gangwon, Jeonbuk,

Jeonnam, and Gyeongbuk are less likely to be satisfied with their life because the levels of life satisfaction in the areas are lower than 12.83 that is the average value.

From the findings of citizenship, employment, Korean language proficiency, and life satisfaction according to the 16 areas, it is suffice to say that the modes of integration are varied along with the 16 areas.

Table 13.1d: Different modes of citizenship, employment, Korean language proficiency, and life satisfaction among 16 metropolitan areas

	Seoul (n = 496)	Busan (n = 155)	Daegu (n = 166)	Incheon (n = 239)
Citizenship (%)	30.44	42.58	23.49	33.89
Employment (%)	41.94	40.00	43.98	40.59
Korean language (Mean / SD)	12.95 (4.17)	13.25 (3.95)	12.42 (3.76)	12.85 (3.94)
Life satisfaction (Mean / SD)	3.61 (0.92)	3.61 (0.90)	3.63 (0.87)	3.78 (1.02)
	Gwangju (n = 146)	Daejeon (n = 90)	Ulsan (n = 116)	Gyeonggi (n = 1,133)
Citizenship (%)	32.19	31.11	37.93	33.36
Employment (%)	39.04	35.56	32.76	44.04
Korean language (Mean / SD)	13.20 (3.71)	12.40 (3.40)	12.52 (3.39)	12.81 (3.89)
Life satisfaction (Mean / SD)	3.86 (0.98)	3.51 (0.97)	3.87 (0.90)	3.73 (0.92)
	Gangwon (n = 368)	Chungbuk (n = 313)	Chungnam (n = 487)	Jeonbuk (n = 460)
Citizenship (%)	35.05	36.10	33.26	33.48
Employment (%)	51.36	46.01	48.25	48.48
Korean language (Mean / SD)	13.33 (3.64)	13.34 (3.87)	12.96 (4.01)	12.67 (4.06)
Life satisfaction (Mean / SD)	3.68 (0.88)	3.71 (0.85)	3.78 (0.92)	3.67 (1.04)
	Jeonnam (n = 467)	Gyeongbuk (n = 481)	Gyeongnam (n = 487)	Jeju (n = 81)
Citizenship (%)	36.83	34.72	34.91	25.93
Employment (%)	47.54	53.01	45.79	46.91
Korean language (Mean / SD)	12.46 (3.92)	12.47 (3.66)	12.88 (3.60)	12.43 (4.14)
Life satisfaction (Mean / SD)	3.64 (0.98)	3.57 (0.93)	3.71 (0.91)	3.78 (1.00)

Factors accounting for MFSCs' characteristics according to 16 metropolitan areas are displayed in Table 13.1e. With regard to organisational resources incorporating financial expenditure and manpower, averagely a MFSC arranged in one of the 16 metropolitan areas

spend 1,467,621.50 won; moreover, each MFSC covers 994 immigrant wives in the total population of immigrant wives in Korea.

The attributes of a service-delivery system are described along with 6 components that are comprised of comprehensive and appropriate, professionalisation, continuity and integration, equality, participation, and accessibility.

The first component is ‘comprehensive and appropriate’. The mean number of special or optional programs per MFSC along with the 16 metropolitan areas is 2.78 except for mandatory programs. This is because all MFSCs have commonly delivered the mandatory programs.

The second component is ‘professionalisation’. The mean number of immigrant wives per counsellor, Korean language teacher, and family-life instructor who work in MFSCs according to the 16 metropolitan areas is 342, 136, and 148 during a year, respectively. The figures indicate that one counsellor is more likely to annually deal with many immigrant wives than one Korean teacher and family-life instructor.

The third component is ‘continuity and integration’. The mean of networks per MFSC along with the 16 metropolitan areas is 45.15. This suggests that the networks each MFSC conducts is about 45 times per year.

The fourth is ‘equality’ measured by HHI and the number of translation and interpretation programs each MFSC provides per year. The mean of HHI is 2,746.2, indicating that in terms of service-users’ nationalities or ethnic backgrounds, one specific ethnic group overwhelms other ethnic groups in each MFSC. In other words, the majority of service-users share the same origins of nationality. The average number of translation and interpretation program is 1.51, which means that each MFSC provides one or two translation and interpretation programs for immigrant wives a year.

The fifth component is ‘participation’, assessed by the total number of service-users, volunteers, and self-helping meetings per MFSC according to the 16 metropolitan areas.

Averagely, 9,037 of immigrant wives use a MFSC at least once; 314 immigrant wives do volunteer work at each MFSC; and, each MFSC holds 444 sessions of self-helping meetings per year.

The last component is ‘accessibility’. Each MFSC carries out, on average, 75 instances of public information activities per year; moreover, the mean frequency of outreach per MFSC is 4,413 times a year. Also, the average percentage of annual service-users in the total immigrant wives’ population per MFSC is 47 per cent, indicating that a half of immigrant wives do not use a MFSC even once.

Table 13.1e: Descriptions of organisational inputs and throughputs based on 16 metropolitan areas

		(N = 16)	Mean	SD
Financial resource		Annual expenditure per MFSC (₩) ^a	1,467,621.50	43,187.11
Manpower		N of immigrant wives per MFSC	994.32	443.01
Attributes of service-delivery system	Comprehensive and Appropriate	N of special programs	2.78	0.42
		N of immigrant wives per counsellor	342.22	283.89
	Professionalism	N of immigrant wives per Korean language teacher	136.28	44.47
		N of immigrant wives per family-life instructor	147.74	70.77
		N of networks	45.15	22.86
	Equality	HHI	2,746.16	258.75
		HI	52.34	2.43
		N of interpretation and translation services	1.51	0.45
	Participation	N of service-users	9,036.71	2,337.84
		N of volunteers	313.52	148.02
N of self-help meetings		443.57	514.36	
Accessibility	Frequency of public information activities	75.38	74.38	
	Frequency of outreach	4,413.25	744.45	
	Percentage of annual service-users on total population of immigrant wives	47.22	19.06	

a: Korean currency

Table 13.1f represents relative differences of financial expenditure, manpower, and the scores of the composite scores for attributes of the service-delivery system, along with the 16 metropolitan areas as transformed into standardised scores.

To show any relative differences in financial expenditure among the 16 areas, the standardised base variable of financial expenditure is compared ranging from -1.797 in Jeonnam to 1.444 in Incheon, Gwangju, and Jeju. 10 metropolitan areas have negative values, which mean that financial expenditure in 10 metropolitan areas is below average. In opposition to the 10 areas, 6 metropolitan areas have positive values, indicating that the levels of financial expenditure in the 6 areas are over average. Another comparison is manpower among the 16 areas ranging from -1.309 in Gangwon to 2.091 in Gyeonggi. The negative values are in 8 areas, whereas the positive values are in other 8 areas.

Table 13.1f: Standardised scores for resources, number of MFSCs, and the attributes of a service-delivery system among 16 metropolitan areas

Metropolitan areas (N =16)	Seoul	Busan	Daegu	Incheon
Resource	-0.106	-0.176	0.055	1.444
N of Immigrant Wives per MFSC	1.708	0.368	-0.262	1.197
Attributes of service-delivery	-0.68	-4.06	3.32	-0.58
	Gwangju	Daejeon	Ulsan	Gyeonggi
Resource	1.444	-1.797	-0.176	1.109
N of Immigrant Wives per MFSC	0.261	0.304	0.13	2.091
Attributes of service-delivery	7.56	-2.73	-6.12	-0.99
	Gangwon	Chungbuk	Chungnam	Jeonbuk
Resource	-0.871	-0.029	-0.068	-0.408
N of Immigrant Wives per MFSC	-1.309	-0.841	-0.539	-0.816
Attributes of service-delivery	6.36	-3.34	-3.1	8.3
	Jeonnam	Gyeongbuk	Gyeongnam	Jeju
Resource	-1.797	-0.176	0.11	1.444
N of Immigrant Wives per MFSC	-1.108	-1.018	-0.433	0.269
Attributes of service-delivery	-1.14	-2.3	-1.95	1.45

The six components for the attributes of a service-delivery system are constructed in standardised base variables in which equal weights are formed, and then standardised base variables are summed in one score as the attributes of a service-delivery system. Compared to its average score that is zero (mean = 0), 11 metropolitan areas are negative values, whereas positive values are shown in the other 5 metropolitan areas, ranging from -6.12 in Ulsan to 8.3 in Jeonbuk. This indicates that as relative to positions, the levels of attributes of a service-delivery system in the 11 areas are below the average, while the levels in the 5 areas are above the average, among the 16 areas. Until now, characteristics at the individual, ethnic-

group, and organisational levels have been examined as results of descriptive analyses. In the pages which follow, this thesis proceeds to findings through HLM.

13.2. HLM ANALYSIS

13.2.1. Unconditional model

Table 13.2a to 13.2d display the variance components of citizenship, employment, Korean language proficiency and life satisfaction by ethnic group and metropolitan area, along with the statistical significance of the variance components.

In Table 13.2a, the variance component for ethnic group is 0.891 and significant, indicating that the likelihood of Korean citizenship acquisition differs between the 10 ethnic groups. The variance component for metropolitan area is 0.014 and significant, showing that the modes of likelihood of Korean citizenship acquisition vary across the 16 areas in which MFSCs are located.

A decomposition of the variance of employment is depicted in Table 13.2b. The variance components for ethnic group and metropolitan area are 0.129 and 0.027, respectively; moreover, the random effects of ethnic group and metropolitan area are statistically significant. These results suggest that the likelihood of employment varies across all ethnic groups and between metropolitan areas.

Table 13.2c shows the variance in the outcomes of Korean language proficiency between the 10 ethnic groups and the metropolitan areas. The variance score for ethnic group is 0.723 and the score for metropolitan area is 0.017. In addition, both the values of ethnic group and metropolitan area are statistically significant. These results indicate that the probability of having higher scores in Korean language ability differs among the ethnic groups and metropolitan areas.

In terms of life satisfaction, the random effects among ethnic groups and between metropolitan areas are illustrated in Table 13.2d. The ethnic group variance is 0.035 whereas the metropolitan area variance is 0.018. As this variance is statistically significant, the

probability of having higher life satisfaction scores differs between ethnic groups and across metropolitan areas.

From these results, we estimated the variance components of citizenship, employment, Korean language skill, and life satisfaction, and calculated the intra-unit correlation coefficients of individual immigrant wives, ethnic group, and megalopolitan area.

First, there is a roughly 21.2 percent total variance in Korean citizenship acquisition between ethnic groups, but only a roughly 0.3 percent variance between metropolitan areas. In addition, the intra-cell correlation, i.e., the correlation between outcomes of Korean citizenship acquisition of immigrant wives who are in the same ethnic group and live in the same metropolitan area, accounts for about 21.5 percent of the total variance. The proportion of variation between ethnic groups is a more likely explanation for the variance than that between metropolitan areas, in terms of the outcomes of Korean citizenship acquisition.

Second, there is about a 3.7 percent variance in the likelihood of employment between ethnic groups, whereas only about a 0.7 percent variance between metropolitan areas. In addition, there is about a 4.4 percent total variance between the outcomes of immigrant wives' employment who are in the same ethnic group and live in the same metropolitan area. Although the proportions of variance between ethnic groups and between metropolitan areas, and between ethnic groups in the same metropolitan areas are small, differing likelihoods of employment between ethnic groups is the more likely explanation than the differences between metropolitan areas.

Third, the proportion of variance in Korean language ability between ethnic groups is about 17.9 percent, and the proportion of variance between metropolitan areas is 0.4 percent. Also, the proportion of variance between ethnic groups and metropolitan areas is 18.3 percent. These findings indicate that the probability of higher Korean language ability would be better explained by variations between ethnic groups than between metropolitan areas.

Fourth, about 1 percent of the variance between the likelihood of life satisfaction value and the absolute median value is between ethnic groups, and about 0.5 percent is

between metropolitan areas. Finally, about 1.5 percent of the variance is between ethnic groups and metropolitan areas. Although the variance levels across ethnic groups and between metropolitan areas are very small, the variance across ethnic groups and between metropolitan areas, and between ethnic groups in the same metropolitan areas can account for the likelihood of the higher life satisfaction values.

Overall, the findings of these unconditional models regarding the variance between ethnic groups and between metropolitan areas with respect to citizenship, employment, Korean language proficiency, and life satisfaction are statistically significant. These significant results, then, enable the use of conditional models that include various predictors at the ethnic-group and organisational levels in different metropolitan areas, in order to identify possible factors that may account for the variance.

13.2.2. Conditional model

As discussed in section 12.4, in this thesis, we consider five models (i.e., Models 1, 2, 3, 4, and 5). As an unconditional model, Model 1 excludes all variables at the individual, ethnic-group, and organisational levels. The remaining four models (i.e., Models 2, 3, 4, and 5) are considered to be conditional models. Model 2 involves individual level variables; Model 3 adds four variables at the ethnic-group level while controlling for individual level variables; Model 4 ignores ethnic-group level variables and includes organisational level variables, while controlling for individual level variables; and Model 5 is a full model that includes all possible variables at the individual, ethnic-group, and organisational levels.

The conditional models relating to citizenship, employment, Korean language proficiency, and life satisfaction are presented in Tables 13.2a, 13.2b, 13.2c and 13.2d, respectively. In the following pages, we estimate the variables accounting for Korean citizenship among service users at the individual, ethnic-group, and organisational levels.

13.2.2.1. Citizenship

Table 13.2a displays the results of predictors influencing Korean citizenship acquisition at the individual, ethnic-group, and organisational level, along with Models 2, 3,

4, and 5. As shown in the table, the overall patterns of coefficients of all variables are the same across all models. In the next section, we use odds ratios to interpret the results with these models.

Model 2 of Table 13.2a shows the individual level variable characteristics. We first estimate the influence of characteristics represented in the cost-benefit perspective, including age, education, employment, household income, and social networks (e.g., the number of friends from the same nationality of origin, the number of friends with other ethnic backgrounds, the number of Korean friends, participation in meeting between friends of the same ethnic background, participation in local resident gatherings, the use of welfare centres and the use of community centres). First, age has a quadratic function with respect to citizenship, i.e., it has a significantly positive relationship with respect to citizenship, but age squared has a significantly negative relationship with citizenship. Thus, age increases by 12 percent the odds of Korean citizenship acquisition (1.120-1) while age squared decreases by 11.2 percent the odds (1-0.888), everything being equal. Second, those who graduated from a postgraduate school are 0.356 times less likely to obtain Korean naturalisation, *ceteris paribus*, than those who never receive an education service. This result is partially contrary to the research hypothesis. Third, the employment variable shows a positive relationship, as expected, with respect to Korean citizenship acquisition. Thus, other things being equal, the odds of Korean citizenship being acquired for immigrant wives who are employed are 1.37 times higher than for those who are unemployed. Fourth, other things being equal, family income has no significant association with Korean citizenship acquisition. This result is unexpected, and does not support our hypothesis. Finally, in terms of social networks, the number of friends with the same nationality of origin has a negative effect, while the use of community centres has a positive effect, on Korean naturalisation. Specifically, the number of friends with the same nationality of origin decreases the likelihood of Korean naturalisation by about 6.2 percent (1-0.938), everything being equal. In contrast, the use of community centres increases the likelihood of Korean naturalisation by about 59.4 percent (1.594-1), everything being equal. However, other variables associated with social networks were found to have no significant relationship, including routinely meeting with friends who have the

same ethnic backgrounds, participation in local resident gatherings, the number of friends with other ethnic backgrounds, and the number of Korean friends. Use of community centres was the only variable that met the proposed assumption, everything else being equal, that social networks positively predict Korean citizenship acquisition.

Next, we estimated the variables representing institutional structures, including years since migration, Korean language skills, the number of children, and the relationship with the husband. First, we found the variable of years since migration to be a significantly positive determinant of Korean citizenship acquisition, showing about a 37.3 percent increase in the odds ratio for Korean citizenship acquisition (1.373-1), everything being equal. Therefore, the effect of years since migration supports the hypothesis. Second, Korean language proficiency also yielded a positive effect, as anticipated. Korean language proficiency increases the probability for Korean citizenship acquisition by about 10.9 percent (1.109-1), everything being equal. Third, the number of children positively and significantly influences Korean citizenship acquisition, increasing its odds by about 59.4 percent (1.594-1), everything being equal. As predicted, immigrant wives expect to obtain benefits from the naturalisation for their children. Finally, the relationship with a husband negatively impacts Korean citizenship acquisition, everything else being equal, which is also consistent with the research hypothesis.

In Model 3, while controlling for individual level variables, we statistically tested the ethnic-group level variables, including geographic distance, GDP per capita, the democratic index, and the size of the population of each ethnic group. Results show that while the variable of GDP per capita is related to Korean naturalisation, the other three variables are not. As predicted, GDP per capita has a negative impact on Korean citizenship acquisition, showing that each point on the logged GDP per capita decreases by 79.9 percent the odds of Korean citizenship acquisition (1-0.201). Although we predicted geographic distance to be negatively related with Korean citizenship acquisition, the results showed no significant effect. The size of the population of each ethnic group also showed no significant positive association with Korean citizenship acquisition.

Model 4 adds tests for three organisational level variables while controlling for individual level variables. We had assumed that the number of immigrant wives per MFSC for the 16 metropolitan areas would mean greater pressures on available manpower, which would decrease the likelihood of Korean citizenship acquisition. However, both annual expenditure per MFSC and the scores of the service-delivery system attributes increase its likelihood. However, none of the organisational level variables show a significant effect on Korean citizenship acquisition among immigrant wives.

Model 5 incorporates all possible variables at the individual, ethnic-group, and organisational level. The results show that the overall coefficients' directions in Model 5 are the same as those in Models 2, 3, and 4.

13.2.2.2. Employment

The relationships between variables at the individual, ethnic-group, and organisational levels and employment are introduced in Table 13.2b, for Models 2, 3, 4, and 5. The overall directions of the coefficients determined by HLM analysis are the same across all models. To interpret the HLM analysis, we introduce odds ratios in each of these models.

Model 2 reports only the results of individual level factors that influencing employment. First, we tested the variables representing human capital skills or resources, including age, age squared, education, year since migration, and labour market experience. Age has a curvilinear relationship with employment, as indicated when considering the significant effects of age (i.e., positive effect) and age squared (i.e., negative effect) together. Other things being equal, one standard deviation increase in age enhances immigrant wives' odds of being employed by 20.9 percent (1.209-1), while one standard deviation increase in the variable of age squared decreases the odds of being employed by 18.7 percent (1-0.813), everything else being equal. Second, Korean language proficiency is positively related with being employed, which is consistent with the research hypothesis. Other things being equal, one standard deviation increase in Korean language proficiency increases the odds by an average of 3.7 percent (1.037-1). Third, as anticipated, years since migration positively increase the probability of employment. Other things being equal, one standard deviation

increase in the years since migration increases the odds on average by 9.5 percent (1.095-1). Third, the dummy variables regarding education do not show signs of significance, which is not consistent with the research hypothesis. Finally, and unexpectedly, labour market experience is negatively associated with employment. Thus, other things being equal, one standard deviation increase in labour market experience decreases the odds by 15 percent (1-0.850).

Next, we tested individual level variables representing social capital resources. The results show that the relationships with both the husband and the mother-in-law have a negative effect on employment, which is not consistent with the research hypothesis. Specifically, other things being equal, the relationships with a husband and with the mother-in-law reduce the odds by 19.6 percent (1-0.804) and 3.6 percent (1-0.964), respectively. Second, as anticipated, the number of friends with the same nationality of origin and the number of Korean friends enhance the probability of employment. However, the number of friends with other ethnic backgrounds has no impact on employment. The number of friends with the same nationality of origin increases the odds of being employed by 16.7 percent (1.167-1), everything else being equal. Moreover, the number of Korean friends increases the odds by 20.1 percent (1.201-1), everything else being equal. Thirdly, neither participation in gatherings with friends from the same ethnic background nor with local resident has any impact on employment. Finally, the use of community centres has a positive effect, while the use of welfare centres has no effect on employment. Those who utilise community centres at least once are 1.192 more likely to be employed than those who never utilise the centres, everything else being equal. Although we speculated that social capital resources increase the likelihood of employment, only three variables were consistent with the research hypothesis, including the number of friends with same nationality of origin, the number of Korean friends, and the use of community centres.

Third, we tested individual level variables representing household production. As hypothesised, all the dummy variables for family income are positively associated with employment. Specifically, other things being equal, those who earn a monthly family income between 1 and 2 million, 2 and 3 million, 3 and 4 million, and more than 4 million Korean

won are 1.393, 2.251, 3.113, and 3.162 more likely to be employed than those who earn a monthly family income below 1 million Korean won, respectively. Secondly, both the number of children younger than 6 years and older than 6 years are negatively related with employment. Other things being equal, the number of children younger than 6 years and older than 6 years reduce the odds of employment by 42.1 percent (1-0.579) and 9.5 percent (1-0.905), respectively. Immigrant wives who have children younger than 6 years find it difficult to participate in the Korean labour market, which is consistent with the research hypothesis. However, the negative relationship between the number of children older than 6 years and employment does not support the research hypothesis.

Model 3 adds ethnic-group level variables, while controlling for individual level variables. Being employed is affected by both the GDP per capita and the democratic index. With respect to the marginal effects of using odds ratios as predictors at the ethnic-group level, a one standard deviation increase in log GDP per capita from its mean score indicates a 43.5 percent reduction in the odds of being employed (1-0.565). A one standard deviation increase in the democratic index from its mean score indicates an improvement in the odds of employment of 15.6 percent (1.156-1). These findings support the assumptions of the research hypotheses, that is, that GDP per capita is negatively related to being employed, while the democratic index is positively related to employment. However, the hypotheses that geographic distance negatively impacts employment and that the size of each ethnic group positively impacts employment are not supported.

Model 4 includes possible factors at the organisational level, while controlling for individual level factors. Among the estimated effects of factors at the organisational level, only the number of immigrant wives per MFSC in the 16 metropolitan areas, i.e. manpower, has a negative association with being employed. Thus, a one standard deviation increase in the number of immigrant wives per MFSC from its mean results in a 16.3 percent reduction in the odds of being employed (1-0.837). As expected, the number of immigrant wives per

MFSC exerts a negative effect on being employed among immigrant wives in Korea.³⁷ However, other possible factors, including the annual expenditure of MFSCs and the scores of the service-delivery system attributes are not significantly related to being employed, which does not support the research hypotheses.

Model 5 involves all possible variables at the individual, ethnic-group, and organisational levels. The overall directions of the coefficients in Model 5 are the same as those in Models 2, 3, and 4.

13.2.2.3. Korean language proficiency

The relationships between variables at the individual, ethnic-group, and organisational levels and Korean language proficiency are illustrated in Table 13.2c for Models 2, 3, 4, and 5. Despite there being small differences between them, the overall patterns of coefficients in the HLM analysis of Korean language proficiency are essentially the same across all models. The only slight differences are related to the variables of the number of children older than 6 years and the use of welfare centres. Although we conducted a significance test for all the variables at the $p < 0.05$ level, the significance test results of two variables performed at the $p < 0.06$ level. This is because these variables' p-value is approximately similar to $p = 0.05$. Meanwhile, fourteen thresholds are statistically significant across all models, which indicate the presence of a unique intercept for each of the categories for Korean language skills.

We first tested the variables representing exposure to Korean language, in Model 2, which includes only the individual level variables that influence Korean language proficiency, including years since migration, the number of friends with same nationality of origin, the number of friends with other ethnic backgrounds, the number of Korean friends, participation in the gatherings with friends from the same ethnic background, participation in local resident gatherings, the use of welfare centres and the use of community centres. As anticipated, based on theories and empirical studies, when immigrant wives have resided for a

³⁷In this thesis, manpower is assessed by the number of immigrant wives per MFSC. If an MFSC serves a lower number of immigrant wives, the level of available manpower is greater. As such, a negative effect indicates that manpower increases the likelihood of employment.

longer period of time in Korea, have a number of Korean friends, participate in local resident gatherings, utilise welfare centres and utilise community centres, their Korean language skills are increased, everything else being equal. However, other variables have no statistically significant effect on Korean language proficiency, including the number of friends with the same nationality of origin, the number of friend with other ethnic backgrounds, and participation in gatherings with friends having the same ethnic background,. These findings do not correspond with the proposed research hypotheses.

Next, we assessed age and education, as they related to Korean language ability. The analysis results confirmed the expected positive linear relationship between age and Korean language skills, everything else being equal. Also as expected, the analysis results showed a positive linear relationship between education and Korean language skills, everything else being equal.

Next, we assessed the relationship of employment as an economic incentive for Korean language proficiency. When immigrant wives participate in the Korean labour market, Korean language skills are improved, everything else being equal. This result is consistent with the research hypothesis.

Lastly, we tested the variables representing family resources, including household income and the number of children. Unexpectedly, the effect of household income is not significantly related to Korean language proficiency. Also surprisingly, other things being equal, the number of children younger than 6 years showed a positive linear effect on Korean language proficiency, while the number of children older 6 years has a negative linear effect, everything else being equal. This indicates the effect of children on immigrant wives' Korean language skills is complex.

Model 3 tests for ethnic-group level variables, while controlling for individual level variables. The results show that geographic distance and the democratic index have a negative effect on being fluent in the Korean language. The negative effect of geographic distance is consistent with the research hypotheses. However, the negative relationship of the democratic

index on being fluent is not consistent with the research assumption that it would have a positive effect.

In Model 4 tests for organisational level variables, while controlling for individual level variables. The results of the analysis estimating the effects of organisational level variables showed that all three factors, including annual expenditure per MFSC, the number of immigrant wives per MFSC (i.e., manpower), and the scores of the service-delivery system attributes, had no statistically significant effect, which is inconsistent with the research hypotheses.

The results from Model 5, which incorporates all the individual level, ethnic-group level, and organisational level variables, showed that the overall directions of the coefficients were the same as those in Models 2, 3, and 4.

13.2.2.4. Life satisfaction

The estimation of predictors for a higher level of life satisfaction at the individual, ethnic-group, and organisational level is shown in Table 13.2d for Models 2, 3, 4, and 5. The directions of all the variables do not change across the models. Meanwhile, three thresholds are statistically significant across all models, which indicate a unique intercept for each of the life satisfaction categories.

We used Model 2, which estimates only the effects of individual level variables, to assess demographic characteristics. Other things being equal, age has a U-shaped relationship with a higher level of life satisfaction, since age has a negative relationship simultaneously with age squared having a positive relationship. Second, despite the fact that education is predicted to yield greater life satisfaction, education is not a statistically significant predictor of life satisfaction. Third, unexpectedly, the variable of years since migration has a negative impact on life satisfaction, everything else being equal. Thus, those who recently have arrived in Korea are more likely to be satisfied with their lives in Korea. Fourth, although it had been inferred that being employed improves life satisfaction, the variable of employment has a

negative impact on life satisfaction, everything else being equal. Finally, as predicted, Korean language skills enhance life satisfaction, everything else being equal.

Next, we assessed family resources. First, the effect of the number of children regardless of child's age has a negative association, suggesting that children would serve to decrease immigrant wives' life satisfaction, everything else being equal. Second, household income improves life satisfaction, which supports the research hypothesis. Thus, those who earn high levels of household income are more likely to be satisfied with their lives in Korea, everything else being equal. Third, as anticipated, the relationships with the husband, mother-in-law, and relatives are positively associated with life satisfaction, everything else being equal. This indicates that when immigrant wives have a good relationship with their husband, mother-in-law, and relatives, they are also satisfied with their lives in Korea. However, the relationship with children has no significant effect on life satisfaction.

Third, we assessed social capital resources. Although it was expected that social capital resources would increase immigrant wives' life satisfaction, all possible variables representing social capital resources were statistically insignificant. Thus, participation in gatherings with friends having the same ethnic backgrounds, participation in local resident gatherings, the number of friends from same nationality of origin, the number of friends with other ethnic backgrounds, the number of Korean friends, the use of welfare centres and the use of community centres are not statistically significant with respect to life satisfaction.

Model 3 estimates ethnic-group level variables, while controlling for individual level variables. Positive relationships were found between logged geographic distance and life satisfaction and between the democratic index and life satisfaction. The results for both geographic distance and the democratic index are consistent with the research hypothesis. However, there is no significant relationship between the logged GDP per capita and life satisfaction, or between the logged size of the population of each ethnic group and life satisfaction. These insignificant relationship findings are not consistent with the research hypotheses.

Model 4 estimates organisational level variables, while controlling for individual level variables. The scores of the service-delivery system attribute and the number of immigrant wives per MFSC do not emerge as significant factors with respect to life satisfaction, whereas the financial resources per MFSC is significantly related with the life satisfaction of immigrant wives. These findings indicate that the scores of the service-delivery system attributes and the number of MFSCs (i.e., manpower) are inconsistent with the research hypotheses, but that the findings with respect to financial resources is consistent with the research hypothesis.

Model 5 uses all possible variables at the individual, ethnic-group, and organisational levels together, as a full model. The results show that the patterns of the all variables in Model 5 do not change from those found in Models 2, 3, and 4.

In this chapter, we used the HLM technique to investigate the question of how MFSS's effectiveness is improved. To answer the question, this thesis has focused on possible factors that influence immigrant integration at the individual, ethnic-group, and organisational levels, based on the literature review presented in Chapters 6, 7, 8, and 9. To expand our understanding of these findings, these accounts are further examined in the next chapter in a discussion of the common and different features in the findings of the analysis and in the literature reviewed in Chapters 6, 7, 8, and 9.

Table 13.2a: Cross-classified modelling results on citizenship

<i>Fixed Effects</i>	Model 1		Model 2		Model 3		Model 4		Model 5	
	<i>Coef</i>	<i>OR</i>	<i>Coef</i>	<i>OR</i>	<i>Coef</i>	<i>OR</i>	<i>Coef</i>	<i>OR</i>	<i>Coef</i>	<i>OR</i>
Intercept	-0.968	0.380***	-1.676	0.187**	-1.691	0.184***	-1.673	0.188***	-1.687	0.185***
Individual level Determinants										
Age			0.113	1.120***	0.115	1.122***	0.113	1.119***	0.115	1.121***
Age square / 100			-0.119	0.888***	-0.120	0.887***	-0.118	0.889***	-0.120	0.887***
<i>Education (reference = no schooling)</i>										
elementary school			-0.208	0.812	-0.206	0.814	-0.199	0.819	-0.197	0.821
middle school			-0.035	0.965	-0.031	0.969	-0.026	0.974	-0.022	0.978
high school			-0.127	0.880	-0.121	0.886	-0.117	0.890	-0.111	0.895
college or undergraduate school			-0.328	0.720	-0.317	0.729	-0.319	0.727	-0.308	0.735
post-graduate school			-1.032	0.356**	-1.019	0.361**	-1.026	0.358**	-1.014	0.363**
Years since migration			0.317	1.373***	0.317	1.373***	0.317	1.373***	0.317	1.373***
The number of children			0.466	1.594***	0.465	1.591***	0.466	1.594***	0.465	1.592***
<i>Household income (reference = below one million)</i>										
1 million to less than 2 million won			-0.019	0.982	-0.018	0.982	-0.022	0.979	-0.021	0.979
2 million to less than 3 million won			-0.088	0.915	-0.088	0.915	-0.094	0.910	-0.095	0.910
3 million to less than 4 million won			-0.088	0.916	-0.088	0.916	-0.092	0.912	-0.092	0.912
more than 4 million won			-0.238	0.788	-0.238	0.788	-0.246	0.782	-0.246	0.782
The participation in the meeting of friend from the same origins of nationalities			0.099	1.104	0.099	1.104	0.097	1.102	0.098	1.103
The participation in local residents gathering			0.059	1.060	0.058	1.060	0.057	1.058	0.056	1.058
The number of friends with same origin nationalities			-0.064	0.938**	-0.064	0.938**	-0.064	0.938**	-0.064	0.938**
The number of friends with other ethnic backgrounds			-0.106	0.900	-0.107	0.899	-0.103	0.902	-0.105	0.901
The number of Korean friends			-0.004	0.995	-0.005	0.995	-0.004	0.996	-0.004	0.996
Use of welfare centres			0.038	1.039	0.037	1.037	0.031	1.032	0.030	1.030
Use of community centres			0.466	1.594***	0.467	1.596***	0.469	1.599***	0.461	1.601***
The relationship with a husband			-0.241	0.786***	-0.240	0.786***	-0.241	0.786***	-0.240	0.786***
Employment			0.315	1.370***	0.314	1.369***	0.314	1.369***	0.313	1.368***
Korean language proficiency			0.103	1.109***	0.103	1.109***	0.103	1.108***	0.103	1.108***

*** p < 0.01; ** p < 0.05

Table 13.2a: Cross-classified modelling results on citizenship (continue)

<i>Fixed Effects</i>	Model 1		Model 2		Model 3		Model 4		Model 5	
	<i>Coef</i>	<i>OR</i>	<i>Coef</i>	<i>OR</i>	<i>Coef</i>	<i>OR</i>	<i>Coef</i>	<i>OR</i>	<i>Coef</i>	<i>OR</i>
Ethnic-Group level Determinants										
Ln geographic distance					-1.320	0.267			-1.320	0.267
Ln GDP per capita					-1.606	0.201***			-1.602	0.202***
Democratic index					-0.371	0.690			-0.372	0.689
Ln size of ethnic group					-0.302	0.739			-0.304	0.738
Organisational level Determinants										
Financial resources per MFSC							0.001	1.001	0.001	1.001
Number of immigrant wives per MFSC							-0.036	0.964	-0.035	0.965
Composite scores of attributes of service-delivery							-0.020	0.981	-0.020	0.980
Random Effect	Variance (Df)	χ^2	Variance (Df)	χ^2	Variance (Df)	χ^2	Variance (Df)	χ^2	Variance (Df)	χ^2
Intercept, b_{00} (ethnic groups)	0.891 (9)	788.838** *	4.636 (9)	2185.503* **	0.974 (5)	436.511* **	4.613 (6)	2181.146* **	0.966 (2)	436.583* **
Intercept, c_{00} (16 areas regarding MFSCs)	0.014 (15)	33.547***	0.013 (15)	26.394**	0.013 (11)	26.654** *	0.009 (12)	23.231**	0.009 (8)	23.437** *

*** p < 0.01; ** p < 0.05

Table 13.2b: Cross-classified modelling results on employment

<i>Fixed Effects</i>	Model 1		Model 2		Model 3		Model 4		Model 5	
	<i>Coef</i>	<i>OR</i>	<i>Coef</i>	<i>OR</i>	<i>Coef</i>	<i>OR</i>	<i>Coef</i>	<i>OR</i>	<i>Coef</i>	<i>OR</i>
Intercept	-0.205	0.814	-0.418	0.658**	-0.459	0.632***	-0.405	0.667**	-0.446	0.640***
Individual level Determinants										
Age			0.190	1.209***	0.194	1.214***	0.190	1.209***	0.195	1.215***
Age square / 100			-0.208	0.813***	-0.211	0.810***	-0.208	0.812***	-0.212	0.809***
<i>Education (reference = no schooling)</i>										
elementary school			0.123	1.131	0.135	1.145	0.122	1.130	0.134	1.144
middle school			-0.118	0.894	-0.090	0.914	-0.116	0.890	-0.095	0.909
high school			-0.168	0.845	-0.136	0.873	-0.168	0.846	-0.135	0.874
college or undergraduate school			-0.256	0.774	-0.210	0.811	-0.253	0.776	-0.206	0.814
post-graduate school			0.076	1.079	0.142	1.152	0.094	1.099	0.161	1.174
Years since migration			0.091	1.095***	0.091	1.095***	0.091	1.096***	0.091	1.096***
The number of children below 6 yrs.			-0.546	0.579***	-0.547	0.579***	-0.547	0.579***	-0.548	0.578***
The number of children over 6 yrs.			-0.100	0.905**	-0.104	0.902**	-0.105	0.900**	-0.109	0.896**
<i>Household income (reference = below one million)</i>										
1 million to less than 2 million won			0.331	1.393***	0.333	1.395***	0.336	1.398***	0.337	1.401***
2 million to less than 3 million won			0.811	2.251***	0.813	2.254***	0.818	2.266***	0.820	2.271***
3 million to less than 4 million won			1.136	3.113***	1.139	3.124***	1.147	3.147***	1.151	3.161***
more than 4 million won			1.151	3.162***	1.154	3.171***	1.162	3.197***	1.166	3.209***
The participation in the meeting of friend from the same origins of nationalities			-0.023	0.977	-0.027	0.973	-0.024	0.976	-0.029	0.972
The participation in local residents gathering			-0.007	0.993	-0.010	0.990	-0.008	0.992	-0.011	0.989
The number of friends with same origin nationalities			0.154	1.167***	0.155	1.167***	0.153	1.166***	0.154	1.166***
The number of friends with other ethnic backgrounds			0.078	1.081	0.076	1.079	0.078	1.081	0.076	1.079
The number of Korean friends			0.183	1.201***	0.183	1.201***	0.183	1.201***	0.183	1.200***
Use of welfare centres			-0.035	0.965	-0.039	0.962	-0.033	0.967	-0.037	0.964
Use of community centres			0.176	1.192***	0.180	1.197***	0.174	1.190***	0.178	1.195***
The relationship with a husband			-0.218	0.804***	-0.218	0.804***	-0.219	0.804***	-0.219	0.803***
The relationship with mother-in-law			-0.036	0.964	-0.036	0.964	-0.037	0.964	-0.036	0.964
Labour market experience			-0.163	0.850**	-0.164	0.849**	-0.163	0.850**	-0.165	0.848**
Korean language proficiency			0.036	1.037***	0.037	1.038***	0.036	1.036***	0.036	1.037***

*** p < 0.01; ** p < 0.05

Table 13.2b: Cross-classified modelling results on employment (continue)

<i>Fixed Effects</i>	Model 1		Model 2		Model 3		Model 4		Model 5	
	<i>Coef</i>	<i>OR</i>	<i>Coef</i>	<i>OR</i>	<i>Coef</i>	<i>OR</i>	<i>Coef</i>	<i>OR</i>	<i>Coef</i>	<i>OR</i>
Ethnic-Group level Determinants										
Ln geographic distance					0.165	1.179			0.163	1.177
Ln GDP per capita					-0.570	0.565***			-0.570	0.566***
Democratic index					0.145	1.156**			0.144	1.155**
Ln size of ethnic group					0.315	1.371			0.316	1.371
Organisational level Determinants										
Financial resources per MFSC							0.001	1.001	0.002	1.002
Number of immigrant wives per MFSC							-0.178	0.837**	-0.175	0.839**
Composite scores of attributes of service-delivery							0.017	1.017	0.017	1.017
Random Effect	Variance (Df)	χ^2	Variance (Df)	χ^2	Variance (Df)	χ^2	Variance (Df)	χ^2	Variance (Df)	χ^2
Intercept, b_{00} (ethnic groups)	0.129 (9)	141.485** *	0.349 (9)	440.842** *	0.042 (5)	49.756** *	0.346 (6)	443.887 ***	0.041 (2)	48.562** *
Intercept, c_{00} (16 areas regarding MFSCs)	0.027 (15)	49.405***	0.079 (15)	94.314***	0.074 (11)	91.040** *	0.025 (12)	43.534* **	0.023 (8)	42.826** *

*** p < 0.01; ** p < 0.05

Table 13.2c: Cross-classified modelling results on Korean language proficiency

<i>Fixed Effects</i>	Model 1		Model 2		Model 3		Model 4		Model 5	
	<i>Coef</i>	<i>Se</i>	<i>Coef</i>	<i>Se</i>	<i>Coef</i>	<i>Se</i>	<i>Coef</i>	<i>Se</i>	<i>Coef</i>	<i>Se</i>
Intercept	-2.317	0.277***	-2.642	0.255***	-2.650	0.152***	-2.645	0.254***	-2.653	0.151***
Individual level Determinants										
Age			-0.023	0.004***	-0.023	0.004***	-0.023	0.004***	-0.023	0.004***
<i>Education (reference = no schooling)</i>										
elementary school			0.923	0.192***	0.922	0.192***	0.932	0.192***	0.930	0.192***
middle school			1.060	0.183***	1.058	0.183***	1.069	0.183***	1.067	0.183***
high school			1.412	0.183***	1.410	0.183***	1.423	0.183***	1.420	0.183***
college or undergraduate school			1.532	0.189***	1.531	0.189***	1.544	0.189***	1.543	0.189***
post-graduate school			1.850	0.301***	1.851	0.301***	1.873	0.301***	1.874	0.301***
Years since migration			0.151	0.009***	0.151	0.009***	0.151	0.009***	0.151	0.009***
The number of children below 6 yrs.			0.164	0.035***	0.164	0.035***	0.162	0.035***	0.162	0.035***
The number of children over 6 yrs.			-0.072	0.038 ^a	-0.072	0.038 ^b	-0.074	0.038 ^c	-0.074	0.038**
<i>Household income (reference = below one million)</i>										
1 million to less than 2 million won			-0.024	0.086	-0.025	0.086	-0.023	0.086	-0.024	0.086
2 million to less than 3 million won			0.087	0.087	0.087	0.087	0.090	0.087	0.089	0.087
3 million to less than 4 million won			0.125	0.100	0.124	0.100	0.131	0.101	0.129	0.101
more than 4 million won			0.088	0.119	0.087	0.119	0.094	0.119	0.092	0.119
The participation in the meeting of friend from the same origins of nationalities			-0.007	0.055	-0.008	0.055	-0.009	0.055	-0.009	0.055
The participation in local residents gathering			0.220	0.063***	0.220	0.063***	0.214	0.063***	0.214	0.063***
The number of friends with same origin nationalities			-0.009	0.019	-0.009	0.019	-0.008	0.019	-0.008	0.019
The number of friends with other ethnic backgrounds			0.085	0.049	0.086	0.049	0.086	0.049	0.087	0.049
The number of Korean friends			0.126	0.019***	0.126	0.019***	0.128	0.019***	0.128	0.019***
Use of welfare centres			0.109	0.056 ^d	0.109	0.056 ^d	0.109	0.056 ^c	0.109	0.056 ^c
Use of community centres			0.398	0.054***	0.398	0.054***	0.399	0.054***	0.400	0.054***
Employment			0.160	0.051***	0.161	0.051***	0.155	0.051***	0.156	0.051***

*** p < 0.01; ** p < 0.05

a: 0.056; b: 0.055; c: 0.05; d: 0.052

Table 13.2c: Cross-classified modelling results on Korean language proficiency (continue)

<i>Fixed Effects</i>	Model 1		Model 2		Model 3		Model 4		Model 5	
	<i>Coef</i>	<i>Se</i>	<i>Coef</i>	<i>Se</i>	<i>Coef</i>	<i>Se</i>	<i>Coef</i>	<i>Se</i>	<i>Coef</i>	<i>Se</i>
Ethnic-Group level Determinants										
Ln geographic distance					-1.404	0.524**			-1.404	0.525**
Ln GDP per capita					-0.040	0.170			-0.039	0.170
Democratic index					-0.254	0.096**			-0.254	0.096**
Ln size of ethnic group					-0.450	0.325			-0.452	0.325
Organisational level Determinants										
Financial resources per MFSC							0.032	0.052	0.032	0.052
Number of immigrant wives per MFSC							-0.079	0.043	-0.078	0.043
Composite scores of attributes of service-delivery							-0.007	0.009	-0.007	0.009
Thold2	0.204	0.021***	0.219	0.022***	0.219	0.022***	0.219	0.022***	0.219	0.022***
Thold3	0.524	0.031***	0.565	0.034***	0.565	0.034***	0.565	0.034***	0.565	0.033***
Thold4	0.734	0.036***	0.794	0.038***	0.794	0.038***	0.794	0.038***	0.794	0.038***
Thold5	1.472	0.045***	1.595	0.048***	1.595	0.048***	1.595	0.048***	1.595	0.048***
Thold6	1.759	0.047***	1.909	0.050***	1.908	0.050***	1.908	0.050***	1.908	0.050***
Thold7	2.132	0.049***	2.317	0.053***	2.317	0.052***	2.317	0.053***	2.317	0.053***
Thold8	2.394	0.050***	2.603	0.054***	2.603	0.054***	2.602	0.054***	2.602	0.054***
Thold9	3.327	0.055***	3.623	0.059***	3.623	0.059***	3.622	0.059***	3.622	0.059***
Thold10	3.721	0.056***	4.053	0.061***	4.053	0.061***	4.053	0.061***	4.053	0.061***
Thold11	4.251	0.060***	4.633	0.065***	4.633	0.065***	4.632	0.065***	4.633	0.065***
Thold12	4.537	0.062***	4.945	0.068***	4.945	0.068***	4.944	0.068***	4.945	0.068***
Thold13	5.447	0.074***	5.918	0.079***	5.918	0.079***	5.918	0.079***	5.918	0.079***
Thold14	6.390	0.097***	6.903	0.102***	6.903	0.102***	6.903	0.102***	6.903	0.102***
Thold15	6.589	0.104***	7.108	0.109***	7.108	0.109***	7.108	0.109***	7.108	0.109***
Random Effect	Variance (Df)	χ^2	Variance (Df)	χ^2	Variance (Df)	χ^2	Variance (Df)	χ^2	Variance (Df)	χ^2
Intercept, b_{00} (ethnic groups)	0.723 (9)	1396.688** *	0.603 (9)	1021.531** *	0.187 (5)	375.944** *	0.601 (6)	1012.096** *	0.187 (2)	367.353** *
Intercept, c_{00} (16 areas regarding MFSCs)	0.017 (15)	51.491***	0.017 (15)	50.590***	0.017 (11)	50.299***	0.010 (12)	33.498***	0.010 (8)	33.468***

*** $p < 0.01$; ** $p < 0.05$

Table 13.2d: Cross-classified modelling results on life satisfaction

<i>Fixed Effects</i>	Model 1		Model 2		Model 3		Model 4		Model 5	
	<i>Coef</i>	<i>Se</i>	<i>Coef</i>	<i>Se</i>	<i>Coef</i>	<i>Se</i>	<i>Coef</i>	<i>Se</i>	<i>Coef</i>	<i>Se</i>
Intercept	-1.244	0.814***	-1.522	0.063***	-1.524	0.053***	-1.518	0.058***	-1.520	0.046***
Individual level Determinants										
Age			-0.079	0.020***	-0.072	0.019***	-0.079	0.020***	-0.073	0.019***
Age square / 100			0.105	0.026***	0.100	0.025***	0.106	0.026***	0.100	0.025***
<i>Education (reference = no schooling)</i>										
elementary school			-0.139	0.207	-0.129	0.207	-0.142	0.207	-0.131	0.207
middle school			-0.279	0.196	-0.259	0.196	-0.282	0.196	-0.261	0.196
high school			-0.337	0.196	-0.296	0.194	-0.337	0.196	-0.293	0.194
college or undergraduate school			-0.335	0.202	-0.284	0.199	-0.336	0.202	-0.282	0.199
post-graduate school			-0.285	0.320	-0.253	0.319	-0.276	0.320	-0.242	0.319
Years since migration			-0.028	0.009***	-0.028	0.009***	-0.027	0.009***	-0.027	0.009***
The number of children below 6 yrs.			-0.184	0.046***	-0.189	0.046***	-0.182	0.046***	-0.188	0.046***
The number of children over 6 yrs.			-0.093	0.042**	-0.093	0.042**	-0.091	0.042**	-0.091	0.042**
<i>Household income (reference = below one million)</i>										
1 million to less than 2 million won			0.234	0.094**	0.235	0.094**	0.236	0.094**	0.237	0.094**
2 million to less than 3 million won			0.460	0.096***	0.462	0.096***	0.462	0.096***	0.464	0.096***
3 million to less than 4 million won			0.590	0.110***	0.596	0.110***	0.593	0.110***	0.601	0.110***
more than 4 million won			0.806	0.129***	0.815	0.129***	0.817	0.130***	0.826	0.130***
The participation in the meeting of friend from the same origins of nationalities			0.093	0.059	0.092	0.059	0.093	0.059	0.092	0.059
The participation in local residents gathering			0.117	0.067	0.119	0.067	0.117	0.067	0.120	0.067
The number of friends with same origin nationalities			0.017	0.020	0.019	0.021	0.017	0.020	0.019	0.021
The number of friends with other ethnic backgrounds			-0.030	0.053	-0.035	0.053	-0.031	0.053	-0.036	0.053
The number of Korean friends			0.033	0.021	0.035	0.021	0.033	0.021	0.034	0.021
Use of welfare centres			0.077	0.060	0.077	0.060	0.081	0.060	0.079	0.060
Use of community centres			-0.093	0.058	-0.092	0.058	-0.096	0.058	-0.094	0.058
The relationship with a husband			0.791	0.028***	0.792	0.028***	0.793	0.028***	0.794	0.028***
The relationship with children			0.028	0.018	0.028	0.018	0.028	0.018	0.028	0.018
The relationship with mother-in-law			0.049	0.018***	0.049	0.018***	0.049	0.018***	0.049	0.018***
The relationship with relatives			0.155	0.024***	0.153	0.024***	0.153	0.024***	0.151	0.024***
Employment			-0.167	0.055***	-0.180	0.055***	-0.171	0.055***	-0.183	0.056***
Korean language proficiency			0.036	0.008***	0.038	0.008***	0.036	0.008***	0.038	0.007***

*** p < 0.01; ** p < 0.05

Table 13.2d: Cross-classified modelling results on life satisfaction (continue)

<i>Fixed Effects</i>	Model 1		Model 2		Model 3		Model 4		Model 5	
	<i>Coef</i>	<i>Se</i>	<i>Coef</i>	<i>Se</i>	<i>Coef</i>	<i>Se</i>	<i>Coef</i>	<i>Se</i>	<i>Coef</i>	<i>Se</i>
Ethnic-Group level Determinants										
Ln geographic distance					0.295	0.114**			0.298	0.114**
Ln GDP per capita					-0.041	0.046			-0.042	0.046
Democratic index					0.065	0.027**			0.065	0.027**
Ln size of ethnic group					0.153	0.076			0.152	0.076
Organisational level Determinants										
Financial resources per MFSC							0.145	0.048**	0.144	0.047***
Number of immigrant wives per MFSC							-0.061	0.038	-0.061	0.037
Composite scores of attributes of service-delivery							0.009	0.009	0.009	0.008
Thold2	1.383	0.029***	1.668	0.035***	1.668	0.035***	1.669	0.036***	1.669	0.036***
Thold3	3.849	0.058***	4.712	0.073***	4.715	0.073***	4.715	0.073***	4.718	0.073***
Thold4	5.326	0.107***	6.385	0.120***	6.389	0.120***	6.390	0.120***	6.393	0.120***
Random Effect	Variance (Df)	χ^2	Variance (Df)	χ^2	Variance (Df)	χ^2	Variance (Df)	χ^2	Variance (Df)	χ^2
Intercept, b_{00} (ethnic groups)	0.035 (9)	68.243** *	0.013 (9)	29.379** *	0.000 (5)	8.405	0.013 (6)	29.404** *	0.000 (2)	8.284**
Intercept, c_{00} (16 areas regarding MFSCs)	0.018 (15)	44.106** *	0.015 (15)	39.032** *	0.014 (11)	37.685** *	0.005 (12)	24.230**	0.004 (8)	22.878** *

*** $p < 0.01$; ** $p < 0.05$

Chapter 14: *Discussion for Findings in the Empirical Testing with HLM (I): focused on variables at the individual level*

This chapter discusses the empirical testing results of this thesis study in detail, with a focus on the fundamental research question of how MFSS can be transformed into an effective service-delivery system. Largely depending on an open system approach in the logic model, via HLM analysis, we answer this research question by examining the factors affecting immigrant wives' integration as having either a cause (i.e., inputs and throughputs) or effect (i.e., outputs) relationship.

Based on this cause-and-effect assumption, in this section we assess whether or not the findings in Chapter 13 are consistent with the theories and empirical studies discussed in Chapters 6, 7, 8 and 9. However, since most assumptions in this thesis have largely relied on the theories and empirical results for immigration and human service in studies by Western scholars, some findings are necessarily constrained in their assessment of the research assumptions. It may be that contingencies of time, place and selected population may have “a critical impact on the nature of the research findings uncovered” (Hirschman, 1999, p. 120; Rubin and Babbie, 1989). Therefore, we review the features that share common and different findings in this empirical study, with regard to the literature of western and Korean scholars. In this chapter (Chapter 14), we focus on individual level variables, and in the next chapter (Chapter 15) we address variables at the ethnic-group and organisational levels.

14.1. BACKGROUND FOR DISCUSSION

The causal mechanisms are based on the open system approach in the logic model that emphasises on a simple systematic picture of the flow of inputs, throughputs, and outputs as the broader theoretical framework of how MFSS can be delivered effectively. In this respect, inputs and throughputs are causes whereas outputs are effects thought of as the extent of effectiveness. Thus, the logic of open system approach suggests that the extent of effectiveness given as outputs is influenced by inputs and throughputs in the process of MFSS delivery.

In establishing a broader theoretical framework for determining how MFSS can be delivered effectively, the causal mechanisms are based on the open system approach in the logic model, using a simple systematic picture of the flow of inputs, throughputs, and outputs. In this respect, when considering the extent of effectiveness, inputs and throughputs have a causal relationship whereas outputs are the effect of such relationships. Thus, the logic of the open system approach suggests that the extent of effectiveness, given as outputs, is influenced by inputs and throughputs in the process of MFSS delivery.

Although the open system approach is reasonable for predicting general causal relationships in the big picture, it is constrained when measuring core concepts and testing diverse partial hypotheses (Hirschman, 1999). To measure inputs, throughputs and outputs and to understand the partial empirical predictions in this study, we constructed input, throughput, and output indicators, and then established various bivariate relationships as partial hypotheses, relying primarily on the perspectives of immigrant adaptation and effective service-delivery systems. From these perspectives, we framed this thesis in three sets of partial hypotheses: individual level variables are related to immigrant integration; ethnic-group level variables are associated with immigrant integration; and organisational level variables have some relationship with immigrant integration.

However, based on the findings in Chapter 13, some of these variables were found to be statistically significant while other variables were not. From these disparate findings, there are two possible approaches to take. One is to focus on the statistically positive and significant variables in the empirical test findings. Because MFSS' main goal is the integration of immigrant wives, the main goal of this thesis is to determine how immigrant wives' integration can be enhanced. Hence, it may be reasonable to emphasise the statistically positive and significant variables to achieve an effective service-delivery system. In other words, in the process of delivering MFSS to immigrant wives, the services must consistently reflect an emphasis on statistically positive and significant variables in order to increase the extent of immigrant wives' integration.

Another approach is to identify reasons why some variables are shown to have a statistically negative association with immigrant wives' integration or why others showed no statistically significant relationship. A focus on the negative or insignificant variables would not increase the extent of immigrant wives' integration, and would lead to ineffective service-delivery. We must necessarily reflect on the rationale for certain service delivery processes, so that MFSS can be effectively enhanced.

In the following chapters, based on the empirical findings in Chapter 13, we review the positive and significant variables influencing immigrant wives' integration. In addition, we discuss the reasons why some variables are insignificant or have a negative impact on immigrant wives' integration, based on the previous studies reviewed in Chapters 6, 7, 8 and 9. First, we address individual level variables influencing Korean naturalisation.

14.2. CITIZENSHIP

The results regarding Korean naturalisation at the individual level are summarised as follows:

Citizenship = [age (+), age squared (-), postgraduate school (-), employment (+), family income (no sig), the number of friends from the same nationality of origin (-), the number of friends with other ethnic backgrounds (no sig), the number of Korean friends (no sig), participation in gatherings with friends from the same ethnic background (no sig), participation in local resident gatherings (no sig), the use of welfare centres (no sig), the use of community centres (+), Korean language skills (+), years since migration (+), children (+), the relationship with the husband (-)].

Variables representing the cost-benefit perspective reveal a rather more complicated picture. First, the effect of age is consistent with the empirical studies of P. Yang (1994), Bueker (2005) and Fougere and Safi (2009), in which age shows a curvilinear relationship with citizenship acquisition. Possible explanations can be found for this quadratic relationship with immigrant wives in Korea. Up to middle age, immigrant wives may not only accumulate all the capabilities necessary to meet the eligibility criteria for acquiring Korean citizenship,

but they may also increase their knowledge about and interest in obtaining Korean citizenship which then leads them to take the necessary steps to realise its benefits. However, immigrant wives who pass middle age may find it more difficult to meet these same eligibility criteria for naturalisation and end up having limited incentives to do so, because they will not have enough time in Korea to enjoy the full benefits of citizenship. As such, the likelihood of acquiring Korean citizenship may increase until middle age, but decrease thereafter.

Second, education was shown to have a partially negative relationship with respect to the acquisition of Korean citizenship, as only postgraduate school is negatively associated with Korean naturalisation. This result is not consistent with previous studies in which education increases the likelihood of citizenship. We may possibly infer that immigrant wives with higher educational attainment may better understand the actual situations in Korea, including the discrimination and disadvantages immigrant wives face (Portes and Rumbaut, 2006). In other words, the more educated they are, the more they are aware of the various shortcomings and serious discrimination they will experience. This may discourage immigrant wives from staying longer and acquiring Korean citizenship.

Third, as expected, employment has a positive impact on Korean citizenship acquisition. There are a number of possible explanations. One is that immigrant wives who participate in the labour market are more likely to obtain socioeconomic resources than those who do not. These employment-related economic resources tend to help them weather painful experiences (P. Yang, 1994) in the process of acquiring Korean citizenship, such as completing a means test and filling out the required documents for citizenship. Immigrant wives who are employed increase the level of their household income and can thus meet the eligibility requirements of the means test (Portes and Rumbaut, 2006). Immigrant wives with higher levels of household income may avoid the painstaking preparation of Korean citizenship documents by hiring a lawyer to deal with them (Portes and Rumbaut, 2006). Another explanation for the positive impact of employment on Korean citizenship acquisition is that, by being employed, immigrant wives may increase their Korean language ability through frequent use. In the workplace, exposure to the destination language is increased when immigrants are employed in the destination country (Chiswick and Miller, 2001). Since

being employed increases the opportunities to speak the Korean language, then immigrant wives with higher levels of Korean language skills are more likely to acquire Korean citizenship. Hence, being employed would facilitate a higher probability of acquiring Korean citizenship.

Fourth, and unexpectedly, household income was shown to have no significant effect on Korean naturalisation. This result is inconsistent with that of previous empirical studies, wherein the greater the family income, the greater the likelihood of acquiring citizenship. One possible explanation is that because many multicultural families, including those with immigrant wives, tend to experience economic strife from earning lower levels of income than the average Korean family with more than two members (Kim et al., 2010; Jeon et al., 2013)—3.84 million won (Korean Statistical Information Service, kosis.kr)—household income may have no impact in this empirical analysis.

Lastly, in terms of social networks, the use of community centres has a positive impact while the number of friends from the same nationality of origin has a negative impact. In addition, the relationships of other social network variables were shown to be insignificant. Because government-initiated community centres deal with civil affairs (S. Kim, 2012), immigrant wives may obtain information about Korean naturalization if they visit the centres. In addition, because the centres provide various social education programs, such as education on Internet usage, job placement, and vocational training (S. Kim, 2012), by utilising these programs immigrant wives may acquire information that helps them to adjust to life in Korea. Armed with information to help them better adjust to Korean society, they may then be motivated to obtain Korean naturalisation. However, by interacting with friends from the same nationality of origin, immigrants may share information regarding adjustment to the host society within the boundaries of the ethnic network (P. Yang, 1994). As such, immigrants with “self-contained” ethnic networks are less likely to be motivated to obtain citizenship (P. Yang, 1994, p. 456). Reflecting on the self-contained nature of ethnic networks, it is understandable that the number of friends from the same nationality of origin may have a negative impact on the acquisition of Korean naturalisation.

The insignificant relationship of other variables may be related to the size of the network or the closeness between members. It is likely that the size of these social networks may be small and the bonds between their members are not strong. The 2012 NSMF shows that among immigrant wives, about 53.4 percent participate in social gatherings of friends from the same country of origin, whereas only about 14 percent participate in local resident gatherings (Jeon et al., 2013). In addition, based on the descriptive analysis results, on average, the number of friends with other ethnic backgrounds is 0.12, and about 25 percent have used welfare centres (Jeon et al., 2013). As the numbers for social networks are not high, it may be inferred that their sizes are not large and the members do not share a close relationship. Within small and weak social networks, immigrant wives may have limited opportunities to receive useful information or to realise the benefits of acquiring Korean citizenship. Finally, immigrant wives who belong to small and weak social networks and do not obtain the necessary information or realise the associated incentives are less likely to acquire Korean citizenship than immigrant wives who have large and strong social networks and who do obtain information and understand the benefits. Hence, the number of friends with other ethnic backgrounds, the number of Korean friends, participation in social gatherings with friends from the same ethnic backgrounds, participation in local resident gatherings, and the use of welfare centres has no impact on Korean naturalisation, because most service users' social networks are weak and small.

The results regarding institutional structure variables were as expected. First, the variable of years since migration was a positive determinant for Korean citizenship acquisition. This result accords with those in studies by Tam Cho (1999), Jones-Correa (2001), Bueker (2005) and Pantoja and Gershon (2006). With additional years in Korea, immigrant wives may accumulate socioeconomic resources that help them navigate the cumbersome procedures associated with the citizenship application process. Moreover, these resources may also increase their familiarity with Korea, which may then serve to highlight the advantages of Korean citizenship. This suggests that the greater the number of years since migration, the fewer the disincentives and the greater the incentives. As such, a longer time of settlement in Korea increases the likelihood of Korean citizenship acquisition.

Second, the number of children positively and significantly influences the acquisition of Korean citizenship. As predicted, immigrant wives expect to obtain the benefits of naturalisation for their children. They may hope that their children experience a smooth settlement in Korea to ease the process of adjustment. According to the Korean National Act of 2011, once immigrant wives obtain Korean citizenship, their children are automatically granted citizenship. When immigrant wives become Korean citizens, the likelihood increases that their children will enjoy the advantages of Korean citizenship, including employment, education, access to welfare programs, and being less likely to experience discrimination. In this respect, having more children is likely to increase the likelihood of immigrant wives becoming naturalised.

Finally, and consistent with the research hypothesis, the relationship with the husband was shown to be negatively related to Korean citizenship acquisition. However, we must consider a few scenarios when interpreting this result, because in this thesis the spousal relationship is regarded as a proxy variable for divorce. One scenario is that immigrant wives were divorced before acquiring Korean citizenship. To escape the difficult conditions that result from divorce, such as deportation and poverty, (C. K. Lee, 2013), divorced immigrant wives are more likely to make the effort to obtain Korean citizenship than those who are not divorced. Another possible assumption is that immigrant wives have no motivation to acquire naturalization. Although they may face difficulties such as domestic violence and marital conflicts that often lead to divorce, they may remain in a marriage to ensure their Korean naturalization (S. Y. Park, 2014). However, continuous domestic violence or severe marital conflict may ultimately discourage them from staying and they may then give up their naturalization. Another possible scenario is that immigrant wives who divorce have already become naturalized citizens prior to obtaining their divorce. In this situation, having acquired citizenship, marriage migrants who encounter domestic violence or marital conflicts may then opt for divorce (Chi, 2012). Hence, to interpret the issue of divorce (i.e., the relationship with the husband), researchers must carefully consider the temporal priority between the divorce and the acquisition of Korean naturalisation.

14.3. EMPLOYMENT

At the individual level, the results for predicting the employment of immigrant wives are summarised as follows:

Employment = [age (+), age squared (-), years since migration (+), education (no sig), labour market experience (-), Korean language skills (+), relationship with the husband (-), relationship with mother-in-law (no sig), the number of friends from the same nationality of origin (+), the number of friends with other ethnic backgrounds (no sig), the number of Korean friends (+), participation in social gatherings with friends from the same ethnic background (no sig), participation in local resident gatherings (no sig), the use of welfare centres (no sig), the use of community centres (+), the number of children under 6 years old (-), the number of children over 6 years old (-), household income (+)].

In terms of human capital resources, the overall patterns identified in this thesis are consistent with those of previous studies. First, the quadratic relationship between age and employment supports the findings in the literature concerning the labour market participation of female immigrants in the host country (Wong and Hirschman, 1983; Greenless and Saenz, 1999; Read, 2004; Kahn and Whittington, 1996; Dustmann and Fabbri, 2005). This evidence is based on two factors. One is simply dependent on the presumption that immigrants accumulate human capital resources over time in the host country, and that the likelihood of immigrants' employment increases with additional years of age (Kossoudji, 1989; Borjas, 1995). A second point is related to the fact that entry ages tend to influence the likelihood of employment (Greenless and Saenz, 1999). When younger immigrants arrive in the host country, they have a higher likelihood of employment there. However, because they are closer to retirement age, when older immigrants arrive in the host country, they have a lower likelihood of employment in the destination country. If we consider these factors together, when immigrant wives' age is increased, the likelihood of entering the Korean labour market also increases until a certain age, after which its likelihood is reduced with additional years of age.

Second, the variable of years since migration was also shown to have a positive and significant impact on employment, and strongly supports the findings of previous empirical research (Foroutan, 2008a, 2008b, Read and Cohen, 2007; Greenless and Saenz, 1999; Evans, 1984; van Tubergen, Maas and Flap, 2004). Empirical studies have revealed that, over time, immigrants tend to increase their human capital resources, including education, job experience, destination-language skills, and knowledge of the host labour market. In addition, the studies reported that the accumulated human capital resources in the destination country increase an immigrant's opportunity to enter the host labour market. With this view, the chances of an immigrant wife participating in the Korean labour market would increase over time.

Third, education does not show a significant relationship with employment. The education level of immigrants is one of the criteria for assessing their abilities when immigrants enter the labour market (Portes and Bach, 1980; Borjas, 1982, 1985; Chiswick and DebBurman, 2004). In this view, the higher their educational attainment, the more likely they are to become employed in the host labour market (Foroutan, 2008a, 2008b; Read and Cohen, 2007; Read, 2004; England, Garcia-Beaulieu and Ross, 2004; Greenlees and Saenz, 1999). However, in this thesis, the educational attainments of immigrant wives cannot predict employment. This result may reflect the general low educational achievements among immigrant wives on average. Data from the 2012 NSMF shows that only 23.5 percent of immigrant wives graduated from college, undergraduate or postgraduate schools, while 76.5 percent were high school graduates or high school drop-outs (Jeon et al., 2013). This figure may indicate that low average levels of educational attainment make it difficult to improve the likelihood of employment in the Korean labour market, so no significant relationship exists.

Fourth, as anticipated, Korean language proficiency is an important factor affecting employment. This is based on the critical role of the destination language. For example, language proficiency is not only a human capital resource per se but also translates an immigrant's job experience and educational attainments in the homeland into valuable credentials in the host country's labour market (Dustmann, 1994; Chiswick and Miller, 1995;

Chiswick and DebBurman, 2004). Depending on the substantial roles of the destination language, the more fluent immigrant wives become in the Korean language, the more employable they become in the Korean labour market.

Finally, labour market experiences are negatively associated with employment, indicating that those who have labour market experience in their home countries are less likely to participate in the host countries' labour market than those who have no labour market experience. One possible reason for this negative effect may be associated with the human capital transferability. We know that an immigrant's human capital resources acquired in the home country are not directly transferable to the host country's labour market (Friedberg, 2000; Chiswick and Miller, 2009; Basilio, Bauer, and Kramer, 2014). As such, immigrants are destined for the bottom rungs of the host countries' labour markets, including work in agriculture, the service industries, or in medium-sized businesses (Portes and Rumbaut, 2006), despite the fact that immigrants migrate to the host country to achieve better economic advantages such as higher levels of occupation and salary (Massey et al., 1993; Portes and Rumbaut, 2006). Such a mismatch thwarts immigrants from finding jobs with the expected high occupational status and salary in the host country. This scenario may explain why those who have previous job experience were less likely to find a job in Korea than those who had never worked in the home country.

With regard to social capital resources, the results are complicated. First, the number of friends from the same nationality of origin, the number of Korean friends, and the use of community centres increase the probability of being employed. As assumed, immigrants can obtain useful information from friends regarding employment, such as interview tips, information about wage levels and the reputation of domestic companies and introductions to local firms (Aguilera and Massey, 2003), all of which would increase the likelihood of being employed (Livingston, 2006). Hence, immigrant wives who have a number of friends from the same nationality of origin are more likely to be employed. In addition, social capital resources provided by an organisation or institution may include job training education or job placement services for immigrants (Portes and Rumbaut, 2006), which improve the

probability of employment (Xue, 2008). Therefore, immigrant wives who utilise community centres at least once are more likely to be employed.

Second, the logistic coefficients of participating in social gatherings with friends from the same ethnic background, participating in local resident gatherings, and the number of friends with other ethnic backgrounds are not significant with respect to the association between social networks and employment. There are a number of possible explanations for these insignificant coefficients. As noted above, the size and closeness of the social networks may not be large or strong, respectively. Data from the 2012 NSMF (Jeon et al., 2013) shows that immigrant wives experienced lack of access to ethnic and non-ethnic networks and thus their social capital was also lacking in Korea. In this situation, social networks can hardly play an important role in finding a job or providing information about job opportunities. Immigrant wives who lack social capital resources are less likely to have any advantages in finding a job in Korea, and therefore would experience difficulty in being employed in Korea at all.

Third, the relationship with a husband decreases the likelihood of employment while the relationship with the mother-in-law has no impact on employment. These results are inconsistent with those of previous studies. There are a number of possible ways to interpret this negative impact. One is that those who use MFSCs at least once are more likely to experience adjustment-related problems than those who never utilise MFSCs (Lee et al., 2013). As mentioned in Chapter 3, immigrant wives confront family conflicts and unemployment in Korea, which are serious adjustment-related problems. To deal with these problems, immigrant wives tend to use MFSCs (Lee et al., 2013). Based on this assumption, service users are less likely to be satisfied with their relationship with their husband than non-service users. Another possibility is that those who are not employed have the time to use MFSCs whereas those who are employed do not (Lee et al., 2013). Hence, service users are less likely to be employed than non-service users. These assumptions are consistent with one Korean empirical study, which found that immigrant wives who use MFSCs at least once are less likely to be employed than those who never utilise MFSCs (Lee et al., 2013). Hence, based on these possible scenarios, it may be reasonable to find that the relationship with the

husband has a negative impact on employment. In terms of the relationship with the mother-in-law, because immigrant wives rarely live with the husband's parents, this relationship may have no bearing on employment. Based on data from the 2012 NSMF, among marriage migrants, just 10 percent live with the husbands' parents or relatives (Jeon et al., 2013). Thus, since few immigrant wives live with the husbands' parents, it is difficult to establish a relationship between the wives' relationship with their mother-in-law and employment.

Lastly, the use of welfare centres was shown to have no significant impact on employment. In Korea, non-profit welfare centres typically provide front-line social services including vocational training and job placement for local residents. Therefore, as local residents, immigrant wives are eligible to utilise these services (O. Lee, 2009, 2014). However, the insignificant effect of the use of welfare centres may reflect a lower utilisation rate of welfare centres. According to the descriptive analysis results, among immigrant wives who use MFSCs, 25.4 percent have also used welfare centres. Thus, many social services provided by welfare centres are similar to those provided by MFSCs (O. Lee, 2009), and this lower utilisation rate results in overlapping programs and inefficient use of time. Moreover, those who use MFSCs may not have enough time to also use welfare centres. Given this situation, the relationship between the use of welfare centres and employment is not significant.

There are unexpected results with respect to household production. To interpret these results, we must consider the unique Korean context. First, household income is a positive and significant predictor of employment, which is contrary to the predicted relationship. To understand this opposite result, we employ here two hypotheses discussed in previous studies. The first hypothesis refers to the attributes of family income that are sensitive to the husband's income (Sorensen and McLanahan, 1987; Bianchi, Casper and Peltola, 1999; Miedema and Tastsoglou, 2000). The second hypothesis refers to the household production theory, in which married women become housewives when their husband's income is higher, but work outside the home when their husband's income is lower (Becker, 1965). To synthesise these two hypotheses in this thesis, we consider it reasonable that family income has a positive impact on employment. As noted earlier, among Korean families with more

than two members, the average monthly household income in 2012 was about 3.84 million won (Korean Statistical Information Service, kosis.kr). According to the 2012 NSMF, immigrant wives' average family income and their husband's average wage were much lower than the average Korean family income and the average wage of married Korean men, respectively (Jeon et al., 2013). As such, most immigrant wives must work outside the home to supplement the family income. From this point of view, family income would be positively associated with employment among immigrant wives in Korea.

Second, having children younger than 6 years and older than 6 years discourages immigrant wives from being employed. From this result, we may assume that immigrant wives are more likely to play a parental role than are Korean spouses. Most studies within the household production model demonstrate that a mother tends to take the main parental role when her family has a child (Becker, 1965; Glass, 1988; Stier and Tienda, 1992; Kahn and Whittington, 1996). In addition, many Korean males tend to seek out a foreign wife who will concentrate more on the mothering role in a house (Abelmann and Kim, 2005). In this view, immigrant wives may spend much of their time caring for their children in their home, which deters them from entering the Korean labour market.

14.4. KOREAN LANGUAGE PROFICIENCY

The findings regarding Korean language proficiency are summarised with respect to their estimated relationship with variables at the individual level as follows:

Korean language proficiency = [years since migration (+), the number of friends from the same nationality of origin (no sig), the number of friends with other ethnic backgrounds (no sig), the number of Korean friends (+), participation in social gatherings with friends from the same ethnic background (no sig), participation in local resident gatherings (+), the use of welfare centres (+), the use of community centres (+), age (-), education (+), employment (+), the number of children below 6 years old (+), the number of children over 6 years old (-), household income (no sig)].

Except for ethnic networks, the variables related to exposure with respect to Korean language proficiency showed expected relationships. First, the relationship of the length of settlement is in the predicted direction, as well as having the predicted positive and significant effect. Prior studies on destination-language acquisition have found that as the years since migration increase, immigrants have greater opportunities to practice the destination language and to be exposed to its use (Espenshade and Fu, 1997; C. Stevens, 1999; Chiswick and Miller, 1995). Such practice and exposure tends to improve destination-language skills (Chiswick and Miller, 1999; Chiswick and Miller, 2001, 2008). Approached from this perspective, immigrant wives would demonstrate increased fluency in the Korean language due to residing in Korea for an additional number of years, because the opportunities to practice and use the Korean language could gradually be increased.

Second, non-ethnic networks, including the number of Korean friends, participation in local resident gatherings, the use of welfare centres, and the use of community centres were hypothesised to make a positive contribution to Korean language proficiency, and the findings were consistent with this hypothesis. According to the literature on immigrants' language acquisition in host countries, destination-language ability is improved by membership in non-ethnic networks (Chiswick and Miller, 2001, 2005a, 2005b). Because interaction with native-born people occurs in the destination language, immigrants tend to increase their exposure to the use of the destination language. In fact, immigrants can better develop their use of the destination language by avoiding their mother tongue, and consistently using the destination language when interacting with native-born people. Taking this perspective, immigrant wives become fluent in the Korean language when they have a number of Korean friends, participate in local resident gatherings, use welfare centres or use community centres. This results in immigrant wives having greater opportunities to use the Korean language by communicating with local Korean residents in the Korean language. Hence, the variables associated with non-ethnic networks are positively and significantly related to Korean language proficiency.

Third, ethnic networks have no significant effect on Korean language proficiency. Ethnic networks would retard the improvement of destination-language skills among

immigrants because interactions with those from the same ethnic backgrounds tend to occur in the mother tongue (G. Stevens, 1992; Dustmann, 1994). In fact, immigrants do not become proficient in the destination language if they constantly use their mother tongue while meeting friends from the same ethnic backgrounds. Based on this logic, if immigrant wives in Korea participate in social gatherings with friends from the same ethnic backgrounds, the exposure to their mother tongue is intensified. As a result, the use of the mother tongue prevents immigrant wives from developing Korean language skills. However, the ethnic-network variables including the number of friends from the same nationality of origin and participation in social gatherings with friends from the same ethnic backgrounds showed no significant relationship. This may possibly be due to either the small size of the ethnic network or infrequent interaction among ethnic members, which prevents the estimation of the effect of ethnic networks. On one hand, based on the descriptive analysis results of this thesis, the average number of friends from the same nationality of origin is about 1.6 among service users. Due to the few number of friends from the same nationality of origin, it may be difficult to determine their exposure to the use of their mother tongue. On the other hand, although about 70 percent of service users participate in social gatherings of friends with the same ethnic background, based on the descriptive analysis results, these results cannot reflect the frequency of interaction among those from the same ethnic background. Here, due to the limitations of the data, we have measured only whether or not immigrant wives participate in social gatherings with friends from the same ethnic background, without knowing the frequency of these gatherings. Perhaps, the insignificant effect of having access to friends from the same ethnic backgrounds is due to its infrequency. As such, the effects of the ethnic networks in representing immigrant wives' exposure to the use of their mother tongue may be blurred.

The findings regarding proficiency in Korean language skills are perfectly consistent with those of previous studies. First, age has a negative linear relationship with Korean language proficiency. Several studies have found that young immigrants have more advantages than do older immigrants in acquiring destination-language skills (Veltman, 1988; Espenshade and Fu, 1997; C. Stevens, 1999). This is because young immigrants are more

likely to be responsive to learning new language skills than older immigrants (C. Stevens, 1999; Chiswick and Miller, 2001). The descriptive analysis results of this thesis show that service users are, on average, about 33 years old and are not described as old. Hence, age has a negative effect on the development of Korean language skills.

Second, education, as predicted, shows a positive and significant effect on Korean language proficiency. This positive coefficient could be linked to the important roles played by education. One is that education encourages immigrants to accumulate knowledge, and such knowledge helps them to learn new languages (Carliner, 2000; Mesch, 2003). Another is that education makes it possible for immigrants to realise the economic advantages of achieving destination-language proficiency, so immigrants may make the effort to learn the destination language to achieve these greater economic advantages in the host labour market (Chiswick and Miller, 1995, 1999, 2001, 2008; Kossoudji, 1988). By focusing on immigrant wives in Korea, however, we find that these roles are only partially supported. According to the results of the 2012 NSMF, as discussed previously, a significant number of immigrant wives had only finished high school or had not completed high school (Jeon et al., 2013). This indicates that lower levels of educational attainment among immigrant wives may have an indirect role in the Korean labour market, wherein immigrant wives with a lower educational level would expect to have upward mobility, and be motivated to learn the Korean language so as to enjoy economic advantages in Korea.

Employment is a positive determinant of Korean language proficiency. The effect of employment is discussed as a means of exposure to the destination language. The opportunities for exposure to the destination language increase when immigrants are employed (Chiswick and Miller, 2001). In the workplace, employed immigrants must frequently use the destination language to communicate with native-born workers. Therefore, by having increasing opportunities to use it, employed immigrants are more likely to develop fluency in the destination language than those who are not employed. From this point of view, immigrant wives who are employed are more likely to have opportunities to use the Korean language due to their need to communicate with Korean workers in the workplace, than those who are not employed.

The results for family resources do not support those in previous studies. First, Korean language proficiency is not explained by family income. Previous empirical studies on destination-language acquisition show that higher family incomes allow immigrants to invest in learning a new language, based on the presumption that destination-language skills are improved in accordance with the amount of time invested (Chiswick and Miller, 1999, 2001). If family income is not sufficient, the members of a family are constrained in the time they have to spend learning the destination language, and a limited time investment could inhibit them from developing their destination-language skills (Chiswick and Miller, 1999, 2001). Following this perspective, immigrant wives with sufficient family income would invest their time, and as such, the time invested in learning the Korean language may improve their Korean language skills. However, our results show that the variable of family income is not significant. As noted earlier, perhaps multicultural families that include immigrant wives may not earn enough and so the families would not have enough time or money to invest in learning the Korean language. This is one possible reason that family income is not significantly related with Korean language proficiency.

Second, the effect of children on Korean language proficiency is somewhat blurred. This is because the effect of children younger than 6 years (i.e., a positive effect) is opposite to that of children older than 6 years (i.e., a negative effect). Children have two apparently contradictory roles in destination-language proficiency: restrainer and facilitator (Chiswick and Miller, 2008b; Hwang and Xi, 2008). As restrainers, children may translate the destination language to their immigrant parents in the activities of everyday life, which diminish the parents' chances of exposure to the destination language. It is possible that immigrant wives' children play a Korean-language translator role for their mothers, therefore the number of children older than 6 years may have a negative impact on the development of Korean language skills. As facilitators, children may teach the destination language to their parents by bringing their linguistic abilities home. Immigrants' children tend to be responsive to learning a new language and are exposed to the use of the destination language in school. Thus, the presence of children might propel the parents' destination-language abilities among immigrants. However, the facilitator role does not explain the positive effect of the number of

children younger than 6 years in the analysis. By the 2012 NSMF survey results (Jeon et al., 2013), the average age of immigrant children was 7.38, and 52.4 percent of the total were preschool children.³⁸ These children are too young to act as teachers or translators for their parents. Another possible reason operating here is that immigrant wives may expect their children to become more proficient in the Korean language before attending elementary school, to avoid difficulties with adjustment to school due to having a lower level of Korean language skills (Jeon et al., 2013). In this situation, immigrant wives may make an effort to learn the Korean language with their children younger than 6 years before they enrol in school, and therefore their own Korean language skills would be improved. Based on this assumption, it may be possible that the number of children younger than 6 years has a positive effect on Korean language proficiency of immigrant wives.

14.5. LIFE SATISFACTION

The findings for life satisfaction are summarised with respect to their estimated relationship with individual level variables as follows:

Life satisfaction = [age (-), age squared (+), education (no sig), years since migration (-), Korean language proficiency (+), employment (-), children under 6 yrs. (-), children over 6 yrs. (-), relationship with the husband (+), relationship with children (no sig), relationship with mother-in-law (+), relationship with husband's relatives (+), household income (+), the number of friends with other ethnic backgrounds (no sig), the number of Korean friends (no sig), participation in social gatherings with friends from the same ethnic background (no sig), participation in local resident gatherings (no sig), the use of welfare centres (no sig), the use of community centres (no sig)].

In the demographic domain, the overall predictions of variables are not consistent with those of previous studies, except for Korean language proficiency. First, the effects of age and age squared are statistically significant, indicating a U-shaped relationship between age and life satisfaction. This finding may be associated with the length of settlement time in

³⁸Most children start elementary school at the age of 8 in Korea.

the process of adjustment. The number of years since migration would be shorter for younger immigrants, and shorter lengths of time in the destination country may involve unanticipated situations, such as low income, low occupational status, low standards of living, discrimination and acculturative stress (Bartram, 2011a; Safi, 2010; Vohra and Adair, 2000). These experiences may lead to lower levels of life satisfaction. After middle age, however, life satisfaction may improve, because as age increases along with the number of years in the host country, human capital and social capital resources would also increase, which would tend to improve the immigrants' economic positions and psychological stability (Portes and Rumbaut, 2006). Based on this perspective, the reason for the curvilinear relationship between age and life satisfaction could be explained. Immigrant wives who are both newcomers and younger may experience both a lower life standard and psychological distress in the process of adjustment after their arrival in Korea, which may limit their degree of satisfaction with their lives in Korea. However, after middle age and with additional years since migration, both their economic and psychological conditions may improve, leading to a greater possibility of life satisfaction in Korea.

Second, the coefficient of education is not significant, which does not support the research hypothesis, which was derived from the findings about the roles of education in the accumulation of knowledge as helping immigrants to deal with their lives and to adjust effectively into the host society (Ross and Willigen, 1997). For example, immigrants with higher educational attainments are more likely to be naturalised, employed, fluent, and less stressed in the host country than those with lower educational attainments. In fact, the more educated immigrants are, the higher their levels of life satisfaction. However, education was not significantly related to life satisfaction among immigrant wives in Korea. The reason for this finding is connected to their lower educational levels. As seen previously, because most immigrant wives finished only high school or dropped out, the effect of education may be weak. Thus, their lower educational level is not a factor in their adjustment to Korea and may not account for their levels of life satisfaction.

Third, the variable of years since migration is negatively related to life satisfaction, which also does not support the research hypothesis. Although empirical evidence on life

satisfaction among immigrants suggested that the number of years since migration is associated with improved life conditions in the destination country (Werkuyten and Nekuee, 1999; Vohra and Adair, 2000; Kim and Park, 2008), the findings in this study were not consistent with this result. This finding in the literature is based on the presumption that immigrants experience adjustment-related problems after their arrival in the destination country, and that these adjustment-problems negatively affect their subjective evaluations about their lives in the host country (Vohra and Adair, 2000). Based on this assumption, a negative coefficient with respect to the number of years since migration is reasonable. Thus, because the average number of years since migration was about 7 years, after their arrival in Korea, most immigrant wives may experience adjustment-related problems which likely leads to being dissatisfied with their lives in Korea. In addition, it may be reasonable to consider the quadratic effect of years since migration on life satisfaction, primarily due to the curvilinear relationship of age with life satisfaction. In their early years in Korea, immigrant wives may face economic hardships and psychological difficulties, which negatively affect their life satisfaction in Korea. These economic hardships and psychological difficulties would ease with increments of human capital and social capital resources as the years spent in Korea increase. As the years in Korea pass, these accumulated resources may yield higher levels of life satisfaction. Hence, it may be assumed that the relationship between the duration in Korea and life satisfaction may be curvilinear.

Fourth, as theoretically predicted, Korean language skill predict positive life satisfaction. Previous research addressing the positive relationship between destination-language ability and life satisfaction emphasises the advantages of acquiring destination-language proficiency in the host country (Ying, 1992; Vohra and Adair, 2000). Immigrants who are fluent in the destination language are more likely to receive assistances in the host society (Ying, 1996; Neto, 1995). For example, those who are fluent in the destination language are more likely to interact with the native born, and such interaction tends to an increase one's social capital resources. Destination-language proficiency may translate the human capital resources brought with them from the homeland into credentials qualifying them for obtaining a job in the host job market. Being proficient in the destination language

may also help them to manage the cumbersome procedures associated with acquiring citizenship. Immigrants with these advantages could effectively adjust to the host society, and thereby have a higher level of life satisfaction in the host society. Based on this perspective, it is reasonable to conclude that immigrant wives who are fluent in the Korean language are more likely to be satisfied with their lives in Korea than those who are not fluent.

Finally, the findings for employment are not congruent with the research hypothesis. Although we speculated that those who are employed were more likely to have higher levels of life satisfaction in Korea than those who are not employed, the opposite was found to be so. One possible explanation may be derived from the 2012 NSMF survey results (Jeon et al., 2013). The survey asked immigrants where they experienced discrimination, and gave the following five options: (1) on the street and in the neighbourhood, (2) at the store, restaurant, and bank, (3) at public offices, (4) at their workplaces, and (5) at school. At the workplace, 51.5 percent of respondents experienced discrimination, which is higher than on the street and neighbourhood (21.5 percent), at the store, restaurant, and bank (23.5 percent), public office (11.5 percent), and at schools and day-care centres (13.3 percent). This indicates that because immigrant wives usually perceive discrimination at the workplace in Korea, the economic premium from being employed would be offset. Hence, the effect of employment is negatively related to life satisfaction among immigrant wives in Korea.

In the family domain, the overall variable coefficients are consistent with those of previous studies. First, household income is reported to have a positive association, which supports the research hypothesis. This finding is discussed from two points of view, based on the literature regarding life satisfaction among immigrants. One point of view is that as family income increases, the expectation of improved economic conditions before migration begins to match the real economic situation after migration, such that immigrants perceive satisfaction with their lives in the host country (Jo, 2010). Another point view is that higher levels of family income enable immigrants to enjoy various advantages including citizenship (P. Yang, 1994), better standards of life (Portes and Rumbaut, 2006), destination-language proficiency (Chiswick and Miller, 2001) and the utilisation of health services (Akresh, 2009), which all encourage life satisfaction in the host country. Together, these views indicate that

the more family income is increased, the more life satisfaction also increases. Based on these views, it may be reasonable to conclude that the higher is immigrant wives' family income, the more satisfied they are in Korea. This is because, as family income increases, not only can immigrant wives meet their anticipated life conditions in Korea, but they are able to enjoy various advantages such as Korean citizenship acquisition, Korean language proficiency, utilisation of health services, and upward mobility in Korea.

Second, a negative relationship is found with respect to children and life satisfaction, regardless of the age of the children. There are a number of conflicting approaches to take in discussing the effect of children. One is that the role of the parent is related to the negative effect (Angeles, 2010). As parents, immigrants tend to spend their time and effort on their children. Since childrearing is not easy work, and immigrants may give up their own leisure or extra time in childcare, immigrants who have children may be less likely to be satisfied with their lives than those who do not have children. An alternative explanation is that the family lineage via children is associated with a positive effect (Sung et al., 2013). By giving birth, immigrants carry on their bloodline, which could result in higher levels of life satisfaction. Synthesising these views, although the variable of children is categorised into those under and over 6 years old, the effects of these two variables in this thesis were commonly found to be negative and significant. Presumably, immigrant wives may be expected to perform the childcare role in their home in Korea, and this role may lead them to be less satisfied with their lives in Korea because due to the pressures and problems associated with taking care of their children (Seol, Lee and Cho, 2006; Kim et al., 2010; Jeon et al., 2013).

Third, the relationships with family members have a positive impact on life satisfaction, except for the relationship with children. The main reason for the migration of immigrant wives is marriage (Freeman, 2005), and as such, immigrant wives tend to spend a great deal of time interacting with family members while living in Korea (Sung et al., 2013). In this sense, when immigrant wives have good relationships with family members, they are more likely to be satisfied with their lives in Korea (Nam and Ahn, 2011). Based on this perspective, it is reasonable to understand the positive linear effect between relationships with

the husband, mother-in-law, and relatives and life satisfaction. However, the relationship with children has no significant impact on life satisfaction. Presumably, this insignificant effect is linked to the negative effect of children. Thus, taking care of their children leads immigrant wives to be dissatisfied with their lives in Korea, which may offset the effect of the positive relationship they have with their children.

In the social domain, none of the social network variables (i.e., the number of friends from the same nationality of origin, the number of friends with other ethnic backgrounds, the number of Korean friends, participation in social gatherings with friends from the same ethnic background, participation in local resident gatherings, the use of welfare centres and the use of community centres) are significantly related to life satisfaction. Prior studies on immigrants' life satisfaction have demonstrated that social networks cushion the impact of the cultural and psychological shocks in the process of adjustment after arrival in the host country (Berry, 2001). In this respect, immigrants who have social networks in the host society are more likely to find psychological stability in the process of adjustment (Portes and Rumbaut, 2006), and those who have social networks are more likely to perceive higher levels of life satisfaction in the host country than those who do not (Marger, 2001). Based on this perspective, we conjecture that immigrant wives who have social networks are more likely to experience reduced psychological distress and negative feelings as they adjust in Korea, and those who have such networks tend to be satisfied with their lives in Korea.

However, this presumption is not supported by the findings. One possible reason may be that the size and closeness of the social networks and the interaction among members within the social networks may not be large, strong, or frequent, respectively, which leads to the insignificant effect of social networks on life satisfaction. On one hand, according to the descriptive analysis results, only 20 percent of immigrant wives participate in local resident gatherings, and their average number of Korean friends is 1.38. In addition, only 25.4 percent have used welfare centres at least once, indicating that few immigrant wives access these centres. From these results, we can assume that immigrant wives have insufficient social capital resources. On the other hand, although 69.1 percent of immigrant wives have participated in social gatherings with friends from the same ethnic backgrounds at least once

and 68.92 percent have used government-initiated community centres at least once, it is difficult to know how often they have participated in social gatherings or used these centres. The insignificant relationship between life satisfaction and participation in social gatherings and the use of centres may indicate that they do not frequently participate in either one. Thus, the closeness of their social networks and the interaction among members of the social networks may not be strong or frequent, respectively. Synthesising these factors, the relationship between social networks and life satisfaction may not be statistically significant due to the small size of the social networks, the weak bonds between social network members, and the infrequent interactions with social network members.

Following this discussion of individual level factors, in the next chapter we address factors at the ethnic-group and organisational levels.

Chapter 15: *Discussion for Findings in the Empirical Testing with HLM (II): focused on variables at the ethnic-group and organisational levels*

This thesis assumes that based on the flow of inputs, throughputs, and outputs in logic model, outputs are influenced by inputs and throughputs in the process of MFSS delivery. In this sense, indicators were constructed for inputs, throughputs, and outputs, and then this thesis re-developed partial hypotheses: possible factors at the individual, ethnic-group, and organisational levels influence outputs. Such hypotheses were estimated in Chapter 13, and this thesis found some common and different features between this empirical study's findings and previous studies reviewed in Chapter 6,7,8, and 9. Previous chapter (Chapter 14) discussed the common and different features by focusing on possible factors at the individual level. Now, this chapter attempts to discuss the common and different features with considering possible factors at the ethnic-group and organisational levels.

In fact, this chapter will review positive factors at the ethnic-group and organisational levels that increase the extent of immigrant wives' integration, to reflect the positive factors in the process of MFSS delivery, as a way in which MFSS can be effectively enhanced. In addition, this thesis will attempt to find reasons why some variables at the ethnic-group and organisational levels have a negative effect and why some variables at the ethnic-group and organisational levels have no impact on immigrant wives' integration, to reflect the reasons in the process of MFSS delivery, as a way in which effectiveness in MFSS can be improved.

15.1. ETHNIC-GROUP LEVEL

In the unconditional model that does not include any other possible predictors at the individual, ethnic-group, and organisational levels, there were different modes of citizenship, employment, Korean language skills, and life satisfaction among ethnic groups, as the variance of the proportion among ethnic groups are statistically significant. The result is consistent with previous studies, indicating that the reason for the ineffectiveness of MFSS is related to the fact that the standardised service-provision hardly reflects the different ethnic groups' backgrounds (Jung, Choi, and Jang, 2009; H. M. Kim, 2013a). However, the proportion in the four domains of integration (i.e. citizenship, employment, Korean language

proficiency, and life satisfaction) among ethnic groups was generally lower than that between individual immigrant wives, as reported by 21.2, 3.7, 17.9, and 1 per cent, respectively. This indicates that the extent of integration is largely explained between individual immigrant wives, rather than among ethnic groups. In spite of the lower level of the proportion, this thesis examined what possible factors at the ethnic-group level are associated with the four domains of integration, as the exploratory research. In the following sections, this thesis attempts to discuss some common and uncommon features between findings in this empirical study and pre-existing literature in Chapter 6, 7, 8, and 9, by focusing on variables at the ethnic-group and organisational levels.

15.1.1. Citizenship

Estimated ethnic-group level variables including geographic distance, GDP per capita, democratic index, and size of the population of ethnic groups accounting for Korean citizenship acquisition are summarised with coefficients' directions as follow:

Citizenship = [geographic distance (no sig), GDP per capita (-), democratic index (no sig), size of population of ethnic groups (no sig)].

Among the variables, GDP per capita has a significant effect, but other three variables have no significant effect on Korean naturalisation. First, the negative association between GDP per capita and Korean citizenship acquisition supports the results of P. Yang (1994) and Bueker (2005). They suggest that immigrants who are from developing countries, economically, expect better and stable economic conditions in the destination, and such expectations tend to be met in the host country after arrival. In this situation, immigrants from developing countries rarely return to their home countries and hope to stay longer accompanied with citizenship acquisition in the host country. Following this perspective, immigrant wives from developing countries are more likely to expect better economic conditions in Korea than those who are from developed countries. In addition, if immigrant wives from developing countries meet their economic expectation in Korea, they may give up returning to their home countries and may stay longer with Korean citizenship. In this sense, the effect of GDP per capita is negatively related to Korean citizenship acquisition.

Second, the geographic distance is not statistically significant, which did not meet the predicted hypothesis. Previous empirical studies suggested that immigrants from countries farther from the host country would invest more time and efforts in acquiring citizenship than those from countries closer to the host country (P. Yang, 1994; Bueker, 2005). Because immigrants from nearer sending countries tend to spend lower costs during a journey (Chiswick and Miller, 2008b) and continue relationships with the sending countries (Barkan and Khokhlov, 1980), the probability they return to their homelands would be increased when confronting unfavourable situations in the receiving country. Contrary, because immigrants from more geographically distant homelands tend to spend higher costs during a journey and expect greater economic incentives in the host country, they become encouraged to settle longer and to obtain citizenship even when meeting unfavourable conditions in the host country (P. Yang, 1994). Unlike the previous studies, geographic distance is not associated with the likelihood of Korean citizenship acquisition. One possible explanation for this finding is based on immigrant wives' economic hardship in Korea. It is reported that a myriad of multicultural families, including immigrant wives, are under the poverty line (Kim et al., 2010; Jeon et al., 2013). In fact, most immigrant wives may expect to improve their economic situations in Korea, and such economic expectation may lead many immigrant wives to acquire Korean citizenship. This is because when naturalised, immigrants easily find a job in the receiving country (P. Yang, 1994). It may be reasonable to say that there are no different modes of economic expectations among ethnic groups, which lead to no different effects. Another assumption is related to immigrant wives from China. The majority is Chinese, so geographic distance may mainly reflect Chinese' effect. Hence, no significant relation would be found between geographic distance and Korean naturalisation acquisition.

Third, the relative size of the population of ethnic groups is not associated with Korean citizenship acquisition. Reviewed from empirical studies, the larger ethnic groups become, the more immigrants become naturalised in the host country (DeSipio, 1987; Liang, 1994; Togeby, 1999; Bueker, 2005; Pantoja and Gershon, 2006). This is because a chance to obtain useful information about naturalisation from interaction with ethnic members is increased as ethnic networks grow larger (P. Yang, 1994; Bueker, 2005). However, ethnic

groups' size is not significantly related to Korean citizenship acquisition in this thesis. There is possible explanation about the insignificant result. Thus, there are no different sizes of ethnic networks among ethnic groups. In the year 2012, the foreigners living in Korea without citizenship reached 1,445,103 or about 2.8 per cent of the total Korean population (KIS, 2013). Among them, the largest population was Korean Chinese (N = 447,877 or 0.87 %), followed by Chinese (N = 250,567 or 0.49 %), Vietnamese (N = 120,254 or 0.24 %), Japanese (N = 57,174 or 0.11 %), Thais (N = 45,945 or 0.09 %), and Filipinos (N = 42,219 or 0.08 %) (KIS, 2013). The figures illustrates that relative size of the population of ethnic groups is small. In fact, the small size of ethnic networks results in the loose connections between their members within the ethnic groups, which may retard immigrant wives from acquiring useful information for acquiring Korean citizenship. Presumably, the discussion about the size of the ethnic networks would be a premature issue for Korean citizenship acquisition.

Lastly, an insignificant coefficient is obtained from an association between democratic index and Korean citizenship acquisition. According to Portes and Rumbaut (2006), it is hypothesised that immigrants from non-democratic countries are more likely to become a citizen in the host country than those who are from democratic countries. Thus, immigrants who are from non-democratic countries where political persecution is prevalent are more likely to expect to enjoy political freedom through international migration than those who are from democratic countries (P. Yang, 1994; Dronkers and Vink, 2012). In this respect, democratic index is foreseen with a negative sign. However, such perspective is not consistent with the finding in the analysis. Possibly, although there might be differences in the political conditions between Korea and their home countries, if their decision to migrate may not be driven by political reasons, such differences may not translate to disinterest in securing Korean citizenship.

15.1.2. Employment

Estimated variables at the ethnic-group level predicting employment are summarised with coefficients' directions as follow:

Employment = [geographic distance (no sig), GDP per capita (-), democratic index (+), the size of population of each ethnic groups (no sig)].

While both geographic distance and size of the population of ethnic groups are not significant, GDP per capita and democratic index are significant on employment. First, the negative and significant effect of GDP per capita in the sending country is found with the expected sign. The reason for the negative effect is associated with relative enviable positions in the host country. As noted above, immigrants from countries where both unemployment and poverty are pervasive tend to cross a border for economic premium such as employment, occupational mobility, and higher earnings in the host countries. In fact, the immigrants expect strong economic premium in the destination after arrival. However, their expectation towards upward mobility in the destination may be differentiated along with the economic gaps between the sending country and the receiving country. Thus, immigrants from developing countries are more likely to expect to enjoy economic incentives in the destination than those who are from developed countries. As such, those who have lower expectations for the economic premium may find it difficult to find a job compared to immigrants with higher expectations. Taking these views, it is speculated that immigrant wives from poor countries are more likely to be eager to find a job than those who are from richer countries. In addition, those who are strongly willing to work are more likely to find a job in Korea than those who are not willing to work. Such speculations are consistent with the finding in this empirical analysis, indicating that GDP per capita in the sending countries is negatively associated with employment. In other words, immigrant wives from countries with lower GDP per capita are more likely to participate in the Korean labour market than those who are from countries with higher GDP per capita.

Second, democratic index is a determinant of employment in this analysis. Discussion of this finding starts from migration reasons. According to Chiswick and Miller (2008), some immigrants cross a border for economic improvement while other immigrants arrive in the host country for political freedom accompanied with escaping discrimination and persecution in the homeland. Between them, those who move for the political reason to find political

freedom are less likely to be employed than those who cross a border for economic reason. In fact, immigrants who move for the political reason are less likely to expect economic success than those who move for the economic reason. From this logic, it is assumed that immigrant wives who are from non-democratic countries are less likely to participate in the Korean labour market than those who are from democratically free countries. Such an assumption is supported, indicating that democratic index is positively related to employment.

Third, geographic distance does not contribute to employment. In this thesis, it is presumed that each ethnic group has different economic expectations along with relative geographic distances, and such relative economic expectations influence different levels of employment. As seen previously, those who come to the destination from geographically far origin countries are more likely to spend more money for travel and less likely to consider reverse migration than those who are from geographically nearer origin countries. Thus, immigrants from far sending countries would expect greater economic incentives in the destination labour market and make more effort to find a job compared to immigrants from nearer sending countries. In this sense, it is reasonable that immigrant wives from geographically far home countries are more likely to be employed in Korea than those who are from geographically closer home countries. However, the finding is not supported with the suggested hypothesis. Probably, as noted earlier, because many multicultural families including immigrant wives are around poverty line or receive low income, most immigrant wives would be motivated to find a job to supplement family income in Korea regardless of nationalities. From the 2012 NSMF, 84.1 per cent had a need to participate in the Korean labour market when they had not been employed (Jeon et al., 2013). This may indicate that economic expectation is not differentiated among ethnic groups, and such uniform economic expectation cannot account for different levels of employment among ethnic groups. Hence, the coefficient of geographic distance is difficult to obtain significant sign in this finding.

Finally, the size of the population of ethnic groups is found to have no statistical significance. Prior studies identify that ethnic networks are larger in a place where same ethnic members concentrate (Levanon, 2011; Van Tubergen, Maas and Flap, 2004; Fleischmann and Dronkers, 2010), and such ethnic networks increase social capital resources.

In addition, those who obtain social capital resources have greater incentives in finding a job, because such social capital resources would enable them to receive information about job opportunities in the destination labour market (Portes and Rumbaut, 2006). However, ethnic groups' size has no significant impact on employment in this thesis. As discussed earlier, ethnic networks would be small and therefore, the size of population of ethnic network would be the same across ethnic groups (KIS, 2013). This makes it difficult to discuss the relationship between the size of ethnic group and employment.

15.1.3. Korean language proficiency

Estimated ethnic-group level variables accounting for Korean language proficiency are summarised with coefficients' directions as follow:

Korean language proficiency = [geographic distance (-), GDP per capita (no sig), democratic index (-), the size of population of each ethnic group (no sig)].

Among ethnic-group level variables accounting for Korean language proficiency, democratic index and geographic distance are significant, while GDP per capita and the size of the population of ethnic groups are not significant. First, the effect of democratic index is in the direction opposite to expectation. Research on immigration points to that those who internationally move for political reasons are less likely to acquire destination-language skills than those who move for economic reasons (Chiswick and Miller, 2008b). This is primarily because those who move for political reasons would have lower level of human capital skills and economic aspirations in comparison with those who move for economic reasons (Chiswick and Miller, 2001). In this fashion, it is foreseen that immigrants from non-democratic countries are less likely to invest time and efforts in learning a new language. In addition, because they hardly invest any time and efforts in learning destination-language, they may find it difficult to develop their destination-language proficiency. However, the finding of this study makes a different point the research hypothesis. Thus, immigrant wives from non-democratic countries are more likely to improve Korean language ability than those who are from democratic countries. This may be justified in considering a reverse migration that is linked to contextual differences between sending and receiving countries. Favourable

conditions in the destination tend to encourage immigrants to settle in the destination permanently, while unfavourable conditions would lead to return to their origin countries (Portes and Rumbaut, 2006). In this sense, those who are from non-democratic countries are more likely to meet politically favourable conditions in the destination country than those who are from democratic countries. Such favourable conditions may lead immigrants from non-democratic countries to settle in the destination permanently. Finally, the immigrants make efforts and invest time in learning destination-language for adjustment into the host country. Approaching this perspective, it is implied that those who are from non-democratic countries are more likely to be motivated to learn a new language than those who are from democratic countries. Hence, lower levels of democratic index would lead to significantly higher levels of Korean language ability.

Second, unexpectedly, the variable of geographic distance shows a negative effect on Korean language acquisition. As noted above, those who move from long distances are more likely to develop destination-language than those who move from short distances. The reasons are derived from economic motivation and reverse migration. On the one hand, those who travel with a long distance tend to be motivated to develop destination-language ability for economic incentives such as higher earnings and labour force participation so as to offset high travel costs. On the other hand, because reverse migration is a high cost, those who move from long distances have a greater motivation to learn the destination-language for adjustment into the host country than reverse migration. In spite of the reasons, the finding in this study shows an opposite sign. Perhaps, the finding is associated with the case of Korean Chinese. There are three peculiar features of Korean Chinese compared to other ethnic groups; first, Korean Chinese are the largest population among ethnic groups of immigrant wives; second, their Korean language ability is the most fluent; and third, geographic distance is the nearest. In turn, the result that geographic distance has a negative impact on Korean language proficiency may be contaminated by the features of Korean Chinese. Controlling over Korean Chinese, hence, it may be inferred that geographic distance positively influences Korean language proficiency.

Third, in terms of the effect of GDP per capita, previous studies demonstrates that some immigrants move to the destination because of the expectation of economic incentives, and such expectations tend to lead them to invest time and efforts in learning the new destination language (Chiswick and Miller, 2008b). Thus, those who internationally move for economic opportunities in the destination are more likely to expect economic success than those who move with non-economic reasons such as family reunification and political freedom, which differentiates investment of time and efforts in acquiring destination-language skills (Chiswick and Miller, 2001). To assess different expectations among ethnic groups, relative GDP per capita is regarded as a proxy variable in this thesis. In this empirical analysis, however, the effect of GDP per capita is not significant. Perhaps, there appear equal economic expectations among ethnic groups. From the result of the 2012 NSMF, immigrant wives responded that most difficult problems in Korea are language barriers and economic difficulties (Jeon et al., 2013). This may indicate that regardless of ethnic groups, most immigrant wives confront economic problems and Korean language barriers in the process of adjustment into the Korean society. In these situations, they may be willing to escape economic problems and language barriers. In other words, it is assumed that they may invest uniform time and efforts in learning the Korean language accompanied with equal and high expectations for economic premium in Korea. In fact, there are not different modes of Korean language proficiency along with their homelands' GDP per capita. Hence, the variable of GDP per capita has no impact on Korean language proficiency.

Finally, the effect of size of the population of ethnic groups is not statistically significant on Korean language proficiency, which does not support the research hypothesis. According to Chiswick and Miller (2005a), the avenues in being fluent in the destination-language are not only to avoid the use of the mother-tongue and but also to increase exposure to the destination-language. In this situation, members of larger groups would have a greater opportunity to access their members from same ethnic backgrounds who use their mother-tongue in the host country (Hwang and Xi, 2008). In opposition to members of larger groups, members of smaller groups have fewer chances to meet their members with same ethnic backgrounds and use their mother-tongue less during interactions in the host country (Hwang

and Xi, 2008). Hence, the larger ethnic groups, the less fluency in destination-language there is (G. Stevens, 1992; Chiswick and Miller, 1995). However, the finding in the analysis is not congruent with the perspective. As seen earlier, the size of population of ethnic groups is small, which may indicate that there are no different modes of the size of ethnic networks among ethnic groups. Hence, the effect of the size of population of ethnic groups has no impact on Korean language proficiency.

15.1.4. Life satisfaction

Estimated ethnic-group level variables affecting life satisfaction are summarised with coefficients' patterns as follow:

Life satisfaction = [geographic distance (+), GDP per capita (no sig), democratic index (+), size of population of ethnic groups (no sig)].

Democratic index and geographic distance have positive impacts but GDP per capita and size of the population of ethnic group have no impacts on life satisfaction. First, the estimated effect of democratic index is consistent with the research hypothesis that immigrant wives from democratic countries are more likely to be satisfied with their life in Korea. As discussed above, those who internationally move because of political reasons are regarded as unskilled and low motivated workers accompanied with low human capital skills compared to those who move because of non-political reasons. In fact, such lower levels of human capital skills and motivation for economic success constrain upward mobility and the learning of a new destination-language, which could retard their adjustment into the destination. In addition, such retardation would lead them to be less satisfied with their life in the destination country. Taking this logic, it is predicted that immigrant wives who are from non-democratic countries are less likely to achieve higher level of life satisfaction in Korea than those who are from democratic countries. The prediction is supported by the finding in this thesis.

Second, as expected, a positive effect of geographic distance is revealed. The finding is consistently discussed with reverse migration as indicated above. Relative geographic distance affects the decisions of whether to settle in the destination or return to their home

countries when immigrants meet unfavourable conditions in the host country. Those who travel long distances from their origin countries to the destination are intended to not return to their home but hope for permanent settlement in the destination country, compared to their counterparts who travel shorter distances. In this sense, those who move long distances are more likely to be motivated to learn a new language and participate in the host labour market, and such motivation would accelerate destination-language proficiency and job opportunities. Thus, willingness to adjust into the host society, together with increased destination-language skills and job opportunities, allows them to have a higher satisfaction in the host country. Approaching this logic, it is inferred that immigrant wives who travel long distances from their homelands to Korea are more likely to perceive satisfaction in Korea than those who travel short distances. In fact, the positive and significant finding lends support to the research hypothesis.

Third, no significant relation between GDP per capita and life satisfaction is found, and the finding is not consistent with the research hypothesis. Prior studies demonstrate that immigrants may have various expectations about economic incentives along with the economic growth of nationalities, and such expectations may influence life satisfaction differently (Chiswick and Miller, 2001, 2008). The discussion originates from an economic reason for international migration. Because immigrants experience economic disadvantages such as unemployment, low wages, and a few chance of job opportunities in origin countries, immigrants from developing countries tend to arrive in more advanced countries, so as to grasp economic incentives with higher motivations for economic success in the destination labour market. In this respect, once they arrive in the destination country, job opportunities with earnings tends to be increased compared to their homelands, and such economic premium in the destination would encourage them to perceive satisfaction with their life in the host country. However, the finding in this study does not correspond to the research hypothesis. One possible explanation is that the expectations about economic incentives in Korea related to GDP per capita are not heterogeneity among ethnic groups in Korea. According to the 2012 NSMF (Jeon et al., 2013), many immigrant wives responded that the most difficult problem in Korea was economic seriousness such as lower levels of household

income and employment as well as few chances for upward mobility. In these serious situations, most immigrant wives hoped for employment in the Korean labour market. This suggests that the expectations about economic incentive in Korea are not different among ethnic groups. As such, the variable of GDP per capita may show no significant effect.

Finally, the size of the population of ethnic group is not related to life satisfaction. The established hypothesis suggests that the larger the size of the population of ethnic groups, the more the likelihood of life satisfaction is increased. Based on literature on life satisfaction among immigrants, the chance immigrants meet same ethnic members is increased as the size of the population of ethnic group is increased in the host country. In addition, the interactions with same ethnic members enables them to enhance social capital resources that not only provide information helping immigrants to grasp the incentives in being naturalised and employed but also offer psychological supports helping them to find psychological stability, in the destination. Finally, with the increments of information and psychological stability, immigrants would perceive life satisfaction in the destination. In fact, the extent to which immigrants are satisfied with their life in the destination is associated with the size of the population of ethnic group in the destination. However, the research hypothesis is not supported with the finding in this thesis. Probably, because the size of the population of ethnic groups is somewhat small, as seen earlier, ethnic members may lack access to same ethnic members. Such lack of access may restrain immigrant wives from obtaining sufficient information and receiving psychological supports in the process of adjustment into Korea. This may make it difficult for immigrant wives to adjust into the Korean society and as such be satisfied with their life. From the result, it seems to be reasonable that the effect of size of ethnic networks may be a premature issue among ethnic groups in discussing life satisfaction in terms of immigrant wives. Until now, findings at the ethnic-level are discussed with considering previous studies. In the following sections, this thesis focuses on organisational level variables.

15.2. ORGANISATIONAL LEVEL

As the unconditional model is an empty model without including variables at the individual, ethnic-group, and organisational levels, the proportion of the variance between the 16 administration areas where MFSCS are arranged is compared to that among individual immigrant wives and across ethnic groups. The proportion of citizenship, employment, Korean language skills, and life satisfaction between the administration areas was at a much lower level, as reported by 0.3, 0.7, 0.4, and 0.5 per cent, respectively. The result is congruent with previous literature, indicating that the uniform service-provision cannot respond to regional differences (Park and Choi, 2008; Korea Institute of Public Administration, 2012; H. M. Kim, 2013b; Kang, Park and Son, 2013; C. Kim, 2013). Despite the lower level of the proportion, this thesis investigated what predictors at the organisational level are associated with the four domains of integration. This is because this thesis is based on the exploratory research.

At the organisational level, this thesis assessed the significance of three factors including financial resource, manpower, and the composite scores of the attributes of a service-delivery system affecting immigrant wives' integration, each of which is shaped by citizenship, employment, Korean language proficiency, and life satisfaction. The estimated results at the organisational level are summarised along with citizenship, employment, Korean language proficiency, and life satisfaction as follow:

Citizenship = [financial resource (no sig), the number of immigrant wives per MFSC (i.e. manpower) (no sig), the composite scores of attributes of service-delivery (no sig)],

Employment = [financial resource (no sig), the number of immigrant wives per MFSC (i.e. manpower) (-), the composite scores of attributes of service-delivery system (no sig)],

Korean language proficiency = [financial resource (no sig), the number of immigrant wives per MFSC (i.e. manpower) (no sig), the composite scores of attributes of service-delivery system (no sig)],

Life satisfaction = [financial resource (+), the number of immigrant wives per MFSC (i.e. manpower) (no sig), the composite scores of attributes of service-delivery (no sig)].

To sum up, first, the financial resource is a determinant affecting life satisfaction. Second, the manpower is a possible factor accounting for employment. Third, the composite scores of attributes of service-delivery system do not show any significant effects on citizenship, employment, Korean language proficiency, and life satisfaction. In the next sections, financial resources are firstly discussed.

15.2.1. Financial resource

A significant coefficient is found in an association between financial resource and life satisfaction, but other domains of integration such as citizenship, employment, and Korean language proficiency are not influenced by the financial resource.

On the one hand, the reason for no significant relations is associated with uniform budget allocation (Korea Institute of Public Administration, 2012). As seen in Chapter 3, MFSCs are categorised into A and B types along with performance assessment in previous year,³⁹ which results in different financial supports from the government. Although there remain different financial resources between A and B types of MFSCs, the disparity is somewhat weaker. The two divisions would be limited to reflect various regional differences (Lee and Kim, 2011), in which MFSCs may find it difficult to use expenditure effectively. For instance, about 16.2 per cent on total annual budget were allocated in places where the population of immigrant wives was below 1,000, whereas 18.2 per cent on total annual budget were allocated in areas where the population of immigrant wives was over 1,000 (Korea Institute of Public Administration, 2012). This indicates that budget allocation hardly varies between the 16 metropolitan areas, and that financial resources per MFSC cannot foresee a positive effect on Korean citizenship acquisition, employment, and Korean language proficiency.

³⁹The Korean government measures performance of MFSCs by considering the number of service-users, the total population of immigrant wives, and total number of their children at the community-level (Korea Institute of Public Administration, 2012)

On the other hand, the interaction of execution of the budget, with respect to the needs for service use, among immigrant wives, leads to a significant coefficient on life satisfaction being obtained. First, the government suggests that MFSCs focus on basic and visiting programs including Korean language education, comprehensive Korean culture education, employment support, counselling, and outreach, in which much of the budget is invested in the programs (Korea Institute of Public Administration, 2012). Because of the increased expenditure for the programs, the number of service-users accessing basic and visiting program excessively overwhelms the number of other programs' users (Jeon et al., 2013). The 2012 NSMF shows that 32 per cent of MFSCs' service-users utilised programs of Korean language education and adaptation or settlement training as basic programs at least once while 24.8 per cent utilised outreach program at least once as a visiting program (Jeon et al., 2013). However, no more than 12 per cent used other programs including special programs. This indicates that as the budget for the basic and visiting programs increased, as did the number of service-users participating in these programs. In addition, such programs' provision is consistent with the needs of immigrant wives in terms of MFSS. From the result of the 2012 NSMF using a five-point scale (Jeon et al., 2013), the most required program for immigrant wives was the employment support program including job training and job referral (mean = 3.64), followed by children education (mean = 3.41), visiting (mean = 3.26), and Korean language or adaptation educations (mean = 3.16). In fact, the most important programs that immigrant wives need while staying in Korea coincide with the basic and visiting programs MFSCs emphasise on and spend much of the budget on. Considering the expenditure of MFSCs and their specific needs for MFSS together, not only could MFSCs provide a volume of basic and visiting programs but also a number of immigrant wives whose needs include the use of basic and visiting programs would participate in the programs. In this situation, immigrant wives may experience positive changes after using MFSS, and then they may perceive higher levels of life satisfaction in Korea. Hence, the expenditure is positively associated with life satisfaction.

15.2.2. Manpower

As manpower is defined by the number of immigrant wives per MFSC, negative associations between manpower and immigrant wives' integration including citizenship, employment, Korean language proficiency, and life satisfaction are predicted. In the analysis of this thesis, the variable of manpower has no significant impacts on citizenship, Korean language proficiency, and life satisfaction. Only the relationship between manpower and employment showed a negative sign.

First, manpower is not associated with citizenship, Korean language proficiency, and life satisfaction. Possible explanations are grouped into two: the uniform arrangement of MFSCs regardless of regional differences and shortage of manpower regarding programs of Korean citizenship and Korean language proficiency, as well as counselling service. One point is that the arrangement of MFSCs little reflects the settlement patterns of immigrant wives at the community-level, which result in insignificant coefficients. For the insignificant coefficients, the settlement patterns of immigrant wives in Korea are considered. There are two contradictory settlement patterns: one is that immigrant wives concentrate in some places; and second is that other places receive a small number of immigrant wives. Although the arrangement must reflect such disproportionate numbers of immigrant wives among local communities, MFSCs are homogenously arranged without reflecting the regional differences. According to the Korea Institute of Public Administration (2012), some municipal areas received more than 800 of immigrant wives but there was no MFSC in the areas. Unlike the areas, in a place where less than 200 of immigrant wives settle, MFSCs were arranged there. This indicates that the uniform arrangement would lead to equal manpower, and such homogenous manpower does not translate into the better outputs which are immigrant wives' integration. The second point is that MFSCs lack manpower in managing sub-programs of Korean citizenship, Korean language proficiency, and life satisfaction. Currently, MFSCs have not provided a sub-program helping naturalisation for immigrant wives who are willing to go through the process. This shows that no one deals with immigrant wives who expect to be naturalised. In addition, the number of Korean language teachers and counsellors is too small to teach them effectively or provide counselling services for them appropriately. This

becomes more obvious in a consideration with statistical results. Based on the result of the 2012 annual evaluation report of Multicultural Family Support Service (Korean Institute of Health Family, 2013), a Korean language teacher covered 136 immigrant wives annually. In a similar way, a counsellor covered about 342 immigrant wives annually. These indicate that MFSCs have no sufficient workers in carrying out Korean language program and providing counselling service. In fact, both the absence of manpower for Korean citizenship and the lack of manpower in terms of Korean language program and counselling service make it difficult that immigrant wives become naturalised, develop their Korean language skills, and improve their life satisfaction. For these reasons, unexpected insignificant signs are obtained in this thesis.

Second, the effect of manpower on employment is found to be negatively significant in the finding of this thesis. The negative and significant association between manpower and employment is related to the increase of manpower resources in performing employment-related sub-programs. The government requires that MFSCs should provide employment-related sub-programs for immigrant wives (Kim et al., 2010). By the 2012 annual evaluation report of Multicultural Family Support Service (Korean Institute of Health Family, 2013), three sub-programs including job training, employment referral, and networking with Employment Center were designed as mandatory programs. To carry out the programs, MFSCs should increase a number of workers who are in charge of the employment-related sub-programs. This indicates that those who use the sub-programs in a MFSC where a number of staffs take charge of the sub-programs are more likely to be employed. Due to the data limitation in which it is difficult to measure a number of staffs in a MFSC, however, the number of immigrant wives per MFSC in each administration district was used in this study as a proxy variable. Hence, it is assumed that as the number of immigrant wives per MFSC in each administration decreased, the chance service-users (i.e. immigrant wives who use a MFSC at least once) become employed in Korea increases. The assumption is consistent with the finding in this study, in which the number of immigrant wives per MFSC has a negative impact on employment. Thus, the lower the number of immigrant wives per MFSC, the greater the service quality and efficiency.

15.2.3. The composite scores of the attributes of a service-delivery system

The composite scores of the attributes of a service-delivery system do not appear to show any effect on Korean citizenship, employment, Korean language proficiency, and life satisfaction. The finding reflects the fact that service-delivery methods are not appropriate for immigrant wives' integration, which is consistent with previous studies. In the next part, because the supposed attributes of an effective service-delivery system are comprised of six components including comprehensive and appropriate, professionalism, continuity and integration, equality, participation, and accessibility, its insignificant effect is discussed along with the six components of the attributes, based on prior empirical studies.

First, the attribute of comprehensive and appropriate is defined by considering the varied needs and challenges of service-users in a service-delivery system. In application to MFSS delivery system, the attribute is not feasible because of standardised and uniform service provision. The Korean government suggests that MFSCs provide standardised and uniform settlement programs for immigrant wives (Kim et al., 2010). However, the standardised and uniform programs tend to prevent MFSCs from achieving effective performance (Park and Choi, 2008). Thus, the standardised and uniform service provision cannot reflect varied individual needs and challenges (Park and Choi, 2008). In fact, the standardised and uniform programs retard MFSCs from providing comprehensive and appropriate programs for immigrant wives, in which MFSCs may fail to attain effective results in the process of MFSS delivery.

Second, professionalisation occurs when professional workers who are qualified and hold licenses such as social workers, doctors, nurses, teachers, and counsellors on the front-line. However, several bodies of literature regarding MFSS reported a shortage of professional workers including Korean language teachers and counsellors on the front-line (Han, 2009; Lee and Kim, 2011; Korea Institute of Public Administration, 2012). Thus, the shortage of professional workers on the front-line may preclude MFSCs from achieving better performances.

Third, continuity and integration concerns networks with other organisations at the community-level. Although MFSCs do interact with other non-profit organisations at the local community-level, effective performances are not attained through the networks (Lee and Kim, 2011). In addition, in spite of networks, some programs are overlapped between MFSCs and non-profit organisations (W. Kim, 2008). This indicates that the networks are fragmented and inappropriate, so MFSCs find it difficult to achieve the maximised and intended outputs (Lee and Kim, 2011). By increasing fragmentation and discontinuity in MFSS delivery, ineffective consequences tend to be increased.

Fourth, equality is to avoid discriminatory practices in the process of service-delivery. The problem of inequality in MFSS delivery exists by focusing on data from the 2012 NSMF. Among the total number of service-users who utilise MFSCs at least once, the largest groups were Vietnamese (23 per cent), Filipinos (17.8 per cent), Chinese (12.9 per cent), and Cambodians (10.7 per cent). On the contrary, other ethnic groups including Japanese, Mongolians, and immigrant wives from the former Soviet Union countries hardly accessed MFSCs at least once (Korean Institute of Health Family, 2013). This may illustrates that service provision leans too much toward specific ethnic groups, which could prevent various ethnic groups from accessing MFSCs (Lee and Kim, 2011). In fact, a problem in MFSS delivery is inequality which could act as a barrier that retards MFSCs from achieving effective consequences and immigrant wives from accessing MFSCs.

Fifth, participation is achieved by increasing the number of service-users in service-delivery. In turn, the number of service-users is regarded as a way to predict whether service-delivery employs the attribute of participation. Based on the 2012 NSMF reporting a sizeable number of immigrant wives who use MFSCs at least once, among the total number of the sample, about 52 per cent of immigrant wives experienced utilisation of MFSCs at least once. This figure illustrates that a half of immigrant wives do not participate in the process of MFSS delivery. In fact, as a problem in MFSS delivery, participation of immigrant wives is ignored. In such a case, MFSCs may not attain maximised and intended consequences during MFSS delivery.

Lastly, accessibility in service delivery is to reduce barriers in using service. Because the barriers service-users meet vary along with service-users' competences (e.g. demographic and socio-economic resources) and local resources (e.g. the size of the population of service-users and number of service-providers) (Andersen and Davidson, 2007), both service-users and local areas are considered all together in terms of the accessibility. However, MFSS delivery excludes the two elements including immigrant wives' competences and local resources, which leads to inaccessibility concerning ineffective consequences. On the one hand, as noted earlier, standardised and uniform MFSS provision is not considered sufficient to ensure that immigrant wives' needs are met and their varying challenges are solved. On the other hand, as discussed previously, the arrangement of MFSCs is not considered sufficient when reflecting how many immigrant wives live in the local community. Ignoring the two elements, thus barriers in using MFSCs leading to inaccessibility tend to be emerged, therefore causing MFSCs to produce ineffective consequences.

For an effective service-delivery system, suggested attributes comprised of 6 components are regarded as necessary elements in this thesis. However, the composited score of the attribute of a service-delivery system was not significant on immigrant wives' integration comprised of Korean citizenship acquisition, employment, Korean language proficiency, and life satisfaction, indicating that in the process of MFSS delivery, the six components were not involved or were not feasible. Many researchers demonstrated that human service-delivery system cannot be deemed effective without the reflection of the attributes in the process of service-delivery (Gates, 1980; Choi and Nam, 2001; Gilbert and Terrell, 2002). Depending on this view accompanied by the insignificant sign of the composite score of the attributes, it is not surprising that MFSCs are constrained when trying to attain intended and maximised results.

15.3. OVERVIEW

The most fundamental goal in the previous sections has been to answer the second question of how MFSS delivery system can be effectively enhanced by explored factors at the individual, ethnic-group, and organisational levels that affect immigrant integration thought

of as the performance outcome of MFSS. In doing so, it is presumed that MFSS delivery system can be enhanced by focusing on factors at the individual, ethnic-group, and organisational levels influencing immigrant wives' integration (i.e. citizenship, employment, Korean language proficiency, and life satisfaction).

To improve a chance to obtain Korean citizenship, it needs to consider the following results. At the individual level, as immigrant wives become older, their propensity for Korean naturalisation increases and then decreases the chance of the naturalisation after a certain point in immigrant wives' life cycle. In addition, being employed, being proficient in the Korean language, longer settlement in Korea, and a higher number of children were positively associated with the chance of Korean citizenship acquisition, whereas having a number of friends from same origin nationality and relationship with a husband were negatively associated with the chance of Korean citizenship acquisition. In addition, those who graduated a post-graduate school are less likely to obtain Korean naturalisation than those who never educated. At the ethnic-group level, GDP per capita increased a probability to obtain Korean citizenship. At the organisational level, all possible factors were not associated with Korean naturalisation.

To enhance a probability to be employment, it needs to focus on the following results. At the individual level, the analysis for predicting immigrant wives' employment revealed that the likelihood of being employed was increased by years since migration, Korean language proficiency, the number of friends from same origin nationality, the number of Korean friends, the use of community centres, and family income while the number of children under 6 years old and over 6 years old, labour market experience, and relationship with a husband decreased the likelihood. In addition, age was positively and significantly, and age square was negatively and significantly related to employment, which indicates a curvilinear relationship between age and employment. The following begins with age's effect on being employed. At the ethnic-group level, GDP per capita decreased the probability to be employed whereas democratic index increased the probability. At organisational level, the probability to be employed was increased by organisational manpower.

To increase Korean language skills, the following results are concerned. Korean language skills were increased by years since migration, the number of Korean friends, participation in local resident gatherings, the use of welfare centres, the use of community centres, education, being employed, and the number of children under 6 year old whereas its skills were decreased by age and the number of children over 6 years old, at the individual level. At the ethnic-group level, democratic index and geographic distance decreased Korean language skills. However, Korean language skills were not influenced by all possible factors at the organisational level.

To improve the level of life satisfaction, it needs to reflect the following results. Life satisfaction was found to be associated with a series of factors at the individual level. Age had a U-shaped relation because age was negatively related to life satisfaction while age square was positively related to it. In addition, life satisfaction was increased by Korean language skills, relationships with a husband, mother-in-law, husbands' relatives, and household income. By contrary, it was decreased by years since migration, employment, the number of children under 6 years old, and the number of children over 6 years old. At the ethnic-group level, both democratic index and geographic distance increased the level of life satisfaction. At the organisational level, financial resource increased the level of life satisfaction.

However, it needs how the results are reflected in the process of MFSS delivery. As discussed earlier, there are two possible approaches to reflect the results. One is that in the process of MFSS production, it consistently considers positive and significant variables to increase the extent of immigrant wives' integration. Another is to find reasons why some variables have a negative impact or insignificant impact on immigrant wives' integration, and then the reasons are reflected in the process of MFSS delivery. Hence, this chapter reviewed positive variables increasing the extent of immigrant wives' integration, from the findings of Chapter 13. In addition, depending on previous studies in Chapter 6, 7, 8, and 9, reasons why some variables were statistically insignificant or some variables had a negative effect on immigrant wives' integration were discussed in Chapter 14 and 15.

Relying on the two approaches, therefore, the next chapter will attempt to find alternative policy proposals for an effective settlement service delivery system that reduces adjustment-related problems and promotes successful integration while immigrant wives stay in Korea.

PART VII: CONCLUSION

Chapter 16: *Conclusion for Policy Implication and Future Study*

This concluding chapter begins with a brief summary of this thesis, including the literature review and major findings from the empirical tests conducted. Based on these results, we suggest viable policies for determining ways in which the MFSS delivery system can effectively improve the integration of immigrant wives in Korea. Following these policy recommendations, we discuss the strengths and weaknesses of this thesis and suggest areas for future study.

16.1. REVIEW OF THIS STUDY

Korean society has steadily witnessed a massive inflow of marriage migrants into the country. Accompanied by a higher number of marriage migrants, adjustment-related problems, including domestic violence, conflict between family members, children's maladjustment in a school, unemployment, low income, poverty and divorce have risen and are considered to be important social problems.

Korean society has witnessed a steady and massive inflow of marriage migrants into the country. Along with this high number of marriage migrants have come adjustment-related problems, including domestic violence, conflict between family members, maladjustment of children in schools, unemployment, low income, poverty, and divorce. The frequency of these challenges has risen and they are considered to be serious social problems.

To respond to these problems promptly, the Korean government developed an immigration policy that established government-initiated settlement services (i.e., MFSS) to help marriage migrants. Apart from marriage migrants, most immigrants in Korea are in the country temporarily, are not expected to settle in the country and cannot access these settlement services. Therefore, in the Korean social policy arena, spouses of Korean nationals (marriage migrants) are regarded as a population of interest with respect to their integration.

Among marriage migrants, immigrant wives are regarded by the government as the critical target population in the immigration policy area with respect to their social incorporation, rather than immigrant husbands or other foreigners. The number of immigrant wives is significantly higher than other groups. Between 1993 and 2013, international marriages between foreign women and Korean men were about 3 times higher than those between Korean women and foreign men. As such, immigrant wives represent an important target population for Korea's settlement services.

However, a wealth of literature has demonstrated that the settlement services are not as effective as they should be, due to: i) blurred goals, ii) failure to take into account individual and ethnic differences and the contexts of the varied settlement areas in the process of service delivery, and iii) inappropriate and ineffective service-delivery methods, as well as insufficient manpower and resources. Given this situation, this thesis raises two main questions: 1) are the settlement services effective? and 2) if not, how can the effectiveness of MFSS be improved?

In this thesis, Part V attempted to answer the first question. Depending primarily on the perspectives of goal attainment and client-centred effectiveness in service delivery, the integration of immigrant wives is regarded as an initial goal and output of MFSS. In this sense, we estimated the effectiveness of MFSS by comparing the extent of immigrant wives' integration, for those who were either MFSS service users or non-service users. Specifically, we measured the integration of immigrant wives by objective (i.e., citizenship, employment and Korean language proficiency) and subjective (i.e., life satisfaction) indicators, by relying on the triangulation principle and temporal priority. Thus, we tested the first question by comparing the levels of citizenship, employment, Korean language proficiency and life satisfaction of service users and non-service users. In the comparison, we assumed that service users were less likely to be integrated into Korea than non-service users, or that the level of integration was not significantly different between service users and non-service users, based on the literature discussed in Chapter 3.

This assumption was verified by PSM. It needs to control for a selection bias that yielded inappropriate results in estimations of the net effect of MFSS because systematic differences were revealed between service users and non-service users. As such, we used PSM technique. When we performing PSM, for citizenship and employment, service users were more likely to obtain Korean citizenship or be employed than non-service users. For Korean language skills and life satisfaction, service users were less likely to be fluent in the Korean language or be satisfied with their lives in Korea than non-service users. However, the levels of Korean citizenship acquisition, employment, Korean language proficiency and life satisfaction between service users and non-service users were not significantly different. This result indicates that MFSS was not effective, which is consistent with previous studies of MFSS. Based on these results, the ineffectiveness of MFSS is confirmed and must be addressed.

Part VI focused on the second research question—how to improve the effectiveness of the MFSS service-delivery system. Thus far, very little has been done to answer this question. To do so, investigators must use valid and reliable evaluation methods for measuring effectiveness (Rubbin and Babbie, 1989) while also simultaneously investigating the many issues and factors related to the characteristics and conditions of service users, service providers and the communities in which they both reside (G. Sung, 1993; Martin and Kettner, 2010). As such, this thesis represents exploratory research.

In order to address the ineffectiveness of the MFSS service-delivery system, this thesis examined possible factors at the individual, ethnic-group, and organisational levels which may affect the integration of immigrant wives, with consideration of the community in which the immigrant wives reside and MFSCs are located.

To demonstrate how the effectiveness of the MFSS delivery process may be enhanced, we relied largely on a central parent theory consisting of inflows, (or inputs and throughputs) and outputs of the open system approach in the logic model. With respect to the inflow, inputs were considered to be immigrant wives' characteristics and resources as well as service-providers' resources; throughputs were regarded as the technologies used in

service delivery by service providers; and the output was considered to be the integration of the immigrant wives. With the open system approach framework in the logic model, we established two bivariate relationships whereby the inputs and throughputs were independent causal variables and the outputs were the dependent effect variables.

However, to measure the concepts and conduct partial tests on the causal relationships, specific causal mechanisms were required based on well understood middle-range theories. This entailed two streams of study: immigration and human services. First, based on theories of immigration, we assumed that individual characteristics or resources as well as ethnic groups' characteristics or resources have effects on immigrant integration. Second, based on conceptual and theoretical approaches in human services, we inferred that financial resources, manpower, and service-delivery technologies also have impacts on immigrant integration.

Underpinning these immigrant integration and human services concepts, bivariate relationships were introduced as hypotheses: both objective (i.e., citizenship, employment and Korean language proficiency) and subjective (i.e., life satisfaction) integration were influenced by determinants at the individual, ethnic-group, and organisational levels.

To verify these hypotheses, we used a cross-classified multi-level analysis divided into unconditional and conditional models, because immigrant wives were simultaneously cross-classified into ethnic groups and into the regional areas where MFSCs are located.

We then tested five models, for each domain of integration (i.e., citizenship acquisition, employment, Korean language skills and life satisfaction). Model 1 is an unconditional model that excludes all possible variables at the individual, ethnic-group, and organisational levels. In this model, the proportion of the variance of integration between nationalities of origin and across the 16 administrative areas where MFSCs are located was statistically significant. This result indicates that the extent of integration was differentiated by the characteristics and conditions of the ethnic groups and regional areas. However, the proportion of the variance of integration among individual immigrant wives was much higher

than that between nationalities of origin or across the 16 administrative areas where MFSSCs are located. This result reveals that uniform service provision does not address different ethnic backgrounds or regional conditions experienced by immigrant wives.

Models 2, 3, 4 and 5 are conditional models. Model 2 includes individual level variables. Model 3 adds ethnic-group level variables while controlling for individual level variables. Model 4 includes organisational level variables without ethnic-group level variables, while controlling for individual level variables. Model 5 (i.e., the full model) incorporates all possible predictors at individual, ethnic-group, and organisational levels. The overall coefficient patterns of all the variables are the same for Models 2, 3, 4 and 5. The estimation of variables at the individual, ethnic-group, and organisational levels among service users is summarised in Table 16.1, along with the citizenship, employment, Korean language proficiency and life satisfaction outcomes.

Synthesised, these results can be used in two ways to reflect on the process of MFSS delivery. One way is to consistently consider the positive associations between factors at the individual, ethnic-group, and organisational levels and the immigrant wives' integration outcomes (i.e. citizenship, employment, Korean language proficiency and life satisfaction). The second way is to identify reasons why certain factors are not significant or are negatively associated with immigrant wives' integration, and use them to reflect on the process of MFSS delivery. In this thesis, we presumed that the MFSS delivery system can be enhanced by focusing on these two approaches.

16.2. DILEMMA IN REFLECTING FINDINGS OF EMPIRICAL TESTING

Based on our thesis results, we found that MFSS was not effective. As such, to clarify the reasons for the ineffectiveness of MFSS, we focused on possible factors at the individual, ethnic-group, and organisational levels that had influenced the integration of the immigrants. To be specific, in the process of MFSS delivery, we consistently considered positive factors at the individual, ethnic-group, and organisational levels that likely increase the extent of immigrant wives' integration (i.e., citizenship, employment, Korean language proficiency, and life satisfaction). In addition, we attempted to determine why some factors were not

significant or were negatively associated with immigrant wives' integration. We then reflect on these reasons in associated with the process of MFSS delivery.

However, we faced a dilemma in reflecting on the possible factors influencing the MFSS delivery process. Overall, we obtained two apparently contradictory results in this study—differences and similarities in the relationships between the possible influencing factors and four domains of immigrant integration.

Table 16.1 presents condensed findings from this study at the individual, ethnic-group, and organisational levels. As seen in the table, factors at the individual and ethnic-group levels showed relatively different results with respect to the subfields of integration or outputs of MFSS (i.e. citizenship, employment, Korean language proficiency, and life satisfaction). For example, education had three different results: a) those who graduate from a post-graduate school are less likely to obtain Korean citizenship than those who are uneducated; b) education increases the likelihood of Korean language proficiency; and c) education has no impact on employment and life satisfaction. Another example was the relationships between the number of friends from the same origin nationality and the four domains of integration: a) the number of friends from the same origin nationality increases the probability of being employed; b) the number of friends decreases the probability of employment; and c) the number of friends has no effect on Korean language proficiency and life satisfaction. At the ethnic-group level, geographical distance also showed three different results: a) the probability of life satisfaction increases by geographical distance, b) the probability of Korean language development decreases with geographical distance, and c) geographical distance has a statistically insignificant relationship with citizenship and employment.

On the other hand, there are uniform patterns among factors at the organisational level, thus organisational level variables were generally not significant. In particular, the composite scores of the attributes of an effective service delivery commonly showed no significance with respect to citizenship, employment, Korean language proficiency, or life satisfaction.

Table 16.1: The directions of variables at the individual, ethnic-group, and organisational levels from the empirical analysis

		Outputs			
		Objective Integration			Subjective Integration
		Political Integration (Citizenship)	Economic Integration (Employment)	Cultural Integration (Korean-Language)	Life Satisfaction
Inputs at the individual level	Age	age (+) / age square (-)	age (+) / age square (-)	age (-)	age (-) / age square (+)
	Education	post-graduate (-)	no sig	+	no sig
	Employ	+	n/s	+	-
	Household income	no sig	+	no sig	+
	Friend with same origin nationalities	-	+	no sig	no sig
	Friend with other ethnic backgrounds	no sig	no sig	no sig	no sig
	Korean friend	no sig	+	+	no sig
	Participation in the meeting of same ethnic friends	no sig	no sig	no sig	no sig
	Participation in local resident gatherings	no sig	no sig	+	no sig
	Use of welfare centres	no sig	no sig	+	no sig
	Use of community centres	+	+	+	no sig
	Years since migration	+	+	+	-
	Destination-language skills	+	+	n/s	+
	Children	+	under 6yrs. (-) over 6 yrs. (-)	under 6yrs. (+) over 6 yrs. (-)	under 6yrs. (-) over 6 yrs. (-)
	Relationship with a husband (i.e. divorce)	-	-	n/s	+
	Relationship with mother in-law	n/s	no sig	n/s	+
	Relationship with children	n/s	n/s	n/s	no sig
Relationship with husband's relatives	n/s	n/s	n/s	+	
Inputs at the ethnic-group level	GDP per capita	-	-	no sig	no sig
	Democratic index	no sig	+	-	+
	Geographic distance	no sig	no sig	-	+
	Ethnic size	no sig	no sig	no sig	no sig
Inputs at the organisational level	Work force (the number of immigrant wives per MFSCs at each metropolitan area)	no sig	-	no sig	no sig
	Expenditure per immigrant wife	no sig	no sig	no sig	+
Throughputs at the organisational level	The composite scores of attributes of service-delivery	no sig	no sig	no sig	no sig

From these contradictory results, we must determine how to understand conflicting or complicated causal mechanisms. To address this dilemma, we call attention to three findings in our analysis. First, at the individual level, some immigrant wives were more likely to increase their levels of integration while other immigrant wives were less likely to do so, and this outcome is linked to relatively individualistic resources or individual abilities influencing their integration. However, it is also reasonable to suppose that a number of immigrant wives confront a diverse set of multiple adjustment-related problems and achieve lower levels of integration, including lower levels of Korean naturalisation, employment, Korean language skills, and life satisfaction, as reported in the findings in Chapter 13. In addition, considering the causal relationships between factors at the individual level and the immigrant wives' integration, as reported in Chapter 13, such lower levels of integration are associated with insufficient individual resources or abilities, including lower levels of education, household income, limited social networks, and short lengths of residence in Korea.

Second, at the ethnic-group level, there are different modes of adjustment-related problems and incorporation among ethnic groups. As seen in Table 13.2a, 13.2b, 13.2c, and 13.2d, each value of ethnic-group level's variance in Korean naturalisation, employment, Korean language proficiency, and life satisfaction in the unconditional model (i.e. Model 1) was statistically significant. From the result, it is clear that there are unequal modes of Korean naturalisation, employment, Korean language proficiency, and life satisfaction among origin groups. In addition, such differences are linked to inherent origin groups' characteristics and contextual gaps between homelands and Korea. For example, with regard to Korean naturalisation, those who are from developing countries are more likely to be naturalised in Korea. Regarding employment, those who are from developing countries or politically stability is guaranteed are more likely to be employed in Korea. In terms of Korean language proficiency, those who are from countries where countries political persecution prevailed, such as discrimination, violation and constrained liberty or travel long distance because of physical farness are more likely to improve Korean language skills. Finally, those who are from countries where political stability is guaranteed and travel short distance because of physical nearness are more likely to be satisfied with their life in Korea.

Third, at the organisational level, communities where MFSCs are arranged differently, budgets are allocated differently with respect to MFSS delivery, and different technologies are used for MFSS delivery may account for the unequal outcomes experienced by individual immigrant wives with respect to adjustment-related problems and integration. However, the conditions of manpower, financial resources, or service-delivery technologies cannot reflect the different regional conditions that may have resulted in the ineffectiveness of the MFSS. This is because organisational level variables were generally insignificant in our finding. Therefore, to find avenues to improve MFSS outcomes, we suggest a synthesised policy strategy, and focus on three findings.

16.3. POLICY PROPOSALS

16.3.1. Policy suggestion at the individual level: case management

16.3.1.1. Background regarding case management

Based on the finding of the analyses in Chapters 11 and 13, some immigrant wives were integrated, but other immigrant wives were not integrated and experienced adjustment-related problems in Korea. Such differences were due to unequal demographic characteristics and socio-economic resources. However, many immigrant wives find it difficult to become naturalised, employed, fluent in Korean language, and satisfied with their lives in Korea, which indicates that the process of integration is multifaceted or that adjustment-related problems are multifaceted. In addition, insufficient individual abilities and socio-economic resources, including lower levels of education, limited social networks, financial problem, and a conflict with the husband's mother all discourage immigrant wives from becoming successfully integrated in Korea.

As such, immigrant wives may require a variety of programs simultaneously to deal with their multiple adjustment-related problems when accessing MFSS. In addition, immigrant wives are motivated to become integrated in Korea with respect to the multifaceted domains relating to integration. In a similar way, MFSCs should consider that immigrant wives who have concurrent and multiple adjustment-related problems, and who

also have insufficient competences or knowledge to successfully adjust in Korea, require a variety of programs simultaneously. How do MFSCs deal with immigrant wives who have multiple adjustment-related problems and insufficient individual abilities and resources? How do MFSCs deal with individualistic characteristics and resources to improve levels of integration? How do MFSCs provide sub-programs in consideration of the multiple domains of integration? To answer the questions, we emphasise personalised case management.

16.3.1.2. What is case management?

Case management is a process of service delivery at the local community-level for vulnerable people who have complex and multiple problems (Ballew and Mink, 1996). As such, by focusing on the individual service users' characteristics and resources, it considers a comprehensive and sequential process of service delivery at the front line, including outreach and engagement, intake, planning, assessment, intervention, coordination, monitoring, and follow-up. In fact, case management establishes service delivery at the front line to deal with complex and various problems all at once. In this sense, case management involves both network- and client-centred approaches. On the one hand, it concentrates on a team approach within a single organisation or via interactions with other community organisations to help service users who have multiple problems and need a variety of supports. This approach limits the system malfunctions that occur due to "fragmentation of services, staff turnover, and inadequate coordination among providers" (National Association of Social Workers, 2013, p. 13). On the other hand, it recognises the competencies of service users, based on the belief that these individuals have capabilities to deal with their problems when given the support by service-providers to obtain resources, use their strengths, and build on existing knowledge. In this way, service-users actively participate in the service-delivery process and take some responsibility in utilising MFSS. In summary, for service users who have multiple problems and need help in a variety of ways, case management is an effective option wherein service providers take advantage of a comprehensive service-delivery system by interacting and networking in a single organisation or with other community-based organisations. At the same time, service users can enhance their competencies better to manage their own problems with the support of service providers.

16.3.1.3. Policy strategies in a consideration with case management

The results of this thesis study indicate that the MFSS delivery system could be effectively improved if case management were used in the MFSS delivery system. Based on the case management approach, we propose three practical policies toward a more effective MFSS delivery system.

First, the various MFSC programs must be coordinated, and the staff working within a MFSC or other governmental or non-governmental community organisations must collaborate in service delivery. On the one hand, the multifaceted issues in immigrant integration demand a team approach. From the findings in Chapter 13, we know that the sub-domains of immigrant integration (i.e. citizenship, employment, Korean language proficiency, and life satisfaction) are themselves outcomes and possible determinants influencing the overall outcome. For example, employment is one sub-field of the immigrant integration, and it influences Korean naturalisation, Korean language proficiency, and life satisfaction. Another example is Korean language proficiency, another sub-field of immigrant integration, which affects citizenship, employment, and life satisfaction. This indicates that the sub-fields of immigrant integration are interconnected. Therefore, within an MFSC, a team approach is required, in which various specialists cooperate in an MFSC. Specifically, psychological counsellors must work with Korean language teachers, and with other staff in Korean naturalisation and employment departments or agencies. In addition, to improve abilities and supplement the low level of resources influencing the subfields of immigrant integration and to deal other adjustment-related problems, MFSCs should consider providing as well as coordinating the various sub-programs available to immigrant wives. For instance, in the process of adjustment to Korea, a lack of Korean language skills makes it more difficult to acquire citizenship, to participate in the host labour market, to be satisfied with life in Korea, and to communicate with native-born Korean people. Hence, instead of the Korean language class being part of a fragmented hodgepodge of services, service providers consider future citizenship, the development of employment skills, and psychological well-being as part of the service package. However, a pre-condition of receiving any MFSC

service should be the active participation of every service user, so immigrant wives would actively participate in the various sub-programs.

Since one MFSC alone cannot solve all the adjustment-related problems or immigrant integration issues of immigrant wives, one alternative is for a number of community organisations to build a cooperative system to increase the level of integration of immigrant wives and decrease the number of their adjustment-related problems. For instance, legal support is required to address Korean naturalisation, but no legal specialists or sub-program in Korean naturalisation law exist within an MFSC, as discussed in Chapter 3. As such, MFSCs must collaborate with a legal association to obtain legal advice. Financial considerations are another example, as we found that many multicultural families including those with immigrant wives confront financial difficulty (Chapters 11 and 13). Although MFSCs can identify multicultural families with financial difficulties, it may be difficult to provide financial help directly. As a result, MFSCs must also cooperate with a government-initiated community centre to ensure that these families receive public assistances. In this way, MFSCs can address several problems at once, via established procedures for cooperation between in-house MFSC staff and local community organisations.

Second, to provide timely service delivery, social workers and other MFSC practitioners should carry out needs assessment and intake, by which individual immigrant wives' characteristics and resources can be thoroughly assessed. Individual immigrant wives each have their own unique demographic characteristics and socio-economic circumstances that result in a variety of adjustment-related problems, as described in Chapter 13. As such, social workers and other MFSC practitioners must thoroughly assess the characteristics and resources associated with each individual. Based on these individual assessments, appropriate interventions and sub-program services can be provided. For example, immigrant wives have different motivations for learning the Korean language. Some are motivated to learn the Korean language in order to become naturalised, whereas others hope to communicate with native-born Koreans in their work places. For Korean naturalisation, immigrant wives are required to pass a Korean language examination, as discussed in Chapter 3. Hence, MFSCs might consider providing a preparatory Korean class toward Korean naturalisation. To

enhance communication in the work place, a class focusing on Korean language speaking skills would be most appropriate. In addition, since Korean language skills are influenced by demographic characteristics and socio-economic resources, as discussed in Chapter 13, different levels of Korean language classes would be appropriate with consideration of age, years since migration, educational level, the presence of children, and other factors. In fact, based on the individual characteristics and resources of those being served, MFSCs could provide sequential sub-programs to enhance MFSS outcomes.

Third, the goal of every MFSC should be to empower its service-users to better cope with their adjustment-related problems by enhancing their competences in various areas. The premise of case management is that every service-user has the capability to solve their own problems. As seen in Chapters 11 and 13, immigrant wives are hampered by insufficient capabilities, knowledge, and resources due to issues such as their limited social networks, financial difficulties, lower proficiency levels in the Korean language, and lower levels of education. These constraints are related to their lower levels of integration. Hence, empowering immigrant wives to improve their skills, knowledge, and resources can be achieved through participation in various sub-programs by focusing on their self-reliance and self-support. In doing so, immigrant wives can enhance their skills, knowledge, and resources to thereafter manage their adjustment-related problems by themselves, without the need for support from an MFSS.

Until now, this thesis developed practical policies to improve effectiveness of MFSS at the individual level. In the next sections, this chapter will attempt to suggest policies for effective MFSS delivery system at the ethnic-group level.

16.3.2. Policy suggestion at the ethnic-group level: cultural competence

16.3.2.1. Background regarding cultural competence

There are ethnic differences with respect to the modes of citizenship, employment, Korean language proficiency and life satisfaction. In addition, different modes were found in ethnic-group level variables, including relative geographic distance, GDP per capita, the

democratic index and the population size of the ethnic groups. This indicates that, in the process of MFSS delivery, services must be responsive to these ethnic differences. How do MFSCs respond to different cultures or deal with various ethnic groups? To answer this question, we focused on the concept of cultural competence. When front-line service providers who lack cultural competence meet with service users with diverse ethnic backgrounds, the service providers find it difficult to understand their clients. As such, forming a trusting relationship between the two parties becomes increasingly arduous (Sue, 2006). Cultural competence is an essential element in the provision of effective services to service users with diverse ethnic backgrounds (Sue, 2006; H. J. Choi, 2011; Seo and Lee, 2014).

16.3.2.2. What is cultural competence?

Cultural competence is defined as the “process by which individuals sensitively and respectfully respond to diverse cultures, languages, races, ethnic backgrounds, and religion” without discrimination (National Association of Social Workers, 2007, pp. 12–13). Using this definition, cultural competence includes knowledge, awareness, behaviours, attitudes and recognition of different cultures and their values (Lum, 2005). From this perspective, where there are front-line service providers working with service users with different cultural backgrounds, the extent to which the service providers are culturally competent influences the service-delivery process (Miley, O’Melia, and DuBois, 1995; Sue, 2006).

In order to respond appropriately to diverse cultures in the process of service delivery, the cultural competence literature makes four suggestions. First, service providers should train personnel managers to educate workers to be sensitive towards diverse cultures and hire worker who are comfortable with cultural diversity (National Association of Social Workers, 2001). Second, service providers should decrease the barriers to accessibility that discourage potential service users with varied ethnic backgrounds from using their services (Lum, 2005; Sue, 2006). Third, service providers should empower service users from different nationalities of origin, by focusing on the strengths and resources of the ethnic groups as well as interactions among ethnic groups (National Association of Social Workers, 2001). Fourth,

service providers should play a bridging role to establish some form of interplay between the native born and various ethnic groups, to help ethnic groups expand their social networks and help native-born people to expand their understanding of diverse cultures (Miley, O'Melia and DuBois, 1995; Sue, 2006).

16.3.2.3. Policy strategies in a consideration with cultural competence

Here, we suggest practical MFSS delivery policies that reflect and support cultural competence.

The first proposed policy relates to culturally sensitive employment and staff training. In terms of employment, when hiring workers for every level of the organisation, MFSCs must employ people who are sensitive to cultural diversity, including their managers, supervisors, team leaders and team members. Another strategy would be for MFSCs to recruit immigrant wives from various nationalities of origin who can effectively respond to service users from their own cultures. Regarding training, the government must require that MFSCs carry out regular and consistent training programs to enhance cultural awareness toward diverse cultures for all workers in the centre.

A second proposed policy is to work toward diminishing barriers experienced by those from culturally diverse backgrounds with respect to using MFSS. Because four of the ten largest immigrant wives' groups—Korean Chinese, Chinese, Vietnamese, and Filipinos—have actively used MFSCs (Korean Institute of Health Family, 2013), it may be assumed that other groups—Japanese, Mongolians, and immigrant wives from former Soviet Union countries—may perceive barriers that prevent them from utilising MFSCs. Such barriers may have originated from ignorance about cultural diversity factors in the process of service-delivery, and a focus on those who are culturally competent. Hence, MFSCs should improve their response to diverse cultures in the process of MFSS delivery. For example, MFSCs should conduct a public relations exercise regarding their availability to potential service users, and do so using various languages and by providing multiple-language translation programs for diverse ethnic groups. Taking these steps might encourage immigrant wives with diverse nationalities of origin to access MFSCs.

The third proposed policy is based on an empowerment perspective. MFSS must encourage culturally diverse service users to interact with other service users from the same ethnic backgrounds, as a way to establish co-ethnic self-help meetings. However, the effectiveness of this method is uncertain. To date, only three large groups, including Vietnamese, Chinese, and Filipinos, have participated in this program and low rates of meeting participation have been reported (Korean Institute of Health Family, 2013). Hence, based on the presumption that ethnic social networks provide resources and information for co-ethnic members during their process of adjustment and help co-ethnic members to achieve a greater degree of psychological stability (Portes and Rumbaut, 2006), co-ethnic self-meeting programs must be reinforced to encourage various ethnic groups to routinely participate in these meetings.

The fourth proposed policy relates to the cross-cultural relationships between Koreans and other ethnic groups. This policy would emphasise the bridging role played by service providers between native-born people and ethnic groups to stimulate their interaction. As noted earlier, when this policy is enforced, interactions between the native-born and various ethnic groups results in the expansion of ethnic groups' social capital resources and the expansion of native-born people's understanding of diverse cultures. The provision of resources and greater understanding help immigrants to better integrate into the host society. However, the 2012 NSMF reported that few immigrant wives interact with Koreans (Jeon et al., 2013). For example, about 34 percent of immigrant wives answered "Yes" to the question 'do you meet Koreans for hobby or leisure activity?'; about 35 percent of immigrant wives answered "Yes" to the question 'do you meet Koreans when you obtain a job in Korea?'; and about 31 percent of immigrant wives answered "Yes" to the question 'do you seek out Koreans for help when you have an individual or family problem?'. These results indicate that, due to a low level of interaction between various ethnic groups and Koreans, immigrant wives find it difficult to accumulate social capital resources, and Koreans also find it difficult to understand diverse cultures. Hence, MFSCs should make it possible for its service users from different ethnic groups to actively meet with Korean people. For instance, MFSCs could launch a cultural diversity campaign in the community to encourage local residents to become

familiar with and diminish their hostile attitudes toward specific ethnic groups. In addition, MFSCs must establish sponsorship services, in which volunteer Korean families regularly and consistently meet with multicultural families. Such a campaign and sponsorship services could stimulate interactions between Koreans and ethnic members with diverse cultural backgrounds, and thereby facilitate immigrant wives' integration into Korea. Following these suggestions for practical policies toward effective MFSS delivery system at the ethnic-group level, in the following sections, we propose policies aimed at the organisational level.

16.3.3. Policy suggestion at the organisational level: portfolio analysis to reflect regional differences

16.3.3.1. Background for portfolio analysis to reflect regional differences

In 2012, MFSS operated a total of 200 MFSCs, grouped into 16 megalopolises throughout Korea (Korean Institute of Health Family, 2013). In this thesis analysis, we found unequal modes of immigrant wives' integration among the 16 areas. As seen in Tables 13.2a, 13.2b, 13.2c and 13.2d, each organisational level variance value with respect to Korean naturalisation, employment, Korean language proficiency and life satisfaction, respectively, in Model 1 (i.e., unconditional model) was statistically significant. Based on this result, it is apparent that there were different modes of immigrant wives' integration among these 16 megalopolises. In addition, Table 13.1f presents statistical figures for the organisational level variables, including the number of MFSCs, the level of budget allocation, and the extent of the MFSS delivery system. These numbers reveal that the resources are not equally distributed among the 16 megalopolises. Despite these imbalances, it has been reported that the MFSS delivery system is uniform in its approach (Park and Choi, 2008; Korea Institute of Public Administration, 2012; H. M. Kim, 2013b; Kang, Park and Son, 2013; C. Kim, 2013). In fact, the uniform service-delivery system has resulted in an ineffective MFSS. How are regional differences reflected in the process of MFSS delivery? To answer the question, we performed a portfolio analysis (Lee and Song, 2005).

16.3.3.2. What is portfolio analysis?

Portfolio analyses are used to estimate current situations (i.e., service-delivery processes), in order to make possible the development of strategies for effective management (Lee and Song, 2005). In portfolio analysis, two standards or attributes are first established, and information about the current situations are located in a quadrant of a portfolio map (Lee and Song, 2005). Based on these two standards or attributes, current service-delivery processes are classified within the map matrix, and strategies are suggested for more effective management, according to each of the four areas in the portfolio map (Lee and Song, 2005). In this thesis, we used K. S. Song's portfolio analysis (2006). This author analysed the performance of welfare centres in 8 local authorities in Daegu, Korea. First, he established two attributes, efficiency (i.e., objective outcome) and satisfaction (i.e., subjective outcome) levels, as performance indicators of the welfare centres. Based on these two attributes, 8 local authorities were placed in a quadrant, and four strategic dimensions of effective management were defined. These four strategic dimensions are as follows (K. S. Song, 2006, pp. 217-218):

- (1) "Constant Maintenance of Management": The extent to which service providers maximise outputs and the degree to which service providers reflect service users' subjective perceptions about the changes they experience from using the service clearly exceed the results of other service providers. It is recommended that service providers in this dimension maintain their management approach.
- (2) "Improvement of Satisfaction": In a relative comparison of outputs, the extent to which service providers maximise outputs is high, but the degree to which service providers respond to service users' subjective perceptions about the changes they experience after using the service is low. It is suggested that service providers sensitively recognise service users' perceptions and respond appropriately to deliver service of better quality, while maintaining their greater productivity from the given inputs.
- (3) "Improvement of Objective and Subjective Outcomes": The extent to which service providers attain maximised outputs and the degree to which service

providers reflect service users' perceptions about service effectiveness are lower than those of other service-providers. This represents the worst service-delivery consequences. As an alternative strategy, service providers should promote staff productivity levels by utilising the available workforce and financial resources, and also consider appropriate technologies for delivering services that better reflect the attributes of an effective service-delivery system, and to avoid excluding service users in the process of service delivery.

- (4) "Improvement of Objective Outcome": Although the degree to which service providers reflect service users' perceptions of service satisfaction is high, the extent to which service providers produce maximised outputs is low, when comparing service effectiveness and satisfaction with those of other service providers. To maintain service users' satisfaction regarding service effectiveness, attention must be given to achieving maximised outputs from the inputs of the workforce and financial resources, how the service-delivery system reflects the attributes of an effective service-delivery system, and which technologies for delivering service are appropriate to maximise outputs.

We found this portfolio analysis useful in this study for a number of reasons. First, Song's analysis unit, the welfare centre, shares similar features with MFSCs, as discussed in Chapter 4. This is because both welfare centres and MFSCs are human service providers. Second, in his analysis, objective and subjective outcomes are regarded as important performance indicators, as they are in this thesis. Third, Song's analysis revealed regional differences in performance outcomes, and then he developed policy strategies for effective management that reflect these differences between local authorities. As such, Song's approach is remarkably consistent with this thesis. In summary, the goal of this thesis is to suggest policy strategies for achieving effective MFSC's management in ways that reflect regional area differences, with consideration of the different MFSS performance levels among the 16 megalopolises.

We performed a portfolio analysis based on Song's approach (2006). When we compared the MFSC outputs from the 16 megalopolises, we were able to establish three notable presumptions. First, as noted in Chapter 13, a comparison of the outputs of the 16 megalopolises involves a relative judgment when comparing one megalopolis with another. Second, the objective outputs are not hierarchical and lack priority, so that we can assume equal weights between all objective outputs, as noted in Chapter 4. Third, the two sets of outputs, including objective and subjective integration, are symmetrical as discussed in Chapter 4.

To make a relative comparison of all 16 megalopolises where MFSCs are located regarding immigrant wives' integration, based on the three above presumptions, in this section we conducted the following analytical procedures: first, we measured four variables of integration sub-dimensions using dichotomies, and the scores of these dichotomies were transformed into an average score for the 16 megalopolises.⁴⁰ Second, we standardised the measured average scores for objective and subjective integration for the 16 megalopolises to make a relative comparison of the scores. Third, we matched the standardised scores for objective integration with those for subjective integration and then grouped the 16 megalopolises into four types to present proposed improvements for achieving effective MFSS delivery.

The standardised scores for both objective and subjective integration are expressed in three modes in order to make relative comparisons between the 16 megalopolises: (1) a score of "0" represents an average score among the selected samples; (2) a score over "0" represents a positive effect; and (3) a score below "0" represents a negative effect.

Finally, in the next section we suggest viable policies for the MFSS delivery process to address the integration of immigrant wives. In doing so, we match the standardised objective and subjective integration scores for the 16 megalopolises and then group the 16

⁴⁰The three variables of objective integration are summed into one score, and these summed scores were averaged as a score of objective integration (See Appendix 8).

megalopolises in the four previously described dimensions, based on Song's portfolio analysis (2006).

16.3.3.3. Policy strategies to reflect regional differences, arising from a portfolio analysis

Based on the portfolio analysis used in the study by K. S. Song (2006), Figure 16.1 presents the individual megalopolis scores as symmetrical comparisons using standardised objective and subjective integration scores. Notable features from these comparisons are illustrated, based on the typologies of constant maintenance of management, improvement of satisfaction, improvement of effectiveness and satisfaction, and improvement of effectiveness, as noted above. The following policy proposal suggestions are made:

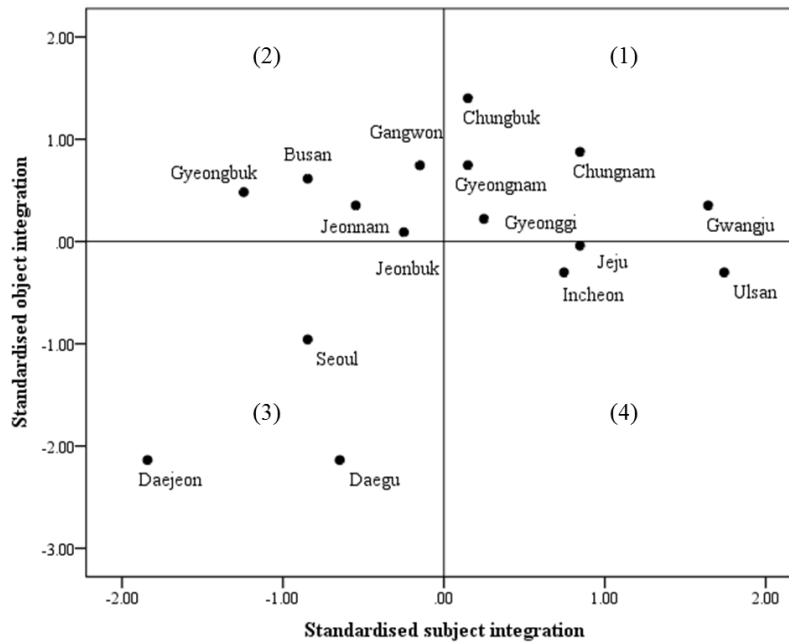
- (1) "Constant Maintenance of Management": Five of the 16 megalopolises, including Gwangju, Gyeonggi, Chungbuk, Chungnam and Gyeongnam have the highest relative standardised objective and subjective integration scores. Their standardised scores of more than "0" indicate that these five megalopolises not only maximise their outputs, but also respond to immigrant wives' perceptions about service satisfaction. Thus, the extent to which immigrant wives acquire Korean citizenship, participate in the Korean labour market, improve their Korean language ability, and are satisfied with their lives in Korea based on their use of MFSS is greatest in these five megalopolises, compared to the others. Hence, we recommend that these five megalopolises maintain their management practices, which are producing better outputs and reflect better satisfaction by service users about their services.
- (2) "Improvement of Satisfaction": Several megalopolises including Busan, Gangwon, Jeonbuk, Jeonnam, and Gyeongbuk are reported to have higher standardised objective integration scores of more than "0", but lower standardised subjective integration scores of less than "0" compared to other megalopolises. This reveals that although the MFSCs in these five megalopolises have maximised their outputs, the MFSCs' level of effectiveness is not reflected in their service users' perceptions about the service. While immigrant wives find it beneficial to

obtain Korean citizenship, to be employed in the Korean labour market and to develop Korean language skill by accessing the services of the MFSCs in their areas, these MFSCs are barely responding to the perceptions of immigrant wives who are using MFSS, as they report being dissatisfied with their lives in Korea. This situation gradually tends to decrease the MFSCs' outputs. Maximised outputs by service providers are achieved by the co-production between service providers and service users (Patti, 2000). If immigrant wives find it difficult to improve their quality of lives by using MFSS, they may not participate in the MFSS delivery process. This non-participation would hamper co-production, which may decrease the MFSCs' outputs. Hence, these MFSCs must enhance the satisfaction of the immigrant wives who are using MFSS to maintain their high scores in objective integration.

- (3) "Improvement of Objective and Subjective Outcomes": The Seoul, Daegu and Daejeon megalopolises achieved the worst results of the sixteen areas, whereby their objective integration outputs are not maximised and the satisfaction of immigrant wives is not perceived to be greater for having used MFSS, compared to other megalopolises. Immigrant wives in these areas confront difficulties in acquiring Korean citizenship, in obtaining employment, in developing Korean language proficiency and in their levels of life satisfaction even after accessing MFSCs. In order to improve the relative lower productivity of these MFSCs and the satisfaction levels of the immigrant wives, it is recommended that the MFSCs in these three areas focus on workplace productivity, as reflected in its workforce, financial resources, and the attributes of effective service-delivery systems, and should also consider immigrant wives' perceptions about MFSS in the MFSS delivery process.
- (4) "Improvement of Objective Outcome": In comparison with other megalopolises, Incheon, Ulsan, and Jeju megalopolises have not maximised their outputs, as reflected in their standardised objective integration scores of less than "0" , although these three megalopolises scored well, more than "0" , in the standardised

subjective integration scores reflecting immigrant wives' perceptions about MFSS effectiveness. MFSCs in these areas may focus excessively on the satisfaction of immigrant wives rather than on the outputs that would accomplish better results for immigrant wives in being naturalised, finding a job and becoming fluent in the Korean language. Hence, MFSCs in these three megalopolises should enhance their outputs by better utilising available workforce and financial resources and by considering appropriate technologies in MFSS delivery. The objective outputs, including improved levels of Korean citizenship acquisition, employment and Korean language ability by immigrant wives in using MFSS should be maximised, along with maintaining their higher levels of service users' life satisfaction.

Figure 16.1: The relative comparison of objective and subjective integration along with the 16 megalopolises



In summary, to improve MFSS effectiveness, in this thesis we have suggested synthesised policy strategies at the individual, ethnic-group, and organisational levels. Next, we discuss the strengths and weaknesses of this thesis, and suggest directions for future study.

16.4. STRENGTHS, WEAKNESSES, AND FUTURE STUDY

16.4.1. Strengths

This thesis can be said to have four main strengths. First, much attention has been paid to immigrant wives' integration as a measure of the effectiveness of MFSS delivery. Up until now, relatively few studies had been devoted to immigrant wives' integration in the process of MFSS delivery. Although previous empirical studies have found MFSS to be ineffective, these studies have focused primarily on service providers. As such, when reporting their findings regarding the ineffectiveness of MFSS, the studies focus on the performance outcomes of the service providers in the operation of MFSS (e.g. manpower, size, expenditure, and service-delivery methodologies). In contrast, this thesis study focused primarily on service-users-oriented outcomes, and therefore immigrant wives' integration. We took this approach because it is known that as the main goal of MFSS is immigrant integration, the extent to which immigrant wives are integrated into Korea is an essential analytical consideration for estimating the effectiveness of MFSS delivery. In this sense, this thesis focused on immigrant wives' integration in order to determine the effects of MFSS and to improve the MFSS delivery system, rather than the performance outcomes of the service providers. This approach is one of the substantial strengths of this research.

Second, we maximised the internal validity of the evaluation of the effectiveness of MFSS. Based on the criteria of goal attainment, i.e., the extent to which immigrant wives become integrated, we were able to measure the effectiveness of MFSS in this thesis. In order to maximise internal validity, however, it was necessary to "rule out bias and other plausible rival explanation of outcome" (Rubin and Babbie, 1989, p. 490) or to control possible causes that contaminate outcomes (Martin and Kettner, 2010). To do so, in this thesis, we compared two groups, service users and non-service users, while controlling for possible rival explanations or causes that may influence the goal attainment of MFSS. We then examined the net impact of MFSS to evaluate its effectiveness. Because this design maximises internal validity (Rubin and Babbie, 1989), we were able to analyse the effectiveness of MFSS with a high degree of internal validity.

Third, we have attempted to make a comprehensive approach to studying the effectiveness of the MFSS delivery system in this thesis analysis. Based on the open system approach in the logic model of MFSS delivery, there are a wide range of issues and factors involved in effective MFSS delivery. As noted in earlier chapters (6, 7, 8 and 9), in order to consider an effective MFSS delivery system, these important elements are working simultaneously and must be considered, including the characteristics of individual immigrant wives, their different ethnic backgrounds, MFSS organisational characteristics and regional differences. While previous studies have separately addressed each element in the MFSS delivery system, this thesis comprehensively tests these elements in the MFSS delivery system process, using HLM analysis. As such, we were able to consider various elements to identify those that characterise an effective MFSS delivery system. This analysis approach enabled a more precise identification of ways to achieve an effective MFSS delivery system.

Fourth, feasible policies for effective MFSS delivery system are proposed based on the findings of this thesis. This thesis does not simply conclude with a description of the similarities and differences between the two groups, service users and non-service users. Only significant results from the tests of cause-and-effect relationships between possible factors at the individual, ethnic-group, and organisational levels and integration are demonstrated. Thus, this thesis proposes practicable policies regarding how MFSS can be delivered effectively, based on the findings from comparative and multi-level analyses. Alternative policy suggestions are also made regarding the provision of information to policy makers on the outcomes achieved and those not achieved by MFSS. These suggestions can help policy makers find appropriate ways to improve the policy development process.

16.4.2. Weaknesses

In spite of its advantages, there are five major weaknesses in this thesis. First, there is a measurement issue in evaluating effectiveness based on the perspective of goal attainment. To measure abstract concepts such as love, happiness, justice and the like, researchers tend to use proxy variables as one alternative solution for explaining unmeasurable concepts in the field of social sciences (S. M. Cho, 2007). In this thesis, immigrant wives' integration is

treated as a performance outcome, with MFSS effectiveness as its goal. To measure integration, objective (e.g., citizenship, employment and Korean language proficiency) and subjective (e.g., life satisfaction) indicators are used as proxy variables. However, there are various indicators for measuring immigrant integration, apart from the four indicators described (Chapter 4). Although there are also several proxy variables for measuring service effectiveness, here we used only four. In measuring immigrant wives' integration as a measure of the goal of MFSS in this thesis, these indicators may or may not be appropriate, and could be a source of measurement errors.

Second, we ignore the fact that various different interactions between inputs and throughputs are associated with outputs. In the application of the flow of inputs, throughputs and outputs in the open system approach in the logic model, as described in Chapter 5, there may be more than one interaction between inputs and throughputs that can explain outputs. According to Oakes (1986), outputs are influenced by interactions of various inputs and throughputs variables. To be specific, in the model of inputs-process-outputs education system in the U.S., inputs include fiscal resources and student backgrounds; processes include teaching quality, curriculum quality, and school quality; and outputs include achievement and dropout. In the model, inputs (such as fiscal resources and student backgrounds) have their effects on outputs (such as achievement and dropout) via processes (such as teaching quality, curriculum quality, and school quality). Additionally, Meyer and O'Brien-Pallas (2010) suggested that outputs are influenced by inputs and throughputs as well as interactions between inputs and throughputs, in the nursing service delivery process. In the study of Meyer and O'Brien-Pallas, inputs consist of staff and funding; throughputs consist of intervention skills for clients or patients; and outputs consist of patient volumes and patient's functional changes. In the service delivery process, they argued that multiple interactions between inputs (such as staff and funding) and throughputs (such as intervention skills) influence outputs (such as patient volumes and patient's functional changes). Hence, in our attempt to explore effective service delivery system for immigrant wives' integration, when we consider the flow of inputs, throughputs, and outputs, it may be necessary to investigate varying interactions between inputs and throughputs that influence outputs.

Third, one of the weaknesses is that we analysed pre-existing data taking a cross section. We used data from the 2012 NSMF as a main data source. The 2012 NSMF was designed to investigate actual conditions of marriage migrants at one point in 2012 (Jeon et al., 2013). This means that we used cross-sectional data. Although we can describe an event or human behaviour at only one time using cross-sectional data, we cannot examine events or human behaviours occurred over time using cross-sectional data (Rubin and Babbie, 1989; Radey, 2010). To be specific, we found that those who used MFSS were less integrated in Korea than those who did not MFSS or there were no significant differences with regard to integration between service-users and non-service-users. From the results, we concluded that MFSS was not effective for immigrant wives' integration. However, we could not know whether the different levels of integration between service-users and non-service-users commenced before or after they used MFSS using cross-sectional data. In other words, because we used cross-sectional data, we could not know whether there appear the different levels of integration before using MFSS between two groups or whether the latter different levels of integration between two groups were associated with using MFSS. Although in our study, we could control systematic differences between two groups resulting in selection bias as using PSM, future work needs to use longitudinal data to obtain a better understanding of the net effect of MFSS.

Fourth, a significant weakness is related to the research design. Although experimental design is considered to be the most accurate method to “control biases that confound validity” when estimating policy or service effects (Cnaan and Tripodi, 2010, p. 191), we used a non-experimental design without random sampling in this thesis. Because our research was based on a secondary data analysis, it was limited to performing an experimental design with random assignment. Without random assignment, to estimate the net effect of MFSS, it must control for selection bias when comparing the outcomes of MFSS between service users and non-service users. Thus, because these two groups are systematically different, it is difficult to estimate the net effect of MFSS, while controlling for selection bias. To address this issue, we used PSM, which is known to be an appropriate method for controlling selection bias (Guo, Barth, and Gibbons, 2005; Austin, 2011).

However, PSM also encounters problems in estimating the net effect of MFSS. Because PSM was recently developed, there remain some shortcomings. One is that there is no consensus about how to consider all relevant confounders when developing propensity scores (Caliendo and Kopeinig, 2005; Austin, 2011). To develop a propensity score, logistic regression analysis is performed and then the confounders are considered as covariates. However, there is no consensus about how researchers are to select covariates for estimating propensity scores. Another problem is the selection of a matching algorithm. There are various matching algorithms, but there is no priority assigned among them (Caliendo and Kopeinig, 2005). Furthermore, each of the matching algorithms has trade-offs due to their advantages and disadvantages (Caliendo and Kopeinig, 2005). As such, it is difficult to select the best matching algorithm for a given purpose. For these reasons, it is recommended that researchers compare the results from various statistical methods that control for selection bias, such as DID, the selection model, and PSM (Sosin, 2002). However, because of the given data situations, it is difficult to compare the results for multiple statistical methods while controlling for selection bias. Specifically, a cross-sectional data structure is constrained in its performance of time-series design in DID; a great amount of time is required when using the selection model without necessarily producing a result (i.e. treatment effect model); and the established models in this thesis do not converge for the selection model (i.e., treatment effect model). Hence, a consideration of how to conduct multiple statistical methods is necessary for future studies to control for selection bias.

Finally, the shortcomings in the available data made it difficult to conduct HLM analysis. The first issue is the small number of ethnic groups. Although at least 10 nationalities of origin are reasonable at the ethnic-group level for the HLM analysis (Snijders and Bosker, 2012), there may be a lower degree of statistical power and a higher degree of estimation errors with only 10 nationality groups in HLM analysis. Also, the small number of ethnic groups and regional areas, and the insufficient sample size of the ethnic group-by-organisation interaction constrains the estimation of the varying factors at the ethnic-group and organisational levels, as well as in the ethnic group-by-organisation interaction. In the cross-classified structure of the data, when estimating the number of variations in the Level-1

and Level-2 coefficients, sufficient sample sizes are necessary in Level-1 and Level-2 (Raudenbush and Bryk, 2002). The small numbers in the ethnic-group and organisational levels in this thesis make it difficult to meet the criteria of sufficient sample sizing. As such, this thesis is limited to analysing various factors. Another drawback is the loss of information from each MFSC and the associated loss of individual attributes for evaluating the effectiveness of the service-delivery system. Although there are 200 MFSCs in each authority throughout Korea, the MFSCs are aggregated according to 16 megalopolis areas due to the data limitations. By neglecting individual MFSC data, MFSCs cannot be analysed individually. Therefore, interpretations could only be made for aggregated MFSC features in the 16 metropolitan areas.

Despite these weaknesses, this thesis is a significant contribution that represents the first exploratory analysis toward answering questions about the effectiveness of MFSS delivery and how the MFSS delivery system can be effectively improved to achieve immigrant wives' integration in Korea.

16.4.3. The suggestions for future research

Based on a review of these weaknesses, in future research, an empirical model should be developed to address these limitations.

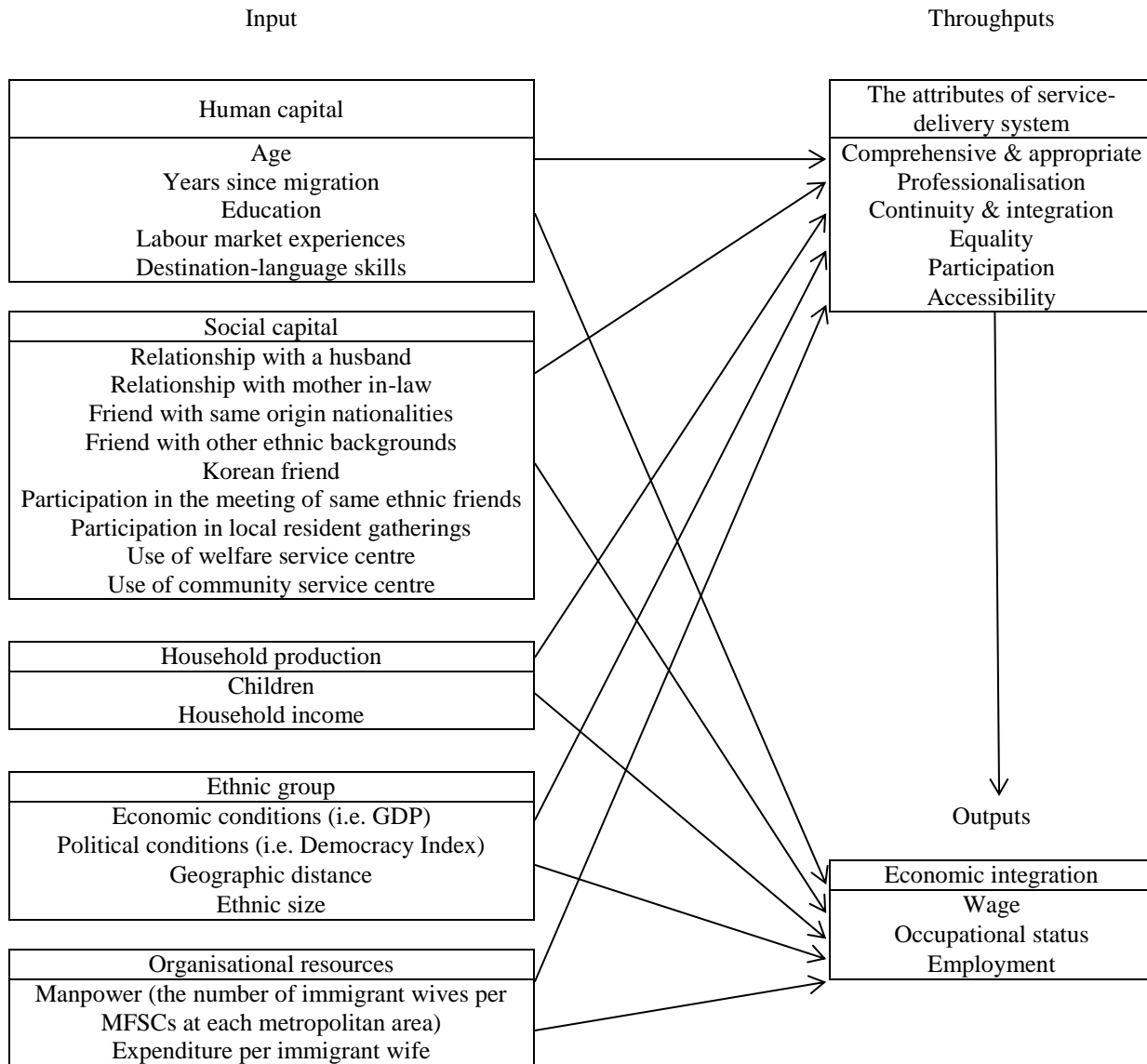
First, rather than using the four existing indicators (e.g. citizenship, employment, Korean language proficiency, and life satisfaction) currently used by MFSS to measure the integration of immigrant wives, it may be reasonable to consider various other indicators to evaluate immigrant integration more comprehensively. Potential indicators may include voting and citizenship to assess political integration; wage levels, occupational status, and employment to assess economic integration; acculturation and destination-language skills to measure cultural integration; and experience with discrimination and overall life satisfaction to assess immigrant wives' integration subjectively (Heckman et al., 2010). These new and more comprehensive indicators can decrease measurement error when evaluating the effectiveness of MFSS. In addition, the interactions between inputs and throughputs, in the logic model's open system approach, should be considered as independent variables.

To handle these new and various indicators for measuring immigrant wives' integration and the interactions between the inputs and throughputs in the open system approach, we propose the use of structural equation modelling (SEM). One of the SEM technique's strengths is that varying relationships can be tested simultaneously with the consideration of endogenous factors in various equations, and both indirect and direct effects can be explored mathematically (Blunch, 2008). Thus, these new and various indicators are used to explain abstract concepts and, then, assessments are made to determine whether or not a particular abstract concept is well measured by these indicators (Blunch, 2008).

As an example, a number of equations can be offered with respect to the flow of inputs, throughputs, and outputs in the open system approach to measure improvements in economic integration as a result of participation in the MFSS delivery process. The diagram in Figure 16.2 includes multiple equations and describes the flow of the open system approach towards improving the economic integration of service users of the MFSS service delivery system. Specifically, individual resources or skills, which are based on human capital, social capital, and household production variables (as discussed in Chapters 6 and 7), have a direct effect on the variables associated with economic integration. They are considered either as outputs or as throughputs having an indirect effect via the attributes of service-delivery system's variables. As inputs, the features of ethnic groups also have an impact on economic integration, and these include the economic, political, and geographical differences between the origin countries and Korea, as well as those group members' experiences in Korea, which is related to the population size of the ethnic groups (as discussed in Chapter 8). Organisational resources and levels of competence, such as manpower, staff skill levels, and budgetary expenditures, also have direct effects on the outputs or indirect effects via throughputs, based on the attributes of the service-delivery system. These attributes include offering services that are comprehensive and appropriate, the professionalism of the staff, the continuity and integration of services, and service equality, participation, and accessibility (as discussed in Chapter 9). By taking these attributes into account, researchers and service providers can develop theory-driven constructs. The constructs to be selected may include human capital, social capital, household production,

organisational resources, the attributes of the service-delivery system, and economic integration.

Figure 16.2: The flow of open system approach to explore effective MFSS delivery system based on SEM



To measure the constructs and their impacts, each construct is associated with indicators arising from theoretical or empirical studies. As a second step, the reliability and

validity of these construct indicators are appropriately measured and assessed by confirmative factor analysis. Third, after factor analysis, the complexity of relationships among the inputs, throughputs, and outputs are assessed simultaneously. In addition, the effects of the interactions between the inputs and throughputs can be estimated by focusing on the indirect effects. In fact, in complex relationships, each relationship can be estimated separately using SEM, which may be an effective method for reducing a weakness in this thesis.

Second, although PSM is commonly used to control for selection bias in non-experimental designs with non-random assignments (Guo, Barth, and Gibbons, 2005), its results must be compared with those from multiple statistical methods to better identify and control selection bias (Sosin, 2002). One alternative is to perform PSM with DID (Guo, Barth, and Gibbons, 2005). As seen in Chapter 3, MFSS has been delivered to immigrant wives since 2008, enacted then as the Multicultural Family Support Act. Also, a triennial national survey for marriage migrants has been performed since 2006. Data sets of the 2006, 2009, and 2012 surveys were collected. It is assumed that immigrant wives in the 2006 data set had had no prior experience in using MFSS, and this data set can be used as a pre-test. By contrast, immigrant wives who have had and have not had experience with using MFSS are present in the 2009 and 2012 data sets, and can be used as a post-test. In this way, the outcomes of MFSS in 2006 can be compared with those in 2009 and in 2012. Before the comparison is carried out, a prerequisite is that the data sets of 2006, 2009, and 2012 be pooled, and the MFSS outcomes and covariates influencing the outcomes and participation in MFSS be simultaneously considered. We note that the three data sets are not panel data. However, there are two different approaches for examining the non-linear and linear outcomes.

In terms of non-linear outcomes, the average outcomes calculated by the equation in which the total number of participants in the post-test subtracts the total number of participants in the pre-test, simply compares the average outcomes calculated by the equation in which total number of non-participants in the post-test subtracts the total number of non-participants in the pre-test. This is because it is difficult to conduct a significance test for standard errors with non-linear outcomes (Puhani, 2012). Steps for non-linear outcomes are

follows: First, we calculate the average outcomes between participants and non-participants in 2006, 2009, and 2012 using PSM. Next, different scores are calculated by the average outcomes of the participants in 2009 or 2012 minus those of the participants in 2006. Third, different scores are calculated by the average outcomes of non-participants in 2009 or 2012 minus those of the non-participants in 2006. Finally, we estimate the gap between the different scores of the participants and the different scores of the non-participants. If the gap is positive, MFSS will be shown to be effective, and MFSS will be deemed as ineffective if the gap is negative.

With regard to continuous outcomes, a general DID is conducted since a significance test for standard errors is available. As such, the steps for calculating the continuous outcomes are not similar to those for non-linear outcomes. First, one variable is generated as the difference of the real outcomes of post-test (i.e., data sets in 2009 and 2012) and pre-test (i.e., data set in 2006). Second, PSM is conducted for the generated variable as an MFSS outcome. Third, the average outcomes between the matched participants and non-participants are compared. Lastly, standard errors for different average outcomes between the matched samples are tested with bootstrapping to test the level of significance. In this way, selection bias is better controlled when PSM is conducted with DID.

Third, in order to increase the statistical accuracy and decrease estimation errors, the HLM analysis should consider a large number of level-2 or level-3 groups (e.g. ethnic groups and service providers, as well as a large number of geographical areas in Korea) (Snijders and Bosker, 2012). In this way, a comprehensive number of ethnic groups and areas where services are being provided can be included in future research. In Korea, a triennial national survey for marriage migrants has been conducted since 2006. Because the 2012 national survey has already been carried out, the 2015 national survey will provide an opportunity to expand the number of data sources. If the 2015 national survey includes a larger number of ethnic groups and administrative areas, the statistical accuracy will be stronger and estimation errors will be fewer.

Another alternative is to use ethnic-group level variables as individual level variables. To do so, dummy variables can be constructed for the ethnic-group level variables, and then these dummy variables would be treated as individual level variables. In this thesis, we have specifically focused on differences in economic, political, and geographic conditions between origin countries and Korea, as well as the population size of ethnic groups as an innate feature of ethnic groups in Korea. With respect to economic conditions, based on World Bank data on GDP per capita in 2012 of the countries of origin of 10 national groups, only Japan's GDP per capita was higher than that of Korea, and all other countries' GDP per capita was lower (World Bank, 2012). Hence, immigrant wives from Japan will be coded as "1", and others will be coded as "0". With respect to political conditions, immigrant wives from Japan and Mongol will be coded as "1", and others will be coded as "0", based on the Freedom House report, a yearly report on the political rights and civil liberties of people living in 192 countries (Freedom House, 2012). Both political rights and civil liberties are measured on a 7-point scale, and the scores are then combined as an average rating. The combined scores are categorized as free (based on scores between 1.0 and 2.5), partly free (based on scores between 3.0 and 5.5), and not free (based on scores between 5.5 and 7.0). In 2012, Japan, Mongol and Korea were classified as free. With respect to geographic conditions, immigrant wives from East-Asian countries including China, Japan and Mongolia will be coded as "1", and others will be coded as "0". Since the vast majority of immigrant wives ethnic groups in Korea are from China, for population size of the ethnic group, Chinese and Korean Chinese will be coded as "1", and others will be coded as "0" (Jeon et al., 2013). By so doing, a sufficient sample size can be obtained and more three variables can be estimated at the organizational level.

Lastly, qualitative methods should be considered for future research in estimating the net effect of MFSS. There are two main reasons for employing qualitative methods for future works. First, future works to use qualitative methods may expand an understanding of evaluation of MFSS. In this thesis, we focused heavily on goal attainment although policy or program evaluation is aimed to assess not only whether its goal is achieved but also how policy or program is implemented (Rubin and Babbie, 1989; Logan and Royse, 2010).

Especially, the second step's evaluation, including the monitoring policy or program implementation, is advantageous for exploring program efforts, program changes, characteristics with regard to members (staffs, service-users, and institutions) in programs, and relationships among staffs, service-users, and institutions (Scarpitti, Inciardi, and Pottieger, 1993). In fact, it is recommended that both the two types of evaluation are simultaneously used (Rubin and Babbie, 1989; Logan and Royse, 2010).

Meanwhile, in the process of evaluation, researchers have assessed goal attainment mainly using quantitative methods, but for monitoring policy or program implementation, they tend to depend excessively on using qualitative methods (Rubin and Babbie, 1989). Therefore, because we focused primarily on the evaluation of the extent of goal attainment using quantitative methods, future work needs to assess MFSS implementation using qualitative methods.

Specifically, in order to assess MFSS implementation, qualitative interviewing may be an appropriate way to evaluate how staffs in an organization cooperate with other organizational staffs, how new staffs are adjusted in new organization's procedures, and what unexpected difficulties staffs experience are, in the process of service delivery (Rubin and Babbie, 1989). Additionally, qualitative interviewing may also appropriate way to find why service-users or clients stop using services before termination and why service-users or clients dissatisfy in the process of service delivery (Rubin and Babbie, 1989). As another qualitative method, participant observation may be used to explore how staffs interact with clients, in the process of service delivery (Rubin and Babbie, 1989). In addition, on qualitative methods, the use of focus groups is often considered in examining what service-users or clients' needs are and which sub-programs service-users or clients need (Rubin and Babbie, 1989). Hence, to assess how MFSS is implemented, we should consider qualitative methods as future research.

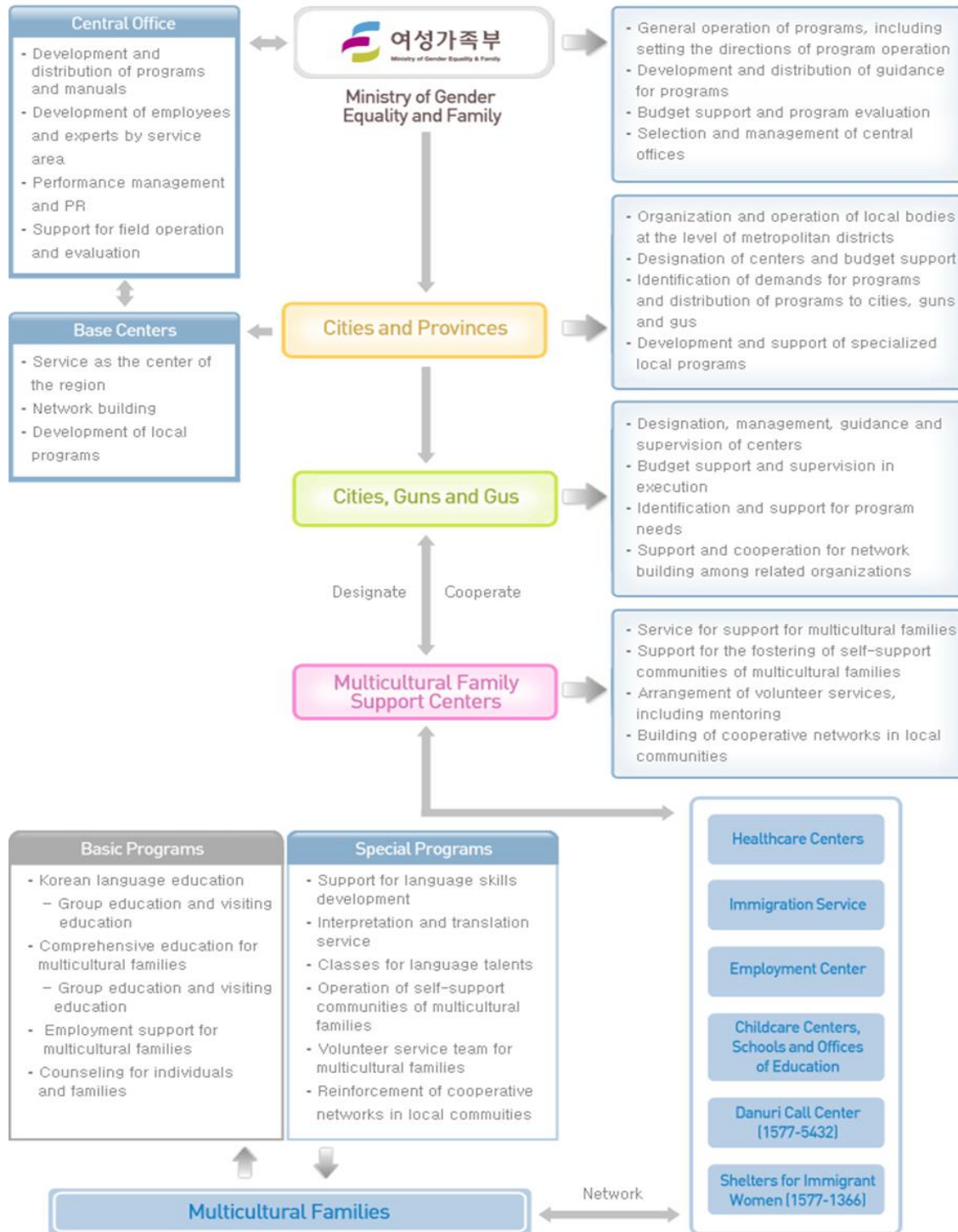
Second, qualitative methods may facilitate to explore various different associations between inputs and outputs and between throughputs and outputs based on the flow of inputs, throughputs, and outputs in the logic model to find a way in which MFSS is effectively

enhanced. We performed secondary analysis using the 2012 NSMF, which disabled our analysis to explore various different associations between inputs and outputs and between throughputs and outputs in the logic model. For instance, we did not examine religious activities influencing immigrant wives' integration because we could not use available data with regard to religious activities from the 2012 NSMF. As another example, in examining manpower (e.g. staffs in MFSS) as an organizational resource influencing the outputs of MFSS, we used a proxy variable (e.g. the number of MFSCs) because we could not obtain available data from pre-existing data. As we discussed earlier, qualitative methods are useful to explore features staffs, service-users, and institutions as well as relationships among staffs, service-users, and institutions, in the process of program implementation. In addition, qualitative methods help to explore various different associations among staffs, service-users, institutions, and the outputs of services when we find difficulties to assess service effectiveness using quantitative methods (Rubin and Babbie, 1989; Logan and Royse, 2010). Hence, to offset the limitations of the secondary analysis, future works to use qualitative methods should be considered.

To sum up, in the light of the suggestions, any future study must grapple with these weaknesses.

Appendices

APPENDIX 1: MFSS DELIVERY SYSTEM



(Source: Danuri: the portal for multicultural family, www.liveinkorea.kr)

APPENDIX 2A-1: RESULT OF ORDINAL LOGIT ANALYSIS AND OLS FOR KOREAN LANGUAGE PROFICIENCY

Korean language proficiency	Ologit	OLS
<i>Variables</i>	<i>Coef</i>	<i>Coef</i>
Age	0.016***	0.039***
<i>Education (reference = no schooling)</i>		
elementary school	0.875***	1.795***
middle school	1.042***	2.132***
high school	1.102***	2.293***
college or undergraduate school	0.902***	1.938***
post-graduate school	1.138***	2.388***
Years since migration	0.088***	0.135***
The number of children below 6 yrs.	0.140***	0.322***
The number of children over 6 yrs.	-1.903***	-0.235***
<i>Household income (reference = below one million)</i>		
1 million to less than 2 million won	0.001	-0.030
2 million to less than 3 million won	0.009	-0.014
3 million to less than 4 million won	0.166***	0.285**
more than 4 million won	0.331***	0.513***
The participation in the meeting of friend from the same origins of nationalities	-0.206***	-0.399***
The participation in local residents gathering	0.172***	0.347***
The number of friends with same origin nationalities	-0.071***	-0.149***
The number of friends with other ethnic backgrounds	-0.069*	-0.168**
The number of Korean friends	0.144***	0.318***
Use of welfare centres	0.003	0.014
Use of community centres	0.546***	1.225***
South-east Asian countries	-1.120***	-2.572***
Metro	0.001	0.073
Employment	0.245***	0.590***
cut1 / constant	-2.117	8.995***
cut2	-1.892	
cut3	-1.254	
cut4	-0.900	
cut5	0.012	
cut6	0.293	
cut7	0.814	
cut8	1.189	
cut9	2.088	
cut10	2.309	
cut11	2.641	
cut12	2.862	
cut13	3.442	
cut14	3.577	
cut15	3.801	
cut16	3.948	
χ^2 value / F value	4,591.96***	240.05***

*** p < 0.01; ** p < 0.05; * p < 0.1

APPENDIX 2A-2: RESULT OF ORDINAL LOGIT ANALYSIS AND OLS FOR LIFE SATISFACTION

Life satisfaction	Ologit	OLS
<i>Variables</i>	<i>Coef</i>	<i>Coef</i>
Age	-0.065***	-0.028***
Age square / 100	0.077***	0.033***
<i>Education (reference = no schooling)</i>		
elementary school	-0.103	-0.069
middle school	-0.242*	-0.120*
high school	-0.224	-0.115*
college or undergraduate school	-0.151	-0.083
post-graduate school	0.052	0.019
Years since migration	-0.012***	-0.005***
The number of children below 6 yrs.	-0.198***	-0.091***
The number of children over 6 yrs.	-0.156***	-0.074***
<i>Household income (reference = below one million)</i>		
1 million to less than 2 million won	0.225***	0.115***
2 million to less than 3 million won	0.439***	0.204***
3 million to less than 4 million won	0.601***	0.277***
more than 4 million won	0.857***	0.395***
The participation in the meeting of friend from the same origins of nationalities	0.038	0.018
The participation in local residents gathering	0.173***	0.075***
The number of friends with same origin nationalities	-0.013	-0.006
The number of friends with other ethnic backgrounds	-0.074*	-0.034*
The number of Korean friends	0.051***	0.024***
Use of welfare centres	0.077*	0.027
Use of community centres	-0.039	-0.013
The relationship with a husband	0.636***	0.255**
The relationship with children	0.014	0.006
The relationship with mother-in-law	0.038***	0.016***
The relationship with relatives	0.121***	0.049***
South-east Asian countries	0.205***	0.099***
Metro	-0.073**	-0.02*
Employment	-0.197***	-0.084***
Korean language proficiency	0.043***	0.020***
cut1 / constant	-2.398	2.722***
cut2	-0.708	
cut3	2.257	
cut4	3.826	
χ^2 value / F value	3357.88***	128.06***

*** p < 0.01; ** p < 0.05; * p < 0.1

APPENDIX 2A-3: TWO-STAGE TREATMENT EFFECT OF MFSS WITH THE OUTCOME OF LIFE SATISFACTION USING ETREGRESS

<i>Variables</i>	<i>Coef</i>
Life Satisfaction	
Use of MFSC	-0.282***
Age	-0.031***
Age square / 100	0.035***
<i>Education (reference = no schooling)</i>	
elementary school	-0.075
middle school	-0.122**
high school	-0.115*
college or undergraduate school	-0.069
post-graduate school	0.031
Years since migration	-0.007***
The number of children below 6 yrs.	-0.073***
The number of children over 6 yrs.	-0.059***
<i>Household income (reference = below one million)</i>	
1 million to less than 2 million won	0.115***
2 million to less than 3 million won	0.200***
3 million to less than 4 million won	0.269***
more than 4 million won	0.376***
The participation in the meeting of friend from the same origins of nationalities	0.046**
The participation in local residents gathering	0.093***
The number of friends with same origin nationalities	-0.0002
The number of friends with other ethnic backgrounds	-0.024
The number of Korean friends	0.026***
Use of welfare centres	0.065***
Use of community centres	0.012
The relationship with a husband	0.256***
The relationship with children	0.008
The relationship with mother-in-law	0.017***
The relationship with relatives	0.048***
South-east Asian countries	0.139***
Metro	-0.074***
Employment	-0.085***
Korean language proficiency	0.017***
Constant	2.921***

APPENDIX 2A-3: TWO-STAGE TREATMENT EFFECT OF MFSS WITH THE OUTCOME OF LIFE SATISFACTION USING ETREGRESS (CONTINUE)

<i>Variables</i>	<i>Coef</i>
Utilisation of MFSC	
Age	-0.014***
<i>Education (reference = no schooling)</i>	
elementary school	-0.082
middle school	-0.053
high school	-0.016
college or undergraduate school	0.120
post-graduate school	0.119
Years since migration	-0.020***
The number of children	0.162***
<i>Household income (reference = below one million)</i>	
1 million to less than 2 million won	0.002
2 million to less than 3 million won	-0.041
3 million to less than 4 million won	-0.063
more than 4 million won	-0.183***
The participation in the meeting of friend from the same origins of nationalities	0.285***
The participation in local residents gathering	0.195***
The number of friends with same origin nationalities	0.048***
The number of friends with other ethnic backgrounds	0.092*
The number of Korean friends	0.019***
Use of welfare centres	0.395***
Use of community centres	0.275***
South-east Asian countries	0.351***
Metro	-0.457***
The relationship with a husband	0.008
The relationship with children	0.019
The relationship with mother-in-law	0.001
The relationship with relatives	-0.014
Employment	0.006
Korean language proficiency	-0.021***
Need for MFSS	0.017***
Constant	-0.336**
<i>A</i>	0.162**
<i>P</i>	0.193
<i>S</i>	0.838
<i>N</i>	12,324
Wald χ^2 (56)	5,325.40

*** p < 0.01; ** p < 0.05; * p < 0.1

**APPENDIX 2B-1: TREATMENT EFFECT OF MFSS WITH THE OUTCOME OF CITIZENSHIP
USING GSEM**

Citizenship	
<i>Variables</i>	<i>Coef</i>
Citizenship	
The utilisation of MFSC	-2.176***
Age	0.188***
Age square / 100	-0.197***
<i>Education (reference = no schooling)</i>	
elementary school	-0.454
middle school	-0.090
high school	-0.383
college or undergraduate school	-1.222***
post-graduate school	-2.420***
Years since migration	0.067***
The number of children	0.623***
<i>Household income (reference = below one million)</i>	
1 million to less than 2 million won	-0.404***
2 million to less than 3 million won	-0.692***
3 million to less than 4 million won	-0.733***
more than 4 million won	-1.428***
The participation in the meeting of friend from the same origins of nationalities	-0.044
The participation in local residents gathering	0.122
The number of friends with same origin nationalities	-0.220***
The number of friends with other ethnic backgrounds	-0.136
The number of Korean friends	-0.048*
Use of welfare centres	0.454***
Use of community centres	1.093***
The relationship with a husband	-0.458***
South-east Asian countries	1.403***
Metro	-0.066
Employment	0.883***
Korean language proficiency	0.207***
Constant	-6.473***

**APPENDIX 2B-1: TREATMENT EFFECT OF MFSS WITH THE OUTCOME OF CITIZENSHIP
USING GSEM (CONTINUE)**

<i>Variables</i>	<i>Coef</i>
Utilisation of MFSC	
Age	-0.025***
<i>Education (reference = no schooling)</i>	
elementary school	-0.190
middle school	-0.120
high school	-0.037
college or undergraduate school	0.219
post-graduate school	0.216
Years since migration	-0.049***
The number of children	0.382***
<i>Household income (reference = below one million)</i>	
1 million to less than 2 million won	0.011
2 million to less than 3 million won	-0.078
3 million to less than 4 million won	-0.116
more than 4 million won	-0.379***
The participation in the meeting of friend from the same origins of nationalities	0.562***
The participation in local residents gathering	0.382***
The number of friends with same origin nationalities	0.101***
The number of friends with other ethnic backgrounds	0.184***
The number of Korean friends	0.037*
Use of welfare centres	0.789***
Use of community centres	0.554***
South-east Asian countries	0.695***
Metro	-0.892***
The relationship with a husband	0.000
The relationship with children	0.003
The relationship with mother-in-law	0.015
The relationship with relatives	-0.018
Employment	0.028
Korean language proficiency	-0.042***
Need for MFSS	0.033***
Constant	-0.698**
ρ	0.648***
log-likelihood	-13,268.424

*** p < 0.01; ** p < 0.05; * p < 0.1

APPENDIX 2B-2: TREATMENT EFFECT OF MFSS WITH THE OUTCOME OF LIFE SATISFACTION USING GSEM

<i>Variables</i>	<i>Coef</i>
Life Satisfaction	
Use of MFSC	-0.374***
Age	-0.032***
Age square / 100	0.036***
<i>Education (reference = no schooling)</i>	
elementary school	-0.077
middle school	-0.123*
high school	-0.114*
college or undergraduate school	-0.064
post-graduate school	0.036
Years since migration	-0.008***
The number of children below 6 yrs.	-0.068***
The number of children over 6 yrs.	-0.054***
<i>Household income (reference = below one million)</i>	
1 million to less than 2 million won	0.115***
2 million to less than 3 million won	0.198***
3 million to less than 4 million won	0.266***
more than 4 million won	0.369***
The participation in the meeting of friend from the same origins of nationalities	0.055***
The participation in local residents gathering	0.099***
The number of friends with same origin nationalities	0.002
The number of friends with other ethnic backgrounds	-0.021
The number of Korean friends	0.027***
Use of welfare centres	0.077***
Use of community centres	0.020
The relationship with a husband	0.256***
The relationship with children	0.008
The relationship with mother-in-law	0.017***
The relationship with relatives	0.048***
South-east Asian countries	0.152***
Metro	-0.088***
Employment	-0.085***
Korean language proficiency	0.158***
Constant	2.988***

APPENDIX 2B-2: TREATMENT EFFECT OF MFSS WITH THE OUTCOME OF LIFE SATISFACTION USING GSEM (CONTINUE)

<i>Variables</i>	<i>Coef</i>
Utilisation of MFSS	
Age	-0.028***
<i>Education (reference = no schooling)</i>	
elementary school	-0.204
middle school	-0.122
high school	-0.052
college or undergraduate school	0.216
post-graduate school	0.232
Years since migration	-0.039***
The number of children	0.318***
<i>Household income (reference = below one million)</i>	
1 million to less than 2 million won	0.021
2 million to less than 3 million won	-0.068
3 million to less than 4 million won	-0.107
more than 4 million won	-0.338***
The participation in the meeting of friend from the same origins of nationalities	0.569***
The participation in local residents gathering	0.384***
The number of friends with same origin nationalities	0.095***
The number of friends with other ethnic backgrounds	0.184***
The number of Korean friends	0.038*
Use of welfare centres	0.785***
Use of community centres	0.544***
South-east Asian countries	0.690***
Metro	-0.908***
Employment	0.018
Korean language proficiency	-0.043
The relationship with a husband	0.004
The relationship with children	0.038**
The relationship with mother-in-law	0.038
The relationship with relatives	0.005
Need for MFSS	-0.032***
Constant	-0.594**
<hr/>	
ρ	0.414***
log-likelihood	-21,031.853

*** p < 0.01; ** p < 0.05; * p < 0.1

**APPENDIX 2C-1: TREATMENT EFFECT OF MFSS WITH THE OUTCOME OF CITIZENSHIP
USING BIPROBIT**

<i>Variables</i>	<i>Coef</i>
Citizenship	
The utilisation of MFSC	-0.887***
Age	0.063***
Age square / 100	-0.067***
<i>Education (reference = no schooling)</i>	
elementary school	-0.157
middle school	-0.031
high school	-0.130
college or undergraduate school	-0.406***
post-graduate school	-0.809***
Years since migration	0.022***
The number of children	0.221***
<i>Household income (reference = below one million)</i>	
1 million to less than 2 million won	-0.138***
2 million to less than 3 million won	-0.238***
3 million to less than 4 million won	-0.254***
more than 4 million won	-0.493***
The participation in the meeting of friend from the same origins of nationalities	0.000
The participation in local residents gathering	0.051
The number of friends with same origin nationalities	-0.071***
The number of friends with other ethnic backgrounds	-0.041
The number of Korean friends	-0.016
Use of welfare centres	0.175***
Use of community centres	0.384***
The relationship with a husband	-0.155***
South-east Asian countries	0.497***
Metro	-0.046
Employment	0.299***
Korean language proficiency	0.069***
Constant	-2.102***

**APPENDIX 2C-1: TREATMENT EFFECT OF MFSS WITH THE OUTCOME OF CITIZENSHIP
USING BIPROBIT (CONTINUE)**

<i>Variables</i>	<i>Coef</i>
Utilisation of MFSC	
Age	-0.013***
<i>Education (reference = no schooling)</i>	
elementary school	-0.082
middle school	-0.050
high school	-0.009
college or undergraduate school	0.121
post-graduate school	0.117
Years since migration	-0.023***
The number of children	0.194***
<i>Household income (reference = below one million)</i>	
1 million to less than 2 million won	0.007
2 million to less than 3 million won	-0.036
3 million to less than 4 million won	-0.057
more than 4 million won	-0.193***
The participation in the meeting of friend from the same origins of nationalities	0.283***
The participation in local residents gathering	0.189***
The number of friends with same origin nationalities	0.051***
The number of friends with other ethnic backgrounds	0.092***
The number of Korean friends	0.020**
Use of welfare centres	0.393***
Use of community centres	0.278***
South-east Asian countries	0.352***
Metro	-0.450***
The relationship with a husband	-0.001
The relationship with children	-0.002
The relationship with mother-in-law	0.007
The relationship with relatives	-0.006
Employment	0.009
Korean language proficiency	-0.022***
Need for MFSS	0.017***
Constant	-0.343**
ρ	0.482***
χ^2 (54)	6,659.09***

*** p < 0.01; ** p < 0.05; * p < 0.1

APPENDIX 2C-2: TREATMENT EFFECT OF MFSS WITH THE OUTCOME OF LIFE SATISFACTION USING TREATORBIT

<i>Variables</i>	<i>Coef</i>
Life Satisfaction	
Use of MFSC	-0.504***
Age	-0.042***
Age square / 100	0.046***
<i>Education (reference = no schooling)</i>	
elementary school	-0.098
middle school	-0.155*
high school	-0.142*
college or undergraduate school	-0.077
post-graduate school	0.054
Years since migration	-0.010***
The number of children below 6 yrs.	-0.087***
The number of children over 6 yrs.	-0.068***
<i>Household income (reference = below one million)</i>	
1 million to less than 2 million won	0.146***
2 million to less than 3 million won	0.254***
3 million to less than 4 million won	0.342***
more than 4 million won	0.473***
The participation in the meeting of friend from the same origins of nationalities	0.072***
The participation in local residents gathering	0.131***
The number of friends with same origin nationalities	0.002
The number of friends with other ethnic backgrounds	-0.025
The number of Korean friends	0.035***
Use of welfare centres	0.104***
Use of community centres	0.027
The relationship with a husband	0.323***
The relationship with children	0.011
The relationship with mother-in-law	0.022***
The relationship with relatives	0.063***
South-east Asian countries	0.198***
Metro	-0.121***
Employment	-0.108***
Korean language proficiency	0.020***
cut1	-1.626***
cut2	-0.833***
cut3	0.767***
cut4	1.676***

**APPENDIX 2C-2: TREATMENT EFFECT OF MFSS WITH THE OUTCOME OF LIFE
SATISFACTION USING TREATORBIT (CONTINUE)**

<i>Variables</i>	<i>Coef</i>
Utilisation of MFSC	
Age	-0.014***
<i>Education (reference = no schooling)</i>	
elementary school	-0.098
middle school	-0.062
high school	-0.064
college or undergraduate school	-0.027
post-graduate school	0.109
Years since migration	0.117***
The number of children	0.159***
<i>Household income (reference = below one million)</i>	
1 million to less than 2 million won	0.011
2 million to less than 3 million won	-0.032
3 million to less than 4 million won	-0.053**
more than 4 million won	-0.171***
The participation in the meeting of friend from the same origins of nationalities	0.287***
The participation in local residents gathering	0.194***
The number of friends with same origin nationalities	0.048***
The number of friends with other ethnic backgrounds	0.091***
The number of Korean friends	0.020***
Use of welfare centres	0.394***
Use of community centres	0.272*
South-east Asian countries	0.350***
Metro	-0.459***
Employment	0.006
Korean language proficiency	-0.022***
The relationship with a husband	0.003
The relationship with children	0.019**
The relationship with mother-in-law	0.001
The relationship with relatives	-0.015
Need for MFSS	0.017***
Constant	-0.296*
<hr/>	
<i>atanh_ρ</i>	0.302***
<i>ρ</i>	0.294
<i>χ² (28)</i>	2,916.76***

*** p < 0.01; ** p < 0.05; * p < 0.1

APPENDIX 3A-1: RESULT OF BALANCING TEST (T-TEST) OF NN MATCHING FOR CITIZENSHIP

Variables	Matching	Average scores		% bias	% reduct bias	T-test
		Service-users	Non-service-users			
Age	Before matching	32.602	39.288	-64.6	95.0	-35.71***
	After matching	32.603	32.277	3.1		2.06**
<i>Education (reference = no schooling)</i>						
elementary school	Before matching	0.080	0.080	-0.2	18.0	-0.13
	After matching	0.080	0.080	-0.2		-0.11
middle school	Before matching	0.207	0.197	2.5	66.3	1.41
	After matching	0.207	0.204	0.9		0.46
high school	Before matching	0.403	0.426	-4.7	78.6	-2.63***
	After matching	0.403	0.408	-1.0		-0.56
college or undergraduate school	Before matching	0.280	0.258	4.9	95.4	2.72***
	After matching	0.280	0.279	0.2		0.12
post-graduate school	Before matching	0.012	0.023	-8.3	93.3	-4.59***
	After matching	0.012	0.013	-0.6		-0.36
Years since migration	Before matching	6.684	9.287	-39.7	94.2	-21.90***
	After matching	6.685	6.535	2.3		1.61
The number of children	Before matching	1.317	0.938	40.4	95.4	22.45***
	After matching	1.317	1.299	1.9		1.00
<i>Household income (reference = below 1 million won)</i>						
1 million to less than 2 million won	Before matching	0.336	0.285	11.1	95.2	6.15***
	After matching	0.336	0.334	0.5		0.29
2 million to less than 3 million won	Before matching	0.346	0.312	7.4	99.2	4.08***
	After matching	0.346	0.346	-0.1		-0.03
3 million to less than 4 million won	Before matching	0.145	0.164	-5.4	96.8	-3.00***
	After matching	0.145	0.146	-0.2		-0.10
more than 4 million won	Before matching	0.076	0.125	-16.4	97.5	-9.06***
	After matching	0.076	0.074	0.4		0.26
The participation in the meeting of friend from the same origins of nationalities	Before matching	0.685	0.480	42.4	93.3	23.53***
	After matching	0.685	0.671	2.9		1.62
The participation in local residents gathering	Before matching	0.196	0.147	13.0	94.9	7.20***
	After matching	0.196	0.193	0.7		0.34
The number of friends with same origin nationalities	Before matching	1.543	1.101	32.4	94.7	17.99***
	After matching	1.543	1.520	1.7		0.90
The number of friends with other ethnic backgrounds	Before matching	0.122	0.066	12.9	99.1	7.16***
	After matching	0.122	0.122	-0.1		-0.05
The number of Korean friends	Before matching	1.390	1.484	-6.5	73.3	-3.59***
	After matching	1.390	1.365	1.7		0.95
The relationship with a husband	Before matching	3.996	3.820	13.7	88.6	7.60***
	After matching	3.996	4.017	-1.6		-0.97
Metro	Before matching	0.294	0.564	-56.8	97.5	-31.47***
	After matching	0.294	0.300	-1.4		-0.81
Vietnamese	Before matching	0.230	0.107	33.3	85.2	18.56***
	After matching	0.230	0.249	-4.9		-2.34**

APPENDIX 3A-1: RESULT OF BALANCING TEST (T-TEST) OF NN MATCHING FOR CITIZENSHIP (CONTINUE)

Filipinos	Before matching	0.178	0.071	33.0	88.2	18.40***
	After matching	0.178	0.165	3.9		1.85
Thais	Before matching	0.040	0.026	8.3	86.2	4.60***
	After matching	0.0140	0.042	-1.1		-0.56
Cambodians	Before matching	0.108	0.037	27.6	87.0	15.42***
	After matching	0.108	0.098	3.6		1.66
Other South-East Asian countries	Before matching	0.016	0.010	4.7	98.1	2.61***
	After matching	0.016	0.016	-0.1		-0.04
Employment	Before matching	0.454	0.525	-14.2	78.8	-7.87***
	After matching	0.455	0.440	3.0		1.65
Korean language proficiency	Before matching	12.828	14.894	-47.9	81.9	-26.51***
	After matching	12.829	12.456	8.7		4.93***

*** p < 0.01; ** p < 0.05

APPENDIX 3A-2: RESULT OF BALANCING TEST (T-TEST) OF RADIUS MATCHING FOR CITIZENSHIP

Variables	Matching	Average scores		% bias	% reduct bias	T-test
		Service-users	Non-service-users			
Age	Before matching	32.602	39.288	-64.6	95.4	-35.71***
	After matching	32.603	32.295	3.0		1.94
<i>Education (reference = no schooling)</i>						
elementary school	Before matching	0.080	0.080	-0.2	-159.0	-0.13
	After matching	0.080	0.078	0.6		0.34
middle school	Before matching	0.207	0.197	2.5	82.0	1.41
	After matching	0.207	0.205	0.5		0.25
high school	Before matching	0.403	0.426	-4.7	75.0	-2.63***
	After matching	0.403	0.409	-1.2		-0.68
college or undergraduate school	Before matching	0.280	0.258	4.9	90.5	2.72***
	After matching	0.280	0.278	0.5		0.25
post-graduate school	Before matching	0.012	0.023	-8.3	98.7	-4.59***
	After matching	0.012	0.012	0.1		0.07
Years since migration	Before matching	6.684	9.287	-39.7	94.9	-21.90***
	After matching	6.685	6.552	2.0		1.43
The number of children	Before matching	1.317	0.938	40.4	95.5	22.45***
	After matching	1.317	1.300	1.8		0.98
<i>Household income (reference = below 1 million won)</i>						
1 million to less than 2 million won	Before matching	0.336	0.285	11.1	87.7	6.15***
	After matching	0.336	0.330	1.4		0.73
2 million to less than 3 million won	Before matching	0.346	0.312	7.4	82.7	4.08***
	After matching	0.346	0.352	-1.3		-0.69
3 million to less than 4 million won	Before matching	0.145	0.164	-5.4	98.7	-3.00***
	After matching	0.145	0.145	0.1		0.04
more than 4 million won	Before matching	0.076	0.125	-16.4	99.0	-9.06***
	After matching	0.076	0.075	0.2		0.11
The participation in the meeting of friend from the same origins of nationalities	Before matching	0.685	0.480	42.4	93.6	23.53***
	After matching	0.685	0.672	2.7		1.53
The participation in local residents gathering	Before matching	0.196	0.147	13.0	88.0	7.20***
	After matching	0.196	0.190	1.6		0.81
The number of friends with same origin nationalities	Before matching	1.543	1.101	32.4	97.3	17.99***
	After matching	1.543	1.531	0.9		0.45
The number of friends with other ethnic backgrounds	Before matching	0.122	0.066	12.9	96.8	7.16***
	After matching	0.122	0.123	-0.4		-0.19
The number of Korean friends	Before matching	1.390	1.484	-6.5	71.1	-3.59***
	After matching	1.390	1.363	1.9		1.03
The relationship with a husband	Before matching	3.996	3.820	13.7	82.6	7.60***
	After matching	3.996	4.027	-2.4		-1.48
Metro	Before matching	0.294	0.564	-56.8	96.8	-31.47***
	After matching	0.294	0.302	-1.8		-1.04
Vietnamese	Before matching	0.230	0.107	33.3	85.4	18.56***
	After matching	0.230	0.248	-4.9		-2.31**

APPENDIX 3A-2: RESULT OF BALANCING TEST (T-TEST) OF RADIUS MATCHING FOR CITIZENSHIP (CONTINUE)

Filipinos	Before matching	0.178	0.071	33.0	89.6	18.40***
	After matching	0.178	0.167	3.4		1.63
Thais	Before matching	0.040	0.026	8.3	81.5	4.60***
	After matching	0.040	0.043	-1.5		-0.75
Cambodians	Before matching	0.108	0.037	27.6	87.1	15.42***
	After matching	0.108	0.098	3.6		1.65
Other South-East Asian countries	Before matching	0.016	0.010	4.7	85.8	2.61***
	After matching	0.016	0.017	-0.7		-0.33
Employment	Before matching	0.454	0.525	-14.2	83.0	-7.87***
	After matching	0.455	0.442	2.4		1.32
Korean language proficiency	Before matching	12.828	14.894	-47.9	81.6	-26.51***
	After matching	12.829	12.448	8.8		5.03***

*** p < 0.01; ** p < 0.05

APPENDIX 3A-3: RESULT OF BALANCING TEST (T-TEST) OF KERNEL MATCHING WITH BANDWIDTH 0.05 FOR CITIZENSHIP

Variables	Matching	Average scores		% bias	% reduct bias	T-test
		Service-users	Non-service-users			
Age	Before matching	32.602	39.288	-64.6	95.8	-35.71***
	After matching	32.603	32.321	2.7		1.78
<i>Education (reference = no schooling)</i>						
elementary school	Before matching	0.080	0.080	-0.2	-124.5	-0.13
	After matching	0.080	0.078	0.5		0.30
middle school	Before matching	0.207	0.197	2.5	73.3	1.41
	After matching	0.207	0.205	0.7		0.35
high school	Before matching	0.403	0.426	-4.7	77.6	-2.63***
	After matching	0.403	0.408	-1.1		-0.58
college or undergraduate school	Before matching	0.280	0.258	4.9	95.0	2.72***
	After matching	0.280	0.279	0.2		0.13
post-graduate school	Before matching	0.012	0.023	-8.3	98.7	-4.59***
	After matching	0.012	0.012	-0.1		-0.07
Years since migration	Before matching	6.684	9.287	-39.7	95.1	-21.90***
	After matching	6.685	6.558	1.9		1.37
The number of children	Before matching	1.317	0.938	40.4	93.3	22.45***
	After matching	1.317	1.291	2.7		1.46
<i>Household income (reference = below 1 million won)</i>						
1 million to less than 2 million won	Before matching	0.336	0.285	11.1	86.9	6.15***
	After matching	0.336	0.330	1.5		0.78
2 million to less than 3 million won	Before matching	0.346	0.312	7.4	86.3	4.08***
	After matching	0.346	0.351	-1.0		-0.54
3 million to less than 4 million won	Before matching	0.145	0.164	-5.4	96.5	-3.00***
	After matching	0.145	0.146	-0.2		-0.11
more than 4 million won	Before matching	0.076	0.125	-16.4	99.7	-9.06***
	After matching	0.076	0.076	-0.0		-0.03
The participation in the meeting of friend from the same origins of nationalities	Before matching	0.685	0.480	42.4	93.4	23.53***
	After matching	0.685	0.671	2.8		1.59
The participation in local residents gathering	Before matching	0.196	0.147	13.0	81.4	7.20***
	After matching	0.196	0.187	2.4		1.27
The number of friends with same origin nationalities	Before matching	1.543	1.101	32.4	95.0	17.99***
	After matching	1.543	1.521	1.6		0.85
The number of friends with other ethnic backgrounds	Before matching	0.122	0.066	12.9	96.0	7.16***
	After matching	0.122	0.119	0.5		0.25
The number of Korean friends	Before matching	1.390	1.484	-6.5	70.5	-3.59***
	After matching	1.390	1.362	1.9		1.05
The relationship with a husband	Before matching	3.996	3.820	13.7	82.7	7.60***
	After matching	3.996	4.027	-2.4		-1.48
Metro	Before matching	0.294	0.564	-56.8	96.1	-31.47***
	After matching	0.294	0.304	-2.2		-1.25
Vietnamese	Before matching	0.230	0.177	33.3	87.3	18.56***
	After matching	0.230	0.246	-4.2		-2.01**

**APPENDIX 3A-3: RESULT OF BALANCING TEST (T-TEST) OF KERNEL MATCHING WITH
BANDWIDTH 0.05 FOR CITIZENSHIP (CONTINUE)**

Filipinos	Before matching	0.178	0.071	33.0	90.4	18.40***
	After matching	0.178	0.168	3.2		1.50
Thais	Before matching	0.040	0.026	8.3	80.2	4.60***
	After matching	0.040	0.043	-1.6		-0.80
Cambodians	Before matching	0.108	0.037	27.6	85.2	15.42***
	After matching	0.108	0.097	4.1		1.89
Other South-East Asian countries	Before matching	0.016	0.010	4.7	76.8	2.61***
	After matching	0.016	0.017	-1.1		-0.54
Employment	Before matching	0.454	0.525	-14.2	83.0	-7.87***
	After matching	0.455	0.442	2.4		1.33
Korean language proficiency	Before matching	12.828	14.894	-47.9	82.2	-26.51***
	After matching	12.829	12.462	8.5		4.85***

*** p < 0.01; ** p < 0.05

APPENDIX 3A-4: RESULT OF BALANCING TEST (T-TEST) OF KERNEL MATCHING WITH BANDWIDTH 0.1 FOR CITIZENSHIP

Variables	Matching	Average scores		% bias	% reduct bias	T-test
		Service-users	Non-service-users			
Age	Before matching	32.602	39.288	-64.6	97.6	-35.71***
	After matching	32.603	32.439	1.6		1.03
<i>Education (reference = no schooling)</i>						
elementary school	Before matching	0.080	0.080	-0.2	-49.3	-0.13
	After matching	0.080	0.079	0.4		0.20
middle school	Before matching	0.207	0.197	2.5	80.7	1.41
	After matching	0.207	0.205	0.5		0.27
high school	Before matching	0.403	0.426	-4.7	79.5	-2.63***
	After matching	0.403	0.408	-1.0		-0.53
college or undergraduate school	Before matching	0.280	0.258	4.9	92.3	2.72***
	After matching	0.280	0.278	0.4		0.20
post-graduate school	Before matching	0.012	0.023	-8.3	96.3	-4.59***
	After matching	0.012	0.013	-0.3		-0.20
Years since migration	Before matching	6.684	9.287	-39.7	96.4	-21.90***
	After matching	6.685	6.591	1.4		1.01
The number of children	Before matching	1.317	0.938	40.4	89.4	22.45***
	After matching	1.317	1.277	4.3		2.30**
<i>Household income (reference = below 1 million won)</i>						
1 million to less than 2 million won	Before matching	0.336	0.285	11.1	84.2	6.15***
	After matching	0.336	0.328	1.7		0.94
2 million to less than 3 million won	Before matching	0.346	0.312	7.4	88.2	4.08***
	After matching	0.346	0.350	-0.9		-0.47
3 million to less than 4 million won	Before matching	0.145	0.164	-5.4	89.6	-3.00***
	After matching	0.145	0.147	-0.6		-0.32
more than 4 million won	Before matching	0.076	0.125	-16.4	98.0	-9.06***
	After matching	0.076	0.080	-0.3		-0.20
The participation in the meeting of friend from the same origins of nationalities	Before matching	0.685	0.480	42.4	90.5	23.53***
	After matching	0.685	0.665	4.0		2.27**
The participation in local residents gathering	Before matching	0.196	0.147	13.0	70.2	7.20***
	After matching	0.196	0.181	3.9		2.03**
The number of friends with same origin nationalities	Before matching	1.543	1.101	32.4	90.9	17.99***
	After matching	1.543	1.503	2.9		1.54
The number of friends with other ethnic backgrounds	Before matching	0.122	0.066	12.9	89.7	7.16***
	After matching	0.122	0.116	1.3		0.64
The number of Korean friends	Before matching	1.390	1.484	-6.5	74.0	-3.59***
	After matching	1.390	1.366	1.7		0.92
The relationship with a husband	Before matching	3.996	3.820	13.7	85.6	7.60***
	After matching	3.996	4.022	-2.0		-1.23
Metro	Before matching	0.294	0.564	-56.8	94.2	-31.47***
	After matching	0.294	0.309	-3.3		-1.89
Vietnamese	Before matching	0.230	0.107	33.3	88.0	18.56***
	After matching	0.230	0.245	-4.0		-1.90

**APPENDIX 3A-4: RESULT OF BALANCING TEST (T-TEST) OF KERNEL MATCHING WITH
BANDWIDTH 0.1 FOR CITIZENSHIP (CONTINUE)**

Filipinos	Before matching	0.178	0.071	33.0	87.0	18.40***
	After matching	0.178	0.164	4.3		2.04**
Thais	Before matching	0.040	0.026	8.3	81.2	4.60***
	After matching	0.040	0.043	-1.6		-0.76
Cambodians	Before matching	0.108	0.037	27.6	82.4	15.42***
	After matching	0.108	0.095	4.9		2.26**
Southeast Asian countries	Before matching	0.016	0.010	4.7	77.5	2.61***
	After matching	0.016	0.017	-1.1		-0.52
Employment	Before matching	0.454	0.525	-14.2	84.0	-7.87***
	After matching	0.455	0.443	2.3		1.24
Korean language proficiency	Before matching	12.828	14.894	-47.9	84.0	-26.51***
	After matching	12.829	12.499	7.6		4.34***

*** p < 0.1; ** p < 0.05

APPENDIX 3B-1: RESULT OF BALANCING TEST (T-TEST) OF NN MATCHING FOR EMPLOYMENT

Variables	Matching	Average scores		% bias	% reduct bias	T-test
		Service-users	Non-service-users			
Age	Before matching	32.602	39.288	-64.6	95.0	-35.71***
	After matching	32.603	32.270	3.2		2.10**
<i>Education (reference = no schooling)</i>						
elementary school	Before matching	0.080	0.080	-0.2	89.7	-0.13
	After matching	0.080	0.080	0.0		0.01
middle school	Before matching	0.207	0.197	2.5	95.4	1.41
	After matching	0.207	0.208	-0.1		-0.06
high school	Before matching	0.403	0.426	-4.7	93.6	-2.63***
	After matching	0.403	0.404	-0.3		-0.17
college or undergraduate school	Before matching	0.280	0.258	4.9	90.0	2.72***
	After matching	0.280	0.278	0.5		0.26
post-graduate school	Before matching	0.012	0.023	-8.3	93.3	-4.59***
	After matching	0.012	0.013	-0.6		-0.36
Years since migration	Before matching	6.684	9.287	-39.7	94.1	-21.90***
	After matching	6.685	6.531	2.3		1.65
The number of children	Before matching	1.317	0.938	40.4	93.3	22.45***
	After matching	1.317	1.291	2.7		1.45
<i>Household income (reference = below 1 million won)</i>						
1 million to less than 2 million won	Before matching	0.336	0.285	11.1	87.8	6.15***
	After matching	0.336	0.330	1.4		0.73
2 million to less than 3 million won	Before matching	0.346	0.312	7.4	84.6	4.08***
	After matching	0.346	0.352	-1.1		-0.61
3 million to less than 4 million won	Before matching	0.145	0.164	-5.4	99.7	-3.00***
	After matching	0.145	0.145	0.0		0.01
more than 4 million won	Before matching	0.076	0.125	-16.4	99.5	-9.06***
	After matching	0.076	0.075	0.1		0.06
The participation in the meeting of friend from the same origins of nationalities	Before matching	0.685	0.480	42.4	95.5	23.53***
	After matching	0.685	0.675	1.9		1.09
The participation in local residents gathering	Before matching	0.196	0.147	13.0	95.6	7.20***
	After matching	0.196	0.198	-0.6		-0.29
The number of friends with same origin nationalities	Before matching	1.543	1.101	32.4	98.9	17.99***
	After matching	1.543	1.538	0.4		0.19
The number of friends with other ethnic backgrounds	Before matching	0.122	0.066	12.9	97.0	7.16***
	After matching	0.122	0.123	-0.4		-0.18
The number of Korean friends	Before matching	1.390	1.484	-6.5	51.7	-3.59***
	After matching	1.390	1.345	3.1		1.72
The relationship with a husband	Before matching	3.996	3.820	13.7	91.4	7.60***
	After matching	3.996	4.012	-1.2		-0.73
The relationship with mother-in-law	Before matching	3.203	2.817	22.0	99.8	12.18***
	After matching	3.203	3.204	-0.0		-0.02
Metro	Before matching	0.294	0.564	-56.8	95.2	-31.47***
	After matching	0.294	0.307	-2.7		-1.56

APPENDIX 3B-1: RESULT OF BALANCING TEST (T-TEST) OF NN MATCHING FOR EMPLOYMENT (CONTINUE)

Vietnamese	Before matching	0.230	0.107	33.3	86.4	18.56***
	After matching	0.230	0.247	-4.5		-2.16**
Filipinos	Before matching	0.178	0.071	33.0	92.0	18.40***
	After matching	0.1478	0.169	2.7		1.25
Thais	Before matching	0.040	0.026	8.3	89.2	4.60***
	After matching	0.040	0.042	-0.9		-0.44
Cambodians	Before matching	0.108	0.037	27.6	88.4	15.42***
	After matching	0.108	0.099	3.2		1.48
Other South-East Asian countries	Before matching	0.016	0.010	4.7	100.0	2.61***
	After matching	0.016	0.016	0.0		0.00
Korean language proficiency	Before matching	12.828	14.894	-47.9	80.7	-26.51***
	After matching	12.829	12.431	9.2		5.24***

*** p < 0.01; ** p < 0.05

APPENDIX 3B-2: RESULT OF BALANCING TEST (T-TEST) OF RADIUS MATCHING FOR EMPLOYMENT

Variables	Matching	Average scores		% bias	% reduct bias	T-test
		Service-users	Non-service-users			
Age	Before matching	32.602	39.288	-64.6	95.4	-35.71***
	After matching	32.603	32.296	3.0		1.94
<i>Education (reference = no schooling)</i>						
elementary school	Before matching	0.080	0.080	-0.2	-166.6	-0.13
	After matching	0.080	0.078	0.6		0.35
middle school	Before matching	0.207	0.197	2.5	81.2	1.41
	After matching	0.207	0.205	0.5		0.26
high school	Before matching	0.403	0.426	-4.7	73.2	-2.63***
	After matching	0.403	0.409	-1.3		-0.70
college or undergraduate school	Before matching	0.280	0.258	4.9	90.4	2.72***
	After matching	0.280	0.278	0.5		0.25
post-graduate school	Before matching	0.012	0.023	-8.3	98.6	-4.59***
	After matching	0.012	0.012	0.1		0.08
Years since migration	Before matching	6.684	9.287	-39.7	94.8	-21.90***
	After matching	6.685	6.551	2.0		1.44
The number of children	Before matching	1.317	0.938	40.4	95.6	22.45***
	After matching	1.317	1.300	1.8		0.96
<i>Household income (reference = below 1 million won)</i>						
1 million to less than 2 million won	Before matching	0.336	0.285	11.1	87.8	6.15***
	After matching	0.336	0.330	1.3		0.72
2 million to less than 3 million won	Before matching	0.346	0.312	7.4	83.1	4.08***
	After matching	0.346	0.352	-1.2		-0.67
3 million to less than 4 million won	Before matching	0.145	0.164	-5.4	99.0	-3.00***
	After matching	0.145	0.145	0.1		0.03
more than 4 million won	Before matching	0.076	0.125	-16.4	98.9	-9.06***
	After matching	0.076	0.075	0.2		0.11
The participation in the meeting of friend from the same origins of nationalities	Before matching	0.685	0.480	42.4	93.7	23.53***
	After matching	0.685	0.672	2.7		1.51
The participation in local residents gathering	Before matching	0.196	0.147	13.0	88.6	7.20***
	After matching	0.196	0.190	1.5		0.77
The number of friends with same origin nationalities	Before matching	1.543	1.101	32.4	97.2	17.99***
	After matching	1.543	1.531	0.9		0.48
The number of friends with other ethnic backgrounds	Before matching	0.122	0.066	12.9	97.7	7.16***
	After matching	0.122	0.123	-0.3		-0.14
The number of Korean friends	Before matching	1.390	1.484	-6.5	70.6	-3.59***
	After matching	1.390	1.362	1.9		1.05
The relationship with a husband	Before matching	3.996	3.820	13.7	82.7	7.60***
	After matching	3.996	4.027	-2.4		-1.48
The relationship with mother-in-law	Before matching	3.203	2.817	22.0	93.1	12.18***
	After matching	3.203	3.230	-1.5		-0.90
Metro	Before matching	0.294	0.564	-56.8	96.8	-31.47***
	After matching	0.294	0.302	-1.8		-1.04

APPENDIX 3B-2: RESULT OF BALANCING TEST (T-TEST) OF RADIUS MATCHING FOR EMPLOYMENT

Vietnamese	Before matching	0.203	0.107	33.3	85.4	18.56***
	After matching	0.230	0.248	-4.9		-2.32**
Filipinos	Before matching	0.178	0.071	33.0	89.5	18.40***
	After matching	0.178	0.167	3.5		1.64
Thais	Before matching	0.040	0.026	8.3	81.3	4.60***
	After matching	0.040	0.043	-1.5		-0.75
Cambodians	Before matching	0.108	0.037	27.6	86.7	15.42***
	After matching	0.108	0.098	3.7		1.70
Other South-East Asian countries	Before matching	0.016	0.010	4.7	84.7	2.61***
	After matching	0.016	0.017	-0.7		-0.36
Korean language proficiency	Before matching	12.828	14.894	-47.9	81.6	-26.51***
	After matching	12.829	12.449	8.8		5.02***

*** p < 0.01; ** p < 0.05

APPENDIX 3B-3: RESULT OF BALANCING TEST (T-TEST) OF KERNEL MATCHING WITH BANDWIDTH 0.05 FOR EMPLOYMENT

Variables	Matching	Average scores		% bias	% reduct bias	T-test
		Service-users	Non-service-users			
Age	Before matching	32.602	39.288	-64.6	95.8	-35.71***
	After matching	32.603	32.320	2.7		1.78
<i>Education (reference = no schooling)</i>						
elementary school	Before matching	0.080	0.080	-0.2	-125.5	-0.13
	After matching	0.080	0.078	0.5		0.30
middle school	Before matching	0.207	0.197	2.5	74.5	1.41
	After matching	0.207	0.205	0.5		0.35
high school	Before matching	0.403	0.426	-4.7	77.7	-2.63***
	After matching	0.403	0.407	-1.1		-0.58
college or undergraduate school	Before matching	0.280	0.258	4.9	95.1	2.72***
	After matching	0.280	0.279	0.2		0.13
post-graduate school	Before matching	0.012	0.023	-8.3	98.7	-4.59***
	After matching	0.012	0.012	-0.1		-0.07
Years since migration	Before matching	6.684	9.287	-39.7	95.1	-21.90***
	After matching	6.685	6.557	1.9		1.38
The number of children	Before matching	1.317	0.938	40.4	93.2	22.45***
	After matching	1.317	1.291	2.7		1.46
<i>Household income (reference = below 1 million won)</i>						
1 million to less than 2 million won	Before matching	0.336	0.285	11.1	86.9	6.15***
	After matching	0.336	0.330	1.5		0.78
2 million to less than 3 million won	Before matching	0.346	0.312	7.4	86.3	4.08***
	After matching	0.346	0.351	-1.0		-0.54
3 million to less than 4 million won	Before matching	0.145	0.164	-5.4	96.5	-3.00***
	After matching	0.145	0.146	-0.2		-0.11
more than 4 million won	Before matching	0.076	0.125	-16.4	99.7	-9.06***
	After matching	0.076	0.076	-0.0		-0.03
The participation in the meeting of friend from the same origins of nationalities	Before matching	0.685	0.480	42.4	93.4	23.53***
	After matching	0.685	0.671	2.8		1.59
The participation in local residents gathering	Before matching	0.196	0.147	13.0	81.4	7.20***
	After matching	0.196	0.187	2.4		1.27
The number of friends with same origin nationalities	Before matching	1.543	1.101	32.4	95.0	17.99***
	After matching	1.543	1.521	1.6		0.85
The number of friends with other ethnic backgrounds	Before matching	0.122	0.066	12.9	95.9	7.16***
	After matching	0.122	0.119	0.5		0.25
The number of Korean friends	Before matching	1.390	1.484	-6.5	70.6	-3.59***
	After matching	1.390	1.363	1.9		1.05
The relationship with a husband	Before matching	3.996	3.820	13.7	82.6	7.60***
	After matching	3.996	4.027	-2.4		-1.49
The relationship with mother-in-law	Before matching	3.203	2.817	22.0	92.7	12.18***
	After matching	3.203	3.231	-1.6		-0.94
Metro	Before matching	0.294	0.564	-56.8	96.1	-31.47***
	After matching	0.294	0.304	-2.2		-1.25

APPENDIX 3B-3: RESULT OF BALANCING TEST (T-TEST) OF KERNEL MATCHING WITH BANDWIDTH 0.05 FOR EMPLOYMENT (CONTINUE)

Vietnamese	Before matching	0.230	0.107	33.3	87.4	18.56***
	After matching	0.230	0.246	-4.2		-2.00**
Filipinos	Before matching	0.178	0.071	33.0	90.4	18.40***
	After matching	0.178	0.168	3.2		1.49
Thais	Before matching	0.040	0.026	8.3	80.2	4.60***
	After matching	0.040	0.043	-1.6		-0.80
Cambodians	Before matching	0.108	0.037	27.6	85.2	15.42***
	After matching	0.108	0.097	4.1		1.89
Other South-East Asian countries	Before matching	0.016	0.010	4.7	76.8	2.61***
	After matching	0.016	0.017	-1.1		-0.54
Korean language proficiency	Before matching	12.828	14.894	-47.9	82.2	-26.51***
	After matching	12.829	12.462	8.5		4.84***

*** p < 0.01; ** p < 0.05

APPENDIX 3B-4: RESULT OF BALANCING TEST (T-TEST) OF KERNEL MATCHING WITH BANDWIDTH 0.1 FOR EMPLOYMENT

Variables	Matching	Average scores		% bias	% reduct bias	T-test
		Service-users	Non-service-users			
Age	Before matching	32.602	39.288	-64.6	97.6	-35.71***
	After matching	32.603	32.439	1.6		1.03
<i>Education (reference = no schooling)</i>						
elementary school	Before matching	0.080	0.080	-0.2	-51.4	-0.13
	After matching	0.080	0.079	0.4		0.20
middle school	Before matching	0.207	0.197	2.5	80.9	1.41
	After matching	0.207	0.205	0.5		0.26
high school	Before matching	0.403	0.426	-4.7	79.6	-2.63***
	After matching	0.403	0.407	-1.0		-0.53
college or undergraduate school	Before matching	0.280	0.258	4.9	92.4	2.72***
	After matching	0.280	0.278	0.4		0.20
post-graduate school	Before matching	0.012	0.023	-8.3	96.3	-4.59***
	After matching	0.012	0.013	-0.3		-0.20
Years since migration	Before matching	6.684	9.287	-39.7	96.4	-21.90***
	After matching	6.685	6.591	1.4		1.02
The number of children	Before matching	1.317	0.938	40.4	89.5	22.45***
	After matching	1.317	1.277	4.3		2.30**
<i>Household income (reference = below 1 million won)</i>						
1 million to less than 2 million won	Before matching	0.336	0.285	11.1	84.2	6.15***
	After matching	0.336	0.328	1.7		0.94
2 million to less than 3 million won	Before matching	0.346	0.312	7.4	88.2	4.08***
	After matching	0.346	0.350	-0.9		-0.47
3 million to less than 4 million won	Before matching	0.145	0.164	-5.4	89.6	-3.00***
	After matching	0.145	0.147	-0.6		-0.32
more than 4 million won	Before matching	0.076	0.125	-16.4	98.0	-9.06***
	After matching	0.076	0.077	-0.3		-0.20
The participation in the meeting of friend from the same origins of nationalities	Before matching	0.685	0.480	42.4	90.5	23.53***
	After matching	0.685	0.665	4.0		2.27**
The participation in local residents gathering	Before matching	0.196	0.147	13.0	70.2	7.20***
	After matching	0.196	0.181	3.9		2.04**
The number of friends with same origin nationalities	Before matching	1.543	1.101	32.4	90.9	17.99***
	After matching	1.543	1.503	2.9		1.55
The number of friends with other ethnic backgrounds	Before matching	0.122	0.066	12.9	89.6	7.16***
	After matching	0.122	0.116	1.3		0.64
The number of Korean friends	Before matching	1.390	1.484	-6.5	74.1	-3.59***
	After matching	1.390	1.366	1.7		0.92
The relationship with a husband	Before matching	3.996	3.820	13.7	85.5	7.60***
	After matching	3.996	4.021	-2.0		-1.23
The relationship with mother-in-law	Before matching	3.203	2.817	22.0	94.9	12.18***
	After matching	3.203	3.222	-1.1		-0.66
Metro	Before matching	0.294	0.564	-56.8	94.2	-31.47***
	After matching	0.294	0.309	-3.3		-1.89

APPENDIX 3B-4: RESULT OF BALANCING TEST (T-TEST) OF KERNEL MATCHING WITH BANDWIDTH 0.1 FOR EMPLOYMENT (CONTINUE)

Vietnamese	Before matching	0.230	0.107	33.3	88.1	18.56***
	After matching	0.230	0.245	-4.0		-1.89
Filipinos	Before matching	0.178	0.071	33.0	86.9	18.40***
	After matching	0.178	0.164	4.3		2.04**
Thais	Before matching	0.040	0.026	8.3	81.2	4.60***
	After matching	0.040	0.043	-1.6		-0.76
Cambodians	Before matching	0.108	0.037	27.6	82.4	15.42***
	After matching	0.108	0.095	4.9		2.26**
Other South-East Asian countries	Before matching	0.016	0.010	4.7	77.5	2.61***
	After matching	0.016	0.017	-1.1		-0.52
Korean language proficiency	Before matching	12.828	14.894	-47.9	84.0	-26.51***
	After matching	12.829	12.500	7.6		4.34***

*** p < 0.01; ** p < 0.05

**APPENDIX 3C-1: RESULT OF BALANCING TEST (T-TEST) OF NN MATCHING FOR
KOREAN LANGUAGE PROFICIENCY**

Variables	Matching	Average scores		% bias	% reduct bias	T-test
		Service- users	Non- service- users			
Age	Before matching	32.602	39.288	-64.6	96.9	-35.71***
	After matching	32.604	32.394	2.0		1.32
<i>Education (reference = no schooling)</i>						
elementary school	Before matching	0.080	0.080	-0.2	-115.3	-0.13
	After matching	0.080	0.078	0.5		0.28
middle school	Before matching	0.207	0.197	2.5	36.5	1.41
	After matching	0.207	0.201	1.6		0.88
high school	Before matching	0.403	0.426	-4.7	71.0	-2.63***
	After matching	0.403	0.409	-1.4		-0.75
college or undergraduate school	Before matching	0.280	0.258	4.9	99.7	2.72***
	After matching	0.280	0.280	0.0		0.01
post-graduate school	Before matching	0.012	0.023	-8.3	99.7	-4.59***
	After matching	0.012	0.012	0.0		0.02
Years since migration	Before matching	6.684	9.287	-39.7	95.8	-21.9***
	After matching	6.685	6.576	1.7		1.18
The number of children	Before matching	1.317	0.938	40.4	97.9	22.45***
	After matching	1.316	1.309	0.8		0.44
<i>Household income (reference = below 1 million won)</i>						
1 million to less than 2 million won	Before matching	0.336	0.285	11.1	82.4	6.15***
	After matching	0.336	0.327	2.0		1.05
2 million to less than 3 million won	Before matching	0.346	0.312	7.4	85.1	4.08***
	After matching	0.346	0.351	-1.1		-0.56
3 million to less than 4 million won	Before matching	0.145	0.164	-5.4	88.8	-3.00***
	After matching	0.145	0.147	-0.6		-0.34
more than 4 million won	Before matching	0.076	0.125	-16.4	99.0	-9.06***
	After matching	0.076	0.076	-0.0		-0.01
The participation in the meeting of friend from the same origins of nationalities	Before matching	0.685	0.480	42.4	94.8	23.53***
	After matching	0.685	0.674	2.2		1.25
The participation in local residents gathering	Before matching	0.196	0.147	13.0	99.0	7.20***
	After matching	0.196	0.196	-0.1		-0.07
The number of friends with same origin nationalities	Before matching	1.543	1.101	32.4	99.4	17.99***
	After matching	1.543	1.545	-0.2		-0.10
The number of friends with other ethnic backgrounds	Before matching	0.122	0.066	12.9	95.3	7.16***
	After matching	0.121	0.124	-0.6		-0.28
The number of Korean friends	Before matching	1.390	1.484	-6.5	59.0	-3.59***
	After matching	1.390	1.352	2.7		1.46
Metro	Before matching	0.294	0.564	-56.8	99.8	-31.47***
	After matching	0.294	0.293	0.1		0.06
Vietnamese	Before matching	0.230	0.107	33.3	88.3	18.56***
	After matching	0.230	0.245	-3.9		-1.86
Filipinos	Before matching	0.178	0.071	33.0	91.4	18.40***
	After matching	0.178	0.169	2.8		1.34

**APPENDIX 3C-1: RESULT OF BALANCING TEST (T-TEST) OF NN MATCHING FOR
KOREAN LANGUAGE PROFICIENCY (CONTINUE)**

Thais	Before matching	0.040	0.026	8.3	72.9	4.60***
	After matching	0.040	0.044	-2.2		-1.09
Cambodians	Before matching	0.108	0.037	27.6	85.2	15.42***
	After matching	0.108	0.098	4.1		1.90
Other South-East Asian countries	Before matching	0.016	0.010	4.7	53.3	2.61***
	After matching	0.016	0.018	-2.2		-1.06
Employment	Before matching	0.454	0.525	-14.2	84.2	-7.87***
	After matching	0.454	0.443	2.2		1.23

*** p < 0.01; ** p < 0.05

**APPENDIX 3C-2: RESULT OF BALANCING TEST (T-TEST) OF RADIUS MATCHING FOR
KOREAN LANGUAGE PROFICIENCY**

Variables	Matching	Average scores		% bias	% reduct bias	T-test
		Service- users	Non- service- users			
Age	Before matching	32.602	39.288	-64.6	95.4	-35.71***
	After matching	32.604	32.297	3.0		1.94**
<i>Education (reference = no schooling)</i>						
elementary school	Before matching	0.080	0.080	-0.2	-218.8	-0.13
	After matching	0.080	0.078	0.8		0.42
middle school	Before matching	0.207	0.197	2.5	65.5	1.41
	After matching	0.207	0.204	0.9		0.48
high school	Before matching	0.403	0.426	-4.7	73.8	-2.63***
	After matching	0.403	0.409	-1.2		-0.68
college or undergraduate school	Before matching	0.280	0.258	4.9	96.9	2.72***
	After matching	0.280	0.280	0.2		0.08
post-graduate school	Before matching	0.012	0.023	-8.3	97.9	-4.59***
	After matching	0.012	0.013	-0.2		-0.12
Years since migration	Before matching	6.684	9.287	-39.7	95.7	-21.90***
	After matching	6.685	6.574	1.7		1.21
The number of children	Before matching	1.317	0.938	40.4	97.9	22.45***
	After matching	1.316	1.308	0.9		0.46
<i>Household income (reference = below 1 million won)</i>						
1 million to less than 2 million won	Before matching	0.336	0.285	11.1	85.4	6.15***
	After matching	0.336	0.329	1.6		0.87
2 million to less than 3 million won	Before matching	0.346	0.312	7.4	80.4	4.08***
	After matching	0.346	0.353	-1.4		-0.78
3 million to less than 4 million won	Before matching	0.145	0.164	-5.4	96.3	-3.00***
	After matching	0.145	0.144	0.2		0.11
more than 4 million won	Before matching	0.076	0.125	-16.4	98.4	-9.06***
	After matching	0.076	0.075	0.3		0.16
The participation in the meeting of friend from the same origins of nationalities	Before matching	0.685	0.480	42.4	95.3	23.53***
	After matching	0.685	0.675	2.0		1.12
The participation in local residents gathering	Before matching	0.196	0.147	13.0	95.7	7.20***
	After matching	0.196	0.194	0.6		0.29
The number of friends with same origin nationalities	Before matching	1.543	1.101	32.4	99.6	17.99***
	After matching	1.543	1.541	0.1		0.07
The number of friends with other ethnic backgrounds	Before matching	0.122	0.066	12.9	99.4	7.16***
	After matching	0.121	0.121	0.1		0.03
The number of Korean friends	Before matching	1.390	1.484	-6.5	67.9	-3.59***
	After matching	1.390	1.360	2.1		1.14
Metro	Before matching	0.294	0.564	-56.8	98.3	-31.47***
	After matching	0.294	0.298	-0.9		-0.54
Vietnamese	Before matching	0.230	0.107	33.3	87.6	18.56**
	After matching	0.230	0.246	-4.1		-1.97**
Filipinos	Before matching	0.178	0.071	33.0	93.2	18.40***
	After matching	0.178	0.171	2.3		1.06

APPENDIX 3C-2: RESULT OF BALANCING TEST (T-TEST) OF RADIUS MATCHING FOR KOREAN LANGUAGE PROFICIENCY (CONTINUE)

Thais	Before matching	0.108	0.037	27.6	85.7	15.42***
	After matching	0.108	0.098	4.0		1.83
Cambodians	Before matching	0.040	0.026	8.3	76.2	4.60***
	After matching	0.040	0.044	-2.0		-0.96
Other South-East Asian countries	Before matching	0.016	0.010	4.7	69.3	2.61***
	After matching	0.016	0.017	-1.4		-0.70
Employment	Before matching	0.454	0.525	-14.2	84.0	-7.87***
	After matching	0.454	0.443	2.3		1.25

*** p < 0.01; ** p < 0.05

APPENDIX 3C-3: RESULT OF BALANCING TEST (T-TEST) OF KERNEL MATCHING WITH BANDWIDTH 0.05 FOR KOREAN LANGUAGE PROFICIENCY

Variables	Matching	Average scores		% bias	% reduct bias	T-test
		Service-users	Non-service-users			
Age	Before matching	32.602	39.288	-64.6	95.5	-35.71***
	After matching	32.604	32.305	2.9		1.88
<i>Education (reference = no schooling)</i>						
elementary school	Before matching	0.080	0.080	-0.2	-142.9	-0.13
	After matching	0.080	0.078	0.6		0.32
middle school	Before matching	0.207	0.197	2.5	74.4	1.41
	After matching	0.207	0.205	0.6		0.35
high school	Before matching	0.403	0.426	-4.7	73.7	-2.63***
	After matching	0.403	0.409	-1.2		-0.69
college or undergraduate school	Before matching	0.280	0.258	4.9	90.9	2.72***
	After matching	0.280	0.278	0.4		0.24
post-graduate school	Before matching	0.012	0.023	-8.3	98.4	-4.59***
	After matching	0.012	0.012	-0.1		-0.09
Years since migration	Before matching	6.684	9.287	-39.7	95.3	-21.9***
	After matching	6.685	6.563	1.9		1.33
The number of children	Before matching	1.317	0.938	40.4	95.4	22.45***
	After matching	1.316	1.300	1.9		1.00
<i>Household income (reference = below 1 million won)</i>						
1 million to less than 2 million won	Before matching	0.336	0.285	11.1	88.7	6.15***
	After matching	0.336	0.331	1.2		0.67
2 million to less than 3 million won	Before matching	0.346	0.312	7.4	88.0	4.08***
	After matching	0.346	0.350	-0.9		-0.48
3 million to less than 4 million won	Before matching	0.145	0.164	-5.4	98.6	-3.00***
	After matching	0.145	0.145	-0.1		-0.04
more than 4 million won	Before matching	0.076	0.125	-16.4	99.0	-9.06***
	After matching	0.076	0.075	0.2		0.10
The participation in the meeting of friend from the same origins of nationalities	Before matching	0.685	0.480	42.4	94.7	23.53***
	After matching	0.685	0.673	2.2		1.27
The participation in local residents gathering	Before matching	0.196	0.147	13.0	86.9	7.20***
	After matching	0.196	0.189	1.7		0.89
The number of friends with same origin nationalities	Before matching	1.543	1.101	32.4	96.7	17.99***
	After matching	1.543	1.528	1.1		0.56
The number of friends with other ethnic backgrounds	Before matching	0.122	0.066	12.9	98.2	7.16***
	After matching	0.121	0.120	0.2		0.11
The number of Korean friends	Before matching	1.390	1.484	-6.5	72.5	-3.59***
	After matching	1.390	1.364	1.8		0.98
Metro	Before matching	0.294	0.564	-56.8	97.3	-31.47***
	After matching	0.294	0.301	-1.5		-0.86
Vietnamese	Before matching	0.230	0.107	33.3	87.0	18.56***
	After matching	0.230	0.246	-4.3		-2.06**
Filipinos	Before matching	0.178	0.071	33.0	91.7	18.40***
	After matching	0.178	0.169	2.7		1.29

APPENDIX 3C-3: RESULT OF BALANCING TEST (T-TEST) OF KERNEL MATCHING WITH BANDWIDTH 0.05 FOR KOREAN LANGUAGE PROFICIENCY (CONTINUE)

Thais	Before matching	0.040	0.026	8.3	80.7	4.60***
	After matching	0.040	0.043	-1.6		-0.78
Cambodians	Before matching	0.108	0.037	27.6	85.8	15.42***
	After matching	0.108	0.098	3.9		1.81
Other South-East Asian countries	Before matching	0.016	0.010	4.7	74.0	2.61***
	After matching	0.016	0.017	-1.2		-0.60
Employment	Before matching	0.454	0.525	-14.2	81.7	-7.87***
	After matching	0.454	0.441	2.6		1.43

*** p < 0.1; ** p < 0.05

APPENDIX 3C-4: RESULT OF BALANCING TEST (T-TEST) OF KERNEL MATCHING WITH BANDWIDTH 0.1 FOR KOREAN LANGUAGE PROFICIENCY

Variables	Matching	Average scores		% bias	% reduct bias	T-test
		Service-users	Non-service-users			
Age	Before matching	32.602	39.288	-64.6	97.2	-35.71***
	After matching	32.604	32.419	1.8		1.16
<i>Education (reference = no schooling)</i>						
elementary school	Before matching	0.080	0.080	-0.2	-69.4	-0.13
	After matching	0.080	0.079	0.4		0.22
middle school	Before matching	0.207	0.197	2.5	84.9	1.41
	After matching	0.207	0.206	0.4		0.21
high school	Before matching	0.403	0.426	-4.7	79.4	-2.63***
	After matching	0.403	0.407	-1.0		-0.54
college or undergraduate school	Before matching	0.280	0.258	4.9	89.2	2.72***
	After matching	0.280	0.278	0.5		0.29
post-graduate school	Before matching	0.012	0.023	-8.3	96.8	-4.59***
	After matching	0.012	0.013	-0.3		-0.17
Years since migration	Before matching	6.684	9.287	-39.7	96.6	-21.90***
	After matching	6.685	6.596	1.4		0.97
The number of children	Before matching	1.317	0.938	40.4	91.4	22.45***
	After matching	1.316	1.284	3.5		1.89
<i>Household income (reference = below 1 million won)</i>						
1 million to less than 2 million won	Before matching	0.336	0.285	11.1	86.7	6.15***
	After matching	0.336	0.330	1.5		0.79
2 million to less than 3 million won	Before matching	0.346	0.312	7.4	89.3	4.08***
	After matching	0.346	0.350	-0.8		-0.42
3 million to less than 4 million won	Before matching	0.145	0.164	-5.4	92.4	-3.00***
	After matching	0.145	0.146	-0.4		-0.23
more than 4 million won	Before matching	0.076	0.125	-16.4	98.9	-9.06***
	After matching	0.076	0.076	-0.2		-0.11
The participation in the meeting of friend from the same origins of nationalities	Before matching	0.685	0.480	42.4	91.9	23.53***
	After matching	0.685	0.668	3.4		1.95
The participation in local residents gathering	Before matching	0.196	0.147	13.0	75.4	7.20***
	After matching	0.196	0.184	3.2		1.68
The number of friends with same origin nationalities	Before matching	1.543	1.101	32.4	92.5	17.99***
	After matching	1.543	1.509	2.4		1.28
The number of friends with other ethnic backgrounds	Before matching	0.122	0.066	12.9	91.3	7.16***
	After matching	0.121	0.116	1.1		0.54
The number of Korean friends	Before matching	1.390	1.484	-6.5	76.5	-3.59***
	After matching	1.390	1.368	1.5		0.83
Metro	Before matching	0.294	0.564	-56.8	95.2	-31.47***
	After matching	0.294	0.307	-2.7		-1.56
Vietnamese	Before matching	0.230	0.107	33.3	87.5	18.56***
	After matching	0.230	0.246	-4.2		-1.98**
Filipinos	Before matching	0.178	0.071	33.0	88.0	18.40***
	After matching	0.178	0.165	4.0		1.87

APPENDIX 3C-4: RESULT OF BALANCING TEST (T-TEST) OF KERNEL MATCHING WITH BANDWIDTH 0.1 FOR KOREAN LANGUAGE PROFICIENCY (CONTINUE)

Thais	Before matching	0.040	0.026	8.3	82.7	4.60***
	After matching	0.040	0.043	-1.4		-0.70
Cambodians	Before matching	0.108	0.037	27.6	82.9	15.42***
	After matching	0.108	0.096	4.7		2.19**
Other South-East Asian countries	Before matching	0.016	0.010	4.7	75.7	2.61***
	After matching	0.016	0.017	-1.1		-0.56
Employment	Before matching	0.454	0.525	-14.2	83.7	-7.87***
	After matching	0.454	0.443	2.3		1.27

*** p < 0.01; ** p < 0.05

APPENDIX 3D-1: RESULT OF BALANCING TEST (T-TEST) OF NN MATCHING FOR LIFE SATISFACTION

Variables	Matching	Average scores		% bias	% reduct bias	T-test
		Service-users	Non-service-users			
Age	Before matching	32.602	39.288	-64.6	95.8	-35.71***
	After matching	32.603	32.321	2.7		1.77
<i>Education (reference = no schooling)</i>						
elementary school	Before matching	0.080	0.080	-0.2	-130.6	-0.13
	After matching	0.080	0.078	0.6		0.30
middle school	Before matching	0.207	0.197	2.5	98.7	1.41
	After matching	0.207	0.207	-0.0		-0.02
high school	Before matching	0.403	0.426	-4.7	83.7	-2.63***
	After matching	0.403	0.407	-0.8		-0.42
college or undergraduate school	Before matching	0.280	0.258	4.9	91.6	2.72***
	After matching	0.280	0.278	0.4		0.22
post-graduate school	Before matching	0.012	0.023	-8.3	93.9	-4.59***
	After matching	0.012	0.013	-0.5		-0.33
Years since migration	Before matching	6.684	9.287	-39.7	95.5	-21.90***
	After matching	6.685	6.568	1.8		1.25
The number of children	Before matching	1.317	0.938	40.4	96.5	22.45***
	After matching	1.317	1.303	1.4		0.77
<i>Household income (reference = below 1 million won)</i>						
1 million to less than 2 million won	Before matching	0.336	0.285	11.1	97.9	6.15***
	After matching	0.336	0.335	0.2		0.13
2 million to less than 3 million won	Before matching	0.346	0.312	7.4	93.6	4.08***
	After matching	0.346	0.348	-0.5		-0.25
3 million to less than 4 million won	Before matching	0.145	0.164	-5.4	92.3	-3.00***
	After matching	0.145	0.143	0.4		0.23
more than 4 million won	Before matching	0.076	0.125	-16.4	97.1	-9.06***
	After matching	0.076	0.074	0.5		0.29
The participation in the meeting of friend from the same origins of nationalities	Before matching	0.685	0.480	42.4	94.9	23.53***
	After matching	0.685	0.674	2.2		1.22
The participation in local residents gathering	Before matching	0.196	0.147	13.0	97.1	7.20***
	After matching	0.196	0.194	0.4		0.19
The number of friends with same origin nationalities	Before matching	1.543	1.101	32.4	98.2	17.99***
	After matching	1.543	1.535	0.6		0.30
The number of friends with other ethnic backgrounds	Before matching	0.122	0.066	12.9	98.6	7.16***
	After matching	0.122	0.122	-0.2		-0.08
The number of Korean friends	Before matching	1.390	1.484	-6.5	67.2	-3.59***
	After matching	1.390	1.359	2.1		1.17
The relationship with a husband	Before matching	3.996	3.820	13.7	87.3	7.60***
	After matching	3.996	4.019	-1.7		-1.08
The relationship with mother-in-law	Before matching	3.203	2.817	22.0	97.1	12.18***
	After matching	3.203	3.214	-0.6		-0.37
Metro	Before matching	0.294	0.564	-56.8	96.7	-31.47***
	After matching	0.294	0.303	-1.9		-1.07

APPENDIX 3D-1: RESULT OF BALANCING TEST (T-TEST) OF NN MATCHING FOR LIFE SATISFACTION (CONTINUE)

Vietnamese	Before matching	0.230	0.107	33.3	85.1	18.56***
	After matching	0.230	0.249	-5.0		-2.36**
Filipinos	Before matching	0.178	0.071	33.0	88.9	18.40***
	After matching	0.178	0.166	3.7		1.74
Thais	Before matching	0.040	0.026	8.3	98.6	4.60***
	After matching	0.040	0.041	-0.1		-0.06
Cambodians	Before matching	0.108	0.037	27.6	86.6	15.42***
	After matching	0.108	0.098	3.7		1.72
Other South-East Asian countries	Before matching	0.016	0.010	4.7	91.9	2.61***
	After matching	0.016	0.016	-0.4		-0.19
Employment	Before matching	0.454	0.525	-14.2	76.8	-7.87***
	After matching	0.455	0.438	3.3		1.81
Korean language proficiency	Before matching	12.828	14.894	-47.9	82.5	-26.51***
	After matching	12.829	12.469	8.4		4.76***

*** p < 0.01; ** p < 0.05

APPENDIX 3D-2: RESULT OF BALANCING TEST (T-TEST) OF RADIUS MATCHING FOR LIFE SATISFACTION

Variables	Matching	Average scores		% bias	% reduct bias	T-test
		Service-users	Non-service-users			
Age	Before matching	32.602	39.288	-64.6	95.4	-35.71***
	After matching	32.603	32.296	3.0		1.94
<i>Education (reference = no schooling)</i>						
elementary school	Before matching	0.080	0.080	-0.2	-154.6	-0.13
	After matching	0.080	0.078	0.6		0.34
middle school	Before matching	0.207	0.197	2.5	82.7	1.41
	After matching	0.207	0.206	0.4		0.24
high school	Before matching	0.403	0.426	-4.7	74.3	-2.63***
	After matching	0.403	0.409	-1.2		-0.67
college or undergraduate school	Before matching	0.280	0.258	4.9	90.5	2.72***
	After matching	0.280	0.278	0.5		0.25
post-graduate school	Before matching	0.012	0.023	-8.3	98.8	-4.59***
	After matching	0.012	0.012	0.1		0.07
Years since migration	Before matching	6.684	9.287	-39.7	94.9	-21.90***
	After matching	6.685	6.552	2.0		1.43
The number of children	Before matching	1.317	0.938	40.4	95.4	22.45***
	After matching	1.317	1.299	1.8		0.99
<i>Household income (reference = below 1 million won)</i>						
1 million to less than 2 million won	Before matching	0.336	0.285	11.1	87.9	6.15***
	After matching	0.336	0.330	1.3		0.72
2 million to less than 3 million won	Before matching	0.346	0.312	7.4	83.0	4.08***
	After matching	0.346	0.352	-1.3		-0.68
3 million to less than 4 million won	Before matching	0.145	0.164	-5.4	99.0	-3.00***
	After matching	0.145	0.145	0.1		0.03
more than 4 million won	Before matching	0.076	0.125	-16.4	99.0	-9.06***
	After matching	0.076	0.075	0.2		0.10
The participation in the meeting of friend from the same origins of nationalities	Before matching	0.685	0.480	42.4	93.7	23.53***
	After matching	0.685	0.672	2.7		1.51
The participation in local residents gathering	Before matching	0.196	0.147	13.0	88.0	7.20***
	After matching	0.196	0.190	1.6		0.81
The number of friends with same origin nationalities	Before matching	1.543	1.101	32.4	97.2	17.99***
	After matching	1.543	1.531	0.9		0.47
The number of friends with other ethnic backgrounds	Before matching	0.122	0.066	12.9	96.4	7.16***
	After matching	0.122	0.124	-0.5		-0.22
The number of Korean friends	Before matching	1.390	1.484	-6.5	70.9	-3.59***
	After matching	1.390	1.363	1.9		1.03
The relationship with a husband	Before matching	3.996	3.820	13.7	82.6	7.60***
	After matching	3.996	4.027	-2.4		-1.48
The relationship with mother-in-law	Before matching	3.203	2.817	22.0	93.2	12.18***
	After matching	3.203	3.229	-1.5		-0.88
Metro	Before matching	0.294	0.564	-56.8	96.8	-31.47***
	After matching	0.294	0.302	-1.8		-1.05

APPENDIX 3D-2: RESULT OF BALANCING TEST (T-TEST) OF RADIUS MATCHING FOR LIFE SATISFACTION (CONTINUE)

Vietnamese	Before matching	0.230	0.107	33.3	85.5	18.56***
	After matching	0.230	0.248	-4.8		-2.29**
Filipinos	Before matching	0.178	0.071	33.0	89.6	18.40***
	After matching	0.178	0.167	3.4		1.62
Thais	Before matching	0.040	0.026	8.3	81.0	4.60***
	After matching	0.040	0.043	-1.6		-0.77
Cambodians	Before matching	0.108	0.037	27.6	87.1	15.42***
	After matching	0.108	0.099	3.6		1.65
Other South-East Asian countries	Before matching	0.016	0.010	4.7	85.1	2.61***
	After matching	0.016	0.016	-0.7		-0.35
Employment	Before matching	0.454	0.525	-14.2	83.3	-7.87***
	After matching	0.455	0.443	2.4		1.30
Korean language proficiency	Before matching	12.828	14.894	-47.9	81.5	-26.51***
	After matching	12.829	12.448	8.8		5.04***

*** p < 0.01; ** p < 0.05

APPENDIX 3D-3: RESULT OF BALANCING TEST (T-TEST) OF KERNEL MATCHING WITH BANDWIDTH 0.05 FOR LIFE SATISFACTION

Variables	Matching	Average scores		% bias	% reduct bias	T-test
		Service-users	Non-service-users			
Age	Before matching	32.602	39.288	-64.6	95.8	-35.71***
	After matching	32.603	32.321	2.7		1.78
<i>Education (reference = no schooling)</i>						
elementary school	Before matching	0.080	0.080	-0.2	-123.8	-0.13
	After matching	0.080	0.078	0.5		0.30
middle school	Before matching	0.207	0.197	2.5	74.4	1.41
	After matching	0.207	0.205	0.6		0.35
high school	Before matching	0.403	0.426	-4.7	77.6	-2.63***
	After matching	0.403	0.408	-1.1		-0.58
college or undergraduate school	Before matching	0.280	0.258	4.9	94.9	2.72***
	After matching	0.280	0.279	0.2		0.13
post-graduate school	Before matching	0.012	0.023	-8.3	98.7	-4.59***
	After matching	0.012	0.012	-0.1		-0.07
Years since migration	Before matching	6.684	9.287	-39.7	95.1	-21.90***
	After matching	6.685	6.557	1.9		1.38
The number of children	Before matching	1.317	0.938	40.4	93.3	22.45***
	After matching	1.317	1.291	2.7		1.46
<i>Household income (reference = below 1 million won)</i>						
1 million to less than 2 million won	Before matching	0.336	0.285	11.1	86.9	6.15***
	After matching	0.336	0.330	1.5		0.78
2 million to less than 3 million won	Before matching	0.346	0.312	7.4	86.3	4.08***
	After matching	0.346	0.351	-1.0		-0.54
3 million to less than 4 million won	Before matching	0.145	0.164	-5.4	96.5	-3.00***
	After matching	0.145	0.146	-0.2		-0.11
more than 4 million won	Before matching	0.076	0.125	-16.4	99.7	-9.06***
	After matching	0.076	0.076	-0.0		-0.03
The participation in the meeting of friend from the same origins of nationalities	Before matching	0.685	0.480	42.4	93.4	23.53***
	After matching	0.685	0.671	2.8		1.59
The participation in local residents gathering	Before matching	0.196	0.147	13.0	81.4	7.20***
	After matching	0.196	0.187	2.4		1.27
The number of friends with same origin nationalities	Before matching	1.543	1.101	32.4	95.0	17.99***
	After matching	1.543	1.521	1.6		0.85
The number of friends with other ethnic backgrounds	Before matching	0.122	0.066	12.9	95.9	7.16***
	After matching	0.122	0.119	0.5		0.25
The number of Korean friends	Before matching	1.390	1.484	-6.5	70.5	-3.59***
	After matching	1.390	1.362	1.9		1.05
The relationship with a husband	Before matching	3.996	3.820	13.7	82.6	7.60***
	After matching	3.996	4.027	-2.4		-1.48
The relationship with mother-in-law	Before matching	3.203	2.817	22.0	92.7	12.18***
	After matching	3.203	3.231	-1.6		-0.94
Metro	Before matching	0.294	0.564	-56.8	96.1	-31.47***
	After matching	0.294	0.304	-2.2		-1.25

APPENDIX 3D-3: RESULT OF BALANCING TEST (T-TEST) OF KERNEL MATCHING WITH BANDWIDTH 0.05 FOR LIFE SATISFACTION (CONTINUE)

Vietnamese	Before matching	0.230	0.107	33.3	87.3	18.56***
	After matching	0.230	0.246	-4.2		-2.01**
Filipinos	Before matching	0.178	0.071	33.0	90.4	18.40***
	After matching	0.178	0.168	3.2		1.50
Thais	Before matching	0.040	0.026	8.3	80.2	4.60***
	After matching	0.040	0.043	-1.6		-0.80
Cambodians	Before matching	0.108	0.037	27.6	85.2	15.42***
	After matching	0.108	0.097	4.1		1.89
Other South-East Asian countries	Before matching	0.016	0.010	4.7	76.8	2.61***
	After matching	0.016	0.017	-1.1		-0.53
Employment	Before matching	0.454	0.525	-14.2	83.0	-7.87***
	After matching	0.455	0.442	2.4		1.33
Korean language proficiency	Before matching	12.828	14.894	-47.9	82.2	-26.51***
	After matching	12.829	12.462	8.5		4.85***

*** p < 0.1; ** p < 0.05

APPENDIX 3D-4: RESULT OF BALANCING TEST (T-TEST) OF KERNEL MATCHING WITH BANDWIDTH 0.1 FOR LIFE SATISFACTION

Variables	Matching	Average scores		% bias	% reduct bias	T-test
		Service-users	Non-service-users			
Age	Before matching	32.602	39.288	-64.6	97.6	-35.71***
	After matching	32.603	32.439	1.6		1.03
<i>Education (reference = no schooling)</i>						
elementary school	Before matching	0.080	0.080	-0.2	-49.0	-0.13
	After matching	0.080	0.079	0.4		0.20
middle school	Before matching	0.207	0.197	2.5	80.8	1.41
	After matching	0.207	0.205	0.5		0.26
high school	Before matching	0.403	0.426	-4.7	79.6	-2.63***
	After matching	0.403	0.408	-1.0		-0.53
college or undergraduate school	Before matching	0.280	0.258	4.9	92.3	2.72***
	After matching	0.280	0.278	0.4		0.20
post-graduate school	Before matching	0.012	0.023	-8.3	96.3	-4.59***
	After matching	0.012	0.013	-0.3		-0.20
Years since migration	Before matching	6.684	9.287	-39.7	96.4	-21.90***
	After matching	6.685	6.591	1.4		1.01
The number of children	Before matching	1.317	0.938	40.4	89.4	22.45***
	After matching	1.317	1.277	4.3		2.30**
<i>Household income (reference = below 1 million won)</i>						
1 million to less than 2 million won	Before matching	0.336	0.285	11.1	84.2	6.15***
	After matching	0.336	0.328	1.7		0.94
2 million to less than 3 million won	Before matching	0.346	0.312	7.4	88.2	4.08***
	After matching	0.346	0.350	-0.9		-0.47
3 million to less than 4 million won	Before matching	0.145	0.164	-5.4	89.5	-3.00***
	After matching	0.145	0.147	-0.6		-0.32
more than 4 million won	Before matching	0.076	0.125	-16.4	98.0	-9.06***
	After matching	0.076	0.077	-0.3		-0.20
The participation in the meeting of friend from the same origins of nationalities	Before matching	0.685	0.480	42.4	90.5	23.53***
	After matching	0.685	0.665	4.0		2.27**
The participation in local residents gathering	Before matching	0.196	0.147	13.0	70.2	7.20***
	After matching	0.196	0.181	3.9		2.04**
The number of friends with same origin nationalities	Before matching	1.543	1.101	32.4	90.9	17.99***
	After matching	1.543	1.503	2.9		1.54
The number of friends with other ethnic backgrounds	Before matching	0.122	0.066	12.9	89.7	7.16***
	After matching	0.122	0.116	1.3		0.64
The number of Korean friends	Before matching	1.390	1.484	-6.5	74.0	-3.59***
	After matching	1.390	1.366	1.7		0.92
The relationship with a husband	Before matching	3.996	3.820	13.7	85.6	7.60***
	After matching	3.996	4.022	-2.0		-1.23
The relationship with mother-in-law	Before matching	3.203	2.817	22.0	94.9	12.18***
	After matching	3.203	3.222	-1.1		-0.66
Metro	Before matching	0.294	0.564	-56.8	94.2	-31.47***
	After matching	0.294	0.309	-3.3		-1.89

APPENDIX 3D-4: RESULT OF BALANCING TEST (T-TEST) OF KERNEL MATCHING WITH BANDWIDTH 0.1 FOR LIFE SATISFACTION (CONTINUE)

Vietnamese	Before matching	0.230	0.107	33.3	88.0	18.56***
	After matching	0.230	0.245	-4.0		-1.90
Filipinos	Before matching	0.178	0.071	33.0	86.9	18.40***
	After matching	0.178	0.164	4.3		2.04**
Thais	Before matching	0.040	0.026	8.3	81.2	4.60***
	After matching	0.040	0.043	-1.6		-0.76
Cambodians	Before matching	0.108	0.037	27.6	82.4	15.42***
	After matching	0.108	0.095	4.9		2.26**
Other South-East Asian countries	Before matching	0.016	0.010	4.7	77.5	2.61***
	After matching	0.016	0.017	-1.1		-0.52
Employment	Before matching	0.454	0.525	-14.2	84.0	-7.87***
	After matching	0.455	0.443	2.3		1.24
Korean language proficiency	Before matching	12.828	14.894	-47.9	84.0	-26.51***
	After matching	12.829	12.499	7.6		4.34***

*** p < 0.01; ** p < 0.05

**APPENDIX 4: NUMBER OF IMMIGRANT WIVES IN EACH ETHNIC GROUP-BY-
ADMINISTRATION AREAS CELL**

		Row: 10 ethnic groups										Total
		C	KC	J	M	V	F	T	Cam	U	R	
Colum: the 16 metropolitan areas where MFSCs are arranged	Seoul	98	31	59	33	91	85	29	41	18	11	496
	Busan	19	7	10	3	50	30	6	24	3	3	155
	Daegu	21	12	17	3	48	15	5	35	8	2	166
	Incheon	38	26	17	20	48	45	15	15	10	5	239
	Gwangju	16	10	16	10	28	35	4	23	3	1	146
	Daejeon	8	4	8	2	17	17	2	24	6	2	90
	Ulsan	28	2	12	4	33	23	1	7	4	2	116
	Gyeonggi	159	149	111	74	244	181	62	80	45	28	1,133
	Gangwon	27	37	64	7	76	73	16	40	27	1	368
	Chungbuk	40	29	30	17	82	62	14	31	2	6	313
	Chungnam	73	40	32	13	125	103	24	57	20	0	487
	Jeonbuk	65	31	60	6	98	103	19	62	15	1	460
	Jeonnam	39	28	44	31	109	124	17	70	5	0	467
	Gyeongbuk	72	47	36	11	165	67	13	60	8	2	481
	Gyeongnam	64	27	49	16	145	84	16	69	13	4	487
	Jeju	6	12	3	0	26	24	0	9	1	0	81
Total		773	492	568	250	1,385	1,071	243	647	188	68	5,685

C = Chinese; KC = Korean Chinese; J = Japanese; M = Mongolians; V = Vietnamese; F = Filipinos; T = Thais; Cam = Cambodians; U = Uzbekistanis; R = Russians.

APPENDIX 5A: CORRELATION BETWEEN INDIVIDUAL LEVEL VARIABLES AND INTEGRATION

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	1														
2	.202***	1													
3	.282***	.145***	1												
4	-.128***	-.099***	0.002	1											
5	.208***	.231***	.252***	-.144***	1										
6	.183***	.211***	.237***	-.131***	.986***	1									
7	-0.021	-0.003	-.093***	0.015	-.096***	-.078***	1								
8	0.008	-.036	-.087***	.024	-.167***	-.146***	-.157***	1							
9	0.013	-0.006	.067***	-0.009	0.011	0.011	-.247***	-.431***	1						
10	-0.001	.042***	.084***	-.025	.205***	.173***	-.182***	-.319***	-.501***	1					
11	-.023	.028**	.061***	0.003	.049***	.040***	-.030**	-.053***	-.083***	-.061***	1				
12	0.011	-.087***	-.061***	-.069***	-.030**	-.029**	.047***	.029**	0.003	-.060***	-.046***	1			
13	-0.021	.026	0.015	.055***	-.059***	-.063***	-.026	0.01	0.009	0.01	-0.014	-.523***	1		
14	-0.009	.074***	.049***	.065***	0.003	-0.005	-.048***	-0.012	0.009	.031**	.044***	-.293***	-.299***	1	
15	-0.015	.049***	.032**	.083***	0.017	0.013	-.044***	-.042***	-.024	.088***	.054***	-.200***	-.204***	-.114***	1

1 = citizenship, 2 = employ, 3 = Korean language proficiency, 4 = life satisfaction, 5 = age, 6 = age square, 7 = graduated elementary school 8 = graduated middle school, 9= graduated high school, 10 = graduated college or under-graduate school, 11 = graduated post-graduate school, 12 = monthly household income (Korean won): 1 million to less than 2 million, 13 = monthly household income (Korean won): 2 million to less than 3 million, 14 = monthly household income (Korean won): 3 million to less than 4 million, and 15 = monthly household income (Korean won): more than 4 million.

*** p < 0.01; ** p < 0.05

APPENDIX 5A: CORRELATION BETWEEN INDIVIDUAL LEVEL VARIABLES AND INTEGRATION (CONTINUE)

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
16	1															
17	.482***	1														
18	.651***	-.351***	1													
19	.410***	-.237***	.643***	1												
20	.092***	-0.001	.099***	.088***	1											
21	.137***	-.050***	.190***	.236***	.135***	1										
22	.058***	.045***	.023	-0.005	.291***	-0.002	1									
23	.193***	.000	.207***	.264***	0.019	.168***	-.339***	1								
24	.043***	0.016	.033**	.032**	.026	.034**	-.063***	-0.009	1							
25	.111***	-0.008	.125***	.150***	.098***	.104***	.027**	.100***	.042***	1						
26	.132***	0.006	.136***	.245***	.050***	.122***	-0.018	.143***	0.016	.200***	1					
27	-.085***	.070***	-.152***	-.220***	0.003	-.026	-.025	0.002	-.049***	-.043***	-.082***	1				
28	-0.005	.104***	-.095***	-.150***	-0.004	-0.018	-0.012	0.018	0.016	-.033**	-.063***	.341***	1			
29	.561***	.491***	.175***	.147***	.057***	.045***	.075***	.140***	.026	.058***	.109***	.029**	.070***	1		
30	-0.008	.060***	-.061***	-.111***	.029**	.042***	-.022	.030**	-0.01	-.037***	-0.021	.440***	.498***	.075***	1	
31	0.018	-.078***	.087***	.094***	.047***	.064***	.044***	.028**	.025	.024	.042***	-.057***	-.102***	-0.007	-.051***	1

16 = number of children, 17 = number of children below 6 yrs., 18 = number of children over 6 yrs., 19 = years since migration, 20 = participation in the meeting of friend from the same origins of nationalities, 21 = participation in the local residents, 22 = number of friend with other ethnic backgrounds, 23 = number of Korean friend, 24 = number of friend with other ethnic backgrounds, 25 = use of welfare centres, 26 = use of community centres, 27 = relationship with a husband, 28 = relationship with mother-in-law, 29 = relationship with children, 30 = relationship with husband's relatives, and 31 = labour market experience

*** p < 0.01; ** p < 0.05

APPENDIX 5B: CORRELATION BETWEEN ETHNIC-GROUP LEVEL VARIABLES AND INTEGRATION

	Citizenship	Employment	Korean language skill	life satisfaction	GDP	political index	geographical distance
GDP	-.057***	.062***	.225***	-.063***			
political index	-.121***	.035***	.004	-.013	.460***		
geographical distance	-.156***	-.083***	-.263***	.064***	-.660***	.052***	
the size of the population ethnic groups	.190***	.069***	.165***	-.041***	.211***	-.578***	-.770***

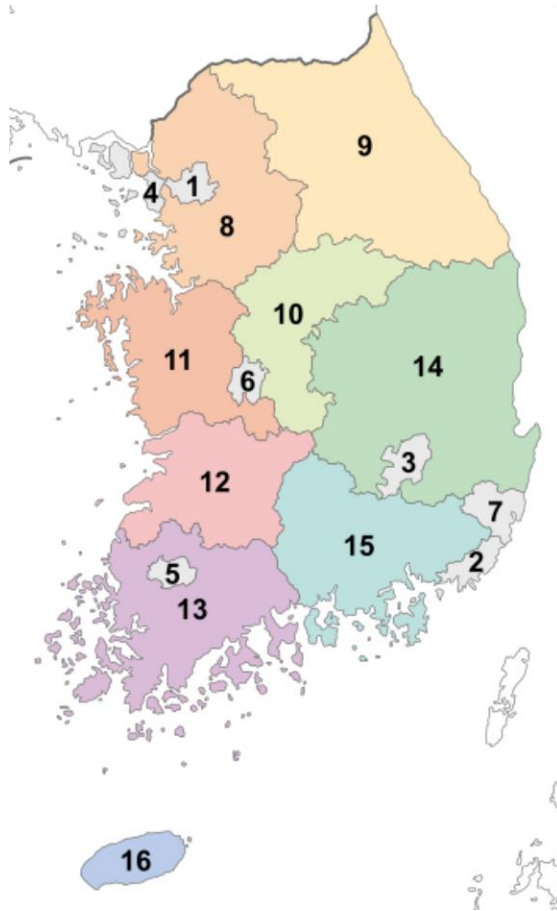
*** p < 0.01; ** p < 0.05

APPENDIX 5C: CORRELATION BETWEEN ORGANISATIONAL LEVEL VARIABLES AND INTEGRATION

	Citizenship	Employment	Korean language skill	life satisfaction	Composite scores of attributes of service-delivery	Financial resources per MFSC
Composite scores of attributes of service-delivery	-.018	.020	-.003	-.019		
Financial resources per MFSC	-.017	-.029**	.005	.045***	-.071***	
Number of immigrant wives per MFSC	-.018	-.052***	.007	.020	-.209***	.703***

*** p < 0.01; ** p < 0.05

APPENDIX 6: DIFFERENT NUMBERS OF MFSCs IN THE 16 ADMINISTRATION AREAS THROUGHOUT SOUTH KOREA IN 2012



No.	Areas	N of MFSCs
1	Seoul	23
2	Busan	8
3	Daegu	7
4	Incheon	8
5	Gwangju	4
6	Daejeon	4
7	Ulsan	4
8	Gyeonggi	29
9	Gangwon	14
10	Chungbuk	11
11	Chungnam	15
12	Jeonbuk	14
13	Jeonnam	20
14	Gyeongbuk	20
15	Gyeongnam	17
16	Jeju	2

Source: the Annual Report for Performance Outcomes of Multicultural Family Support Centers (Korean Institute for Health Family, 2013)

APPENDIX 7A: THE SCORES OF THE ATTRIBUTES FOR AN EFFECTIVE SERVICE-DELIVERY SYSTEM

Areas	N of MFSCs ^a	N of immigrant wives ^b	Comprehensive	Professionalisation			Integration		Equality		
			N of total optional programs ^a	N of counsellors ^a	N of Korean language teachers ^a	N of family-life instructors ^a	N of networks ^a	HHI ^a	HI ^a	1 / HI	N of translation services ^a
Seoul	23	40,269	2.83	5.83	9.65	5.96	71.39	2380.67	48.79	1 / 48.79	1.30
Busan	8	9,257	2.50	8.50	6.00	7.00	61.00	2990.65	54.69	1 / 54.69	1.00
Daegu	7	6,147	2.71	3.43	6.29	6.29	85.71	2752.65	52.47	1 / 52.47	1.43
Incheon	8	12,196	2.75	1.75	10.25	6.38	71.5	2738.23	52.33	1 / 52.33	1.25
Gwangju	4	4,439	3.00	2.25	5.25	6.50	84.25	2555.52	50.55	1 / 50.55	2.50
Daejeon	4	4,516	3.00	2.50	7.50	5.25	35.50	2711.07	52.07	1 / 52.07	1.75
Ulsan	4	4,207	3.25	5.00	5.25	7.25	35.00	3123.95	55.89	1 / 55.89	1.25
Gyeonggi	29	55,694	2.48	4.28	12.41	7.86	44.48	2550.84	50.51	1 / 50.51	1.31
Gangwon	14	5,802	2.93	4.07	5.36	6.79	36.43	2482.79	49.83	1 / 49.83	1.79
Chungbuk	11	6,839	2.36	2.82	5.55	7.64	22.18	2643.64	51.42	1 / 51.42	1.45
Chungnam	15	11,333	2.40	3.80	5.13	7.47	28.60	2821.03	53.11	1 / 53.11	1.40
Jeonbuk	14	8,860	3.57	5.50	7.00	6.64	43.21	2580.84	50.80	1 / 50.80	1.71
Jeonnam	20	10,072	2.55	2.65	6.10	7.45	35.20	2662.66	51.60	1 / 51.60	1.10
Gyeongbuk	20	10,867	2.05	2.65	6.30	7.95	25.85	3335.87	57.76	1 / 57.76	1.25
Gyeongnam	17	13,644	2.53	4.94	8.12	6.88	33.53	3040.92	55.14	1 / 55.14	1.18
Jeju	2	2,227	3.50	1.00	10.50	7.00	8.50	2551.27	50.51	1 / 50.51	2.50

a: the Annual Report for Performance Outcomes of Multicultural Family Support Centers (Central Office for Multicultural Family Support Centers, 2012).

b: Statistics on Foreign Residents by Local Governments in 2013 (Ministry of Security and Public Administration, www.mospa.co.kr).

APPENDIX 7A: THE SCORES OF THE ATTRIBUTES FOR AN EFFECTIVE SERVICE-DELIVERY SYSTEM (CONTINUE)

Areas	N of MFSCs ^a	N of immigrant wives ^b	Participation				Accessibility	
			N of total service-users ^a	N of volunteers ^a	N of self-help meetings ^a	N of PR ^a	N of outreach ^a	N of service-users ^a / N of immigrant wives ^b
Seoul	23	40,269	8,472.57	690.22	293.91	64.57	4091	19.81
Busan	8	9,257	9,401.88	463.63	212.63	82.88	3890	30.44
Daegu	7	6,147	1,0384	287.00	560.00	277.14	3969	44.05
Incheon	8	12,196	9,529.38	399.38	595.00	104.75	5133	27.14
Gwangju	4	4,439	15,959.25	431.00	1120.00	59.25	3680	37.37
Daejeon	4	4,516	6,055.75	247.75	492.50	231.75	3840	29.41
Ulsan	4	4,207	9,737.5	111.50	420.50	15.50	4034	31.04
Gyeonggi	29	55,694	9,010.72	416.28	433.17	66.14	6479	22.47
Gangwon	14	5,802	7,885.64	295.86	362.36	49.64	3914	65.99
Chungbuk	11	6,839	6,748.09	142.00	305.82	32.36	4136	65.59
Chungnam	15	11,333	8,809.73	219.33	568.67	35.00	4055	52.35
Jeonbuk	14	8,860	1,1761	288.21	481.29	58.71	4371	73.04
Jeonnam	20	10,072	6,835.5	128.05	363.70	30.85	4186	60.55
Gyeongbuk	20	10,867	8,179.6	341.35	261.40	38.90	4534	75.02
Gyeongnam	17	13,644	7,833.76	346.82	302.71	50.06	4741	57.20
Jeju	2	2,227	7,983	208.00	323.50	8.50	5559	64.03

a: the Annual Report for Performance Outcomes of Multicultural Family Support Centers (Central Office for Multicultural Family Support Centers, 2012).

b: Statistics on Foreign Residents by Local Governments in 2013 (Ministry of Security and Public Administration, www.mospa.co.kr).

APPENDIX 7B: THE STANDARDISED SCORES OF THE ATTRIBUTES FOR AN EFFECTIVE SERVICE-DELIVERY SYSTEM

Areas	Comprehensive (a)		Professionalisation (b)		Integration (c)	Equality (d)	
	N of total Programs	N of counsellors	N of Korean language teachers	N of family-life instructors	N of networks	HI	N of translation services
Seoul	0.12990	-0.45874	-0.96281	-1.21730	1.14827	1.56816	-0.47237
Busan	-0.65847	1.09544	-1.08253	-0.58206	0.69368	-0.99398	-1.14518
Daegu	-0.15678	-0.23573	-0.36157	-0.31606	1.77481	-0.09754	-0.18082
Incheon	-0.06122	-1.30183	-0.52040	-1.03027	1.15308	-0.03845	-0.58450
Gwangju	0.53603	-0.96163	-1.24865	-0.62823	1.71093	0.74127	2.21887
Daejeon	0.53603	-0.88936	-0.54978	-0.91787	-0.42202	0.07211	0.53685
Ulsan	1.13328	0.09293	-1.15328	-0.37964	-0.44390	-1.44890	-0.58450
Gyeonggi	-0.70625	-0.88468	-0.61537	-1.05134	-0.02912	0.75942	-0.44994
Gangwon	0.36880	2.05397	1.74645	1.89540	-0.38133	1.07248	0.62655
Chungbuk	-0.99293	0.00741	0.28220	0.91338	-1.00481	0.35342	-0.13596
Chungnam	-0.89737	0.19956	-0.49452	0.33760	-0.72392	-0.36366	-0.24810
Jeonbuk	1.89777	1.61574	1.06459	0.48495	-0.08469	0.62846	0.44714
Jeonnam	-0.53902	0.28944	1.44892	1.51586	-0.43515	0.27481	-0.92091
Gyeongbuk	-1.73352	0.14055	1.25954	1.47691	-0.84424	-2.12013	-0.58450
Gyeongnam	-0.58680	0.63539	0.71872	0.02387	-0.50822	-1.16690	-0.74149
Jeju	1.73054	-1.39847	0.46847	-0.52521	-1.60336	0.75942	2.21887

APPENDIX 7B: THE STANDARDISED SCORES OF THE ATTRIBUTES FOR AN EFFECTIVE SERVICE-DELIVERY SYSTEM (CONTINUE)

Areas	Participation (e)				Accessibility (f)		Composite scores (a+b+c+d+e+f)
	N of total service-users	N of volunteers	N of self-help meetings	N of PR	N of outreach	N of service-users / N of immigrant wives	
Seoul	-0.24131	2.54482	-0.69817	-0.14528	-0.43287	-1.43790	-0.68
Busan	0.15620	1.01406	-1.07734	0.10091	-0.70287	-0.88024	-4.06
Daegu	0.57630	-0.17918	0.54313	2.71280	-0.59675	-0.16624	3.32
Incheon	0.21074	0.58001	0.70640	0.39496	0.96682	-1.05336	-0.58
Gwangju	2.96108	0.79363	3.15551	-0.21681	-0.98496	-0.51668	7.56
Daejeon	-1.27509	-0.44434	0.22825	2.10252	-0.77003	-0.93427	-2.73
Ulsan	0.29976	-1.36480	-0.10763	-0.80504	-0.50944	-0.84876	-6.12
Gyeonggi	-0.01112	0.69418	-0.04853	-0.12417	2.77487	-1.29836	-0.99
Gangwon	-0.49237	-0.11933	-0.37885	-0.34602	-0.67063	0.98477	6.36
Chungbuk	-0.97895	-1.15875	-0.64261	-0.57835	-0.37242	0.96378	-3.34
Chungnam	-0.09709	-0.63634	0.58358	-0.54286	-0.48123	0.26919	-3.10
Jeonbuk	1.16530	-0.17101	0.17595	-0.22407	-0.05675	1.35462	8.30
Jeonnam	-0.94156	-1.25299	-0.37260	-0.59865	-0.30526	0.69938	-1.14
Gyeongbuk	-0.36663	0.18798	-0.84983	-0.49042	0.16220	1.45849	-2.30
Gyeongnam	-0.51456	0.22494	-0.65712	-0.34037	0.44026	0.52363	-1.95
Jeju	-0.45072	-0.71288	-0.56013	-0.89916	1.53906	0.88194	1.45

**APPENDIX 8: ABSOLUTE RELATIVE VALUES OF OBJECTIVE AND SUBJECTIVE INTEGRATION
ALONG WITH THE 16 MEGALOPOLISES**

	Objective Integration		Subjective Integration	
	Average	Standardised	Average	Standardised
Seoul	1.25	-0.96	3.61	-0.85
Busan	1.37	0.61	3.61	-0.85
Daegu	1.16	-2.14	3.63	-0.65
Incheon	1.30	-0.30	3.77	0.75
Gwangju	1.35	0.35	3.86	1.64
Daejeon	1.16	-2.14	3.51	-1.84
Ulsan	1.30	-0.30	3.87	1.74
Gyeonggi	1.34	0.22	3.72	0.25
Gangwon	1.38	0.75	3.68	-0.15
Chungbuk	1.43	1.40	3.71	0.15
Chungnam	1.39	0.88	3.78	0.85
Jeonbuk	1.33	0.09	3.67	-0.25
Jeonnam	1.35	0.35	3.64	-0.55
Gyeongbuk	1.36	0.48	3.57	-1.24
Gyeongnam	1.38	0.75	3.71	0.15
Jeju	1.32	-0.04	3.78	0.85

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