THE MALAYSIAN CO-OPERATIVE MOVEMENT: AN EMPIRICAL ANALYSIS

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A thesis submitted to the University of Sheffield for the degree of Doctor of Philosophy in the Department of Economics

June 2007

ABSTRACT

The Malaysian co-operative sector, even after almost a century of its existence, remains a movement that has not made a significant contribution to the Malaysian economy. The usual problems associated with the weaknesses of co-operatives, such as issues related to management, finance, leadership, and members' participation have been raised, over and over again, in Malaysia. This thesis, therefore, contributes to our knowledge and understanding of co-operatives in Malaysia by presenting original empirical analysis of a unique primary data source. As such, to our knowledge, the thesis presents the first econometric study of co-operatives in Malaysia based on co-operative level data.

In countries where co-operatives have made a significant economic impact, it appears to be related to the work of secondary co-operatives, which are organisations of the primary co-operatives. Not one of the 35 secondary co-operatives in Malaysia has been noted, however, for any significant economic contribution. The possible cause of this may lie in the kind of primary co-operatives, which have individuals as members, that exist in the Malaysian co-operative movement, which may have contributed to the weakness of secondary co-operatives. The existing literature suggests that secondary co-operatives function better if primary co-operatives are small and if the primary co-operative's activity reflects the members' business. The empirical analysis presented in this thesis explores the relationship between primary co-operatives and secondary co-operatives in Malaysia, focusing on issues such as the benefits received by primary co-operatives from secondary co-operatives. The findings suggest that increased primary co-operative membership represents an important source of benefits to primary co-operatives. A related issue explored in this thesis concerns the determinants of the level of trust in co-operatives among Malaysian co-operators. Finally, we present analysis of the relationship between the level of trust in the co-operative and co-operative size. The findings support an inverse relationship between co-operative size and trust, which may be the result of the institutional framework in Malaysia, which specifies that a minimum of 100 individuals are required to form a co-operative in Malaysia.

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ACKNOWLEDGEMENTS

Throughout this study period, I have received support and encouragement from many individuals and organisations. I would like to thank the Malaysian Public Service Department (PSD) for granting me the scholarship and the study leave and the Department of Co-operative Development (DCD) of Malaysia for supporting in administrative matters related to my service of employment and in the collection of the data, without which this study would have not been possible. I gratefully acknowledge the many individuals in supporting me throughout this study. I would like to thank Professor Paul Mosley and Professor Sarah Brown for their intellectual guidance and assistance. My heartfelt gratitude and appreciation specifically goes to Professor Sarah Brown for her constant support, for her time and attention, and for her expert advice on econometrics and on the content of the written results.

I also wish to thank my father and my siblings for their prayers and encouragement. My dearest thoughts however go to my late mother, who supported my decision to accept the offer to study for a PhD but she sadly passed away even before the study commenced. I owe a debt of gratitude to the family of Hadi and Ratna, and Dzul and Ros, who have helped with matters back in Malaysia while I am here in the UK. To my colleagues in the Economics Department and my friends in Sheffield, who each in their own way have motivated me to believe in my own strengths. I am fortunate to have such friends.

My utmost gratitude goes to my children Danial, Natasha, Ellis, Kevin and Emil for their tolerance and co-operation, who were sometimes deprived of my fullest attention. Also many special thanks to my husband, Zainuddin Taib, for his sacrifice, patience, and support all through the years, without whom I am sure this work would have not been concluded. I am deeply grateful to GOD for everything, for giving me the opportunity to learn and the strength to carry on throughout.

I bear the sole responsibility for any views expressed, errors and omissions in this thesis.

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List of Abbreviations

ANGKASA	Angkatan Koperasi Kebangsaan
BCIC	Bumiputera Commercial and Industrial Community
BNM	Bank Negara Malaysia
BoD	Board of Directors
CCM	Co-operative College of Malaysia
CDTF	Co-operative Development Trust Fund
CETF	Co-operative Education Trust Fund
DCD	Department of Co-operative Development
EPU	Economic Planning Unit
FELCRA	Federal Land Consolidation and Rehabilitation Authority
FELDA	Federal Land Development Authority
ICMA	Institute of Co-operative and Management Accountants
IOFs	Investors-owned Firms
KIK	Koperasi Industri Kampung
KL	Kuala Lumpur
KPD	Koperasi Pembangunan Daerah
MCWS	Malayan Co-operative Wholesale Society
MIA	Malaysian Institute of Accountants
NARSCO	National Rubber Smallholder Co-operatives
NCP	National Co-operative Policy
NDP	National Development Policy
NEP	New Economic Policy
NVP	National Vision Policy
RISDA	Rubber Industry Smallholders Development Authority
SHO	Self-Help Organisation
SME	Small and Medium Enterprise

Definitions:

Primary co-operatives are co-operatives whose members comprise individuals, who come together to pool their resources to enable them to accomplish some activities, which otherwise could not possibly be undertaken. The individuals that form a co-operative may either be entrepreneurial or non-entrepreneurial individuals. The number of individuals required to form a co-operative varies from one country to another. In Malaysia, in general, a minimum of 100 individuals are required by law to form a primary co-operative.

Secondary co-operatives are co-operatives that have primary co-operatives as members. In general, 2 primary co-operatives may form a secondary co-operative. Secondary co-operatives are owned and run by the groups of primary co-operatives that make up its members. As an organization created by primary co-operatives, the roles of the secondary co-operatives are to support, strengthen and promote the primary co-operatives.

CHAPTER 1

INTRODUCTION

1.1. Introduction

The co-operative movement has existed for almost a century in Malaysia. Nevertheless, due to a shortage of data, the movement's development can only be assessed in terms of the annual growth in the number of co-operatives, the number of co-operative members, the share capital and the assets of co-operatives. In 2003, for example, there were 4,469 co-operatives registered with the Malaysian Department of Co-operative Development (DCD), with a total of 5.21 million members, RM5.57 billion in total share capital and RM25.14 billion in total assets as compared to 4,330 co-operatives with a total of 5.03 million members, RM4.40 billion in total share capital and RM19 billion in total assets in 2002.[1] The number of co-operatives and co-operative members in Malaysia has grown every year, with the annual average growth rate of co-operatives and membership at 3% and 3.58% respectively from 1990 to 2003. There is an attraction to forming a primary co-operative in Malaysia, which is the result of the Government providing grants up to RM30,000.00 to newly-formed primary co-operatives.[2] However, there is no published statistical evidence available on the significance of the economic achievement of co-operatives in Malaysia in contrast to, for example, India, where the co-operative sector employed 32.9% of the working population in 1997 (Haan et al., 2003). In addition, in Malaysia, the role of co-operatives in poverty reduction is

[1] RM (Ringgit Malaysia) is the Malaysian currency, where the exchange rate is £1 for approximately RM7. RM5.57 billion is equivalent to £0.8 billion; RM25.14 billion is equivalent to £4 billion; RM4.4 billion is equivalent to £0.6 billion; RM19 billion is equivalent to £3 billion (as measured in 2003).

[2] RM30,000.00 is equivalent to £4286.

not largely felt, such as in a number of developing countries, for example Cambodia, India, Indonesia, Nepal, the Philippines, Sri Lanka and Vietnam, where co-operatives have earned the distinction of offering productive employment for the enterprising poor (Tulus, 2004). Due to the shortage of data, policy makers in Malaysia are not able to gauge the size and the impact of the co-operative sector to the nation, which has resulted in co-operatives not being particularly emphasized in any of the country's three national policies from 1970 to 2020. In India, in contrast, co-operatives are an important part of the national development strategy embedded in India's five-year development plans, where considerable attention has been paid to the co-operative movement as an agent for stimulating economic growth.

A co-operative, as defined by the International Co-operative Alliance (ICA) Statement, is "an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise". According to the ICA, in May 2007, more than 800 million individuals worldwide are co-operative members representing co-operative movements from 84 countries. The co-operative movement has spread gradually and flourished in certain countries, and has become a significant economic actor in some national economies, for example, in the UK, Scandinavia, Germany and Spain.

There appears to be a need, however, to stimulate the development of co-operatives in Malaysia in order to give the co-operative movement some economic relevance. The Government's aspiration to have a co-operative movement that can contribute directly to economic development has been documented in the National Co-operative Policy (NCP), which was formulated in 2002. This thesis, therefore, aims to identify possible weaknesses in the Malaysian co-operative movement that may

have hampered the long standing efforts of the DCD to develop the co-operative movement to be as effective and successful as the co-operative movement in countries such as the UK and Japan. Knowing more about co-operatives in Malaysia may help to form policy to create a co-operative movement, which can contribute significantly to the economy. As such, this study will: review the significant contribution of co-operative movements in countries, where co-operatives have been successful; ascertain the factors behind the success and the strengths of those successful co-operative movements; identify any weaknesses in the co-operative movement in Malaysia; explore avenues, which could possibly enhance the impact of the co-operative sector in Malaysia; and finally, suggest policy recommendations.

In countries where co-operatives have been acknowledged as making an impact on the economy, especially in the Western European countries, they have either contributed to a significant percentage of GDP, GNP or national savings and deposits, or they have a significant market share in sectors of the economy such as food, agricultural production, marketing and export, retail and consumer markets, travel agencies or health care services. For example, the Mondragon Co-operatives in Spain contributed 3.7% towards total GDP in 2002, co-operatives in Sweden accounted for 8% of Swedish GNP in 2000 and the consumer co-operative movement in the UK had sales of over £7 billion, profits of £231 million and over 70,000 employees in 2002. The co-operatives that tend to be responsible for the significant economic contributions are secondary co-operatives, i.e. co-operatives that comprise primary co-operatives as members. Primary co-operatives are co-operatives, whose members comprise of individuals. Secondary co-operatives have played an important role in creating strong co-operative movements in many of the

Western European countries such as in the UK, Germany, Spain and Scandinavia. It is the secondary co-operatives that exist alongside their private business counterparts and compete with them.

Secondary co-operatives also exist in the Malaysian co-operative system. Nevertheless, not one of the 35 secondary co-operatives in Malaysia has been noted for making a significant contribution to the economy. This thesis, therefore, seeks to explore the relationship between primary and secondary co-operatives in Malaysia, which is a neglected area of research especially in Malaysia, where in general, the focus has been on issues pertaining to weaknesses of co-operatives such as members' participation, capital adequacy, poor management, poor Board performance and co-operative's governance (Anderson and Henehan, 2003).

In countries where secondary co-operatives have been making a significant economic contribution, it appears to be a consequence of the effective functioning of the secondary co-operatives towards their primary members, i.e. the primary co-operatives (Oustapassidis, 1992; Singh et al., 2000; Rebelo et al., 2002; Arcas-Lario and Hernández-Espallardo, 2003). The successful secondary co-operatives have been identified as having the following characteristics: 1) they constitute small size primary co-operatives operating in the same kind of economic activity; and 2) they constitute primary co-operatives where members' businesses are related to the activity of the primary co-operative (Oustapassidis, 1992; Singh et al., 2000; Rebelo et al., 2002; Arcas-Lario and Hernández-Espallardo, 2003; Romero and Pérez, 2003). Having these characteristics allows secondary co-operatives to act as an integrated unit with primary co-operatives to achieve economies of scale, greater negotiating power in the market and higher efficiency for the primary co-operatives (Soegaard, 1994). This effect can be seen in the relationship between primary and

secondary co-operatives, in which the secondary co-operatives create economic value for the primary co-operatives, in that the secondary co-operatives offers primary co-operatives a pathway to resources that are critical to the primary co-operatives' economic success such as access to market information, development of new products, advertising, marketing and members/employees training, with benefits of the integration attained for the primary co-operative members such as increased members' income and improvements in their welfare.

With respect to the size of the primary co-operatives that make up the members of secondary co-operatives, de Drimer (1997) argues that allowing a small number of individuals to form a co-operative group at the primary level is important for the organisation and functioning of secondary co-operatives. By 'small size', we mean primary co-operatives with a small membership size. However, there is no one specific number indicated in the literature for the membership size of small co-operative groups. In Germany and Switzerland, the minimum number of members required to form a co-operative is 7 individuals, while de Drimer (1997) noted a minimum of five, four and even three members in some legislatures.

An issue, which is related to the size of the co-operative concerns the degree of trust amongst members. For example, Casson (1995) argues that voluntary associations of individuals in economic activity presume a higher degree of trust. Similarly, Romero and Perez (2003) argue that high trust is necessary in setting up a co-operative enterprise because it is an adventure with great risks and sacrifices. Finally, Haddad and Mallucio (2003) argue, from the perspective of a financial group, that a financial group requires a conscious decision to participate that is often conditioned on trust in family members and friends. The importance of trust in the formation of a co-operative may influence the kind of primary co-operative

established: essentially, primary co-operatives, whose members strongly identify with the co-operative, with the presence of the strong identification being a mechanism for generating trust in the co-operative (Ole Borgen, 2001).

Hence, this thesis aims to review three important aspects of co-operatives in Malaysia: the relationship between primary and secondary co-operatives; the level of trust among co-operators; and the relationship between co-operative size and trust in co-operatives in Malaysia. In order to conduct empirical and econometric analysis of these three areas, it was necessary to collect primary data at the co-operative level as this does not exist in Malaysia, especially data pertaining to the relationship between primary and secondary co-operatives and data on trust among co-operators in Malaysia. Hence, to our knowledge, this is the first study of these three aspects of co-operatives in Malaysia. Thus, the collection of such important co-operative level data for Malaysia represents a significant original contribution to this area of research. However, the nature of co-operatives in Malaysia has contributed to problems in collecting such data. For example, it was not possible for us to confine the study of the primary-secondary co-operative relationship among co-operatives in a particular sector as in Zeuli et al. (2003b), where they study the agricultural primary co-operatives' relationship with their secondary co-operatives. This is because, in general, secondary co-operatives in Malaysia have all kinds of primary co-operatives, regardless of their activities, as members and the primary co-operatives, in most cases, are located across a wide geographical area. Also, there is a lack of information available as to which primary co-operative is a member of which secondary co-operative. In addition, a study into a specific type of secondary co-operative may not provide findings, which are useful in informing the progress of the Malaysian co-operative movement in general.

1.2. Organisation of the Thesis

Chapter 2 reviews the historical beginnings of co-operatives and the co-operative movement and the expansion of the co-operative institution to countries and continents. As described in detail in Chapter 2, throughout its history, the co-operative movement has constantly changed. The Industrial Revolution and the birth of capitalism have resulted in institutional borrowing ('transplanting') of cooperative institutions from one continent to another.

Chapter 3 explores the co-operative form of organisation. Although co-operatives are socio-economic organisations, they are often referred to as economic groups. However, certain aspects of the co-operative form of organisation differentiate co-operatives from other economic organisations and these aspects affect the operation and functioning of co-operatives. Chapter 3 reviews six aspects of the co-operative form of organisation: the co-operative principles; the capital, income and assets of co-operatives; authority and control in co-operatives; the common interest; the system structure of the co-operative movement; and the co-operatives' legal framework. Of these six aspects, the system structure of the co-operative movement, in particular, the secondary co-operatives, is identified as an important aspect for the progress of a co-operative movement. Fredericks (1986) argues that strong secondary federations, especially, are important for a successful, integrated and well-balanced co-operative movement. Factors that constitute a united strong co-operative movement, such as the professional management of co-operatives, and networking, are more prevalent in secondary co-operatives than in primary co-operatives.

Chapter 4 provides the background context to the empirical analysis. It provides information about the Malaysian economy and gives an insight into the growth and development of the co-operative movement in Malaysia. In this chapter, we analyse economic statistics relating to the growth of co-operatives in terms of the number of co-operatives, the number of co-operative members, share capital and assets from 1990. As indicated above, there is no data available, however, to gauge the economic impact of the co-operative movement in Malaysia, e.g. information on how many employees exist in the co-operative sector relative to the other sectors of the economy is not available for Malaysia. Chapter 4 also discusses the development and performance of secondary co-operatives in Malaysia to ascertain the importance of secondary co-operatives in Malaysia. In general, the findings suggest that the performance of secondary co-operatives in Malaysia is poor.

Chapter 5 describes the mail survey questionnaire used to collect the co-operative level data used in the empirical analysis in Chapters 6, 7 and 8. The collection of the primary data, which includes information on the relationship between primary and secondary co-operatives in Malaysia and information on trust, is the only data set of its kind for co-operatives in Malaysia. As such, the responses to the mail survey questionnaire form an original data source constructed for this thesis. Based on the responses to the mail survey questionnaire, in this chapter, we also analyse summary statistics relating to the responses to the survey in order to build up a profile of the co-operatives in the sample.

Chapter 6 presents econometric analysis of the relationship between primary and secondary co-operatives in Malaysia. We analyse the relationship between secondary co-operative membership and the number of members, the share capital and the assets of the primary co-operatives. The findings suggest that membership

in secondary co-operatives is positively associated with only the number of members of the primary co-operatives. We also analyse the relevance of secondary co-operatives from the perspective of the primary co-operatives. We find some evidence of the relevance of secondary co-operatives in Malaysia.

Chapter 7 analyses the determinants of the level of co-operators' trust in co-operatives as it has been argued that if the co-operative activity is related to the business of members, trust in the co-operative will be high (Ole Borgen, 2001). It is the former that is necessary for the effective functioning of secondary co-operatives. The responses to the survey indicate a high level of trust in co-operatives among the Malaysian co-operators. We also compare the general level of and pattern of trust among the Malaysian co-operators with that among a more general sample of Malaysians. Again, this entailed further collection of primary data as data on the general level of and pattern of trust among the general Malaysian population does not exist. Our findings suggest that high levels of trust in the family are positively associated with trust in co-operatives.

A related point across Chapters 6 and 7 concerns the relationship between co-operative size and trust in the co-operative. Trust in the co-operative may be low where co-operatives are of large size (Ole Borgen, 2001). Chapter 8, therefore, analyses the relationship between trust in the co-operative and co-operative size. Co-operative size appears to be inversely related to trust in the co-operative as argued by Ole Borgen (2001) with a higher probability of having trust in the co-operative in smaller co-operative groups. We also explore the relationship between trust and the financial performance of co-operatives by supplementing the primary data with secondary data on co-operatives' income and profits. The findings indicate that there is no positive relationship between trust in the co-operative and

the financial performance of the co-operative. One possible explanation for this may be related to the finding that co-operative activity is not likely to reflect the member's business. As a result of which, members may not be encouraged to invest more in share capital or to patronise the co-operative activity.

Finally, Chapter 9 presents concluding comments, discusses policy implications and highlights avenues for future research.

CHAPTER 2

OVERVIEW OF THE EMERGENCE AND EXPANSION OF CO-OPERATIVES

2.1. Introduction

A co-operative is a form of organisation that has been accepted worldwide. Co-operative institutions do not automatically arise. They have been developed and they evolved within a rich array of belief systems, across religions and ideologies. Co-operative institutions in different countries have their own history of formation and development. Although co-operatives have originated and evolved differently from one country to another, it has been argued that they have their roots in the economic ideas of Robert Owen, which came about during the Industrial Revolution (Webb, 1987). From here, the co-operative institution spread across countries and continents. Co-operatives have flourished in certain countries with varying degrees of success. In some countries, they have become significant economic actors in national economies. The modern co-operative institution in Malaysia is the outcome of the transplant of the co-operative institution by the colonial authority.[3]

This chapter presents a review of the worldwide emergence and the expansion of co-operative institutions. In this study of co-operatives in Malaysia, we consider it necessary to look at the processes that brought about the formation of co-operatives to understand the original concept of the co-operative. The significance of this modern form of co-operation, which has been internationally recognised and the spread of the co-operative institution, are among the areas that need to be clarified in order to aid our understanding of the varying degrees of success of co-operatives

[3] What made the colonial authority decide to introduce co-operatives in Malaysia will be discussed in Chapter 4.

from one country to another. This chapter therefore reviews the emergence of co-operatives from a historical perspective. The chapter begins in Section 2.2 with a review of how the co-operative thought developed and how the co-operative institution gained its foundations. This is followed in Section 2.3 by a review of the expansion of the co-operative institution across countries and continents with different models of co-operatives and with different degrees of acceptance for the modern co-operative institution and its adaptations in new environments. This chapter concludes in Section 2.4 with specific case studies on: firstly, the two most common forms of co-operatives: the consumer co-operatives and the credit co-operatives, which have their origins in the UK and in Germany respectively; and secondly, the introduction and development of co-operatives in India, which was the door to the expansion of co-operative institutions in South Asia and South-East Asia with a common model for co-operative development for the region.

2.2. The Origins and Foundations of Co-operatives

2.2.1. The Development of Co-operative Thought

Co-operatives were said to originate from the word 'co-operation' and they have evolved differently from one country to another. Nevertheless, the expansion of the co-operative movement has its roots in the economic ideas of Robert Owen, which came about during the Industrial Revolution: "There cannot be an adequate record of the co-operative movement without taking into account the influence of Mr Owen's proceeding upon its fortunes" (Holyoake, 1906a:43). His idea of co-operation for economic purposes earned him recognition as the founder of the co-operative movement. It was Owen's economic ideas that had served as a foundation of the co-operative idea, ideas that were described as 'broken ends', scattered throughout his voluminous writings (Potter, 1987). Co-operation can be applied to

different situations, including economic: the basic idea being that more can be accomplished by working together. A co-operative business is the application of co-operation to an economic situation. It is the only type of business that is accepted by so many different types of government (Groves, 1985).

2.2.2. The Meaning of Co-operation

Co-operation is a Greek term said to originate from "*co-* and *operari*", which means "to work – to labour together, to endeavour for some common purpose" (Holyoake, 1906a:3). Co-operation, from the Webster's dictionary (1961:501) means "the association of a number of persons for their common benefit, collective action in the pursuit of common well being, especially in some industrial or business process". It is an old term, which has existed from the very beginning of human society when "two or more persons uniting to attain an end which each was unable to affect singly" (Holyoake, 1906a:4). Co-operation and the pursuit of the common good have been given distinctive socio-economic and political connotations. Besides being preached in religions, co-operation has been advocated for the attainment of ideal states. In 400 B.C, the Greek philosopher Plato advocated philosophies of equality, social justice, peace, brotherly love, distributive justice and many more, while the French Utopian, Charles Fourier, advocated the contribution of one according to his/her means and recompensation according to his/her contribution, and Louis Blanc advocated co-operation instead of competition (Enriquez, 1986).

In the field of co-operative studies, Dülfer (1994) distinguishes between *co-operation* and *cooperation* to facilitate references to the co-operative type of organisations, in that the former (spelled with a hyphen) refers to the form of co-operative societies or related institutions, and the latter (spelled without hyphen) to the form of cooperation in games and sports, co-operation in business such as

syndicates, cartels, joint ventures and information networks. In short, however, co-operation/cooperation is the act of voluntarily working together to achieve mutual benefits. Co-operation could come in the form of voluntary co-operation or from coercion. Where co-operation is an act of coercion, it loses its meaning in the industrial sense, which is "the equitable distribution of profits with worker, capitalist, and the consumer, concerned in the undertaking" (Holyoake, 1906a:4). With regards to a co-operative society, Holyoake's view on co-operation is that it "begins with mutual help, with a view to end in a common competence" (*ibidem* p.4). However, it is the idea of co-operation for economic purpose that became the foundation for co-operative societies.

2.2.3. The Idea of Co-operation

The Industrial Revolution gave rise to capitalism, as a result of which wealth and power were concentrated in the hands of a few and society was sharply divided into two class: the "haves" and the "have nots" (Sojakhani, 1994). It also led to depreciation in the value of human labour bringing pauperism and distress to the working class. The poor were taken advantage of by the rich in an era where competition was intense with belief in the survival of the fittest and that each man should suffer the full consequence of his own actions (*ibid.*, 1994). Competition had bred inequality - inequality in the sense that the labourer was not given the full value of the product of his labour (Garnett, 1972). The profiteering of the capitalist at the expense of the poor had led to widespread industrial unrest and to the search of a remedy through which the poor could become owners of the fruit of their labour and efforts (*ibid.*, 1972).

Robert Owen, a social reformer who had lived in the most impoverished industrial conditions prevailing amongst workers in English and Scottish factories and mills

(Enriquez, 1986), conducted his experiment in the cotton industry in New Lanark where he planned "an institution for the formation of character" (Holyoake, 1906:33). Owen pointed out the harmful consequences which followed from the organisation of society according to the principles of the profit motive which would lead to a destruction of human character, on one hand, and, on the other, to the degrading of and causing misery to others. He increased wages, reduced working hours, prohibited child labour, and improved the living conditions of his workers, much to the discontent of his fellow manufacturers. He tried to eliminate profit but instead showed a profit of £160,000 in four years (Potter, 1987).

He argued that his approach was applicable to the nation as a whole. The establishment of his "New System of Society" – the Orbitson community in 1825, Ralahine in 1831, and Queenwood in 1839 – was based on equality in that the labourer had a right to the full value of the product of his labour. It was also seen to mean 'profit-sharing' as an efficient form of production (Tsuzuki, 1992). Co-operation as intended by Owen would "ensure the just exchange of equal amount of labour (adjusted for costs of production) ... and the balancing of supply and demand...." (*ibid.*, 1992:8), thus avoiding overproduction. "...it was co-operation in place of competitions because competition bred inequality" (Garnett, 1972:26). Co-operation to Robert Owen means 'joint-work' not only in both production and consumption, but also in the formation of society (*ibid.*, 1992:65).

2.2.4. From Co-operation to Co-operatives

The community ideal of Robert Owen is one form of reaction to industrialism which involved resettlement and job provision (Garnett, 1972). 'Co-operation' then was seen to emerge as an 'arrangement' for poor relief, in Robert Owen's scheme of the "Village of Unity and Mutual Co-operation". His view that labour is the source of

wealth pushed him into experimenting with a remedy for the relief of the poor through a scheme of self-supporting communities (Harrison, 1969).

The significance of Owen was reduced when the last Owenite settlement at Queenwood broke up in 1845. "Co-operation, after thirty years of valorous vicissitude, died, or seemed to die, in 1844-5" (Holyoake, 1906:259). It recommenced in Rochdale with the opening of a co-operative store in Toad Lane in 1844, which made a great impact on the history of co-operation and the co-operative movement. Holyoake even said, "To me Rochdale was in one sense the Big Ben of Co-operation, whose sound will long be heard in history over that of many other stores" (Holyoake, 1906:259).

Holyoake (1906) recognized Robert Owen as the originator of co-operation, but to him, the community co-operation of Owen was more like a communist scheme, where all must co-operate towards a common goal and the wealth created was to be shared equitably by all whose labour produced it. Holyoake described this sort of fairness as "mad equality" of "equal divisions of unequal earnings" (Holyoake, 1906:4). But Owen's tolerance for religion had led him away from the orthodox communist idea (Claey, 1992). Holyoake argued that fairness that should be promoted in a co-operative society is fairness in which "the right of every worker, shareholder, or purchaser is recognized to a share of the common profit, in the proportion to which he contributes to it, in capital, or labour, or trade – by hand or head" (Holyoake, 1906:5).

The opening of the Toad Street Store in 1844 in Rochdale was agreed by many as the birth of the first successful co-operative model in Britain, from where the co-operative movement traces an unbroken lineage (Lancaster and Maguire, 1996). It

marks the transition from the earlier to the later co-operative movement. The early Owenite communitarian theory was based on a loosely defined co-operative movement (Garnett, 1972), and was hardly concerned with 'self-help' in the commonly understood sense (Gosden, 1973). Garnett (1972) noted that Owenism could not have survived beyond 1850 because of its collectivist implications and that industrialism had matured by the mid of 19th century to the extent that the economic reality of capitalism was gradually accepted by the working class. It is in Rochdale that the very first formal co-operative in the legal-commercial sense had their origins (Enriquez, 1986). Holyoake argued that the co-operative idea had actually "touched the earth, took root and grew" in Toad Lane (Holyoake, 1906:285).

2.2.5. The Foundation of Co-operatives

Much of the ideals, doctrines, myths and inspiration associated with the co-operative movement were said to come from Robert Owen. His idea of co-operation for economic purpose earned him the recognition as the founder of the co-operative movement. His moral and ethical working of society formed the basis of the co-operative foundation. The elimination of profit, the keystone for Robert Owen's co-operative system of industry proved that his idea can help overcome poverty and misery and, at the same time, create wealth for capital growth. Robert Owen's principle that intelligence would prove a good investment had seen him stressing education as a cure of society's ills, and when this investment proved his contention, it came to pass that the education of members has always been deemed a part of the co-operative scheme (Holyoake, 1906).

Even though the co-operative system of Robert Owen, sometimes referred to as the pre-Rochdale co-operations, was said to be lacking in self-help, Garnett (1972) viewed it differently. To him, Robert Owen's attempt to change the institution of

society was seen as an act of self-help. Garnett argued that Owen neither could "contemplate calling on the state for resources" nor could he rely on the workers themselves "because they had suffered too severely from adverse circumstances...." (Garnett, 1972:4-6). As Owen's scheme of society was perceived by many to be paternalistic, Garnett pointed to the fact that the workers then were neither sufficiently articulate to generate their own reform, nor were they powerful enough to insist on the implementation of any measures, hence the need for an 'invisible hand' as advocated by Adam Smith.

2.2.6. The Spirit of Self-Help

It was only during the second half of the 19th century that the development of the co-operative movement was concerned with self-help. The word 'self-help' was first used by Samuel Smiles in 1876 (Gosden 1973). Smile (1876) had observed what he called the spirit of self-help displayed by a few young men who were weekly-wage earners. These young men of the humblest rank as he noted, taught themselves and each other reading and writing, arithmetic and geography; and even mathematics, chemistry and some of the modern languages, in classes modestly set up out of their small weekly wages. "Those who knew little taught those who knew less – improving themselves while they improved the others...." (Smile, 1876:viii). According to him, it is not the law that could help and stimulate men to elevate and improve themselves but their own free and independent individual actions.

Self-help is the instinct of co-operation (Gosden 1973; Holyoake, 1906). Co-operation among people based on self-help can be for the purposes of the betterment of the economic and/or social situation. Now these forms of co-operation are formalized into organisations comprising people of the same interests, joining as members of the organisation. These organisations can either be economic, social,

political or religious organisations that come under the term Self-Help Organizations (SHOs). The International Labour Organization (ILO) defines SHOs as "associations that share a number of characteristics: they all have an economic purpose ... and they are owned and controlled by the people who primarily benefit from their activities" (Parnell, 2001:ix). Thus, co-operatives are organized SHOs for economic purposes, but not all SHOs are co-operatives.

2.3. The Expansion of the Co-operative Movement

The Industrial Revolution and the birth of capitalism resulted in institutional borrowing (retransplanting) of co-operative institutions from one continent to another. From its beginning in England, the Co-operative Movement spread to, and grew in other industrialized capitalist countries as well as to countries with planned economies such as the Soviet Union and China. Co-operatives spread to various parts of Western Europe with a different emphasis in different areas. In the rural areas, agricultural supply and marketing co-operatives became popular, whilst co-operative retail stores, bakeries, creameries and credit banks became popular in urban centres (Enriquez, 1986).

The co-operative movement in Ireland, for example, started in 1890 and was said to have originated from the British nineteenth century co-operation of artisans and thrifty middle class workers. But unlike the British co-operatives, there was little progress in the Irish co-operatives except in the agricultural sector of which its success was referred by Bolger (1977) as fortuitous, who remarked that co-operation in Ireland by its very nature was something of a hidden phenomenon, that the co-operative realities were so closely entwined and accepted in daily life that their true significance could not be appreciated. The need for co-operation in Ireland was not urgent, the population was scattered and majority of the people lived off agriculture.

The Irish attribute all their industrial shortcomings and their commercial disadvantages to the actions of their government (*ibid.*, 1977).

In North America and Latin America, growth of the co-operative movement started slowly in the 1930s and spread in towns and rural areas in 1940s. In Israel, the co-operative land settlement experience, the 'Kibbutz' became well known for its co-operative way of living. In ex-colonial states like in India and in Africa, co-operatives were officially encouraged and assisted. Co-operatives have been used as a tool for economic development by many governments in Africa and Asia after World War II, with varying success. Co-operatives in China and Japan were also given government assistance. In Canada, the co-operative movement became strong in the rural areas with wheat marketing, whilst credit unions spread in the urban areas. In Australia and in New Zealand, the spread was gradual among rural and urban communities; agricultural activities run along co-operative lines are still a stable feature of the rural economy (Enriquez, 1986).

The German model of credit co-operatives has perhaps been the most popular model for co-operative institutional transplants, but with varying degrees of success. The promotion of the credit co-operatives based on the German Schulze-Delitzsch model took place in Ireland in 1894 (Guinnane, 1994) and in Italy in 1863 (A'Hearn, 1997). Though the attempt to introduce credit co-operatives in Ireland was seen as a potential solution to the credit problem of smallholders, it was a failure due to the Irish economic features and social environment (Guinnane, 1994). Credit co-operatives in Ireland were undermined by the agricultural co-operatives, which also extended credit to their members (McCarthy et al., 1998). However, the 'transplant' in Italy has been considered successful after the institution was adapted according to the local conditions. Fortuitous timing and favourable conditions also contributed to

the success; the *bancha populari* at that time lacked competition from other deposit-taking institutions, and the lack of any clear legislation on co-operatives had left them relatively free to evolve along whatever path they chose (A'Hearn, 1997). Important modifications took the *banche populari* in Northern Italy in the direction of being more like ordinary commercial banks, but they retained the elements of the German co-operative model such as limits on maximum shareholding and a 'one man - one vote' rule in the general assembly (*ibid.*, 1997). With these adaptations, the institution flourished in a new environment - what emerged was a sort of hybrid bank (*ibid.*, 1997).

Timing has also been noted as an important factor leading to the unsuccessful introduction of credit co-operatives in Denmark. Guinnane and Henriksen (1998:34) argue that credit co-operatives did not succeed there because the potential market for such institutions was already saturated by that time. The need for credit co-operatives had been satisfied by another institution, the parish savings banks, that performed many of the functions of credit co-operatives. In Russia, credit co-operatives have been adopted by the Ministry of Finance to institute reforms for economic change by manipulating the collective habits of people especially in the context of agricultural development (Baker, 1977). Baker argues that since the co-operative institution in Russia appeared to be only slightly different from the indigenous peasant institution, co-operation remained an ideological symbol that enabled government officials to support it rather than going for radical land reform, which might lead to social unrest. Thus, credit co-operatives were used "to mobilize people to carry out the policy of the Ministry of Finance to develop an independent and conservative peasantry" (Baker, 1977:144).

Co-operatives as legal and institutional organisations in South and South-East Asia (SEA) are the outcome of the specific intervention of the colonial process. "Since Western Europe had successfully solved the problem of peasant indebtedness through a co-operative system, the colonial authorities preferred to apply the same approach to the same problem in their respective colonies" (Ali Khan and Bhatti, 1994:242). Co-operatives seem to be the answer to free the poor from the stranglehold of moneylenders, especially those in the agricultural sector. The co-operative movement in South Asia started in India, as the term "British Indian Pattern" was used to describe the type of co-operatives formed in all other countries in South Asia and SEA that constituted part of the British empire. This pattern was moulded in co-operative legislation: the first legislation passed was in 1904 followed by other subsequent amendments to the law to broaden the scope for co-operative development. The first co-operative legislation enacted in South Asia (India, Pakistan, Bangladesh and Sri Lanka) was for the organisation and regulation of agricultural credit (Vyas, 1994). The Indian model of the state sponsored co-operative development was also introduced to other parts of the British colonial territory and became known as the Classical British Indian Pattern of co-operation. And for many decades, credit co-operatives dominated the co-operative movement in South Asia and SEA.

Over the years, co-operatives have gained popularity in many developing economies. They spread gradually and flourished in certain countries, be it in the rural or urban sector (Muenkner, 1994; Vyas, 1994). The expansion of co-operatives is seen "in terms of numbers, forms and types of activities to reach out to a large number of people and bring them into the mainstream of development" (Ali Khan and Bhatti, 1994:242). Although co-operatives have been operating in South

Asia and SEA since the beginning of the 20th century, in general, ordinary citizens are still not aware of their concept. Since co-operatives are said to 'be born overnight' under government policies and programmes, no proper education is given to the people as to why a co-operative should be organized. The establishment of co-operative education centres and colleges can be seen as part of the legacy of the colonial government in accordance with the government's role in co-operative training and education (Muenkner, 1994).

Transplanting of institutions from one country to another was not always successful, especially from one continent to another, thus special measures were needed to ensure its success. The British colonial government, through legislation, initiated the establishment and development of co-operatives in their colony, nurturing it from the very beginning (Muenkner, 1994). This was done through the creation of government machinery for propagating the new model of organisation and implementing the co-operative legislation (*ibid.*, 1994). The Indian Co-operative Societies Acts of 1904 and 1912[4] were developed by combining elements of the German Co-operative Societies Act of 1889 with elements of the Industrial and Provident Societies Act of 1852 without consulting the population (*ibid.*, 1994). The result is state-sponsored co-operative development known as the 'British-Indian Pattern of Co-operation', which the British government implemented in their other colonies. The salient feature of this pattern of cooperation is the creation of government machinery for propagating and supervising the new model of organisation, through the powers conferred by the Act to the Registrar of Co-operative Societies (Muenkner, 1994; Vyas, 1994).

[4] The Act of 1904 was said to contain "no legislative protection to societies for purposes other than credit, or to the central agencies, banks and unions, which were gradually coming into existence to finance and supervise the primary credit societies" [Hough, 1959, p.48]. Whilst the 1904 Act gave priority to starting rural banks, the 1912 Act widened the scope of the movement.

The alternative economic system for the existence of co-operatives has been the Soviet-style centrally planned economy. Co-operatives were of secondary importance in this economic system and their existence was considered a socialization of the 'lower level' as compared to the state owned enterprises, the 'higher level of socialization' (Kleer, 1994; Kowalak, 1994). "Co-operatives were valued only to the extent that they were fully integrated into a Communist economic system; they obtained their socialist legitimacy not from within, not from their own co-operative character, but only from obedience to the system surrounding them; and they were associated not with the end goal of socialist transformation, but at best with a transition period" (Fairbairn, 2000:653). Co-operatives were a transitory form of organisation, transforming small-scale undertakings into collective business organisations and thus changing private ownership to collective ownership so as to transform the interests of the individual to the interests of the group (Kleer, 1994; Kowalak, 1994). But with the existence of two forms of property or ownership structure, the existence of co-operatives was seen as a threat to the development of a truly socialist economy. Co-operatives were therefore eliminated under the concept of real socialism over the period 1930 to 1940. It was not until the late 1950s that the co-operative was accepted, and used in socialist construction, mainly due to its democratic management features and the incentives in co-operatives that motivate economic agents (*ibid.*, 1994).

2.4. Specific Case Studies: UK, Germany and India

Two types of co-operatives are the most common type of co-operatives worldwide and, in particular, in Malaysia: the consumer co-operatives and the credit co-operatives. The following subsections review the development of these two specific types of co-operatives in their country of origin, i.e. the consumer co-operative

movement in the U.K. and the credit co-operative movement in Germany. The co-operative model in Malaysia originated from the model developed in India. The co-operative movement in India has been viewed as the most successful in South Asia and South-East Asia. A review of the development of co-operatives in India therefore gives an insight into the factors that contributed to the success of the Indian co-operative movement.

2.4.1. The Development of Consumer Co-operatives in the U.K.

When 28 men of Rochdale co-operated they named themselves the Rochdale Equitable Pioneers, which was supposed to reflect the objective of the group to establish equity; "...it implies an equitable share of work and profit, which the word Co-operation does not connote." (Holyoake, 1906:277). The opening of the store in Toad Lane was seen as an attempt to protect consumers at the time when there was widespread profiteering by private traders. Consumers were being exploited by the sheer greed of private retailers tampering with food to increase its weight. Floor sweepings were said to be added to tea and chalk dust was added to flour (Potter, 1987). The Rochdale Pioneers insisted on the genuine quality of goods they sold but could not however sell them at cost price due to economic considerations (*ibid.*, 1987).

Potter (1987) pointed out that in the conduct of retail trade, methods of price fixing according to Owen's ideal were impossible because in retailing, the goods bought in bulk would be sold in small quantities, hence involving the problem of dividing the cost price among the smaller units, which at that time involved the use of fractions. Surplus is therefore unavoidable and a system of dividing the profits was introduced by a member of the Pioneers, Charles Howarth. Profits were divided as a percentage of the purchase price, where initially it would not be distributed but kept by the

society as accumulated capital. Once it amounted to £5, members would then be registered as shareholders at no apparent cost. They could not withdraw this amount, but any subsequent savings from profit after this could be withdrawn as they wished. So as the members increased their purchases with the store, the greater the proportion of profit they received and the more they could save (Potter, 1987). Holyoake noted the merit of the scheme in that "it created capital among men who had none...." (Holyoake, 1906:278).

This method of profit sharing according to Potter (1987) is an indirect method of realizing the Owenite ideal of eliminating profit on price, for the surplus over cost price was returned to the purchaser in the form of a bonus. It was said to be the most equitable way of remunerating the organized consumers since those members who contributed the most to the store by buying the most from it had the right to reap the largest share of its profit. Though it would have been denounced by Robert Owen "as an attempt to spread the contagion of profit-seeking to the working class" (Potter, 1987:21), it was argued that the strong appeal of the trade dividend helped secure the permanent interest of the members as a way of keeping them loyal to their store. The introduction of the system of dividing profits on purchase was seen to result in the establishment of the co-operative movement on the firm foundation of pure democracy. Members were drawn to have an interest in their society and to participate in the government of it. Thus the democratic way of running the business, the sharing of profits and consumer protection were regarded as factors of innovation introduced by the Rochdale Pioneers in the co-operative system. Democracy is the essential condition, and the indispensable instrument for the progressive and abiding co-operative organisation of society and Robert Owen had not grasped its significance (Holyoake, 1906).

In the early days of co-operative expansion in the UK, mainly consumer co-operatives were established. It was the Industrial and Provident Societies Act (IPSA) of 1852, which gave co-operative enterprises a measure of security, recognition and protection (Lancaster and Maguire, 1996). In 1863, i.e. 20 years after the opening of the Rochdale store, a group of retail societies formed the North of England Co-operative Society with the aim of supporting the growing retail consumer co-operative, which then became the Co-operative Wholesale Society (CWS) in 1872 (*ibid.*, 1996). What has now become the national identity of the co-operative movement in the UK, was already in place 30 years after the first successful retail co-operative in Rochdale. Besides the CWS, the Co-operative Insurance Society (CIS) was established in 1867, the Co-operative Congress in 1869, the Co-operative Bank in 1872, the Co-operative Union in 1873 and the Women's Co-operative Guild in 1883 (*ibid., 1996*).

Co-operatives in Britain are known for their retailing activities. Local societies, from time to time, encountered a commercial crisis and found incorporation into wholesale societies a welcome option. In the 1960s, many retail co-operative societies formed regional societies (Lancaster and Maguire, 1996). The local retail societies in Scotland, for example, acted jointly in sourcing and purchasing their merchandise by forming a co-operative wholesale trading society that rapidly expanded and diversified into a range of fields including manufacturing, transport, banking and insurance that employed thousands of people in different trades and occupations and made million pounds of business a year. The CWS which was set up by 300 co-operatives trading in Lancashire and Yorkshire for the bulk purchasing of goods for its members, opened factories to provide the co-operatives with goods and developed services such as banking and insurance to support their operations

(*ibid.*, 1996). Co-operatives flourished, and entered more and more sectors of the economy.

The CWS changed its name to the Co-operative Group in 2001 after merging with Co-operative Retail Services (CRS) in 2000. It brings the Co-operative Bank and the CIS together under a common leadership when it created the Co-operative Financial Services (CFS) in 2002. With more than 3,000 retail outlets, employing over 70,000 people and sales topping £7 billion and £231 million in profits in 2002, it claimed to be the UK's largest consumer co-operative[5]. Retail contributed the largest share in its family of businesses (£2.6 billion sales in 2002). Other activities are travelcare, funeralcare, banking and insurance, commercial farming, milk processing, manufacturing and distribution, property development, engineering and building services, car dealership and healthcare. The co-operative movement in the UK is now made up of many disparate forms of co-operative businesses and services: agriculture; banking; housing; retailing; worker co-operatives; insurance and credit unions, which were often described as a 'cradle to the grave' service of the co-operatives.

The Co-operative Union, a non-trading organisation, serves to unite all co-operatives and other democratically owned businesses alike, basically in the task of promoting co-operatives, protecting the interests of members and representing the movement in national policy. Issues common to co-operatives are dealt with by a discussion group created in 1991 known as the United Kingdom Co-operative Council (UKCC), which represents the interests of the members to the Government, the public and other interested groups. The UKCC was created by the co-operatives. Members of the UKCC constitute the National Federation of each type of co-

[5] All figures pertaining to the Co-operative Group are from the Fact sheet published by the Co-operative Group on its website: www.co-op.co.uk (16/12/2003).

operatives. From the consumer co-operative movement in the UK, we will now review the development of the co-operative movement in Germany, where the credit co-operative movement originates.

2.4.2. The Development of Co-operatives in Germany

In Germany in 1840, the co-operative movement "did not even exist in embryo" (Hasselmann, 1971:285). Factory labour was not yet the mass phenomenon in Germany, which was still predominantly an agrarian country. It was only towards the end of the 1840s and in the 1850s that capitalist firms appeared in large numbers, a period in which a dynamic spirit of enterprise prevailed. This was the period which also saw the first deliberate defensive action of the labouring class (strikes) – when co-operative ideas made their first appearance in Germany with the foundation of the *Arbeiter-Verbrüderung* (Labour Brotherhood) in 1848: that is the joining together in association to produce, to exchange and to purchase goods collectively (*ibid.*, 1971).

There were not many consumer co-operatives in the 1850s, most of the co-operative societies at that time were handicraft producers' co-operatives. The German consumer movement reached its peak in the 1920s with over 3 million members, representing approximately one-fifth of all households in Germany (Fairbairn, 2000). They became the largest arm of the German co-operative movement and one of the largest social movements in German history despite numerous measures to hamper consumer co-operatives (*ibid.*, 2000). Because of their historical association with the working class and Social-Democratic movements, they were repressed during the Nazi era and co-operatives were liquidated in stages through to 1941 (*ibid.*, 2000). It was in 1946 that consumer co-operatives were allowed to be re-established in West Germany by the Allied military authorities, who had previously

been against its establishment (*ibid.*, 2000). Small local societies were re-established. As West Germany became more western oriented and more aggressively capitalist, the consumer co-operatives faced tough and increasingly integrated competitors (Hasselmann, 1971). Without the benefits either of solid member involvement or adequate capitalization, the consumer co-operative movement worsened. "The consumer co-operatives had no wider co-operative ideas and aims beyond the cheapening of their cost of living and for that reason they did not become a movement and did not grow into a community" (*ibid.*, 1971:291). The Soviet military administration in East Germany however was quick to rebuild consumer co-operatives as a means of dealing with massive food distribution and rationing problems after the war. Consumer co-operatives were created top down as state supporting socialist organisations that rapidly took over properties and became large retail-distribution organisations (Fairbairn, 2000).

The system of credit co-operatives was first introduced in Germany, during the 1850s as a response to the perceived failure of formal financial institutions (Guinnane, 2001). The urban Schulze-Delitzsch and the rural Raifesissen co-operatives are two famous types of co-operatives. Friedrich Wilhelm Raifessen established agricultural co-operative banks because the farmers of his day were not considered creditworthy for the commercial banks and remained primarily rural (*ibid.*, 2001). In the urban areas, Hermann Schulze-Delitzsch started the limited liability credit co-operative. The Haas group of credit co-operatives made up most of the rural credit co-operatives by the end of the nineteenth century (*ibid.*, 2001). Credit co-operatives grew at the time when savings banks (Sparkassen) and other lending institutions were already established but they were not prepared to offer reasonable loan terms to small farmers and labourers, leading to the astonishing

growth in the number of German credit co-operatives from 245 co-operatives in 1885 to over 14,500 twenty-five years later (*ibid.*, 2001). Neither the Schulze-Delitzsch nor the Raifeissen ideas were based on Robert Owen or the Owenite thought – "They did not even trouble to study him" (Hasselmann, 1971:293). Today the co-operative banks constitute an integral part of the German banking system. They are important players in the market besides the savings banks and other commercial banks and credit institutions in a country with fragmented banking systems. Savings deposits in credit co-operatives (including co-operative central banks and the Deutcshe Genossenshaftsbank) totalled €183,824 million, which is 30% of the total savings deposits of €613,015 million in 2004.[6] They came second in rank after saving banks, but in terms of distribution, there are 1,338 of them in 2002 as compared to only 498 savings banks (Porath, 2004).

So consumer co-operatives were not really successful in West Germany whilst credit co-operatives consolidated into huge co-operative banks, making a significant contribution to the German financial economy. Although Britain is well known for its consumer co-operative movement, the British colonial government introduced the German co-operative credit system to its colony in Asia. The attempt to introduce co-operatives in Asia and South East Asia starts in India. The following subsection reviews the 'transplant' of the co-operative institution and its development in India.

2.4.3. The Development of Co-operatives in India

The Indian co-operative movement was never a spontaneous development as in advanced economies such as in Western Europe, but was government initiated. It started from the top, not as a movement from the masses, which influenced the form, progress and achievement of the co-operative movement in India. The British

[6] Federal Statistics Office, Germany, 2005.

colonial government of India faced serious economic problems and social unrest caused by the indebtedness of the Indian farmers and by permanent famine. Lands were transferred from actual owners to landlords and traders (Muenkner, 1994; Shojakhani, 1994). There were attempts to find solutions to these problems by setting up agricultural credit schemes and by taking legal measures against usurers, but which failed. The introduction of co-operatives in India came with a recommendation by Nicholson, in his report regarding the possibility of introducing land and agriculture banks in Madras.[7] In 1900, the government considered the introduction of the Raifeissen model of credit co-operatives in rural India (Muenkner, 1994, Hough, 1959). A co-operative society was started in Punjab as early as 1891 for controlling the common land of the village for the benefit of the co-sharers, and functioned until 1922, when the land was partitioned. Credit was the chief concern of the co-operative movement in India then, and until now the agricultural credit societies formed the basic structure of the co-operative movement in India (Muenkner, 1994).

The targets of co-operative development were based on credit development, and co-operatives were nurtured and guided, with the provision of funds and management personnel by the government. Co-operative legislation provided the basis not only for promoting and organizing co-operatives, but also for the excessive government intervention; the role of the government in providing the policy framework, financial support, training and member education. The co-operatives became an instrument for raising the level of the agriculturist: as an agency for the supply of cheap and productive credit as a means of improving the lot of the agriculturist and of checking the trend to industrialization (Hough, 1959).

[7] The report is published in two volumes in 1895 and 1897 (Muenkner, 1994; Hough, 1959).

During the British period, co-operatives were confined mainly to the area of agricultural credit. After independence, especially after 1954, co-operatives were regarded as the instrument of socio-economic transformation with the most potential: to solve the problems of economically displaced persons; to raise moral as well as economic standards, to teach democratic procedures; and to lay the foundations of a new social order based on co-operative welfare as a contrast to individual competition (Shojakhani, 1994). The co-operative movement has become an important sector of the Indian economy with the setting up of national federations of co-operatives in areas such as agricultural marketing, land development, housing, dairy produce, labour, fishing and spinning, as an instrument for helping village and city workers to improve their state. Co-operatives are numerous in India and are an important part of the national development strategy embedded in India's five-year development plan (Vyas, 1994). Co-operatives have been instruments of economic planning underlined in the development plan by the state. They were important for the removal of poverty. Considerable attention was paid to the co-operative movement and the incentives to promote it by the government because it was considered the basis for planned growth and social development. As a result of this effort, co-operative structures can be noted from the village to the national level, with 200 million individual members in 1994, contributing substantially in the fields of agriculture and agro-processing (Shojakhani, 1994). In 1997, 32.9% of employment in the organized sector was in the co-operative sector, whereas the public sector employed 46.5% and the private sector only 20.6% (Haan et al., 2003).

From India, co-operative institutions spread to other parts of South Asia and South East Asia, mostly through colonization as in the case of Malaysia. In Malaysia,

however, the agricultural co-operative movement is not as significant as the non-agricultural co-operative movement.[8]

2.5. Summary

This chapter has reviewed the historical emergence of co-operatives and the spread of co-operatives across countries and continents. The historical perspective of the emergence of co-operatives provides information on the formation of co-operative institutions, why they exist and how they are formed. The co-operative is a form of economic organisation, which is widespread and its development in different countries has an interesting history, be it in the socialist economy or in the market/capitalist economy. Basically, a co-operative, which originates from the word co-operation, unites two or more persons for economic purposes. The ways co-operatives are formed vary from one country to another. In the West, for example in the UK, co-operative societies were obviously the creations of their members and did not owe their existence to governmental initiative. Meanwhile in Asia and South-East Asia, for example, co-operatives have been used as a tool for economic development with a government agency overseeing the development of the co-operative movement. Even though a certain type of co-operative may be successful in one country, for example the credit co-operatives in Germany, it may not be so in another country, for example with credit co-operatives in Ireland. Their degree of success, which varies from one country to another, more so from one continent to another, depends on the social and economic environment where the co-operative existed. The next chapter presents a detailed review of the characteristics of co-operatives that differentiate them from other forms of economic organisation.

[8] A review of the development of the co-operative movement in Malaysia is given in Chapter 4.

CHAPTER 3

THE OPERATION OF CO-OPERATIVES

3.1. Introduction

In the preceding chapter, we have reviewed the historical beginnings of co-operatives and their expansion across countries and continents. Irrespective of where and in what area of activity co-operatives exist, as a co-operative organisation, they share some basic operational and organisational characteristics, which differentiate them from other forms of organisations and which determine how co-operatives work. In this chapter, we specifically discuss six aspects relating to the working of co-operative societies that can be used to explain how co-operatives work: the co-operative principles; the capital, income and assets of co-operatives; authority and control in co-operatives; the common interest; the structure of the co-operative system; and the co-operative legal framework. We present a discussion of these aspects in this chapter not only to highlight the kind of organisations that co-operatives are, but also to bring attention to which of these aspects that could have possibly lead to the co-operative sector in some countries having a significant economic impact. This chapter however begins in Section 3.2 with a review of the definition and the concept of co-operatives and the difference between co-operatives and other forms of economic organisations. Then, in Section 3.3, we review the aspects relating to the working of co-operatives, which differentiate them from other forms of economic organisations. After having discussed these aspects of co-operatives, in Section 3.4, the chapter concludes with a discussion on the assessment of co-operative performance from a variety of approaches.

3.2. The Definition and the Concept of Co-operatives

A co-operative is a form of economic organisation, which is widespread and its development in different countries has an interesting history with varying degree of success as discussed in Chapter 2. After more than 150 years of existence, co-operatives have been formed according to five different traditions: 1) the consumer co-operatives, which started in Rochdale in 1844; 2) the workers' production co-operatives that started in France by the French labourers in the 1840s to substitute for the hierarchical management system with workers' initiative and accountability; 3) the co-operative banking that started in Germany, also in the 1840s, formed among artisans and small merchants and later among the rural peasants; 4) the agricultural co-operatives that started in Europe in the 1880s among the primary producers and farmers to improve the quality of production, to stabilize supply of farm commodities, and to help secure better income for farmers; and 5) the service co-operatives which consist of people joining together to provide themselves with different kinds of services such as housing, transport, child care and health care. It is therefore not surprising that there are many definitions of a co-operative.

North (1990) classifies co-operatives as organisations of economic bodies. He defines them as "groups of individuals bound by some common purpose to achieve objectives" (*ibid.*,:5) and the distinguishing characteristics are a complex of norms and behaviours that persist over time by serving collectively valued purposes. Nilsson (1996) defines a co-operative as an economic activity owned and managed by the members to promote members' common needs. Monzón Campos (1997) states that co-operatives are created from below by individuals, i.e. the members, to satisfy their common needs. To Fregidou (2000), a co-operative is an association of persons who work together to achieve certain commercial objectives. A more

elaborate definition of a co-operative is given by Chaves and Monzón Campos (2000, quoted in Juliá and Server, 2003:466) who state that a co-operative is 'a group of private companies created to meet their members' needs through the market by producing goods and providing services ... where profit distribution and decision making are not directly linked to the capital contributed by each member, each of whom has one vote". The German co-operative law defines a co-operative as a community with open membership that has the purpose of promoting the members' economy by means of a common enterprise (Hanel, 1992).[9]

The various definitions given above reveal the different expectations regarding the roles and functions of a co-operative, i.e. the social and the economic functions. In developing countries, for example, co-operatives are intended to serve as instruments of development policy, such as their roles in the reduction of disparities, combating exploitation, the improvement of social conditions and gender sensitivity. Although the social and the economic components are both present in co-operatives, the economic objective is the main objective of a co-operative and is stressed in many of the definitions of co-operatives. But it has been argued that what gives co-operatives its essence is the social component. With socio-economic institutions like co-operatives, the subordination of the economic to the social is inherent in their constitution (Levi and Pellegrin-Rescia, 1997). Levi and Pellegrin-Rescia argue that the social component is the prerequisite for the establishment and functioning of co-operatives. The social component is considered as an old ingredient while the share, the interest on it, the reserves, the balance sheets and other similar elements from the world of business are the new ingredients. The principles are the operational practices. The normative and operational devices make co-operatives an association

[9] This definition is stated in Section 1 of the German Co-operative Law.

and an enterprise at the same time, that have distinguished co-operatives from the common profit-oriented firm (*ibid.*, 1997).

Co-operators from the worldwide co-operative movement, however, have agreed on a common definition of a co-operative, as defined by the International Co-operative Alliance (ICA). The ICA defines a co-operative as "an autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise"[10]. Three factors, however, remain, that can be found in practically all theoretically based definitions (Nilsson, 1996):

a. The user-owner principle: the individuals who own and finance the co-operative are those that use it;
b. The user-control principle: the control of the co-operative is by those who use the co-operative; and
c. The user benefits principle: the benefits of the co-operatives are distributed to its users on the basis of their use.

All organisations that fulfil these three criteria are co-operatives and organisations that do not meet all three criteria are not co-operatives (Nilsson, 1996). These criteria are thus both necessary and sufficient to establish the co-operative concept. Generally, a co-operative concept is linked with two aspects of a co-operative: the role as an interest organisation and as an enterprise (Fregidou-Malama, 2000). As an interest organization, it is a bottom-up alliance based on voluntary co-operation between independent users to pursue their needs or interests, which they have in common, and as an enterprise it is an economic entity and only has the purpose of promoting members' economic activity (*ibid.*, 2000). The dual nature of a co-

[10] International Co-operative Alliance, "Statement on the Co-operative Identity".

operative distinguishes a co-operative from an ordinary business. A co-operative therefore has different goals (Nilsson, 1996):

a. The business objective of the co-operative requires the co-operative to be efficient in its business operation with sound management techniques;
b. The social objectives require the joint responsibility of members who are equal irrespective of their capital contribution. Ownership and control are in the hands of members and the co-operative surplus is to be shared proportionately on the basis of patronage. Involvement in community affairs and members' education also becomes part of the social goals of co-operatives.

The dual objective of co-operatives is manifested in the practices of co-operative societies and is laid down in the principles for co-operatives (Nilsson, 1996).

Co-operatives are different from other economic organisations such as: investors-owned firms (IOFs); cartels or clubs. The dissimilarity stems in the ownership structure, goals/objectives, capital structure, profitability and operating efficiency. The goal of co-operatives is to eliminate monopolistic excesses of profit-oriented firms. According to the theory of co-operatives, co-operatives are user-owned firms, where the clients are the investors, who expect to receive direct benefit through doing business with the co-operatives. In IOFs, clients are separated from investors, who received return proportional to their investments and who are driven to maximize earnings.

A cartel is a group of companies, countries or other entities having a formal (explicit) agreement to work together to influence market prices by controlling the production and sale of a particular product. Cartels usually occur in an oligopolistic

industry, where there are a small number of sellers and usually involve homogeneous products. Cartel members may agree on such matters as price fixing, total industry output, market shares, allocation of customers, allocation of territories, bid rigging, establishment of common sales agencies, and the division of profits or combination of these. The aim of such collusion is to increase individual member's profits by reducing competition. Meanwhile, clubs are voluntary groups deriving mutual benefits from sharing one or more of the following: production costs, the members' characteristics, or a good characterized by excludable benefits (Sandler, 1992). Also, secondary co-operatives with their primary co-operatives are not like multi-plant firms, where a plant can be closed due to manpower problems.

There has been a rapid growth of an alternative mode of production in the UK known as the labour-managed (LM) firms in the attempt to save bankrupt capitalist firms (Podivinsky and Stewart, 2003). LM firms are co-operatives – also known as worker co-operatives or producer co-operatives. LM firms are formed by entrepreneurs, who supply not only capital but also effort to the activity of the firm. In LM firms, therefore, workers own and control firms, income is shared equally amongst workers and LM firms have the objective of maximising income per worker. LM firms work on a collective decision-taking basis, majority voting and appropriating a share of the profit, thus upholding the co-operative principles.

The following section discusses the organisational and the operational aspects related to the working of co-operative societies.

3.3. The Organisational and Operational Aspects of Co-operatives

In general, the four common types of co-operatives are credit co-operatives, consumer co-operatives, marketing and/or supply co-operatives and workers' co-

operatives. Co-operatives, which are set up for credit purposes, are called credit co-operatives, credit unions or loan and thrift co-operatives. Credit co-operatives require a small amount of fixed capital but a large amount of operating capital (Enriquez, 1986). This type of co-operative acquires capital from members from entrance fees, shares, deposits, reserves and borrowing. Consumer co-operatives serve consumers by way of retailing at co-operative stores. They require a large number of members to boost sales so as to cover costs and leave enough margins. Marketing or supply co-operatives are common in the agricultural sector. They require large amounts of fixed capital for buildings, premises, factories, machinery, plant or rolling stock. The worker co-operatives are co-operatives where the owners are also workers. Basically worker co-operatives started off with a small number of individuals. The individual's financial investment is particularly important. The workers/owners govern the business according to the one member one vote principle. Irrespective of the type of co-operative, the following six aspects can be used to explain how co-operatives work and to differentiate them from other forms of economic organisation.

3.3.1. The Co-operative Principles

The 'Co-operative Principles' form a clear set of guidelines that put into practice the values upheld in co-operatives. The values underlying co-operation, including self-help, equality, equity, democracy, and social responsibility expressed in co-operatives can be linked to a lengthy history. The statement of co-operative identity adopted at the 1995 Congress and the General Assembly of the International Co-operative Alliance (ICA) in Manchester listed 7 principles: (1) voluntary and open membership; (2) democratic member control; (3) member economic participation; (4) autonomy and independence; (5) education, training and information; (6) co-

operation among co-operatives; and (7) concern for community. The principles were officially declared and accepted worldwide first in 1937 and were reformulated in 1966 and 1995, to meet new the challenges in the contemporary world. The co-operative values and principles stand for the particular character of co-operatives and set apart co-operatives from investor-owned firms (IOFs). They are used "as the basis for the make up of legislation, by-laws or statutes and for defining practices applied to local problems and conditions" (Fregidou-Malama, 2000:83). These principles serve as the norms for all co-operative organisations all over the world, and these shared norms are a sign of the legitimacy of the institution (Sjoestrand, 1992).

3.3.2. Co-operatives' Capital, Income and Assets

Co-operatives, like any other business organisation need considerable capital resources to function properly. The sources of the co-operative capital come from owned capital, contributions and loan capital. Benham and Keefer (1991), however, argue that much of the capital must come from members and members' contributions must be forthcoming for the co-operative to survive as co-operatives may collapse when contributions and loans are withdrawn. Owned capital is money contributed by members of the co-operatives and the sources come from shares and reserves. Shares in co-operatives have to be bought by members on entry as members of the co-operatives. Reserves are essential to enable co-operatives to build capital resources. Reserves provide the co-operative with an interest free source of capital. They accrue over time on a fixed percentage basis annually from the operating surplus. Loan capital is money borrowed from members and non-members and the sources come from deposits, revolving funds, bank loans, and government advances. Nilsson (2001) noted that co-operatives tend to have

difficulty in raising capital due to the inadequate contributions of members to the collective capital. Capital growth is slow as members, old and new, generally pay only a small contribution towards the capital to join the co-operative. Thus, co-operatives have to borrow capital, the burden of which is carried by future members (Jensen and Meckeling, 1976).

With the financing of co-operatives through members' contributions, there are two possibilities: limited or unlimited liability. The former is the prevailing form in most co-operatives nowadays; the latter was adopted by co-operatives in the early days. With unlimited liability, all members are jointly responsible for all losses and debts contracted. This system is prevalent in rural areas and with small businesses. Enriquez (1986) noted that security in unlimited liability is not by share capital, but by pledging the real land titles, and by moral obligation and responsibility which members have for each other's welfare. He argued that this kind of arrangement is suitable for co-operatives where members are usually known to each other personally, and have mutual trust in the honour and integrity of each other. Co-operatives based on limited liability have a large number of people as members, who do not know each other on personal terms. The limited liability form makes members accountable for only the amount of their shares, thus each member is allowed by co-operative law to hold a limited percent of the co-operative, normally not exceeding 20 percent of the total share capital (*ibid.*, 1986).

The source of income of co-operatives and the way in which they are controlled differentiate co-operatives from non-profit organisations. The source of income for a non-profit organization would be differentiated as being from donors (i.e. the patrons of the organisation) or from its customers for commercial purposes, while the control would either be mutual (that is by the patrons) or the entrepreneur (i.e. by

self-perpetuating bodies) (Spear, 2000). A non-profit organisation is, in essence, an organisation that is barred from distributing its profits, if any, to the individuals who exercise control over it, such as members, officers, directors or trustees. A non-profit organisation is however not barred from making profit: "Net earning, if any, must be retained and devoted in their entirety to financing further production of the services that the organisation was formed to provide" (Hansmann, 1980:838). Co-operatives, on the other hand, may be profit distributing. But the distribution of profit in co-operatives is constrained in a number of ways and, furthermore, the fact that co-operatives do not primarily strive for profit, that profit is secondary, rendered co-operatives 'not-for-profit organisations' (NfP). This puts co-operatives closest to the mutual commercial typology, which could have resulted in the acknowledgement of co-operatives as economic organizations (Spear, 2000).

Co-operatives' assets are collectively owned. Owners of co-operatives are prevented from exercising all the rights associated with ownership of the co-operative asset by legal constraints regarding the assets' use. Some co-operative statutes contain a clause stipulating that in the event of liquidation, remaining assets should be transferred to common funds (Nilsson, 2001). When a member leaves a co-operative organisation, he/she does not have access to the assets to which he/she contributed; when a new member joins the co-operative he/she immediately has access to all assets that earlier generations of members have accumulated (*ibid*:336). Nilsson argues that this static nature of co-operatives' assets may be why a co-operative firm never has to shut down even if the members' need for the firm disappears. Milgrom and Roberts (1992:294) argue that if no one clearly owns a valuable asset, then no one has an incentive to guard its value properly. This is a problem of vaguely defined property rights. "Property rights are defined as a

socially and legally enforced right to select uses of an economic good ... it gives owners claim to the residual returns of the firm and a part in the decision process" (Cook and Iliopoulos, 1999:528). Co-operatives, however, do not determine who receives the residual property rights and Rebelo et al. (2002) argue that this has resulted in members of co-operatives favouring decisions that give short-run benefits (i.e. the horizon problem), which affects the viability and growth of co-operatives. The lack of property rights has a negative impact on co-operatives such as obstacles to capital acquisition, inability to diversify or concentrate their asset portfolio and inefficiency of resource allocation (Oustapassidis and Vlachvei, 1998). The problems related to property rights were seen to have given rise to the new type of co-operatives known as the 'new generation' co-operatives. The 'new generation' co-operatives "require closed membership that requires significant up-front investment and a pooling arrangement in which members share equitably on a per-unit basis in the revenue stream that has been created" (Cook and Iliopoulos, 1999:526 quoting a senior officer with the St. Paul Bank for Co-operatives). Cook and Iliopoulos noted that the 'new generation' co-operatives offer stocks to members and once the stock offering is over, someone new cannot come in without purchasing a member's stock.

3.3.3. Authority and Control in Co-operatives

In this section, we will discuss on the organisation of co-operatives, which touches basically on the form of authority and control in co-operatives. Theoretically speaking co-operatives are similar to IOFs. They differ, however, in the sense that in co-operatives, the decision and control of the firm rest solely on members who are the owners and users of the co-operatives. Whereas in the IOFs, the decision control is based on the share capital invested by individuals and the rights to residual claims

ultimately rest in the hands of the owners. Decision control in co-operatives is based on 'one member one vote' and the rights to residuals expire when an individual ceases to become a member of the co-operative. In co-operatives, owners assume an ownership role through voluntary action or election. Control and policy are carried out in a democratic manner in line with the co-operative principles. The principle of one-member one-vote is essential in co-operatives at the primary level.[11] We will discuss the different levels of co-operatives in the next section, which focuses on the organisational structure of the co-operative system.

The Annual General Meeting (AGM) is the highest authority in a co-operative. To control a co-operative, co-operative members elect the leaders among themselves, decide on the aims of the co-operative's activities, and contribute to the co-operative development through work, buying or deliveries (Fregidou-Malama, 2000:84). A co-operative's Board of Directors (BoD) is elected in the AGM following an election procedure, which is clearly explained in legislature pertaining to co-operative societies. By the power vested in them, the co-operative BoD directs the co-operative and sets the policies for achieving the co-operative objectives. All policies are decided upon democratically by majority decisions at the Board meetings. The co-operative BoD is also responsible for the hiring of the managerial staff. Very often, however, small co-operatives do not have the means to hire professional managers. Therefore, in a small co-operative, the BoD acts as the managers, whereas in large co-operatives, managers are hired (*ibid.*, 2000).

Co-operatives are said to resemble mutual nonprofit organisations, such as clubs, in which the board of directors of the organisation is selected by the membership,

[11] The 'one man one vote' principle in co-operatives means that irrespective of the amount of share capital a member has in a co-operative, he/she has only one vote in the Annual General Meeting (AGM) of the co-operative.

which consists of all individuals who make monetary contributions to the organisation. But they are, however, by no means the same concept: co-operatives are generally formed under a corporation statute that is quite distinct from both the nonprofit corporation statutes and the business corporation statutes (Hansmann, 1980). Co-operative statutes typically permit a co-operative's net earnings to be distributed to its patrons or investors, who may in turn exercise control over the organisation. Thus, co-operatives are not subject to the nondistribution constraint that is the defining characteristic of nonprofit organisations (*ibid.*, 1980).

3.3.4. The Common Interest

In general, a co-operative is a voluntary association of individuals with a common interest. A common need or common interest has been made a requirement for the formation of a co-operative group as can be seen in the definitions of a co-operative discussed in Section 3.2. Some countries, such as Malaysia, have made this a legal requirement in that unless a common interest is deemed to exist in a group, the group cannot be registered as a co-operative under co-operative law. Common interest is a general term. We take the term common interest to mean an interest that is commonly shared among a group of people, which can qualify them as belonging to the group. Common interest is thus regarded as a homogeneous factor for a co-operative group. Nevertheless, homogeneity in terms of belonging to a group and to the values upheld by the group are not sufficient to "generate benefits of homogeneity" and also to "extend the horizons of current members, increasing their willingness to invest in the enterprise" (Benham and Keefer, 1991:709-710). Common interest that is not based on the individual's need to survive can result in the existence of co-operatives, which serve the common needs of the members. The fact that members want something and the co-operative exists to serve their needs

makes other factors secondary, such as the costs of the service, how it fits in with the other services offered by the co-operative, whether the service is already offered by competitors, and so on (Hogeland, 2003). Hogeland argues that the economic consequence is that the co-operative can become a multipurpose business lacking a clear customer definition. It leads to the fundamental loss of purpose created by the 'add-on' mentality. With this, the co-operative defines itself as it goes along, by accumulating a wide number of product lines, typically not clearly related. Ultimately, it becomes very difficult for such co-operatives to achieve the critical mass and scale economies that would enable them to compete with more efficient and focused suppliers (*ibid.*, 2003).

3.3.5. The System Structure of the Co-operative Movement

The tier system is inherent in the co-operative movement. It varies from one country to another, with two, three or even four tiers. The first-tier or the first-level co-operatives are the primary co-operatives, also known as the local co-operatives. The way a primary co-operative is organized differs from one place to another or from a country to another. There are primary co-operatives in which individuals with or without their own business organize themselves voluntarily to form a co-operative group to enable them to enter into, or accomplish some activities, which otherwise could not possibly be undertaken by individuals. The poor may also be asked to get themselves organized into co-operative groups, to serve as a conduit for receiving development aid from the government. The recognition of a group as being a co-operative differs between countries. In Malaysia, for example, a group can only be legally recognized as a co-operative under the Co-operative Act after it has been registered with the Registrar of Co-operatives, i.e. after the prerequisite for the registration of a primary co-operative group has been met, basically common

economic interest must be deemed to exist in the group and the group consists of at least one hundred individual persons.[12] However, in the UK, an individual business or society can be a co-operative and will be treated as a co-operative under the Industrial and Provident Societies Act if they are able to prove themselves a *bona fide* co-operative, i.e. if they put into practice the principles of a co-operative. Primary co-operatives usually operate in local areas, with a small number of members, limited operations, and little chance of expansion (Enriquez, 1986). Enriquez argues that primary co-operatives are very strong in mutual support, trust and confidence because members usually know each other well.

Where a two-tier system exists, co-operatives at the second tier function as the apex organisation to the primary co-operative. The three-tier co-operative system would constitute the primary co-operatives at the first level, the secondary co-operatives or the regionals/federations at the second level, and the co-operative apex organisation at the third tier. A secondary co-operative is a voluntary association of primary co-operatives or the first-level co-operative organisations. The Co-operative Development Agency (CDA) in the UK defines a secondary co-operative as "a corporate trading organisation set up by a group of individuals or businesses to provide themselves with services on a co-operative basis. The business will recruit member businesses or individuals that have an interest in the service it aims to offer" (CDA, 2000). Thus, in the UK, when businesses or societies that have been treated as primary co-operatives set up a co-operative, the co-operative is a secondary co-operative. In Malaysia, under Subsection 4(2) of the Co-operative Societies Act 1993, secondary co-operatives have to consist of registered primary co-operatives only. In general, secondary co-operatives are formed to serve the local primary co-

[12] These prerequisite for registration is contained in Subsection 4(1) and Subsection 5(1) of the Co-operative Societies Act 1993.

operatives. Thus, secondary co-operatives are also known as service providers (Lambert and Bliss, 2001). The association of autonomous first-level co-operatives in autonomous federations or secondary co-operatives is one of the most valuable contributions of co-operators to the art and science of democratic organisation; it is "more in the nature of an organic growth, responding to changing needs and circumstances by developing new shoots" (Bonner, 1961:343).

Secondary cooperatives are owned and run by groups of primary cooperatives. As owners of the secondary co-operative, the primary co-operatives determine the objectives of the secondary co-operative and the kind of services to be provided by their secondary organisation. Membership in a secondary co-operative can be either voluntary or is required by the law (as in the Federal Republic of Germany and Austria) where it is obligatory for members to be affiliated with a co-operative auditing federation. 'Voluntary' is a relative term, if affiliation is the only chance of survival (Eschenburg, 1994).

Control of the secondary society is exercised by the society members through their power of electing the BoD, through Annual General Meetings, and through the need for the Board to submit any proposal not covered by the rules to a referendum of the societies. Secondary co-operatives have to adhere to the same cooperative principles with the exception of the 'One Man One Vote' principle. It is normal for second-tier co-operatives to dispense with the traditional feature of the 'One Man One Vote' principle, and instead vote by size. This is because the primary co-operatives that make up the members of the secondary co-operatives may vary in membership size. The uneven size of the primary member organisations and the democratic point of view indicates the basis of this argument – "the relative influence of each member organisation should somehow reflect the number of co-

operators it represents" (Soegaard, 1994:114). The introduction of a proportional representation of interests or the principle of proportionality of voting rights has long been adopted in co-operative banks in developed countries in order to be competitive with joint stock companies that represent a more developed and widespread form of economic activity in a post-industrial economy (*ibid.*, 1994).

Secondary co-operatives are the instruments of their owners, they are the "co-operatives of co-operatives" (Soegaard, 1994) that have the roles of supporting, strengthening and promoting the economies of their primary members (i.e. the primary co-operatives), while the primary co-operatives have the objective of maximizing income and welfare of the individual members. The relationship between the primary co-operatives and their secondary cooperatives often has a legal characteristic stipulated in the legislature relating to, e.g., the composition of membership, the holding of share capital, the election of the BoD and the rights of participation of the primary members in second-level cooperatives. In the Spanish cooperative's legislature, for example, a secondary cooperative must be comprised of at least two cooperatives at the primary level and one partner cannot own more than 30% of the secondary cooperative's capital (Arcas-Lario and Hernández-Espallardo, 2003). When the primary and secondary relationship is a business one, the rights of each party are also stipulated in the legislation and this serves as a contract between the secondary cooperatives and their members.

It is at the secondary or federated level that joint-ventures, mergers and acquisitions of co-operatives take place such as in advanced industrialized countries. A merger is the absorption of one co-operative into another. A consolidation is a union of two or more co-operatives to from a new organisation with a new identity for all the consolidated co-operatives. The advantages of such amalgamations through mergers

and consolidations to the large secondary co-operatives are: 1) they strengthen their economic efficiency; 2) they improve their bargaining market power; 3) they may lower operating costs; 4) they may have the opportunity to co-ordinate their research and development projects; and 5) they increase capital funds, membership numbers and support (*ibid.*, 1986).

Where the co-operative movement is a four tier system, the third level is the central co-operative organisation that has secondary co-operatives as members. The co-operative organisations at the fourth level comprise all kinds of co-operatives, irrespective of co-operative types and activities (Enriquez, 1986).

3.3.6. The Legal Framework for Co-operatives

A different system of co-operative law and legal frameworks has been developed from one country to another. An extensive legal framework of specific laws for co-operatives exists in some countries, e.g. Germany, France and Spain. In the Netherlands and Belgium, the specific regulations governing co-operatives are placed within the framework of other general regulations, while in countries such as the UK, Denmark and Ireland, co-operatives are governed by ordinary company law (Juliá and Server, 2003). Co-operatives in Britain existed under the Friendly Societies Act of 1834 until the Industrial and Provident Societies Act of 1852 was passed to meet the requirement for the development of co-operative societies.

The raison d'être of co-operative laws are to: 1) lay down that a co-operative is a lawful organisation; 2) show the kind of organisation a co-operative is, such as its objectives, its organisational matters, its funding, its operational techniques and procedural methods; 3) provide ways and means of possible government assistance; and 4) encourage the setting up and spreading of co-operatives especially in

developing countries (Enriquez, 1986). On the other hand, the need for co-operative societies to defend themselves, at least against social consequences and against fraud or theft, is the reason why they have to gain their legal rights. Co-operative laws are periodically amended and updated to suit local conditions and prevailing circumstances. The by-laws of co-operatives are the operating rules that guide the co-operative from day to day in all normal operations.

Gosden (1973) and Anheier and Ben-Ner (1997) argue that the co-operative legislature may hinder or facilitate the progress of co-operatives, in that it can influence co-operatives' internal and external working conditions by facilitating or restricting different factors. Co-operative law can create a foundation for co-operative action, provide rules for operation on a co-operative basis and promote co-operatives as an alternative entrepreneurial method to compete in the economy (Roy, 1981 quoted in Fregidou-Malama, 2000:86). Fregidou-Malama (2000) argues that as legislatures are made by the state, the state can define or change the definition of co-operatives in the laws for co-operatives, to use them to achieve the objectives of the state, thus affecting the perception of co-operatives. Therefore, it is through the law that the state is able to influence the development of co-operatives. Juliá and Server (2003), however, do not agree that co-operative development in a country can be affected by a legislature, saying that "the degree of presence and establishment, measure in terms of market share, cannot be said to be related to the existence of a specific more or less developed regulatory framework ... nor to the greater or lesser number of societies in each country" (Juliá and Server, 2003:476). This statement may be applicable to industrialized nations, but in developing countries, regulatory frameworks, which conferred powers to the Registrar of Co-operative Societies, were inevitable in the early stage of co-operative development. In the later stages,

for example in India, legislative frameworks become a necessity to safeguard the finance which the Indian government placed at the disposal of the co-operative sector (Shojakhani, 1994).

This section has discussed six aspects related to the working of co-operatives, which can influence co-operative performance. The following section provides discussion on the performance of co-operatives from a variety of approaches.

3.4. Co-operative Performance

Assessments of the performance of co-operatives have been made based on different levels of debate such as: 1) the adaptation of the neo-classical theory of the firm that argues that the co-operative business form is construed so as to attain a large volume of business and, thereby, reap economies of scale (McCarthy et al., 1998; Singh et al., 2000); 2) the property rights and agency theories that claim that co-operatives are immanently inefficient (Lawless et al., 1996; Milgrom and Roberts, 1992); or 3) the transaction cost theory that argues for the rationale of vertical integration, for each business is too small to accomplish the task separately (Nilsson, 2001). Oustapassidis (1998) is of the view that it is more useful to view the differences in terms of property rights to see whether co-operatives perform as well as their IOFs counterparts. Lehmann and Parliament (1992), however, argue that a generally accepted performance criteria for co-operatives is absent. This is due to disagreement between the 'theorists' and the 'practitioners' over the roles/functions of co-operatives. The 'theorists' are more interested in what organisations do rather than with what they are.

More often than not, co-operatives are viewed as a variant of the IOFs and, as such, the performance of co-operatives is judged according to their economic efficiency,

i.e. technical efficiency, scale efficiency and allocative efficiency (Nilsson, 2001; Singh et al., 2000). But Carter (2003) argues that efficiency is the wrong standard by which to measure co-operative performance especially given the way in which they help to reduce poverty, such as in India, Indonesia, and the Philippines, where co-operatives have offered productive employment for the poor. Co-operatives should be looked upon as local institutions that play an important role in the local economy. Carter named a few co-operatives that have been successful as local institutions for modern societies, such as the success of India's dairy co-operatives in transforming the country's dairy economy and Bangladesh rural electric co-operatives in increasing job opportunities and productivity. He argues that this contribution to poverty reduction is, however, very difficult to measure.

Krahnen and Schmidt (1995) and Taimni (1998) argue that co-operatives were intended to serve as instruments of development policy with the focus on the social outcomes of co-operatives: the reduction of disparities, combating exploitation, the improvement of social conditions and gender sensitivity. The strive for efficiency may result in co-operatives relinquishing original objectives, and in the transformation of co-operatives into company business, thus affecting the survival of a co-operative as a co-operative (Anderson and Henehan, 2003). Meanwhile, Clarke (1952, cited in Porter and Scully, 1987) argues that co-operatives can never (unless by chance) be efficient. Co-operatives are argued to have survived because they were given subsidies, tax exemptions and gratis services from the government to compensate for their inefficiencies. In some developing countries today, co-operatives receive hefty state subsidies that render comparisons with private institutions meaningless. It has been argued that Government subsidies to co-operatives are due to the requirement that co-operatives should carry out some

socially valuable tasks (Nilsson, 2001). The conflicting goals between members and management, poor management, poor Board performance, inappropriate strategies or poor implementation of strategies, inadequate capitalization, lack of member oversight, and being overly sensitive to members' concerns are among the reasons given for poor co-operative performance (Anderson and Henehan, 2003).

It is argued that the inherent inefficiency of co-operatives is due to the structure of property rights within the co-operative (Oustapassidis and Vlachvei, 1998). The basic property rights governing ownership and control in co-operatives are different from IOFs, as discussed in Section 3.3 above. The lack of, or vaguely defined, property rights in co-operatives creates the horizon problem, i.e. the problem of non-transferability of ownership and the control problem. These problems related to property rights are seen to have several effects on co-operative performance, and the problems are seen to lead to drawbacks of co-operatives as compared to IOFs in the same industry (*ibid.*, 1998).

Nilsson (2001:343) argues from the welfare theoretical perspective to reject the claim that co-operatives are inefficient, saying that "it is not a matter of the extent to which the co-operative succeeds in creating a stronger market position for its members, rather it is how far the members subjectively perceived their situation to be better as a result of the operation of the co-operatives". Nevertheless, the continued existence of co-operatives in the West that depend on their ability to compete effectively in the markets in which they operate, and, at the same time, to also provide benefits to members which they cannot get from conventional companies should be emulated. Ultimately, in the first place, the success of co-operatives must depend on the economic competitiveness of the co-operative business. For this purpose, co-operatives have to make use of sound management

techniques to achieve competitive advantage for the co-operative in the marketplace. Davis (1999) argues that an essential management tool for co-operatives is to develop strategies for the survival of the co-operative and for the strategies to provide the framework for evaluating successes and failures within the co-operative.

Studies that analyse the performance of secondary co-operatives have, almost always, analysed the efficiency of secondary co-operatives: for example, the efficiency of the Greek co-operatives' marketing unions (Oustapassidis, 1992); the efficiency of the milk union in India (Singh et al., 2000); the efficiency of the Portuguese Wine Co-operative (Rebelo et al., 2002); and the efficiency of the secondary marketing co-operatives in Spain (Arcas-Lario and Hernandez-Espallardo, 2003). The interest in secondary co-operatives is probably because of the generally large size of secondary co-operatives and the impact of their activities on the survival of their primary members. The secondary structure is essentially a competitive process leading to a higher level of economic efficiency, which is a widely accepted measure of the performance of secondary co-operatives. The effectiveness of secondary co-operatives, in the first instance, towards the survival and development of primary co-operatives, gives co-operatives their sense of relevance as economic organisations, leading to a higher level of economic performance. Secondary co-operatives are extremely influential in countries where the co-operative movement has been making a significant economic contribution, especially in the West. It is the secondary co-operatives, through the integration of primary co-operatives that appear to be capable of moving the co-operative sector forward to significantly affect the country's economy. Fredericks (1986:146) argues that "for a successful, integrated and well-balanced co-operative movement, strong secondary and tertiary federations or centralizations are important". Factors that

constitute a united strong co-operative movement, which include among others, members' participation and competency training, professional management of co-operatives, and networking, are raised more in secondary co-operatives than in primary co-operatives.

3.5. Summary

Co-operatives are self-help organisations organised on the national and international level and are homogeneous in values and structures even though their existence worldwide both in developed and developing countries is with varying degrees of success. Basically, the existence of co-operatives is to achieve a purpose or interest, which a group of individuals have in common. In this chapter we have discussed the organisational and operational aspects of co-operatives that are related to the working of co-operative societies. From the six aspects discussed: the co-operative principles; co-operatives' capital, income and assets; authority and control in co-operatives; the common interest; the system structure of the co-operative movement; and the legal framework for co-operatives, the aspect that would best account for the performance and success of the co-operative form of organisation lies in the system structure of the co-operative movement, perhaps most importantly the secondary structure. Larger co-operatives at the secondary level represent a form of collective strategy. The secondary co-operatives are co-operatives for the primary co-operatives that should be formulating strategies and pushing forward the systematic development of the primary co-operatives. It is at the secondary level that the application of sound management tools would be a necessity to achieve competitive advantage and better position in the market. In the next chapter, we will review the growth and the development of the Malaysian co-operative movement before analysing secondary co-operatives in Malaysia in detail in Chapter 6.

CHAPTER 4

THE CO-OPERATIVE MOVEMENT IN MALAYSIA

4.1. Introduction

Co-operation has been the culture in Malaysian life, from cradle to grave, since time immemorial. Co-operation can be seen in all aspects of everyday life: for example, financing a wedding ceremony or undertaking funeral preparations. The co-operative institution in Malaysia is based on the modern form of co-operation introduced by the colonial government that was intended mainly to overcome debt problems among its civil servants (Fredericks, 1986). This chapter reviews the growth and development of the co-operative movement in Malaysia in Section 4.3, which includes the co-operative movement's early days when co-operatives were introduced in 1922, the early impact of co-operatives, the expansion of the co-operative movement and the co-operative legislature. This is followed by a discussion of the institutions, which support co-operatives' development in Section 4.4. Economic statistics pertaining to the growth and expansion of co-operatives in Malaysia are analysed in this chapter in Section 4.5. As the discussion on performance of co-operatives in the preceding chapter suggests that secondary co-operatives play an influential role in a co-operative movement, this chapter also reviews the development of secondary co-operative organisations in the Malaysian co-operative movement in Section 4.6. The chapter concludes with a summary discussion of the problems faced by the co-operative movement in Malaysia after almost a century of existence in Section 4.7. Initially, in the next section, Section 4.2, we will briefly review key characteristics of Malaysia to aid understanding of the development of co-operatives.

4.2. Malaysia, The Country

Malaysia, a country in Southeast Asia, consists of two regions – West Malaysia and East Malaysia. West Malaysia is a peninsular that joins Thailand on the north. At the southern tip of the peninsular lies Singapore. East Malaysia is located on the island of Borneo. The West and the East are separated by some 640 miles by the South China Sea. Malaysia is a federation of 13 states and one federal territory. The states are namely: Perlis; Kedah; Pulau Pinang; Perak; Selangor; Pahang; Kelantan; Terengganu; Melaka; Negeri Sembilan; Johor; Sabah; and Sarawak (see Appendix A4.1). The federal territory (Wilayah Persekutuan) consists of three components - the cities of Kuala Lumpur and Putrajaya in the peninsular, and the island of Labuan in East Malaysia.

Malaysia occupies a total area of 320,252 sq. km. comprising Peninsular Malaysia (131,805 sq km), Sabah (73,997 sq km) and Sarawak (124,450 sq km), thus making Sarawak the largest state followed by Sabah. Sarawak makes up some 37.5% of the country's total area; Sabah's population is made up of at least 30 different groups of people with more than 50 different languages and no less than 80 dialects. The total population of Malaysia was 25.6 million in 2004[13] and is made up of 3 main ethnic groups: the Malays; Chinese; and the Indians. The largest ethnic group in Malaysia, accounting for more than half of the total population today, is the Malays. The Malays, along with the indigenous people form a group called *Bumiputra*, an official Malaysian language term which literally means "sons of the soil", which accords them special privileges as enshrined in the Constitution. There is also a host of other

[13] Department of Statistics Malaysia, 2005.

minorities, mostly from Malaysian Borneo. The Malaysian economy is a mixture of private enterprise and public sector.

The country is one of the world's leading exporters of semiconductor devices, computer hard discs, audio and video products and room air-conditioners. Malaysia also exports petroleum and liquefied natural gas, chemicals, palm oil, wood and wood products, rubber and textiles. 78.4% of her total exports in 2005 consisted of manufactured goods, whereby manufacturing comprises 31.6% of Malaysia's GDP. In 2005, the GDP composition by sector shows the service sector dominating with 59.5%, industry 33.3%, and agriculture 7.2%. The labour force is 10.67 million with 49.5% in services, 36% in industry and 14.5% in the agricultural sector. In terms of agricultural products, peninsular Malaysia produces rubber, palm oil, and rice, which ranks only after subsistence crops from Sabah, while rubber, pepper and timber represent the agricultural produce of Sarawak. The Peninsular is also home to industries related to rubber and oil palm processing, light manufacturing industry, electronics, tin mining and smelting, logging and processing timber, while Sabah and Sarawak are dominated by logging and petroleum production and refining industries.

Malaysia, a middle-income country, transformed itself from 1971 through to the late 1990's from a producer of raw materials into an emerging multi-sector economy. Between 1970 and 1990, Malaysia's economy was directed under the New Economic Policy (NEP), with GDP growth averaging 6.7% a year. This period also saw Malaysia transform itself from a resource-based economy - primarily producing rubber and tin - into a multi-sectoral one. Growth was driven largely by exports, with electronics in particular as a major revenue source. This was followed by the period of the National Development Policy (NDP), planned to run from 1991

through to 2000, with a similar economic growth-oriented approach. The NDP contained several new dimensions, one of which emphasized more rapid development of an active Bumiputera Commercial and Industrial Community (BCIC) in the modern sectors of the economy. This is followed by the National Vision Policy (NVP) which incorporates the key strategies of the NEP and NDP and again new dimensions towards an economy that is competitive, dynamic, robust and resilient by the year 2010 (EPU, 2004).

Malaysia is a multi-racial, non-homogenous middle income country with per capita income of $9,700 (in 2004). The distribution of income in 2003 shows the lowest 10% of income being shared by 1.4% of the population, with 39.2% of the working population sharing the highest 10% of income. The age structure is biased towards the working age, i.e. 15 – 64 years (61%), with an almost equal proportion between males and females.

4.3. Growth and Development of the Co-operative Movement

4.3.1. The Movement's Early Days

Much of the early development of the co-operative movement in Malaysia (then Malaya) can be traced from Fredericks (1986), one of the few studies in this area. Fredericks studied the impact of the co-operative movement from 1922 to 1968. His study covers the development of the co-operative movement during the British colonial period till 1957 and thereafter. During the British colonial period, he looked, in particular, at the impact of the emphasis on credit co-operatives on the traditional loan sources and on other co-operative activity, mainly marketing, from 1922 to 1939. Section 4.3 draws on this study for the discussion of the development of the co-operative movement in Malaysia.

In 1911, a committee led by Sir Arthur Young was set up by the British to investigate the possibility of introducing co-operative societies into the small holding sector in Malaya in an attempt, to what Fredericks referred as, to initiate rural development in Malaya. It was the first colonial effort to introduce a co-operative institution in Malaya as a form of commercial money economy. The committee reported that the Malays, who were largely Muslims, were unready for it; citing not only their rejection of the interest rates present in the activity of borrowing and lending, but also their self-sufficing attitude and distrust of others. It was concluded then that rural credit societies could not at that time be introduced, nor would such a system be ever successfully disseminated especially among the Malays (Fredericks, 1986).

In 1919, another report was submitted by Cavendish on developing a co-operative movement in Malaya based on his study of the co-operative movement in India. Cavendish proposed a bureaucratic structure for the implementation of policy and supervision of co-operatives, a co-operative movement that is financially independent of the state, and he also recommended the establishment of a central form of co-operative organisation,[14] which would give loans to members and other co-operative societies against a collective mortgage of properties of its members. The last two were never implemented as the third was seen as "antithetical to the method proposed for financing the co-operative bank" (Fredericks, 1986:3), especially in the prevailing state of economic depression and the fact that the development of co-operatives had to be nurtured from the very beginning.

When the Co-operative Societies Enactment was passed in 1922, co-operation of the western form was introduced, eventually with the registration of co-operative

[14] The recommended Co-operative Bank of Malaya "would assume dual function: act as the apex society of the co-operative movement and be its central financial institutions" [Fredericks, 1986:3].

societies of the credit type in the rural and urban sectors; the rural credit co-operatives having unlimited liability and the urban credit co-operatives having limited liability. Subsequently, the first government office to take charge of co-operative development was set up on 1st July 1922 with Mr. A. Cavendish as the Registrar. Early in the year of the introduction of co-operatives only 3 types of co-operatives were widespread: the rural co-operative credit societies; the labourers' co-operative credit societies; and the consumer societies. This is followed later by the marketing societies (rubber, eggs and other products) (Fredericks, 1986).

The first stage of the development and growth of co-operatives in Malaysia was during the period 1922 to 1939, with thrift and credit co-operatives dominating the scene, both in rural and urban areas. Co-operatives were to be the solution to the indebtedness of Malay peasants in rural areas and government civil servants in urban sectors, with the expansion of Rural Co-operative Credit Societies in rural sectors, while the Thrift and Loan Societies and the Labourers' Co-operative Credit Societies were found in urban settings (Fredericks, 1986). Marketing and consumer co-operatives were developed much later. The Federated Malay States Posts and Telegraphs Co-operative Thrift and Loan Society Limited was the first urban credit co-operative to be registered. It was registered on the 21st July, 1922 and still operates today but has subsequently changed it named to Koperasi Kakitangan Telekom Malaysia (KOTAMAS).[15] The first co-operative to be formed in the rural area was an unlimited form of co-operative society known as Syarikat Bekerjasama-sama Kampung Tebuk Haji Musa, Kerian Dengan Tanggungan Tidak Berhad. Little is known of its history, however, except that it was registered in December 1923.

[15] Newly registered co-operative societies or those that wished to change their registered name are required under the Co-operative Act to include the word 'Koperasi' (the national language word for co-operative) to distinguish them from other forms of business organizations, with the word 'Berhad' (or limited liability) being the last word in the name.

This co-operative is no longer registered with the Co-operative Development Department. One can easily distinguish the older co-operatives from the new ones, in that the older co-operatives tend to have longer names which can be divided into three parts – the first part of the name, i.e. the word *Syarikat Bekerjasama-sama*, means *co-operative*, the last part of the name *Dengan Tanggungan Tidak Berhad*, means *unlimited liability*, and the middle part of the name usually denotes the place where the co-operative is supposed to operate. The co-operative movement in Sarawak started on 3rd May 1949, and in 1959 in Sabah (Fredericks, 1986).

4.3.2. The Transplant of the Co-operative Institution in Malaysia

The introduction of co-operatives was primarily aimed at reducing indebtedness in the rural and urban sectors. Credit co-operatives were introduced in rural sectors to consolidate rural capital resources and to put an end to exploitative indigenous credit resources (Fredericks, 1986). The Thrift and Loan Societies and the Labourer's Co-operative Credit were introduced in the urban sector. The Thrift and Loan Societies were established among government civil servants to replace the existing government system of 'loans to subordinates' and as an alternative to private money lenders and usury. The Labourers' Co-operative Credit was introduced in urban areas to encourage thrift and to provide a convenient outlet for savings for government employed labourers. Fredericks' observation on the colonial policy on the co-operative movement was one of duplication in which he states that the "policy ... was implicitly aimed at the duplication, insofar as it was possible, of the conditions surrounding the grass root origins of the European movement" (Fredericks, 1986:5).

The institution of co-operatives and its ideological foundations came into conflict with traditional Malay values and attitudes and with the feudalistic rural social

system itself which provides some indication of the social impact of the co-operative movement in the rural sector. Fredericks (1986) noted that the channeling of individual savings into a formal institution on a voluntary basis without social sanctions created a unique situation for the farmer. Also the process of borrowing capital for investment purposes and joint marketing that advocated Western economic values was unfamiliar to the rural small-holder. The co-operative movement operated within an established traditional social system. The social system of royalty had traditionally dominated, and this traditional social system was supported by the colonial government (*ibid.*, 1986). Autocratic powers vested in the royalty were consolidated by the British under the indirect rule strategy in a semblance of non-intervention in the traditional political structure. Thus, the mode of initiating and diffusing co-operative societies in the rural areas was through the royals and the local chiefs where they "were persuaded to impress upon their subjects the value of the co-operative movement" (*ibid.*, 1986:45). Fredericks (1986:27) also noted that establishing co-operatives was easier in the urban areas as "membership was drawn from a highly concentrated population and who received regular incomes from which deductions could be made at source ... (and) that the economic operations of these societies were less dependent on prevailing economic conditions".

4.3.3. The Early Impact of Co-operatives

The emphasis on credit co-operatives can be seen in the increasing number of this type of co-operative year after year. In 1922 there were 9 co-operatives, in 1925 69 co-operatives, in 1930 240 co-operatives and in 1939 a total of 648 credit co-operatives (figures calculated from Fredericks (1986:6-8). The 2 consumer co-operatives established in 1922, which insisted on cash trading, went into liquidation

one after another, the last one managed to operate until 1927. Nevertheless, efforts at consumer sales were introduced within other established co-operative ventures with varying degrees of success. After 1971, the consumer co-operative movement became more rural oriented – this was largely due to the extension of the Malaysian Co-operative Wholesale Society's (MCWS's) operations into the Federal Land Development Authority (FELDA) schemes (Fredericks, 1986:129). Marketing co-operatives and other co-operatives of the non-economic type were introduced in the late 1930s.

The impact of the co-operative movement is more keenly felt in the urban sector due to the existence of more complicated cultural factors in the rural areas. The rural co-operative movement failed to attain a significant widespread hold in the rural sector essentially because the movement was rooted in the ideological traditions of Western philosophy. The group behaviour for collective benefit introduced by the Western co-operative ideology was very different from the Malay traditional social framework (Fredericks, 1986). Rural credit co-operatives decreased after 1929 not only due to the cultural factors but also due to financial factors. As the internal resources of the societies could not meet the relative massive capital inputs required, loans were sanctioned from the urban societies. The loans were stopped after 1928 when repayment dragged on, thus affecting the urban societies (Fredericks, 1986).

4.3.4. The Expansion Phase

Starting with only a single activity such as credit or rice milling, the co-operative movement in Malaysia has now diversified into all kinds of business activities such as consumer, housing, transport, land development and production. Co-operatives were used as a tool to spearhead rural development and to encourage and give full assistance to the Malays collectively through co-operative organisations (Fredericks,

1986). This was during the development period 1956 to 1960 and was extended in the Second Malaya Plan, 1961 to 1965. Emphasis was on the role of rural co-operatives in economic development to include not only farmers but also fishermen. The co-operative movement became part of the rural development strategies in the 1960's as it was realized that co-operatives were the only viable institutions through which the Government could implement its developmental projects. It marks the beginning of Government financial support to co-operatives (Fredericks, 1986).

The role of co-operatives in the agricultural sector was, however, reduced by institutions introduced by the Government to undertake extension work in the agricultural sector, playing a secondary role to co-operative societies. The Farmers' Associations, for example, were given the responsibility for supplying agricultural credit, inputs and services, and also for providing marketing services, thus reducing the scope of operations of the co-operative societies to the extent that the co-operative societies were only allowed to undertake operations that were not yet undertaken by the farmers' association. Where farmers' associations exist, co-operatives were allowed to operate activities that had been assigned to the associations but the co-operatives were not given any financial support from the Government (Fredericks, 1986).

The Government's role in co-operative development was also modified. The supervisory and developmental role of the Department of Co-operative Development was facilitated through the Government's financial commitment under the First Malaya Plan in anticipation of the Movement's growth. The formation of co-operative societies was to be supplemented by a broad range of government initiatives. The co-operative movement expanded in number in a variety of activities: credit, insurance, transportation, housing, consumerism, to name a few.

School co-operatives were also pioneered when the first school co-operative was registered in 1965, which lead to the introduction of school co-operatives throughout the country in 1966 with the aim of encouraging thrift and to develop entrepreneurial skills among students in secondary schools (Fredericks, 1986).

The government support for co-operatives in rural areas extended into the 1980s[16]. The "New Co-operative Era" was announced in 1983, which brought about the establishment of 2 specific types of co-operatives for rural communities, the *Koperasi Industri Kampong* (KIKs or *Cottage Industries*) and the *Koperasi Pembangunan Daerah* (KPDs or the District Development Co-operatives). The KIKs were formed to enable the local community to utilize local natural resources like rattan, clay, metals (silver) to promote handicrafts such as pottery and silverware and to produce them for commercial purposes. The KPDs were set up to create opportunities in rural communities to participate in government development projects in their localities by carrying out minor infrastructure works such as building small bridges, roads and general maintenance in their respective districts.[17] Most of the KPDs were established in government development schemes such as in the schemes of the Federal Land Development Authority (FELDA).

The agro-based co-operatives and the fishery co-operatives in West Malaysia were handed over to the Farmers' Organization Authority and the Fisheries Development Authority in 1975 and 1976 respectively (Fredericks, 1986). The agro-based co-operatives in Sabah and Sarawak, however, remained under the supervision of the Department of Co-operative Development (DCD) (see Section 4.5.2 below for a detailed review of the DCD). These two agencies are under the Ministry of Agriculture whilst the DCD is presently under the Ministry of Entrepreneur and Co-

[16] The DCD's website at http://www.jpk.gov.my/jpk [03/03/2006]
[17] The DCD's website at http://www.jpk.gov.my/jpk [03/03/2006].

operative Development. The handing over saw a total of 1484 agro-based co-operatives and 76 fishery-based co-operatives in the Peninsular being placed under the supervision of the Farmers Organization Authority and the Fisheries Development Authority (Fredericks, 1986).

Many of the agro-based co-operatives have been deregistered; some were absorbed into the establishment of the Organization of Regional Farmers, whilst others were deregistered after prolonged losses without any chance of survival, due to management problems and competition from several government agencies, which were formed to provide assistance to the agricultural sector (Fredericks, 1986). As at 2002, there are 549 agro-based co-operatives and 34 fishery based co-operatives with a total membership of 92,791 and 12,814 respectively.[18] The agro-based co-operatives have accumulated RM25.2 million in shares/subscriptions and RM158.8 million in total assets, while the fishery-based co-operatives have accumulated RM3.6 million and RM21.9 million in shares and total assets respectively.[19]

4.3.5. The Movement's Structural Expansion

Structural expansion of the co-operative movement proceeded at a modest pace. Discussions on creating a secondary co-operative union started as early as 1924 for co-operatives in the rural sector and in 1928 for the urban co-operatives with the creation of a secondary co-operative for the urban co-operative movement, the Selangor Urban Co-operative Union, in 1929 comprising 7 urban societies (Fredericks, 1986). Four such unions were established by 1939 with 39 societies as

[18] Figures pertaining to the agro-based co-operatives and the fishery-based co-operatives were obtained from unpublished report of the Farmers' Organization Authority and the Fisheries Development Authority, respectively.

[19] The monetary values are specified in the Malaysian Ringgit (RM), where the exchange rate is £1 for approximately RM7. Therefore, RM25.2 million is equivalent to £3.6 million, RM158.8 million is equivalent to £22.7 million, RM3.6 million is equivalent to £0.5 million and RM21.9 million is equivalent to £3.1 million.

members. Further to that, 25 Labourers' Co-operative Credit societies had formed six Investment Unions by 1939. The Malayan Co-operative Wholesale Society (MCWS) was established in 1949 through the initiative of the Government and in order to see it operating, the government encouraged the formation of retail co-operatives in rural areas and provided them with initial loans with the objective that these co-operatives would get their supplies from MCWS. The MCWS was reoriented towards the rural sector to supply the essentials of life to the rural people especially after the Emergency period (Fredericks, 1986). In 1971 the co-operative Angkatan Koperasi Kebangsaan (ANGKASA) was registered whose members include both urban and rural co-operatives inclusive of the agro- and fishery-based co-operatives.

On the impact of the secondary structure, Fredericks said that "it is doubtful that the scope of their activity was very great" (Fredericks, 1986:30), stressing this point of his again later when he said, "... it is worth repeating that the secondary co-operative structure in the rural sector has served largely as a convenient channel for Government loans while parts of the urban secondary co-operative structure have not been performing any real function" (*ibid*:129). Fredericks argued that the co-operative movement "needed only functional and sectoral developments in order to make it more ubiquitous" (*ibid*:131).

The ANGKASA or short for Angkatan Koperasi Kebangsaan Malaysia Berhad (National Co-operative Organization of Malaysia) was established in 1971 as a form of secondary co-operative. Members of the ANGKASA totalled 3015 co-operatives in 2004, including 2725 co-operatives registered with the DCD (both adult and school co-operatives), 262 agro-based co-operatives and 28 fishery-based co-operatives under the Ministry of Agriculture. 1364 or 45.2% of its members are

school co-operatives. Although the ANGKASA was initially formed as a secondary co-operative, in May 1996, it has been officially recognized by the Government as an apex body for co-operatives and it represents co-operatives nationally and internationally. It mainly provides general services to its members in promoting the co-operative movement in the country especially in the areas of co-operative education, information, publication and training services.

The ANGKASA had never been involved in any form of business activity. It generates income from the one service it provides – the salary deduction service to help its member co-operatives receive payment from the members who enter into transactions with them. Its Service Bureau took over the co-ordination and collection of dues from co-operative members to their societies from the Government. This activity was "motivated by the desire of the Government to stop deducting from the salaries of its employees their loan and other obligations to co-operative societies" (Fredericks, 1986:157). Member co-operatives use this service as an assured way of receiving fee or share payment from their members or the repayment of loans and any other transaction. The co-operative members' salary deduction service is very popular with co-operatives in government organisations as the success of this scheme is, in particular, due to the co-operation of the paymaster, in this case the Government, who agreed to co-operate and to establish the necessary processes to help the co-operative movement. Co-operative members just have to give their consent to their pay being deducted on a monthly basis for whatever amount they have to pay, and then everything will be passed to the ANGKASA, which will get the payment from the paymaster and pass it to the co-operatives. For every RM1, co-operatives are charged 0.6%. The income generated through its

salary deduction service provides the ANGKASA with very stable self-generating income.

The salary deduction service has also been extended to associations, clubs and unions that have civil servants as their members. In 2003, 434 non-co-operative organisations used this service as compared to only 307 co-operative societies. Despite substantive earnings from the provision of this particular salary deduction service (roughly RM2.1 million a month), the ANGKASA still has to be given funds to help with its other expenses. The fund channelled to the ANGKASA comes from the statutory payment made by co-operatives under Subsection 57(2)(b) of the Co-operative Societies Act 1993 that requires registered societies to pay 1% of their audited net profits for each financial year to the Co-operative Development Trust Fund to be used for any secondary or tertiary society which the Minister has declared to be a body representing the co-operative movement at the national and international level. In 2003 the amount paid to the ANGKASA from this Fund was RM3,000,000.00.[20]

4.3.6. The Co-operative Legislature

Three different co-operative laws had been introduced in the Peninsular (West Malaysia) and in the two states in Borneo (East Malaysia - Sabah and Sarawak): 1) the Co-operative Societies Enactment 1922, which was enacted primarily for the regulation of credit co-operative societies (Fredericks, 1986) and was replaced by the Co-operative Societies Ordinance 1948, which was used to govern different types of co-operatives in the Peninsular states; 2) the Sarawak Co-operative Ordinance 1949 for co-operatives in Sarawak; and 3) the Sabah Co-operative

[20] The DCD Audit Report on the income and expenditure pertaining to the Fund for year ending December 2003. RM3 million is equivalent to £0.4 million.

Ordinance 1958 for co-operatives in Sabah. When the Co-operative Act of 1993 was passed, all of the above Acts were made null and void. Co-operative societies are now regulated under a common law for all, inclusive of the agro- and fishery-based co-operatives even though their development and supervision are under a different ministry.

When the Co-operative Act was amended in 1976, amendments involved: the elimination of co-operatives with unlimited liability; and the inclusion of the statutory requirement for a minimum number of members.

i. The elimination of co-operatives with unlimited liability

Co-operative societies were still registered on the basis of unlimited liability until the amendment to the Co-operative Act in 1976 in an effort to minimize the many restrictions imposed by the government on the business activities run by the co-operatives, which had been regarded as eagerness on the part of the Government to protect the members. Fredericks (1986) argued that the need for unlimited liability is not necessary where finance is generated from among the members themselves and not from other financial institutions. Nevertheless, he also noted that although the German Schulze Delitzsch endorsed limited liability for urban credit co-operatives, it was for co-operatives at the later stage. Schulze Delitzsch had suggested that it would be advantageous at the initial stage to accept the unlimited form of liability.

ii. Minimum number of members

The minimum membership required to form a co-operative society had been 10 until the 1976 Amendment to the Co-operative Societies Acts, which increased the minimum requirement to 100, "in keeping with the

departmental policy to encourage the registration of viable societies" (Fredericks, 1986:148).

4.4. Support for Co-operative Development

4.4.1. The Ministry

Formulation of policies pertaining to co-operatives is conducted at the ministry level. The aim of the Ministry of Entrepreneur and Co-operative Development is to assist in the encouragement of co-operative formation in the country and to provide an environment conducive for the development of co-operatives.

4.4.2. The Department of Co-operative Development (DCD)

The DCD was inaugurated in 1921 in the district of Taiping in Perak, one of the territories where the colonial government had its greatest sphere of influence. The function of the DCD then was more supervisory than developmental (Fredericks, 1986). The present roles of the DCD are: to register and revoke the registration of co-operative societies and to ensure that co-operatives function in accordance with the provisions of the co-operative legislature; to advise the Minister on any matter relating to co-operative societies; and to encourage and promote the establishment and development of co-operative societies and help them increase their efficiency. As at the end of 2002, the number of employees in DCD is 996.

The DCD has its head office in Kuala Lumpur and 14 state offices including one in Kuala Lumpur. These state offices carry out the duties of the Registrar General for Co-operatives. They are in charge of the local co-operatives registered and operating within their locality. The DCD head office does not take charge in the supervision of co-operatives with the exception of 2 co-operatives that is the ANGKASA and the Bank Kerjasama Rakyat Malaysia Berhad (Bank Rakyat) (see

Appendix A4.2 for a brief account of Bank Rakyat). The ANGKASA and the Bank Rakyat have been placed under the direct supervision of the DCD headquarters for two different reasons. For the ANGKASA, it is due to the massive government grants directed towards it and for Bank Rakyat it is because of the huge amount of public money involved. All other co-operatives are put under the supervision of the respective DCD state offices where they operate. The DCD Kuala Lumpur office not only supervises co-operatives operating within the Kuala Lumpur territory but also those that operate on a nationwide scale. These co-operatives are classified as 'national' co-operatives. This type of co-operative can no longer be registered.

The DCD has, throughout its existence, been placed under different Ministries, from the Ministry of Agriculture to the Ministry of National and Rural Development, then under the Ministry of Land and Co-operative Development, and in 2004 under the Ministry of Entrepreneurs and Co-operative Development.

The DCD also manages funds for the co-operative movement. The Funds are:

a. The Consolidated Trust Account.

   This fund was set up in 1985. The source of this fund came from the Treasury fund, loan repayments, processing fees and interest from fixed deposits in banks. The Consolidated Trust Account gives funds to co-operatives to carry out viable projects. The types of financing offered from this fund are soft financing up to RM30,000.00 and collateral financing from RM30,001.00 up to RM5,000,000, both with a maximum repayment period of up to 180 months.[21] Loans given out can be categorized into loans for working capital, for housing projects, for the acquisition of land or buildings,

[21] RM30,000.00 is equivalent to £4285.00 and RM50,000.00 is equivalent to £7142.00.

for plantation activities, and for purchasing vehicles and machineries. Loans for working capital formed the largest part of total loans given out from this fund. In 2002, a total of RM13.03 million was distributed to co-operatives with working capital taking RM6.10 million (47%).[22] From 1978 to 2002, 926 loans from this fund, in a total of RM196.39 million, were approved to co-operatives.[23] 62% of the loans were approved for working capital, 16% for the purchase of vehicles, 15.4% for the acquisition of land/building, 3.8% for plantation activity and 2.8% for housing projects. Working capital accounted for 39.6% of the value of loans in the same period, the acquisition of land or building accounted for 26.1%, housing projects 12.5%, the purchase of vehicles 12.1% and 9.7% were approved for plantation activities.

b. The Co-operative Education Trust Fund (CETF).

The financial sources of this trust fund come from the statutory requirement under paragraph 57(2)(a) of the Co-operative Act 1993, which requires all co-operatives to contribute 2% of their net profit towards this fund and also from the proceeds of the investment made from the fund. The trust fund can be used for any or all of the following purposes:

- to meet expenditure pertaining to the running of the Co-operative College;
- to meet expenditure pertaining to surveying the co-operative movement;
- to meet expenditure pertaining to the holding of co-operative seminars, conferences, or meetings and the participation of any member of any registered society or any person nominated by the Committee in international co-operative seminars, conferences or study tours;

[22] Figures pertaining to the Consolidated Trust Fund are from the DCD's 2002 Annual Report. RM13.03 million is equivalent to £1.85 million and £6.10 million is equivalent to £0.9 million.
[23] RM196.39 million is equivalent to £28.1 million

- to meet expenditure pertaining to the advancement of co-operative education in whatever form is considered relevant by the Committee;
- to meet expenditure pertaining to the administration of the trust fund.

c. The Co-operative Development Trust Fund (CDTF)

All co-operatives, except school co-operatives and co-operatives with a net profit of less than RM2000.00,[24] are also required by the Co-operative Act to contribute 1% of audited net profit towards the CDTF. Sources for the fund may also come from donations and grants made by third parties and proceeds of investments. Nevertheless, no donation from any foreign source can be received without the prior approval of the Fund's committee. The trust fund can be used for the purposes of: 1) meeting the expenditure pertaining to any program and activity conducted by the apex body for the promotion of the co-operatives' principles and the facilitation of the operations of the registered societies; 2) meeting the expenditure pertaining to the administration of the trust fund; and 3) meeting whatever expenditure as may be deemed necessary by the Committee for the benefit and the development of the co-operative movement.

The DCD also gives out grants to co-operatives from the development budget allocation. In 2002 from the RM6.3 million allocation, RM2.1 million or 33.3% was allocated for co-operative grants.[25] The grants are given out to: 1) help co-operatives install the basic necessities in the running of their activities such as a cash register machine, goods display shelves, computers, or security grills; 2) provide incentives for newly registered co-operatives; 3) help co-operatives that encounter

[24] RM2000.00 is equivalent to £286.00.
[25] RM6.3 million is equivalent to £0.9 million and RM2.1 million is equivalent to 0.3 million.

problems in running their activities to get consultancy services; and 4) enable co-operatives to update their accounts.

The DCD also provides external auditing services with a minimal charge to co-operatives that qualify for this service, especially co-operatives that cannot afford to pay for the services of private external auditors. External auditors who want to audit the accounts of co-operatives need to seek approval from the Registrar General, which is given only after the applicant has fulfilled the conditions laid down by the Registrar General. Among others, they must be a member of the Malaysian Institute of Accountants (MIA) or a member of the Institute of Co-operative and Management Accountants (ICMA), and posseses an Auditors License issued by the MIA or ICMA.

4.4.3. The Co-operative College of Malaysia (CCM)

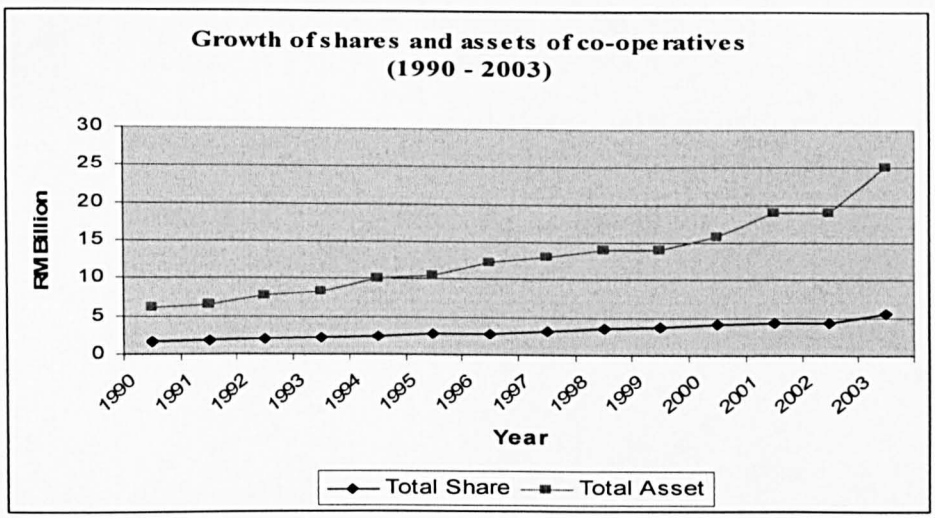
The CCM is the institution for co-operative training and education in Malaysia. Fredericks defined co-operative education as "the social, ideological, economic and business knowledge and practices required for the organisation and operation of a co-operative society as a voluntary, mutual benefit and democratic organisation" (Fredericks, 1986:91). The CCM was established in 1946 to meet both the training needs of the DCD and the co-operative movement. Besides conducting courses on the field of co-operative management, the CCM also organizes seminars both locally and internationally in the field of co-operatives. Other activities of the CCM include publications to disseminate information on co-operatives, undertaking research and providing consultancy services to co-operatives. The CCM operational expenses are financed by the co-operatives from the 2% levy on the net profits of co-operative societies.

4.5. Economic Statistics on the Co-operative Movement

4.5.1. The Growth of Co-operatives

Table 4.1 in Appendix A4.3[26] presents statistics relating to the growth of co-operatives in Malaysia from 1990 to 2003, in terms of the number of co-operatives, the share capital and the assets of co-operatives. The number of co-operatives has been increasing annually right through the crisis period in 1997 with only a slight decrease in membership. The annual average growth rate of co-operatives and membership from 1990 to 2003 were 3.0% and 3.58% respectively, while share capital and assets grew at 10.02% and 11.78% in the same period. Figure 4.1 below shows the growth in co-operatives' share capital and assets.

Figure 4.1: The Growth in the Share Capital and Assets of Co-operatives from 1990 to 2003



In the DCD's list of the 25 largest co-operatives in 2004, 19 of the 25 largest co-operatives by number of members are credit co-operatives and 16 of the co-operatives by share capital are credit co-operatives. The 25 co-operatives have members ranging from between 16,130 and 714,743 in 2004, with the Bank Rakyat

[26] All tables for this Chapter are placed in Appendix A4.3.

having the largest number of members. The share capital of the 25 largest co-operatives in 2004 ranges between RM12,148.4 million and RM1,869.2 million.[27]

The 4,469 co-operatives in Malaysia in 2003 are classified under 8 sectors of business activities: credit/banking; consumer; transport; construction; plantation/estate; housing; services; and small/cottage industry. The credit/banking co-operatives are mainly credit co-operatives providing personal loans to members. There are 447 credit co-operatives in 2003, of which 3 of the co-operatives run banking activities. The consumer co-operatives are divided into two categories: the adult consumer co-operatives, which operate mini markets, supermarkets, provision stores and petrol stations; and the school co-operatives, which run school canteens, bookshops, operate laundry and computer classes. The transport co-operatives provide transportation services for transporting people or goods. The majority of the transport co-operatives are based on land development schemes such as the Federal Land Development Authority (FELDA) and the Federal Land Consolidation and Rehabilitation Authority (FELCRA), transporting agricultural products to the processing plants. They also include the taxi drivers' co-operatives.

The construction co-operatives carry out minor infrastructure works such as building small bridges, roads and general maintenance in their respective districts or localities. The KPDs, which were initially set up to participate actively in government development projects in their localities, are all grouped under this activity. The plantation/estate co-operatives develop and manage agricultural land. Crops include coconut, rubber, oil palm, pineapple and cocoa; as at 2003 a total of 45,588 hectares of land have been developed, 88.0% of which with oil palm. The housing co-operatives carry out housing projects for members. The services co-

[27] RM12,148.4 million is equivalent to £1,735 million and RM1,869.2 million is equivalent to £267 million.

operatives provide services such as maintenance of housing estates, rentals of buildings/stalls owned by members, day care centres, computer classes and collection centres for settling utility bills. The small/cottage industry co-operatives produce handicrafts such as pottery and silverware, food-based products and livestock rearing. Co-operatives of this type belong to the small scale or cottage industries. All the KIKs come under this category.

4.5.2. The Distribution of Co-operatives

Co-operatives are distributed all over the country, in the peninsular and in East Malaysia. Table 4.2 shows the distribution of the co-operatives by state and by activity for 2003. 60.6% of the co-operatives are consumer co-operatives, which constitute adult co-operatives (24.5%) and school co-operatives (36.1%). 10% are credit co-operatives, 9.8% are transport co-operatives, 9.2% are services co-operatives, 5% are plantation co-operatives, 2.4% are construction co-operatives, 2% are housing co-operatives and 0.9% are small/cottage industry co-operatives.

Although almost all types of co-operatives exist in almost every state, their uneven distribution among the states reflects the socio-economic factors which characterize the individual states. In Sabah and Sarawak, more than half of the adult co-operatives are consumer co-operatives: 51% in Sabah and 81.8% in Sarawak. In the Peninsular, 59.9% of the adult co-operatives in Kelantan and 52% in Terengganu are consumer co-operatives. Development is rather stagnant in Sabah and Sarawak in East Malaysia, with the exception of the capital cities. In Sarawak, the largest of the two in terms of area, even though the major cities are well connected by transportation, water transport is an important means of transportation for passengers and goods to a large proportion of the population of the state. It was reported that

between 300 to 500 boats and vessels ply the 55 navigable rivers in Sarawak daily.[28] This transport system is of great importance to a large section of the population especially as the more rural areas are inaccessible by roads. Consumer co-operatives would in such a situation offer a solution for daily needs. Meanwhile Kelantan and Terengganu are less developed than the other states in the Peninsular, which might also account for the larger percentage of consumer co-operatives.

Among the urban Malaysians in more developed states, where super- and hypermarkets have succeeded in attracting people with better offers in terms of price, product range and location, more often than not, at one-stop shopping centres, consumer co-operatives may not be much of an attraction. Consumer co-operatives in urban areas are mostly convenience stores that cater for specific groups, for example employees in an organisation. Often, consumer activities are ran as an extension to credit activities by credit co-operatives that sell consumer goods such as electrical goods to members on cash or hire-purchase terms.

The relatively large number of transport co-operatives in Pahang, Johore, Negeri Sembilan and Perak is due to the fact that many land development schemes (such as FELDA, and FELCRA) are in these states. The transport co-operatives in the schemes mainly serve settlers in transporting agricultural products such as palm oil and rubber to the processing plants. Co-operatives in plantation activities are numerous in Sarawak and Perak due to the suitability and land availability there. Land in Sarawak is suitable for commercial agricultural development.[29] Co-operatives involved in small industries are more highly concentrated in the states of Perak and Kelantan.

[28] Sarawak Online at www.sarawak.gov.my/ [07/04/2006].
[29] Sarawak Online at www.sarawak.gov.my/ [07/04/2006].

4.5.3. The Distribution of Co-operative Members

Table 4.3 shows the distribution of co-operative members by state and by activity of co-operatives. 34.9% of co-operative members are concentrated in co-operatives with credit/banking business, 12.2% of the co-operative members are in services co-operatives, 9.6% are in adult consumer co-operatives; 3.5% are in plantation co-operatives, 3.3% are in transport co-operatives, 2% are in construction co-operatives, 1.8% in housing co-operatives and 0.1% are in small/cottage industry co-operatives. School co-operatives have 32.5% of the membership population.

69.1% of the 1.8 million credit co-operative members are members of the 100 credit co-operatives in Kuala Lumpur (i.e. in KL office and the HQ). The Bank Rakyat members alone, with its 629.9 thousand members, constitute 34.6% of all the credit co-operatives members and 17.9% of the total adult co-operative members in 2003. Although the figures in Table 4.2 indicate that a large percentage of members of credit co-operatives are in Kuala Lumpur (KL), it is not indicative of the real situation. This is because many of these co-operatives in KL are national co-operatives that have members based nationwide.

However, with respect to the co-operatives in consumer business, although we pointed out earlier that many of these co-operatives are located in Sarawak and Sabah in East Malaysia and Kelantan and Terengganu in West Malaysia, the consumer co-operatives in Sabah and Sarawak have a smaller number of members per co-operative than the consumer co-operatives in Kelantan and Terengganu. On average, there are 8.6 members per co-operative in Sarawak and 14.5 members per co-operative in Sabah, whilst in Kelantan there are, on average, 96.5 members per co-operative and 68.1 members per co-operative in Terengganu. The numerous government land development schemes located in the states of Johore and Pahang

may help to explain the large percentage of transport co-operative members in the two states, 51.3% and 49.5%, respectively.

Although there are more than 5 million co-operative members, the members of adult co-operatives are only slightly more than 3.5 million. This figure, however, could be much less as we cannot rule out double counting. This is because, except for credit co-operatives, one can be a member of an unlimited number of co-operatives but one can be a member of not more than one registered society with credit as its primary activity. On average, there are 4,069 members per credit co-operative; if we were to exclude members in Bank Rakyat, the figure is 2,665 members. There are on average 1,558 members per service activity co-operative, 1023 members per housing activity co-operative, 927 members per construction activity co-operative, 822 members per plantation activity co-operative, 459 members per consumer activity co-operative, 396 members per transporting activity co-operative, and 147 members per small/cottage industry activity co-operative.

4.5.4. Share Capital and Assets

In 2003, the co-operative movement had total share capital of RM5.57 billion and RM25.14 billion in assets.[30] A large percentage of the total share capital and assets in the co-operative movement in 2003 comes from the 447 credit co-operatives (see Table 4.4). Although the credit co-operatives constituted only 10% of the total number of co-operatives in 2003, these co-operatives contributed 78.3% to the total share capital and 84.7% to the total assets of the co-operative movement. Out of the 447 credit co-operatives only 3 co-operatives run banking activity. The share capital of the 3 co-operatives that ran banking activity (RM1,345.6 million) constituted 30.8% of the total share capital of the 447 co-operatives in the credit/banking sector

[30] RM5.57 billion is equivalent to £0.8 billion; RM24.14 billion is equivalent to £3.4 billion.

in 2003.[31] The assets of these 3 co-operatives (RM16,360.7 million) constituted 76.8% of the total assets of the 447 co-operatives in the same year.[32] One of the three co-operatives that run banking activity, i.e. the Bank Rakyat, with RM 1,324.5 million in share capital and RM 16,142.1 million in assets, alone constituted 66.2% and 75.8% of the total share capital and the total assets of the 447 co-operatives in the credit/banking sector respectively, or 98.5% and 98.7% of the total share capital and the total assets of the three co-operatives in the banking business.[33]

The average share capital per co-operative is RM6.8 million in credit co-operatives (i.e. for only the 444 credit co-operatives), RM1.1 million in housing co-operatives, RM0.2 million in adult consumer co-operatives, RM0.1 million in transport co-operatives, RM0.9 million in plantation co-operatives, RM0.02 million in small/cottage industry co-operatives, RM0.2 million in construction co-operatives and RM1.6 million in services co-operatives.[34]

4.5.5. The Composition of Co-operative Members according to Social and Economic Groups

The DCD classifies the 2,818 adult primary co-operatives in 2003 into 12 membership groups: government servants; teachers; armed forces; employees of statutory bodies, government agencies; private firms; higher education institutions; women; schools; the KPD's; the small business co-operatives; and other individuals not covered by the previous 11 groups. Basically, however, we can group members into 2 main categories of social and economic groups: 1) employees with a fixed monthly income in public services (i.e. government servants, teachers, armed forces,

[31] RM1345.6 million is equivalent to £192 million.
[32] RM16,360.7 million is equivalent to £2,337 million.
[33] RM1324.5 million is equivalent £189 million; RM16,142.1 million is equivalent to £2,306 million.
[34] RM6.8 million is equivalent to £1 million; RM1.1 million is equivalent to £0.2 million; RM0.2 million is equivalent to £29,000.00; RM0.1 million is equivalent to £14,000.00; RM0.9 million is equivalent to £0.1 million; RM0.02 million is equivalent to £2,900.00; RM0.2 million is equivalent to £29,000.00; RM1.6 million is equivalent to £0.23 million.

employees of statutory bodies and government agencies), in private firms and in higher education institutions; and 2) the other individuals not covered by the first category. Table 4.5 shows the composition of co-operative members according to the social and economic groups in 2003.

Altogether, 1.62 million co-operative members or 46.0% of the total members of adult co-operatives are employees of an organisation, known to employ individuals on a fixed monthly income basis. The figure might be more if we were to take into account other individuals with fixed incomes in the 'others' category. One might predict that co-operative members in the 'others' category would be members of co-operatives in banking, housing and services activity, since these types of co-operatives bring together individuals as members irrespective of any organisations or institutions they represent. Thus, the 0.6 million members of the Bank Rakyat falls under the 'others' category of membership composition. If we were to deduct the 0.6 million Bank Rakyat's members from the total 1.8 million members in the 'others' category, this category is left with only 1.2 million members or 34.3% of the total number of members of adult co-operatives.

In 2003, co-operative members employed in public services made up 37.1% of the total co-operative members. In the first category, most of the co-operative members are individuals employed in the public services[35] (79.3%), followed by employees in private firms (15.2%) and by employees in higher learning institutions (5.4%). Co-operatives formed by these groups of individuals are meant for employees within the specific organisation only. The second category of co-operative members, not covered by the first category, may include any individuals out of the labour market,

[35] The public services is defined in Article 132 of the Malaysian Constitution to include the armed forces, the general public service of the Federation, the police force, the railway service, the joint public services between the Federation and the states or between the states, the public service of each State and the education service.

as well as those with or without a fixed monthly income. In addition, in the second category of co-operatives, membership may be restricted to certain individuals, e.g. women only co-operatives.

In the DCD's list of the 25 largest co-operatives mentioned in Section 4.5.1, many carry the names of co-operatives in public services with credit activity. The co-operation of the paymaster, i.e. the Government, in the collection of monthly fees and loan repayments through the monthly salary deductions of civil servants who are co-operative members is an advantage for co-operatives formed by employees in the public services. Even the Bank Rakyat requires its borrowers to have at least 2 guarantors, one of them must be in government service for the Bank to make deductions from their salary in the event of default payments by borrowers.

4.5.6. The Business Performance of Co-operatives

The performance of co-operatives in the different business categories for 2003, based on the volume of business and the profit or losses made, is presented in Table 4.6. The 447 credit/banking co-operatives have a total of RM18,572.1 million in loans outstanding with a profit of RM15,577.6 million.[36] Credit co-operatives are the largest lender of personal loans. In 2003, the amount of loans given out by the 447 co-operatives in credit/banking activity was RM 4,964.4 million (DCD unpublished data, 2003).[37] This far exceeded the total amount of personal loans given out by banking institutions (the commercial banks, finance companies and merchant banks) in 2004 which amounted to RM 1,857.4 million (BNM, 2005).[38] In credit activity, the largest loan providers are the co-operatives of the armed forces, followed by co-operatives of civil servants, co-operatives among private sector

[36] RM18,572.1 million is equivalent to £2653 million; RM15,577.6 million is equivalent to £2225 million.
[37] RM4964.4 million is equivalent to £709 million.
[38] RM1857.4 million is equivalent to £265 million.

employees and co-operatives for teachers. The DCD statistical report on co-operatives with credit activity for 2004 shows that these 4 types of co-operatives gave out RM448.3 million, RM324.7 million, RM228.4 million and RM126.0 million in loans respectively.[39]

The average business volume for the non-credit co-operatives is not more than RM0.5 million per co-operative,[40] with housing co-operatives, plantation co-operatives and services co-operatives making relatively more profits than consumer co-operatives, transport co-operatives, and construction co-operatives. The average accumulated profit for the 92 housing co-operatives, the 224 plantation co-operatives and the 409 services co-operatives is RM0.2 million per co-operative.[41] The 38 small/cottage industry co-operatives have a accumulated losses of RM1.3 million as at 2003.[42]

4.5.7. Employment in Co-operatives

Table 4.7 presents data on employment in co-operatives. It should be acknowledged, however, that the data from the DCD may, however, be unreliable since there is a huge difference for the 3 consecutive years, 2003, 2004, and 2005 in terms of employment statistics. In 2003, there is almost no data (only a mere 275 co-operative employees); in 2004 total employment in co-operatives was recorded at 21,706 whilst in 2005 it was recorded at 11,444. The figures indicate a huge difference (i.e. reduction) of 10,266, which could be because of difficulties in obtaining data from co-operatives.

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[39] The figures are from the statistical report on co-operatives with credit activity for 2004 in the DCD database system, the INFOKOP. RM448.3 million is equivalent to £64 million; RM324.7 million is equivalent to £46 million; RM228.4 million is equivalent to £33 million; RM126.0 million is equivalent to £18 million.

[40] RM0.5 million is equivalent to £71,000.00.

[41] RM0.2 million is equivalent to £28,000.00.

[42] RM1.3 million is equivalent to £0.2 million.

The data on employment in co-operatives in Table 4.7 does however indicate the activity sector of co-operatives with the largest number of employees. For 2004, the credit and banking activities have the largest number of employees. Together, they had 10,437 employees, which is 48.1% of the total number of employees in co-operatives for that year. The banking sector activity with its 3 co-operatives had almost the same number of employees as the 444 co-operatives in credit activity in 2004. One might predict that the Bank Rakyat, being the largest co-operative with branches all over the country, would have the largest number of employees. After the credit co-operatives, the consumer co-operatives had the second highest number of employees in 2004 with 4,781 employees followed by the services co-operatives with 2310 employees and 1174 employees in transport co-operatives.

4.6. The Secondary Co-operatives

4.6.1. Distribution and Group Size of Secondary Co-operatives

In 2003, there were a total of 35 registered secondary co-operatives, whose members (the primary co-operatives) range between 3 and 344 co-operatives. All 35 secondary co-operatives have members totalling 1001 primary co-operatives. Out of the total of 35 secondary co-operatives, 8 co-operatives, i.e. 22.9%, were inactive. The remaining 27 co-operatives were involved in 5 types of activity: credit (financing); consumerism; construction; plantation; and services. More than half of the active secondary co-operatives (85.2%) ran either service or consumer activities; none of the co-operatives ventured into the areas of housing, transport or small industry. Table 4.8 summarises the distribution of secondary co-operatives by state and by activity of the secondary co-operatives in 2003.

Ten of the 35, i.e. 28.6%, of the secondary co-operatives are located in Kuala Lumpur. All these 10 secondary co-operatives are the national-based secondary co-

operatives and their members consist of primary co-operatives from other states. Altogether, they have a total membership of 669 primary co-operatives. However, 1 of the national-based secondary co-operatives with 344 primary members has been inactive. The 9 active secondary co-operatives in Kuala Lumpur are secondary co-operatives in either consumer or services activity. 50% of the total secondary co-operatives that run consumer activity are the national-based secondary co-operatives in Kuala Lumpur. The state of Penang with its 148 primary co-operatives has 6 secondary co-operatives, 2 of which are inactive. In most of the other states, there is only one secondary co-operative despite the many types of primary co-operatives present in every state. Only 1 secondary co-operative out of 3 in the state of Pahang is active. The state of Negeri Sembilan has 1, yet inactive, secondary co-operative.

Table 4.9 shows the distribution of the secondary co-operatives by number of members. A large percentage of the secondary co-operatives have less than 20 members – almost half (48.6%) of the secondary co-operatives have less than 10 members, followed by 28.6% with between 11 and 20 members.

4.6.2. The Active and the Inactive Secondary Co-operatives

The 8 inactive co-operatives have a total membership of 408 primary co-operatives. Of the 27 active secondary co-operatives, 7 are secondary co-operatives for co-operatives of settlers in land development schemes with a total membership of 260 primary co-operatives. Thus, the remaining 20 secondary co-operatives encompass only 333 primary co-operatives. Table 4.10 shows the distribution of secondary co-operatives by their activity status. The 593 primary co-operatives that are members of the 27 active secondary co-operatives encompass 21% of the 2817 primary co-operatives (excluding the 1615 school co-operatives and the 2 co-operatives under the DCD-HQ) in 2003. Of the 8 inactive secondary co-operatives, 3 are secondary

co-operatives for primary co-operatives formed by settlers or communities in government development schemes. Only one is a national based secondary co-operative, which we have mentioned in Section 4.6.2.

4.6.3. Secondary Co-operatives in Government Development Schemes

10 (28.6%) of the 35 secondary co-operatives are secondary co-operatives in government development schemes, of which only 7 are active. There are several kinds of development schemes such as the Federal Land Development Authority (FELDA), the Federal Land Consolidation and Rehabilitation Authority (FELCRA) and the Rubber Industry Smallholders Development Authority (RISDA). Individual states also run their own development schemes such as the Kedah Development Authority (KEDA), the South Kelantan Development Authority (KESEDAR) and the KETENGAH in Terengganu. Their objectives are all directed towards social and economic development in Malaysia. These development agencies came into operation in the late 1960s and in the 1970s.

Land development is one of the major initiatives in planned settlement. The absorption of poor households into modern agriculture was achieved through the opening of new land for the plantation of mainly palm oil, rubber or cocoa. The very poor and the landless were brought in as settlers. They were provided with modest housing and were allocated estate lots where they were required to work on their plantation on the basis of group ownership as the plantations were extensive. The Government through the specific agencies provided them with all the basic amenities and necessary support required including training and financial support in the early years.

Land development agencies have encouraged the formation of co-operatives in land development projects to channel agricultural inputs and facilities to the settlers and to transport agricultural produce from the plantation to centres of collection. These co-operatives themselves can be considered as a program of agencies. The co-operatives also run other related activities acquired through tender offered by the agencies concerned such as maintenance of the area under cropping, small construction projects in their schemes and buying agricultural produce. The co-operatives are even run from the office of the agencies in their early stages. The establishment of secondary co-operatives among these primary co-operatives enable co-operatives to go for larger tenders that would then be distributed to their primary members. The secondary co-operatives were given projects by the government agencies. These secondary co-operatives act as conduits to channel development aid to development schemes' communities; they then become business partners of the respective agencies diversifying into other lucrative activities.[43] The 260 primary co-operatives that are members of the 7 active secondary co-operatives in government development schemes (see Table 4.10) constitute 43.8% of the total 593 members of the total active 27 secondary co-operatives.

4.6.4. Trends in the Establishment of Secondary Co-operatives

Three trends in the establishment of secondary co-operatives can thus be seen in Malaysia. Firstly, secondary co-operatives have joined together primary co-operatives whose members are individuals from a similar employment grouping

[43] Source of reference: websites of the secondary co-operatives and the related agencies (http://www.nitsb.com.my; http://www.risda.gov.my; http://www.felda.net.my) [15/03/2003]. A local newspaper had also reported that the Minister for Rural Development had asked RISDA to list all the projects given by RISDA to NARSCO (a secondary co-operative for co-operatives of rubber smallholders) to ensure proper use of government allocations (Utusan Malaysia Online, 24 Ogos 2006: "RISDA diminta seneraikan projek diberi kepada NARSCO" (RISDA requested to list projects given to NARSCO).

such as teachers or government agency staff but they differ in activity. Secondary co-operatives of this type operate as national-based secondary co-operatives. Secondly, secondary co-operatives have joined together primary co-operatives of settlers or communities in government development schemes. The secondary co-operatives established either operate on a regional level or a national level. Finally, secondary co-operatives have joined together primary co-operatives of all kinds of activities. This type of secondary co-operative can be found at the regional and national level.

4.6.5. Secondary Co-operatives' Performance

Three categories of performance of secondary co-operatives have been defined by the DCD: satisfactory, average, and weak. The evaluation of the performance status of the secondary co-operatives was carried out by the specific DCD state offices where the secondary co-operatives were located. From the total 35 secondary co-operatives, only 25 co-operatives have been evaluated as 2 co-operatives were newly formed secondary co-operatives and 8 are inactive secondary co-operatives. The two co-operatives formed in 2003 were less than a year old when the information was gathered in 2004. 11 or 31.4% of the co-operatives were classified as weak performers and 10 or 28.6% as average performers. Only 4 co-operatives or 11.4% fall into the category of satisfactory performance. 60%, of the co-operatives in consumer activity are classified as weak performers. In the services activity, 5 out of 12 (excluding the new co-operatives) or 41.7% fall into the weak performance category. Table 4.11 presents the distribution of the secondary co-operatives by performance as classified by the DCD and by activity.

There are no fixed criteria specified for the evaluation. However, when we compared the DCD classifications with the 2003 income and profit figures of the

secondary co-operatives in Table 4.12, we can make a generalisation of the definition for each of the performance categories: co-operatives with satisfactory performance are co-operatives with a high business volume and high profit; co-operatives with average performance are co-operatives with not so high income but with positive accumulated profits; and co-operatives with weak performance are co-operatives with low income or co-operatives with high business volume but unable to cover accumulated losses.

The 4 co-operatives with satisfactory performance have a total business volume of RM12.0 million, which is 85.5% of the total RM14.0 million business volume of all the secondary co-operatives and accumulated profit of RM4.2 million, which is 86.2% of the total RM4.9 million accumulated profit of the 17 secondary co-operatives with positive profit in 2003.[44] Table 4.12 lists the 35 secondary co-operatives by activity and business performance in 2003. 3 of the 4 co-operatives in the satisfactory performance category are secondary co-operatives in government development schemes. The business volume of these 3 secondary co-operatives is RM 10.8 million, which is 76.8% of the total volume of the 35 secondary co-operatives and their RM 3.9 million profits account for 79.6% of the total profits.[45]

4.7. Summary

In this chapter, we have reviewed the growth and development of the co-operative movement in Malaysia. Despite almost a decade of the co-operative movement's existence in Malaysia, the movement has experienced growth in terms of the number of co-operatives, membership, share capital and assets. No comprehensive data are available to accurately gauge the impact of the co-operative sector on the economy

[44] RM12.0 million is equivalent to £1.7 million; RM14.0 million is equivalent to £2 million; RM4.2 million is equivalent to £0.6 million; RM4.9 million is equivalent to £0.7 million.
[45] RM10.8 million is equivalent to £1.5 million; RM3.9 million is equivalent to £0.6 million.

and to demonstrate the sector's value to the policy makers, such as complete data on employment in co-operatives or an aggregate payroll. Thus, the expansion of co-operatives has been presented in terms of the number, type and activities of co-operatives. Out of the eight types of activities that co-operatives can be involved in, only credit co-operatives can be considered as outstanding with respect to their large number of members and their relatively high amount of assets and loans outstanding. Judgements on the performance of the co-operative movement have been made on the basis of the number of co-operatives, share capital and assets of co-operatives that increase each year, such as in the statement by the Director General in the DCD's 2001 annual report, which says, "I am quite satisfied with the annual performance of the Co-operative Movement nationwide. At the end of year 2001, there were 4,264 registered co-operatives with 4.7 million members, share capital exceeding RM4.3 billion and total assets amounting to RM18.9 billion".[46] It would, however, be inaccurate to claim that the co-operative movement is a success by basing it solely on the growth statistics.

Co-operatives in Malaysia seem never to have been widely acknowledged by policy makers, as institutions capable of assisting economic growth and social development. Co-operatives have never been seriously put forward in any of the country's national policy so far, such as the New Economic Policy that ran from 1970 to 1990, or the National Development Plan that ran from 1991 to 2000, or the current National 2020 Vision. This is, in contrast, to other countries such as India. Nevertheless, through the DCD, the growth and the development of this institution has been nurtured but the co-operative movement still has not been as successful as the co-operative movement in other countries such as in the Western European

[46] RM4.3 billion is equivalent to £0.6 billion; RM18.9 billion is equivalent to £2.7 billion.

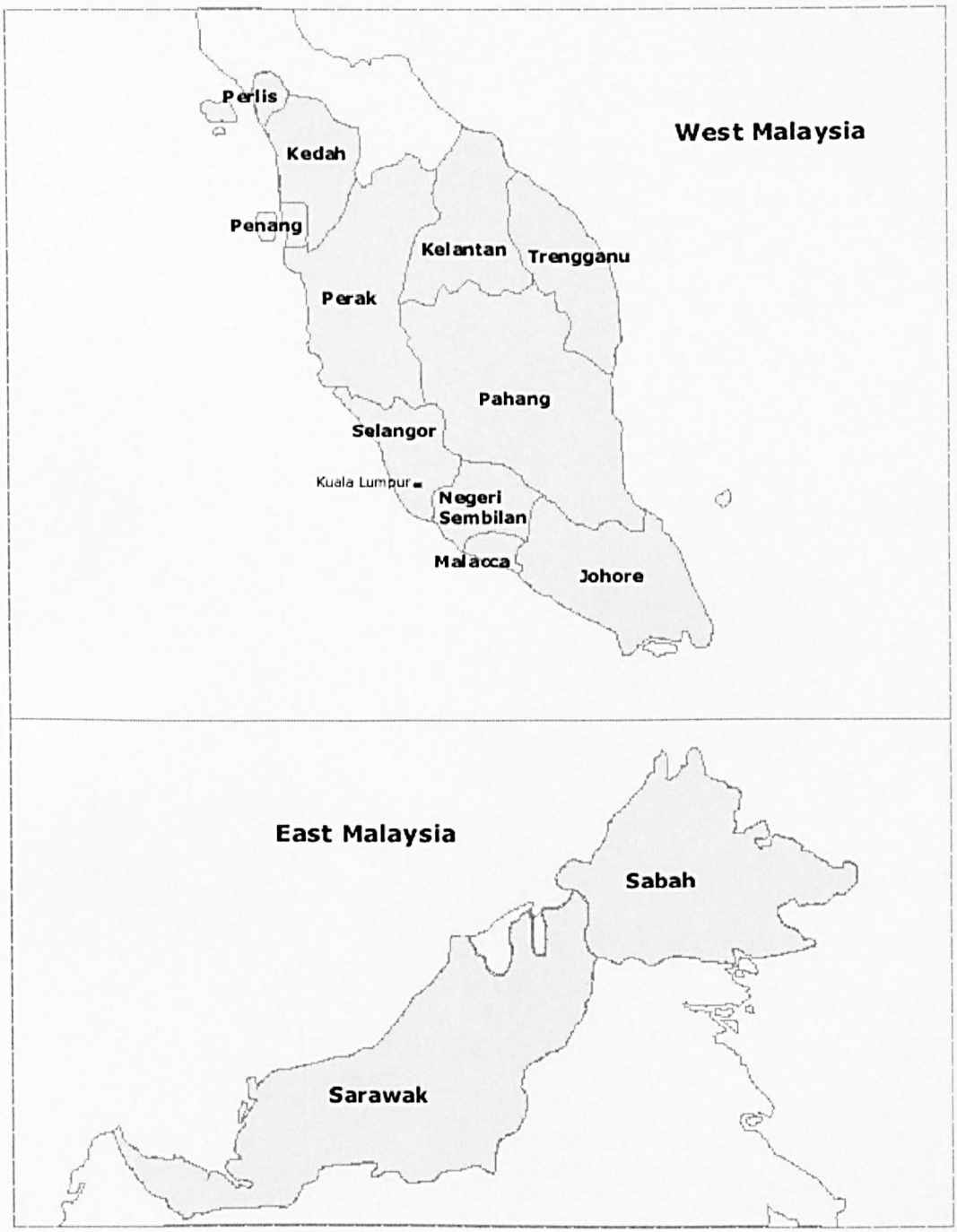
countries where co-operatives have been making a significant economic contribution. Acknowledging the potential role of the co-operative movement in Malaysia, the National Co-operative Policy (NCP) was formulated in 2002, which can be seen as an effort to attain a more effective co-operative movement that could significantly contribute towards national development. The government has committed a lot of resources to achieve the objectives of the NCP including: enhancing the co-operative educational and management training role of the agencies involved; the revision and formulation of regulation for the advancement of co-operatives and for the securing of capital in co-operatives; and the bringing together of various government agencies under a National Co-operative Consultative Council to discuss and co-ordinate development programmes for co-operatives. The commitment of the Government to strengthen the co-operative movement, affirms Fredericks's (1986) argument that the establishment of co-operative societies and the development of the co-operative movement in Malaysia has been largely due to the initiative of the government. He regards it as a colonial legacy of intervention by the government in the co-operative movement.

The figures pertaining to co-operatives in Malaysia do indicate the pattern of development and achievement of the co-operative sector. Issues pertaining to co-operatives such as member participation, capital adequacy, conflicting goals, poor management, poor Board performance, inappropriate or poor implementation of strategies are the usual issues raised, which, according to Anderson and Henehan (2003) are issues on which much time has been spent discussing them over and over again. A study into the co-operative movement in Malaysia by a team from a local university that started in 1996, which served as the basis for the formulation of the NCP, incorporated these issues. The primary co-operatives are still, however, on

their own, surviving even without depending on secondary organisations. Some primary co-operatives have grown large and financially strong on their own. The secondary co-operatives, with the exception of their membership structure, seem just like any other primary co-operatives. The NCP acknowledges the dismal performance of the present secondary co-operatives and the DCD aims to encourage the establishment of many more secondary co-operatives (JPK, 2004b).

In order to analyse the role of co-operatives in Malaysia, it is apparent that we need to explore detailed data at the co-operative level. This chapter has analysed aggregate information on co-operatives supplied by the DCD to give an overview of the Malaysian co-operative movement. In this thesis, we focus on two broad areas: the relationship between primary and secondary co-operatives; and the level of trust among co-operators. In order to conduct such analysis, an important contribution of this thesis lies in the collection of primary co-operative level data for Malaysia. As such, this empirical study is unique being based on such a survey for Malaysia. In Chapter 5, we will discuss the methods employed to collect data for the empirical analysis.

Appendix A4.1: The States of Malaysia



Map redrawn from an internet source http://www.virtualmalaysia.com/map/

Appendix A4.2: The Bank Rakyat

In the period when the co-operative credit movement began its rapid expansion in Peninsular Malaysia, credit co-operative societies established their own union banks to overcome difficulties in providing loan facilities to their members as well as in finding sources of funds. On 28th September 1954, eleven of these Banks amalgamated into an apex bank known as Bank Agong, which later became Bank Kerjasama Malaysia Berhad in 1967, which opened its membership both to individuals and co-operatives. Changes in by-laws allowed the Bank to create subsidiary companies and to open branches to serve customers as well as members all over the country. In 1973, its name was changed to Bank Kerjasama Rakyat Malaysia Berhad (Bank Rakyat). The Bank Rakyat is a primary co-operative registered under the Co-operative Act. A special provision for the Bank Rakyat known as the Bank Kerjasama Rakyat Malaysia Act 1978 (Special Provision 202) was however enacted in 1978, which allows the Bank Rakyat to offer loans to non members. This activity puts the Bank under the supervision of the Ministry of Finance as well as under the Ministry for Co-operative Development in 1989. The Bank is therefore subject to the provisions of both Acts, but in the running of its operation, should there be any provision in the Co-operative Act that curbs the operation of the Bank, Act 202 prevails. A provision in Act 202 allows the Bank to apply for an exemption from the Minister concerned to exclude it from the requirements of the Co-operative Act, for example from holding an Annual General Meeting (AGM). This has given the Bank Rakyat a lot of advantages. In 2002, the Bank Rakyat was also placed directly under the supervision of the Bank Negara Malaysia (Central Bank of Malaysia) under the Development of Financial Institution Act (DFIA). As a co-operative, the Bank Rakyat is also supervised by the DCD.

Appendix A4.3: Tables Relating to the Analysis of the Malaysian Co-operative Movement

Table 4.1: Growth of Co-operatives in Malaysia (1990 to 2003)

Year	No of Co-ops	Members (Million)	Share/ Subscription (RM Billion)	Total Asset (RM Billion)
1990	3,028	3.33	1.64	6.15
1991	3,083	3.44	1.75	6.55
1992	3,288	3.66	1.92	7.60
1993	3,388	3.91	2.18	8.33
1994	3,473	4.06	2.44	10.14
1995	3,554	4.25	2.74	10.39
1996	3,735	4.21	2.83	12.17
1997	3,847	4.13	3.17	12.96
1998	3,942	4.55	3.60	14.10
1999	4,050	4.33	3.84	14.10
2000	4,154	4.50	4.21	15.82
2001	4,246	4.76	4.30	18.90
2002	4,330	5.03	4.40	19.00
2003	4,469	5.21	5.57	25.14

Notes: Data source: DCD, 2004

Table 4.2: Distribution of Co-operatives by State and by Activity in 2003

State	Total	Credit/Banking	Housing	Consumer*	Transport	Plantation	Industries	Construction	Services
Johore	414	44	5	38 (184)	99	10	1	9	24
Malacca	151	11	4	36 (70)	8	0	1	4	17
Negeri Sembilan	262	29	4	14 (102)	51	22	1	4	34
Pahang	383	20	6	46 (129)	142	14	1	8	17
Selangor	334	38	12	58 (163)	7	10	2	7	38
Perak	475	47	17	97 (181)	29	54	9	9	32
Penang	250	48	10	49 (96)	14	1	5	9	18
Kedah	329	35	2	45 (128)	19	12	1	36	51
Kelantan	303	24	0	106 (126)	16	1	8	12	10
Terengganu	246	17	1	80 (92)	37	2	4	7	6
Perlis	76	11	2	23 (27)	3	5	1	2	2
Sabah	484	7	2	194 (103)	8	83	4	0	83
Sarawak	466	16	5	269 (137)	4	6	0	0	29
Kuala Lumpur	294	99	22	40 (77)	1	4	0	4	47
KL (HQ)	2	1	-	-	-	-	-	-	1
Total	**4469**	**447**	**92**	**1095 (1615)**	**438**	**224**	**38**	**111**	**409**

Notes: i) * Co-operatives with consumer activities are made up of both adult co-operatives and school co-operatives. Figures in parentheses are school co-operatives.

ii) Data source: DCD published and unpublished data for 2003

Table 4.3: Distribution of Co-operative Members by State and by Activity in 2003

State	Total Members ('000)	Credit/Banking	Housing	Consumer*	Transport	Plantation	Industries	Construction	Services
Johore	336.4	36.8	4.2	24.5 (195.1)	51.3	12.3	0.1	4.4	7.7
Malacca	111.1	11.3	1.1	19.2 (71.6)	1.8	0	0.04	2.9	3.2
Negeri Sembilan	182.5	18.4	2.5	3.0 (116.5)	16.6	5.2	0.2	0.8	19.3
Pahang	240.9	26.6	2.3	36.6 (99.1)	49.5	19.8	0.09	4.0	3.1
Selangor	436.0	120.7	5.2	32.2 (255.1)	2.4	7.0	0.3	3.5	9.5
Perak	294.0	66.1	7.7	33.2 (129.4)	8.1	27.0	0.6	13.6	9.4
Penang	147.9	68.1	9.2	14.6 (44.6)	3.9	1.7	0.5	3.4	1.8
Kedah	278.6	42.5	0.2	25.8 (151.4)	8.3	10.1	1.5	16.0	22.9
Kelantan	322.5	43.7	0	102.3 (166.5)	3.7	0.1	0.3	2.7	3.3
Terengganu	205.1	31.5	0.1	54.5 (100.9)	11.8	0.6	0.4	3.2	2.1
Perlis	49.8	7.3	0.3	7.2 (40.0)	0.5	2.5	0.05	0.7	0.3
Sabah	175.2	15.1	1.7	28.1 (97.8)	1.3	15.1	1.6	0	14.5
Sarawak	263.7	74.4	4.0	23.1 (154.5)	0.9	2.8	0	0	4.1
KL office	1,537.1	627.4	55.6	97.8 (78.9)	13.5	80.2	0	47.8	535.9
KL (HQ)	629.9	629.9	-	-	-	-	-	-	-
Total	**5,210.8[+]**	**1,818.9**	**94.2**	**502.1 (1,692.3)**	**173.6**	**184.2**	**5.6**	**102.9**	**637.1**
%	**100**	**34.9**	**1.8**	**9.6 (32.5)**	**3.3**	**3.5**	**0.1**	**2.0**	**12.2**

Notes: i) * Co-operatives with consumer activities are made up of both adult co-operatives and school co-operatives. Figures in parentheses are school co-operatives.

ii) [+] Some of these individuals are presumed to be members of more than one co-operative.

iii) Data source: DCD published and unpublished data for 2003

Table 4.4: Distribution of Share Capital and Assets by Activity in 2003

Business Sectors/Activities	No. of Co-ops	%	Share and Subscription (RM mil.)	%	Asset (RM mil.)	%
Credit/Banking: *- Credit* *- Banking*	447 *444* *3*	10.0	4364.0 *3,018.8* *1,345.2*	78.3	21,296.4 *4,935.7* *16,360.7*	84.7
Housing	92	2.1	93.7	1.7	463.0	1.8
Consumer: Adult co-ops School co-ops	 1095 1615	 24.5 36.1	 175.8 10.0	 3.2 0.2	 635.9 90.6	 2.5 0.4
Transport	438	9.8	62.0	1.1	170.1	0.7
Plantation	224	5.0	206.4	3.7	1,045.9	4.2
Small Industries	38	0.9	0.9	0.0	42.6	0.2
Construction	111	2.5	18.8	0.3	152.0	0.6
Services	409	9.2	642.1	11.5	1,243.3	4.9
Total	**4469**	**100**	**5,573.6**	**100**	**25,139.8**	**100**

Notes: Data source: DCD published and unpublished data for 2003

Table 4.5: Composition of Co-operative Members according to Social and Economic Groups in 2003

Grouping	No. of co-ops	No. of individual members
Employees with fixed monthly income in:		
i. Public services	1,005	1,284,347
- civil servants	*233*	*362,647*
- Teachers	*71*	*153,060*
- Armed forces	*23*	*177,189*
- Statutory bodies	*63*	*37,658*
- Government agencies	*615*	*554,793*
ii. Private firms	160	246,649
iii. Higher Education Institution	84	87,649
Sub total	**1,249**	**1,618,645**
Groupings of individuals not covered in the former category:		
i. KPDs	74	37,432
ii. Small industries	26	2,065
iii. Women	84	21,193
iv. Others	1,385	1,835,841
Sub total	**1,569**	**1,896,531**
TOTAL	**2,818**[+]	**3,515,176***

Notes: i) * Members of adult co-operatives only
ii) [+] Excluding 1615 school co-operatives and 35 secondary co-operatives
iii) Data source: DCD unpublished data for 2003

Table 4.6: Co-operatives' Business Performance by Activity for 2003

Co-op Business Sectors	No. of Co-ops	Business Volume (RM mill.)	Profit / (Losses) (RM mill.)
Credit/Banking	447	18,572.1*	15,577.6+
Housing	92	50.2	16.0
Consumer: - Adult co-ops - School co-ops	 1095 1615	 247.6 106.9	 33.2 14.9
Transport	438	128.8	8.7
Plantation	224	86.5	41.5
Small Industries	38	5.1	(1.3)
Construction	111	44.5	5.4
Services	409	135.9	69.6
Total	**4469**		

Notes: i) *Total loan given out.
ii) + Loan outstanding
iii) Data source: DCD unpublished data for 2003

Table 4.7: Number of Employees across Types of Co-operatives

Activity Sector	2004	2005
Banking	5119	1187
Credit	5318	3096
Plantation	1160	1142
Housing	281	356
Industries	456	58
Consumer	4781	2884
Construction	507	416
Transport	1174	1058
Services	2310	1247
Total	**21706**	**11444**

Notes: Data source: DCD database system (as at 19.05.06)

Table 4.8: Distribution of Secondary Co-operatives by State and by Activity in 2003

State	No. of PCs*	No. of SCs	No. of Members	Activity of the Secondary Co-op					
				Not Active	Credit	Consumer	Plantation	Construction	Services
Johor	229	1	21	-	-	1	-	-	-
Malacca	80	1	9	-	1	-	-	-	-
Negeri Sembilan	158	1	4	1	-	-	-	-	-
Pahang	251	3	34	2	-	-	-	-	1
Selangor	170	2	22	-	-	-	-	-	2
Kuala Lumpur	207	10	669	1	-	5	-	-	4
Perak	293	1	13	-	-	-	1	-	-
Penang	148	6	35	2	-	-	-	1	3
Kedah	199	2	95	-	-	-	-	-	2
Kelantan	174	3	51	1	-	2	-	-	-
Terengganu	153	1	15	-	-	1	-	-	-
Perlis	49	0	0	-	-	-	-	-	-
Sabah	378	3	23	1	-	1	-	-	1
Sarawak	328	1	10	-	1	-	-	-	-
Total	**2817**	**35**	**1001**	**8**	**2**	**10**	**1**	**1**	**13**

Notes: i) * PCs = Primary Co-operatives. Excluding the 1615 school co-operatives, and the 2 co-operatives which were put directly under the supervision of the DCD-HQ (the ANGKASA and the Bank Rakyat).

ii) Data source: DCD unpublished data for 2003

Table 4.9: Distribution of Secondary Co-operatives by Number of Primary Members

Member co-ops	No. of SCs*	%	Activity					
			Not Active	Credit	Consumer	Plantation	Construction	Services
1 – 10	17	48.6	4	2	2	-	1	8
11 – 20	10	28.6	3	-	4	1	-	2
21 – 30	1	2.9	-	-	1	-	-	
31 – 40	3	8.6	-	-	1	-	-	2
41 – 50	0	.0	-	-	-	-	-	-
51 – 60	0	.0	-	-	-	-	-	-
61 – 70	1	2.9	-	-	1	-	-	-
71 – 80	1	2.9	-	-	-	-	-	1
81 – 90	0	.0	-	-	-	-	-	-
91 – 100	0	.0	-	-	-	-	-	-
> 100	2	5.7	1	-	1	-	-	-
Total	**35**	**100.0**	**8**	**2**	**10**	**1**	**1**	**13**

Notes: i) * SCs = Secondary Co-operatives
ii) Data source: DCD unpublished data for 2003

Table 4.10: Active and Inactive Secondary Co-operatives (SCs) and their Primary Members

The activity status of the secondary co-operative	No. of SCs	No. of primary members
Active secondary co-ops:	**27**	**593**
- Active secondary co-ops for co-ops in government development schemes	*7*	*260*
- Other active secondary co-ops	*20*	*333*
Inactive secondary co-ops:	**8**	**408**
*i. Gabungan Koperasi Peneroka FELDA Nasional Bhd.**		*13*
*ii. Koperasi Gabungan FELDA Kawasan Pahang Selatan Bhd.**		*15*
iii. Kesatuan Koperasi Pulau Pinang Bhd.		*12*
iv. Koperasi Gabungan SBB Bhd.		*7*
*v. Koperasi Gabungan Kesedar Bhd.**		*10*
vi. Koperasi Pembangunan Negara Bhd.[a]		*344*
vii. Sakilan Timber Co-op Federation Bhd.		*3*
viii. Koperasi Menengah GPS Bhd.		*4*
Total	**35**	**1001**

Notes: i) * Secondary co-operative in state or federal government development schemes
ii) [a] National level secondary co-operatives
iii) Data source: DCD unpublished data for 2003.

Table 4.11: Distribution of Secondary Co-operatives by Performance and by Activity

Activity	Performance status[a]					Total
	Satisfactory	Average	Weak	Not Active	New co-ops	
Credit	-	2	-	-	-	2
Consumer	2	2	6	-	-	10
Plantation	1	-	-	-	-	1
Construction	-	-	-	-	1	1
Services	1	6	5	-	1	13
No Activity	-	-	-	8	-	8
Total	**4**	**10**	**11**	**8**	**2**	**35**

Notes: i) [a] Evaluation of status by the DCD state offices where the secondary co-operatives are based.

ii) Data source: DCD unpublished data for 2003.

Table 4.12: Activity and Business Performance of the 35 Secondary Co-operatives in 2003

	The Secondary Co-operative	Main Activity	Volume of business (RM)	Profit/(Loss) (RM)	Performance status
1.	Koperasi KOPEMA Berhad	Services	1,223,961	356,918	Satisfactory
2.	Kop Gabungan FELDA Wil. Pahang Utara Bhd	Services	34,103	17,033	Average
3.	Koperasi Bersekutu Pulau Pinang Berhad	Services	129,790	35,974	Average
4.	Kesatuan Koperasi Malaysia Bhd.	Services	51,927	28,711	Average
5.	Kesatuan Koperasi Midland Bhd.	Services	24,325	5,334	Average
6.	Kop. Mercu Warisan Malaysia Bhd (Wholesale)	Services	170,489	56,874	Average
7.	Gabungan Kop. Pembangunan Kg. Keda Bhd.	Services	152,014	93,279	Average
8.	Koperasi Gabungnita Pulau Pinang Berhad	Services	24	(76)	Weak
9.	Gabungan Kop. Guru Nasional Bhd.	Services	3,995	1,681	Weak
10.	Gabungan Koperasi Stevedoring Sabah Bhd.	Services	4,800	3,532	Weak
11.	Kop. Pembangunan Negeri Kedah Berhad	Services	14,824	(8,271)	Weak
12.	Koperasi Kesihatan Berhad	Services	36,730	(78,532)	Weak
13.	Koperasi Peserta Felcra Negeri Pulau Pinang Bhd	Services	0	0	New coop
14.	Kop. Pekebun Getah Nasional Bhd (NARSCO)	Consumer	5,297,578	820,918	Satisfactory*
15.	Kop. Peserta-Peserta Felcra Bhd	Consumer	4,030,689	2,171,433	Satisfactory*
16.	Gabungan Kop. Universiti Bhd.	Consumer	68,791	6,272	Average
17.	Gabungan Kop. Peneroka FELDA Johor Bhd.	Consumer	349,662	405,432	Average
18.	Konsortium Koperasi Industri Malaysia Bhd	Consumer	312	211	Weak

Table 4.12: Activity and Business Performance of the 35 Secondary Co-operatives in 2003 (continued)

	The Secondary Co-operative	Main Activity	Volume of business (RM)	Profit/(Loss) (RM)	Performance status
19.	Konsortium Koperasi Kelantan Berhad	Consumer	11,098	(20,213)	Weak
20.	Konsortium Kop. Pengguna Malaysia Bhd	Consumer	824,915	(282,416)	Weak
21.	Kop. Kemas Kebangsaan Bhd (KOKEMAS)	Consumer	19,200	(9,600)	Weak
22.	Koperasi Rakyat Sabah Bhd (KORAS)	Consumer	25,300	(2,077,853)	Weak
23.	Konsortium Koperasi Terengganu Berhad	Consumer	74,027	(36,279)	Weak
24.	Koperasi Rumpun Bumi Melaka Berhad	Finance/ credit	23,610	17,448	Average
25.	Gabungan Koperasi Melayu Berhad	Finance/ credit	10,479	3,685	Average
26.	Koperasi Gabungan Pekebun Kecil Perak Bhd	Plantation	1,463,909	882,770	Satisfactory*
27.	Koperasi Pembangunan Seberang Prai Bhd	Construction	0	0	New coop
28.	Gabungan Kop Peneroka FELDA Nasional Bhd	-	0	0	Not Active
29.	Kop Gabungan FELDA Kaw. Pahang Selatan Bhd	-	0	0	Not Active
30.	Kesatuan Koperasi Pulau Pinang Berhad	-	1,100	500	Not Active
31.	Koperasi Gabungan SBB Berhad	-	0	0	Not Active
32.	Koperasi Gabungan Kesedar Berhad	-	0	0	Not Active
33.	Kop. Pembangunan Negara Bhd.	-	0	(2,955,164)	Not Active
34.	Sakilan Timber Cooperative Federation Ltd.	-	0	(2,360,037)	Not Active
35.	Koperasi Menengah GPS Berhad	-	0	(348)	Not active
	Total		**14,047,652**	**(2,920,784)**	

Notes: i) * The 3 satisfactory performing secondary co-operatives in government development schemes.
ii) Data source: DCD, 2003.

CHAPTER 5

THE SURVEY OF CO-OPERATIVES IN MALAYSIA

5.1. Introduction

This thesis presents empirical analysis of three important areas of the co-operative movement in Malaysia: the relationship between primary and secondary co-operatives (Chapter 6); the determinants of the level of trust among Malaysian co-operators (Chapter 7); and finally, the relationship between trust and co-operative size (Chapter 8). In order to conduct econometric analysis in these three areas, it was necessary to gather data at the co-operative level for Malaysia, since there are no such data sets available for Malaysia. As such, our empirical research identifies an under-researched area for Malaysia and is based on unique econometric analysis of an original data source constructed for this thesis. Hence, this chapter discusses the methods used to collect the data, a mail survey questionnaire. In Section 5.2, the chapter presents a detailed explanation of the mail survey questionnaire employed for the empirical research, which includes a discussion of the characteristics of the data collected for the empirical analysis. Finally, in Section 5.3, this chapter describes the profile of the co-operatives in the sample based on the responses to the mail survey questionnaire and the procedure we take to determine the size of the co-operative. The description of the profile of the co-operatives in the sample and the determination of co-operative size provides an understanding of nature of the primary co-operatives in the Malaysian co-operative movement. Construction of such a profile represents an original and important contribution to this area of research, given the lack of official co-operative level data available for Malaysia.

The following section (Section 5.2) comprises: i) a description of the questionnaire, which includes the rate of response, in Section 5.2.1; ii) the population and the sample for the study; and iii) a description of the data provided by the responses to the questionnaire.

5.2. The Mail Survey Questionnaire

The empirical analysis presented in Chapters 6, 7 and 8 is based on the responses to a mail survey questionnaire sent to primary co-operatives in Peninsular Malaysia.[47] Since this study is not confined to co-operatives in a specific economic sector, but instead includes all the 8 sectors of co-operative activity, the mail questionnaire method was chosen because it permits wide coverage with minimum time and expense, and it reaches potential respondents who would be difficult to locate and interview. To obtain a larger and a more representative sample of co-operatives, the study has to cover a wide area. Although there are disparate types of co-operatives in any of the 12 states (inclusive of the Federal Territory Kuala Lumpur) in the Peninsular, one state may have more of a particular type of co-operative and less of another because of the geographical suitability or other factors such as development and urbanization. In the state of Pahang, for example, there are more primary co-operatives in land development schemes operating transport activities. Perak has more savings and thrift co-operatives, consumer co-operatives and co-operatives in plantation activities. Co-operatives in the small industry business sector are numerous in the state of Perak and Penang on the west coast of the Peninsular, and the state of Kelantan and Trengganu on the east coast, which are very far away geographically. If the study were to be confined to a particular state, there would be some sectors of activity that would not be represented at all.

[47] Additional data sources described in Chapters 7 and 8 supplement the survey data.

5.2.1. The Questionnaire

The questionnaire (see Appendix A5.1) consists of 33 questions on ten pages in the national language (i.e. Bahasa Malaysia). It comprises 3 parts: 1) basic background information of primary co-operatives; 2) information on the primary co-operative's relationship with their secondary co-operative(s); and 3) information pertaining to the co-operator's trust.

The questions are close-ended questions, which require respondents to just circle or tick the answers of their choice, except for the questions that asked for the name of the co-operative (Question 1) and the question that requires the respondents to name the secondary co-operative(s) in which their co-operative is a member (Question 10). The close ended questions make the questionnaire less time consuming for the respondent to complete and aid the coding of the questions for computing and hence performing quantitative analysis. The questionnaire was posted to 467 primary co-operatives at their postal address obtained from the DCD's data base system: the INFOKOP. It seems that not all co-operatives have offices: for some co-operatives the home address of one of the board members, either the Chairman, Secretary or Treasurer were listed in the INFOKOP. A self-addressed envelope with the correct postage stamp fixed on it was attached together with the questionnaire for the respondents to return their responses.

We designed a questionnaire for co-operators that is relatively short, easy to understand, easy to complete with the language pitched to the level of the respondents. The questions were analysed by staff at the DCD who originated from various states, to ascertain if they understood them, as different words in the Malaysian language can be translated differently (even negatively) in different states or districts. In addition, we made sure that the questions were simple to understand

even at the layperson level. This was because we were not sure of the level of education among co-operators. Even though we directed the questionnaire to Board Members of the co-operatives, whom we assumed to possess a relatively higher level of education or at least on a par with their members, we also considered the difference between urban and rural co-operatives in this aspect. We only asked questions that do not need the respondents to search for figures such as figures on income or profit of the co-operative because to our knowledge some co-operatives in Malaysia still depend on Co-operative Inspectors from the DCD to help them with the book-keeping. We also omitted questions that might lead to refusal to answer, such as questions that might raise doubts in the study that could affect the rate of response or that the respondents would not give a true or sincere response to.[48]

A covering letter with the University of Sheffield letterhead from the researcher introducing herself and a brief explanation of the research being undertaken was sent to members of the Board of the selected co-operatives (see Letter 1 in Appendix A5.2), seeking their participation in responding to the attached questionnaire. An accompanying letter of support for the research signed by the Deputy Director General II of the DCD with the DCD letterhead was also attached, asking co-operators to give their co-operation to the researcher (see Letter 2 in Appendix A5.3). Our reason for using these official letterheads was to enhance confidence in the research project in the hope that it would encourage co-operators to respond to the questionnaire. We requested specifically in our letter to the co-operative that the questionnaire should be completed by any one member of the co-operative Board. A member of the co-operative Board is a representative of the co-operative.[49] Being

[48] For example, we omitted the question that directly asked whether the respondents trust the government, which we had intended to ask.

[49] Under Section 44 of the Co-operative Act 1993, the co-operative Board of a registered co-operative society shall represent the society in all dealings with third persons.

a representative, a member of the co-operative Board gains access to more information and must defend the strategy of the co-operative [Ole Borgen, 2001]. The questionnaire was mailed to the co-operatives on 27th September 2004, requesting respondents to respond by 25th October 2004.

Out of the 467 co-operatives that we sent the questionnaire to, 106 co-operatives responded thus yielding a 22.7% response rate. The list of the 106 co-operatives is shown in Appendix A5.4. We consider this response rate as high relative to the study by Zeuli et al. [2003b], especially since the co-operatives we surveyed were distributed throughout the Peninsular. The study on the primary-secondary co-operative relationship by Zeuli et al., which also used a mail survey, had a 19% response rate (113 responses from the 608 survey mailed out). Zeuli et al. conducted a study with agricultural co-operatives in 4 states in the US: Illinois; Iowa; Minnesota; and Wisconsin, where they analysed the satisfaction of the primary co-operatives with the secondary co-operatives in their study on the future viability of the federated structure for agricultural co-operatives in the US. Their respondents were in management positions at the local (primary) co-operatives. Zeuli et al. argued that the low response rate was caused by the comprehensive nature of their 13-page long survey.

We consider the nature of our responses as unique as we could be analysing two kinds of responses: 1) a response from a respondent in his/her capacity as a co-operative Board member, who, being a representative of the co-operative, speaks on behalf of the co-operative as required under the Co-operative Act 1993 (see footnote 48); and 2) a response from the same respondent as an individual, who speaks for him/herself. This is because some questions in our questionnaire asked for specific information pertaining to the co-operative, such as questions on the benefits

acquired by primary co-operatives from being a member in a secondary co-operative. Being a representative of the co-operative, i.e. a member of the co-operative Board, the respondents are the 'organisation co-operators', whose roles are intimately related to identity and identification with the co-operative because they gain access to more information and must defend the strategy of the co-operative (Ole Borgen, 2001). Some questions, however, pertain to individuals' attitudes, such as questions that enquire about the individual's level of trust in various groups of people.

5.2.2. The Population and the Sample

The population in the study consists of all types of co-operatives registered with the DCD in 2003 totalling 4469 co-operatives. First, we exclude the 1615 school co-operatives, leaving only 2854 adult co-operatives throughout the country. Then, we take out the 35 secondary co-operatives and the 2 co-operatives under the supervision of the DCD Headquarters, i.e. the Angkasa and the Bank Rakyat, leaving 2817 co-operatives. Finally, when we exclude the 710 adult co-operatives in East Malaysia (Sabah and Sarawak), we have only 2107 co-operatives. From the 2107 adult primary co-operatives in the Peninsular, the population for the sample is stratified into the 8 types of co-operative activity: credit/banking; consumer; transportation; construction; plantation; housing; services; and small/cottage industry.

We used stratified random sampling procedures with systematic random selection, to make sure that the samples constitute each and every type of co-operative. Sampling techniques, according to Black [1999:120-121], were devised to enhance the probability that any sample would be representative of a population, and the stratified sampling approach involves taking a random sample from identifiable

groups (strata) that are homogeneous for the desired characteristics. We took this approach as we wanted to be sure that the specific groups that make up the co-operative population in Malaysia are represented in proportion to their existence in the population. It could be seen as an effort to minimize sampling errors, which "occurs simply because data are being collected on a sample and not on population" [Black, 1999:126]. The population is, therefore, stratified according to the main activity of the co-operatives. We then set our samples systematically based on 2 sampling fractions, which we designed ourselves based on the number of co-operatives in each activity: 1/3 for the activities that have fewer than 200 co-operatives and 1/5 for the rest. Thus, the number of samples by types of co-operative activity is: 84 co-operatives in credit/banking activity; 123 co-operatives in consumer activity; 85 co-operatives in transportation activity; 36 co-operatives in construction activity; 44 co-operatives in plantation activity; 28 co-operatives in housing activity; 56 co-operatives in service activity; and 11 co-operatives in small/cottage industry activity. Table 5.1 in Appendix A5.5[50] presents the detailed break-down of the co-operatives by activity according to the sampling fraction.

Our samples thus constitute 22.2% of the population. Selection was made from the INFOKOP. Problems were encountered relating to the selection of co-operatives from the DCD's database since the system does not facilitate the search for co-operatives according to type of activity. Therefore, the search had to be carried out according to the individual states. Nevertheless, except for a few, i.e. those co-operatives that include in their registered name the activity they run, we could not tell from the list of co-operatives in each state, which co-operative fell into which activity. In some co-operatives, for example, there is the word 'kredit' in their

[50] All other tables related to this section of the chapter (i.e. Section 5.3) are placed in Appendix A5.5 at the end of the Chapter.

registered name, which denotes that the co-operative is a co-operative engaged in credit activity and the KIKs that are engaged in small/cottage industry activity have the words "Koperasi Industri Kampung" as part of their registered name that can clearly identify them from other types of co-operatives. Thus, we had to explore each individual co-operative in the state list to obtain the required information: the name of the co-operative, its address and its business sector (i.e. activity). As there are a few hundred co-operatives in each state, we selected a co-operative from every 5 in the list for each state, until we obtained the exact number of samples required according to activity. In the selection process, we started off with the states in the central region, i.e. Selangor, Pahang, Perak, and the Federal Territory Kuala Lumpur. Where the required samples were not met, the selection of co-operatives was expanded to include other neighbouring states.

5.2.3. The Data

Our primary data will be used in the analysis of: 1) the relationship between the primary co-operative and their secondary organisations; 2) the co-operator's level of trust in co-operatives and in various groups of people; and 3) the relationship between co-operators' trust and co-operative performance. Hence, the data comprise the following:

a. Current statistical information on primary co-operatives, i.e. the number of members of the co-operative (Question 2), the share capital and the assets of the primary co-operative (Questions 7 and 8);

b. The characteristics of the primary co-operatives, i.e. the composition of members according to members' occupation, the racial composition of the members, the regional distribution of members, the co-operative's area of

operation (Questions 3 to 6), and the activity of the co-operative (Question 9);

c. The primary co-operative's membership in secondary co-operatives, which includes the name of the secondary co-operative(s) that the co-operative is a member of and the tenure of membership in secondary co-operatives (Questions 10 and 11);

d. The primary co-operative's level of satisfaction with the secondary co-operative (Question 12), which is measured on a 5-point Likert scale, with possible responses: 'not at all satisfied'; 'not very satisfied'; 'neither satisfied nor dissatisfied'; 'somewhat satisfied'; or 'very satisfied'.

e. The benefits that the primary co-operatives have received from their membership in secondary co-operatives in terms of: their use of services provided by the secondary co-operatives; the primary co-operatives getting their needs supplied; receiving dividend or rebates from the secondary co-operatives; whether membership in secondary co-operatives has resulted in an increase in the primary co-operative's income; an improvement in the primary co-operative's product or services; or an increase in the number of members of the primary co-operative (Questions 13 to 16). The answers to Questions 13 to 16 are either 'yes' or 'no'.

f. The level of co-operators' agreement on the need for secondary co-operatives (Question 19), which is also on a 5-point Likert scale. The possible responses were: 'totally disagree'; 'disagree'; 'neither agree nor disagree'; 'agree'; or 'strongly agree'.

g. Information on the level of trust (Questions 21 to 29). Except for the attitudinal questions taken from the National Opinion Research Centre's General Social Survey (GSS) (Question 21), all other data on trust measures

the respondents' trust level on a Likert scale: 'don't trust at all'; 'don't trust very much'; 'neither trust nor distrust'; 'trust a little'; or 'trust completely'. The GSS trust question, on the other hand, asked respondents to indicate whether, "Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people?" Questions 22 and 25 are questions on trust in various groups of people such as family members, friends and fellow nationals[51], while Questions 23 and 24 are trust questions pertaining to lending money.

h. Information is also gathered on co-operator's trust in co-operatives (Question 29) and their trust that people are honest, that people would not take advantage and that people would put the interest of others first (Questions 26 to 28).[52]

i. Information on respondents' willingness to financially commit towards the start-up capital of a business opportunity to be run as a co-operative (Question 31), with possible responses: to contribute the minimum 5% required; to contribute the maximum 15% allowed; or not willing to commit yet.[53]

j. Socio-economic characteristics of the respondents: age of the respondent (Question 32); and employment status, i.e. whether they are a salary earner or self-employed (Question 33).

[51] The questions on trust in various groups of people such as family members and fellow nationals are trust questions taken from the organization of the World Value Survey [Whiteley, 2000].
[52] The trust questions pertaining to trust in lending money (Questions 23 and 24) and trust that people, in general, have particular values (i.e. Questions 26 to 28) differ from the GSS trust questions.
[53] This question was designed to elicit information on the co-operators entrepreneurial spirit.

In the following section, based on the responses to the mail survey questionnaire, we describe the profile of the co-operatives in the sample. Detailed analysis on responses to the satisfaction and trust questions are presented in Chapters 6 and 7.

5.3. Profile of the Primary Co-operatives: Summary Statistics

5.3.1. The Number of Members, Share Capital and Assets

The data on the number of members (Question 2) consists of five categories: i) 100 members or less; ii) 101 to 500 members; iii) 501 to 1000 members; iv) 1001 to 1500 members; and v) more than 1500 members. We constructed an index from the responses, ranging from 0 (for the category with the least number of members) to 4 (for the category with the largest number of members). Meanwhile, the data for the amount of share capital (Question 7) and the assets' value (Question 8) of a co-operatives consists of six similar categories: i) not more than RM1000.00; ii) RM1001.00 – RM10,000.00; iii) RM10,001.00 – RM100,000.00; iv) RM100,001.00 – RM1,000,000.00; v) RM1,000,001.00 – RM50,000,000.00 and vi) more than RM50 million.[54] The share capital and the assets indexes range from 0 to 5 for each variable, i.e. 0 for the category with the least amount of share capital or with the lowest value of assets and 5 for the category with the highest amount of share capital or with the highest value of assets. Table 5.2 in Appendix A5.5 presents the summary statistics of the primary co-operatives in the sample for the number of members, the share capital and the assets.

For the number of members, a large number of the co-operatives in the sample have more than 100 members. 36.8% have between 100 to 500 members. This is because the minimum requirement to form a primary co-operative in Malaysia is

[54] RM1000.00 is equivalent to £143.00; RM10,000.00 is equivalent to £1,429.00; RM100,000.00 is equivalent to £14,286.00; RM1,000,000.00 is equivalent to £142,857.00; RM50 million is equivalent to £7.1 million.

100 individuals. More than half of the co-operatives (57.6%) have more than 500 members. Co-operatives that have more than 1500 individual members constitute 34% of the sample. Only 6 co-operatives in the sample (5.7%) have 100 members or less. The number of members may have fallen below 100 due to death, or due to members leaving the co-operatives. This is because the minimum number is required upon registration only. Alternatively, the co-operative may have been formed under the special provision of the Co-operative Act 1993, which allows certain societies to consist of at least 20 members.

Only 3.8% of the co-operatives in our sample have more than RM50 million in share capital. 51.9% of the co-operatives have share capital below RM100,000.00 and 44.3% have more than RM100,000.00 but less than RM50 million in share capital. Meanwhile, more than three quarters of the co-operatives have over RM100,000.00 in assets, with 74.5% having between RM100,000.00 and RM50,000,000.00 in assets and 3.8% with assets worth more than RM50 million.

5.3.2. The Composition of Members by Occupation and by Race; the Distribution of the Co-operative's Members; and the Co-operative's Area of Operation

Table 5.3 presents summary statistics of the primary co-operatives in the sample for the composition of members by occupation, the racial composition of members, the distribution of members and co-operative's area of operation.

70.8% of the co-operatives have members from diverse occupations. Only 29.2% are co-operatives, whose members are individuals belonging to the same group of employment. 65% of the primary co-operatives have members from one race only, while 35% are multiracial co-operatives. 23.6% of the co-operatives have members distributed on a nationwide scale, 76.4% are co-operatives with members confined

to a region. Meanwhile in terms of area of operation, 24.6% of the co-operatives operate nationwide and 75.7% are regional-based co-operatives.

To determine how well the composition and the distribution of the co-operatives' members and the co-operatives' area of operation fit the co-operative population, we ran a Chi-square (χ^2) test for goodness of fit on the four variables: the composition of members by occupation; the racial composition of members; the distribution of members; and the co-operative's area of operation. In Table 5.3, the computed χ^2 value in the fourth column, for each of the variables, indicates that the observed frequencies of all the four variables differ significantly from the expected frequencies with a *p*-value of less than 1%. The tests also indicate that the probability of this result being random is less than 1%, which tells that it is highly unlikely that this result would happen by chance [Gravetter and Wallnau, 2000]. Thus, our sample is representative of the Malaysian co-operative population in terms of the composition of co-operative members by occupation, racial composition of members, the distribution of members and the co-operative's area of operation.

One might predict that co-operatives that have members distributed throughout the country would be operating on a nationwide scale. The 67% positive correlation between co-operatives that have regionally distributed members and co-operatives that operate on a regional area, indeed, indicates a strong relationship between the two. In other words, most of the co-operatives that have members distributed all over the country, operate on a nationwide scale, and vice versa.

5.3.3 The Co-operative's Area of Activity

The eight areas of co-operative activity are: credit; consumerism; transportation; construction; plantation; housing; services; and small/cottage industry. Some co-

operatives in the sample were found to run several activities that made it difficult to tell which activity is the co-operative's main activity. In general, there are two types of co-operatives, i.e. the co-operatives that run only a single activity and the co-operatives with two activities or more (i.e. the multipurpose co-operatives). 46.2% of the 106 co-operatives are single-activity co-operatives, while 53.8% are multipurpose co-operatives.

Table 5.4 presents the distribution of the single-activity co-operatives by the area of activity and the multipurpose co-operatives by the number of activities. Credit co-operatives constitute 24.5% of the single-activity co-operatives, followed by the services co-operatives (20.4%). Meanwhile, co-operatives with two and three activities together constitute the largest percentage of co-operatives in the multipurpose category, i.e. 78.9 % of the 57 co-operatives or 42.4% of the 106 co-operative. Only a small percentage of the multipurpose co-operatives run more than 3 activities: 4.7% with 4 activities; 4.7% with 5 activities; and 1.9% with 6 activities.

For the multipurpose co-operatives, we ran a check in the INFOKOP for their main activity. Table 5.5 presents the distribution of the 106 co-operatives in the sample by their main activity. From here, we can calculate the rate of the responses according to the stratified sampling described in Table 5.1 in Section 5.2.2. Table 5.5 also presents the rate of responses according to the indicated stratified sampling. In terms of the number of co-operatives, credit co-operatives constitute the largest (i.e. 25.5%) of the total 106 co-operatives in the sample. Consumer co-operatives constitute 17.9% of the total, followed by transport co-operatives (15.1%), services co-operatives (14.2%), housing co-operatives (8.5%), plantation co-operatives (7.5%) and, lastly, construction co-operatives and small/cottage industry co-

operatives (each with 5.7% responses). In terms of the rate of response according to the stratified sampling, the largest percentage of return comes from co-operatives with the main activity small/cottage industry (54.5%), followed by 32.1% each from co-operatives having credit or housing as the main activity and then by co-operatives with the main activity services (26.3%). Although co-operatives with the main activity being consumer activity constitute the largest number of co-operatives in the sampling frame, only 15.3% responded.

Table 5.6 presents the number of co-operatives that are involved in the 8 types of activities, irrespective of whether they are single-activity or multipurpose co-operatives. There are relatively more co-operatives involved in credit, consumerism and services activities. Not many of the co-operatives are involved in small/cottage industry activity. 55.6% of co-operatives that are involved in small/cottage industry activity run it as a single activity. 32.4% of the co-operatives that are involved in credit activity run it as their only activity. Only 4.2% of the co-operatives that are involved in plantation activity run it as their only activity.

5.3.4. Membership and Tenure of Membership in Secondary Co-operatives

Question 10, which asked respondents whether their co-operative is a member of a secondary co-operative and the name of the secondary co-operative in which their co-operatives are a member, captures two kinds of information. First, information on whether a primary co-operative is a member of a secondary co-operative is given and second, information is provided on whether the respondents understand what a secondary co-operative is. We compare the names of the secondary co-operatives from the responses with the DCD's list of the 35 secondary co-operatives. We received responses that: 1) named other co-operatives that are not on the DCD's list of registered secondary co-operatives as their secondary co-operatives such as the

Bank Rakyat, which is a primary co-operative; 2) named the DCD as their secondary co-operative; and 3) named the ANGKASA as their secondary co-operative.

41 co-operatives (38.7%) named the ANGKASA as their secondary co-operative although the ANGKASA is not included in the DCD's list of secondary co-operatives. From the 41 co-operatives, 28 co-operatives (68.3%) named only the ANGKASA as their secondary co-operatives. These 28 co-operatives constitute 26.4% of the total 106 co-operatives in the sample.

For the purpose of this study we counted ANGKASA as a secondary co-operative since the ANGKASA is, by nature of its establishment, a secondary co-operative whose members constitute primary co-operatives. The ANGKASA has always been perceived as a secondary co-operative by co-operators in Malaysia. The ANGKASA was declared an apex co-operative organisation to represent the co-operative movement at the national and international level in a declaration made by the Minister for Co-operatives on the 23rd May 1996, that is after 24 years of its existence as a secondary co-operative. By counting the ANGKASA as a secondary co-operative, the number of primary co-operatives in the sample that are members of secondary co-operatives is 56 co-operatives or 52.8% of the total 106 co-operatives. The 28 co-operatives that named only the ANGKASA as their secondary co-operative, therefore, constitute 50% of the secondary co-operative members in the sample. Table 5.7 lists the names of the secondary co-operatives obtained from the survey.

The responses to Question 11 that asked about the tenure of membership in a secondary co-operative indicate that: 16.1% of the 56 co-operatives have been members of a secondary co-operative for not more than 5 years; 23.2% have been

members between 6 and 10 years; 17.9% have been members between 11 and 15 years; and 42.9% have been members of a secondary co-operative for more than 15 years.

In this section, we have described the profile of the primary co-operatives in the sample based on the responses to the mail survey questionnaire, which includes: 1) statistical information on the number of members, the share capital and the assets of the co-operatives; 2) co-operative characteristics (the composition and the distribution of co-operative members, the co-operative's area of operation and the co-operative's activity); and 3) the primary co-operative's membership in secondary co-operatives. In the survey, in Question 20, we also tried to capture co-operator's level of understanding of the role of secondary co-operatives. In the following section we describe the responses to this question.

5.4. The Perceived Roles of Secondary Co-operatives

Based on the existing literature pertaining to possible roles of secondary co-operatives, Question 20 lists 14 roles that secondary co-operatives may play such as: to spread knowledge on co-operatives; to co-ordinate the activity of the primary co-operatives; and to provide necessary training to primary co-operatives. Respondents were asked to indicate whether they agree or not with the roles. Each of the roles is given an index of 0 to 2: 0 for disagreeing; 1 for no response, which, in this case, we assume that the respondents neither agree nor disagree; and 2 for agreeing. Table 5.8 presents summary statistics of the responses relating to the 14 roles of secondary co-operatives.

Except for the role of assisting with the establishment and registration of new co-operatives, the role of auditing the primary co-operatives and role of providing legal

advice to the primary co-operatives, most of the listed roles have a high mean value of over 1.5 (in which the minimum value is 0 and the maximum is 2), which indicates that there are more responses agreeing with the related roles for secondary co-operatives. The role of assisting with the establishment and registration of new co-operatives has the largest rate of response for not agreeing (29.3%), followed by the role of auditing (17.9%) and the role of giving legal advise (15.1%). The possible explanation for the respondents not agreeing to secondary co-operatives assisting with the establishment and registration of new co-operatives, auditing and giving legal advice could be because in Malaysia, these have been provided by the DCD. The responses in Table 5.8 indicate the roles of secondary co-operatives perceived by the co-operators. It also indicates that co-operators are aware of, or understand the roles that secondary co-operatives may play, even though some cannot differentiate a secondary co-operative from a non-secondary co-operative, as indicated from the responses to the question pertaining to membership in secondary co-operatives discussed in Section 5.3.4.

5.5. Summary

In this chapter, we have described the mail survey questionnaire employed to collect data for our empirical analysis in detail. We have also described the characteristics of the co-operatives in the sample of responses. Basically, there is only a small percentage (5.7%) of the primary co-operatives that have less than 100 members but in terms of share capital a large percentage (51.9%) of the co-operatives have less than RM100,000.00 in share capital. If we were to divide the RM100,000.00 in share capital with, for example, 200 members (since the minimum members required to form a co-operative is 100 and since the number of members would, arguably, have increased with time), then, on average, the contribution of each

member to the share capital of the co-operative is RM500.00.[55] If we were to divide the RM100,000.00 by 500 members (since quite a large percentage of co-operatives falls under this range of members), then, on average, the share capital is RM200.00 per member.[56] In terms of composition of co-operative members by occupation, a large percentage of primary co-operatives in the sample have members that comprise individuals from diverse employment. It is, therefore, reasonable to assume that the co-operative activity, most likely, does not relate to what the members are doing for a living.

In general, the survey data represents an original data source which is analysed in this thesis. There is a shortage of such data sets in Malaysia. Hence, the questionnaire provides the basis for our original econometric analysis presented in Chapters 6, 7, and 8. Chapter 6 presents empirical analysis of the relationship between primary co-operatives and secondary co-operatives. Chapter 7 presents empirical analysis of the level of trust among Malaysian co-operators and Chapter 8 presents empirical analysis of the relationship between co-operators' trust and co-operatives' size. The collection of the survey data analysed in this thesis represents an important contribution to the research on Malaysian co-operatives in particular and on co-operatives in general. The distinct shortage of detailed data on co-operatives in Malaysia has led to this being an under-researched area. The analysis of the survey data presented in this chapter represents a first step towards aiding our knowledge and understanding of co-operatives in Malaysia.

[55] RM500.00 is equivalent to £71.00.
[56] RM200.00 is equivalent to £29.00.

Appendix 5.1: The Questionnaire

QN01/04/JJ/SU

The Questionnaire Sent to Primary Co-operatives

(Please circle or tick your answer where appropriate)

Part I: Basic Information about your co-operative

1.	**Name of your co-operative**	
2.	**Number of members**	a. 100 or less b. 101 – 500 c. 501 – 1000 d. 1001 – 1500 e. more than 1500
3.	**Composition of members according to occupation**	a. individuals, from various groups/types of employment (mixed occupation) b. individuals, from the same group of employment c. both individuals and organisations from all sorts of economic activities
4.	**Composition of members according race**	a. one-race only b. multiracial
5.	**Distribution of members**	a. nationwide b. specific area (State/District)
6.	**Area of operation**	a. Nationwide b. State of .....
7.	**Share capital (RM)**	a. not more than 1000 b. 1001 – 10,000 c. 10,001 – 100,000 d. 100,001 – 1,000,000 e. 1,000,001 – 50,000,000 f. more than 50 million

8.	**Asset (RM)**	a. not more than 1000 b. 1001 – 10,000 c. 10,001 – 100,000 d. 100,001 – 1,000,000 e. 1,000,001 – 50,000,000 f. more than 50 million
9.	**Activity**	a. Credit/Finance b. Consumerism c. Transportation d. Construction work e. Plantation f. Housing g. Services h. Small/cottage industries i. No activity

Part II: On Secondary Co-operative

10(a). Is your co-operative a member of a secondary co-operative? If yes, proceed with the next question, if no, go to Question 18.

(b). Name of secondary co-operative in which your co-operative is its member.

No.	Name of secondary co-operative

11. How long has your co-operative been its member?

a) Not more than 5 years
b) 6 – 10 years
c) 11 – 15 years
d) more than 15 years

12. Are you satisfied with the secondary co-operative?

    a. Very satisfied
    b. Somewhat satisfied
    c. Neither satisfied nor not satisfied
    d. Not very satisfied
    e. Not satisfied at all

13. Does your co-operative use the services provided by the secondary co-operative?

    a. Yes
    b. No

14. Does your co-operative get its needed input/resources (for example raw materials or information) supplied by the secondary co-operative?

    a. Yes
    b. No

15. Does your co-operative receive dividends/rebates from the secondary co-operative?

    a. Yes
    b. No

16. By being a member of the secondary co-operative, has there been:

    i) an increase in income of your co-operative?

    a. Yes
    b. No

    ii) an improvement in your co-operative product / services?

    a. Yes
    b. No

    iii) an increase in number of members of your co-operative?

    a. Yes
    b. No

17. How would you describe the rate of shares/fees imposed by the secondary co-operative?

    a. Too high
    b. High
    c. Neither high nor low
    d. Low
    e. Very low

18. Had your co-operative ever been a member to a secondary co-op that now is no longer in existence or is no more in operation?

    a. Yes

    b. No

19. Do you agree that primary co-operatives need secondary co-operative in order to develop?

    a. Strongly agree

    b. Agree

    c. Neither agree nor disagree

    d. Disagree

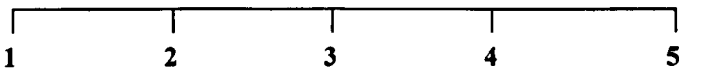
    e. Totally disagree

20. Do you agree with the following roles by secondary co-ops? Please tick (_/) in the appropriate box.

	Agree	Do not agree
a. Co-ordinate, inform and advise on activities		
b. Education and training to member co-ops		
c. Act as representative body for co-op activity		
d. Spread knowledge of co-op principles		
e. Develop strong and effective partnership with other co-op sectors		
f. Assist with the establishment and registration of new co-op societies		
g. Liaise directly with government agencies		
h. Link together scattered co-op societies		
i. Go into bigger business opportunities		
j. Audit service		
k. Constitutional and legal advise		
l. Produce publications on performance of member co-ops		
m. Procurement		
n. Marketing		

Part III

Please give your answer according to the scale given below by circling (where appropriate) the answer of your choice.



1. **Do not trust at all**
2. **Do not trust very much**
3. **Neither trust nor distrust**
4. **Trust a little**
5. **Trust completely**

21. Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people?

    a) Most people can be trusted

    b) Can't be too careful

22. Generally speaking, can you trust:

i) Your family members?	1	2	3	4	5
ii) Your friends?	1	2	3	4	5

23. Do you trust the following people to lend them your money?

i) Your family members?	1	2	3	4	5
ii) Your friends?	1	2	3	4	5

24. Do you trust that the following people will repay the money you lend them?

a. Your family members?	1	2	3	4	5
b. Your friends?	1	2	3	4	5

25. Describe your level of trust in the following people:

i) people from the same district	1	2	3	4	5
ii) people from the same state	1	2	3	4	5
iii) people from the same country	1	2	3	4	5

26. Generally speaking, do you trust that people are honest?

    1 2 3 4 5

27. Generally speaking, do you trust that people would not take advantage?

    1 2 3 4 5

28. Generally speaking, do you trust that people would put the interests of others first?

    1 2 3 4 5

29. Generally speaking, do you trust the co-operative?

    1 2 3 4 5

30. How often did you get help from:

    i) individuals?
       a. never
       b. once a while
       c. often

    ii) Organisations/institutions (including government)?

       a. never
       b. once a while
       c. often

31. A small group of people you are familiar with, plans to start a business as a co-operative. You are invited to join in by contributing between 5% and 15% towards the start-up capital of the business. This is a business opportunity for you. You can afford it, but how much are you willing to contribute?

    a. minimum required (5%)
    b. maximum 15%
    c. will not commit yet (will wait and see)

32. What is your age?

    a. under 20
    b. 21 – 30 years old
    c. 31 – 40 years old
    d. 41 – 50 years old
    e. above 50

33. Are you:

    a. a salary earner?
    b. self-employed?

Appendix A5.2: Letter 1 - Translated Version of the Researcher's Letter to Members of the Co-operative Board, which accompanied the Questionnaire

(The University of Sheffield letterhead)

Koperasi .....
.....
.....

Dear Members of the Co-operative Board,

CO-OPERATIVE RESEARCH IN MALAYSIA

I refer to the above mentioned matter.

I am an officer with the Department of Co-operative Development, currently pursuing PhD research at the University of Sheffield in the UK, researching on how to develop the Malaysian co-operative movement. In particular, the research project is directed towards developing secondary co-operatives. For the purpose of this research, I have designed a questionnaire directed to co-operatives at the primary level. The questionnaire, which consists of 3 parts and incorporates trust into the study on developing the Movement, is enclosed herewith.

I would be very grateful if any one member of the co-operative Board could respond to the attached questionnaire. I give my assurance that all information provided will be used strictly for academic purposes only. Please return the answered questionnaire to me in the provided stamped self-addressed envelope, no later than 25 October 2004.

Your co-operation towards the effort to develop the co-operative movement in this country is very much appreciated and I thank you in advance.

Thank you,

(Signed)
Juliawati binti Janius
Phd Research Student
Department of Economics
Sheffield University
9 Mappin Street
Sheffield S1 4DT, UK

e-mail: ecq02jj@sheffield.ac.uk

Appendix A5.3: Letter 2 - Translated Version of the DCD's Letter to the Co-operatives

(The DCD's official letterhead)

Our ref: JPK.IP.(AM) 7158 Jld.4 (34)

Date: 28 September, 2004

The Secretary
Koperasi .....
.....
.....

Dear Sir,

CO-OPERATIVE RESEARCH IN MALAYSIA

It is hereby certified that Mrs. Juliawati binti Janius, is an officer with the Department of Co-operative Development, who is currently pursuing PhD research at the University of Sheffield in the UK. She is undertaking a research project to develop the Malaysian co-operative movement with emphasis on developing secondary co-operatives. The Department supports this research in the hope that it will project benefit to the co-operative movement in this country.

We would be glad if you could extend your co-operation to the researcher as she has requested in her letter to you.

Thank you.

(Motto of the Civil Service)

(Signed)
ABDUL RAUF BIN ALIAS
Deputy Director General
(Development and Administration)
Department of Co-operative Development
MALAYSIA

Appendix A5.4: List of Primary Co-operatives in the Sample

Serial Number	Name of Co-operative
001	Koperasi Industri Kampung Kampung Jambu Bongkok
002	Koperasi Serbaguna Pegemas Berhad
003	Koperasi Ampang Jaya Berhad
004	Koperasi Belia Negeri Pahang Berhad
005	Koperasi Peneroka RKT J/Tekoh Berhad
006	Koperasi Serbaguna Pembatik Kelantan Berhad
007	Koperasi Jaya Sama Berhad
008	Koperasi Peneroka Felda Sg. Pancing Utara Bhd
009	Koperasi Pekebun Kecil Parit Berhad
010	Koperasi Bersatu Gadong Jaya Labu Berhad
011	Koperasi Peserta-peserta Felcra Kebun Baru Bhd.
012	Koperasi Perwanis Berhad
013	Koperasi Serbaguna Chukai (KOSECB) Berhad
014	Koperasi Atas Bonggol Berhad
015	Koperasi Pekebun Kecil Daerah Besut/Setiu Bhd.
016	Koperasi Serbaguna Pekerja-pekerja Malaysia Berhad
017	Koperasi Industri Kecil Laksa Jaafar Mek Limah (JML) Berhad
018	Koperasi Jimat Cermat & Pinjaman Orang-orang Melayu Berjawatan Kerajaan Daerah Hulu Langat Bhd.
019	Koperasi Sri Maju Berhad (Komaju)
020	Kopersai Serbaguna Sungai Besi Berhad
021	Koperasi Serbaguna Ayer Kala Berhad
022	Koperasi Perumahan Angkatan Tentera Berhad
023	Not indicated
024	Not indicated
025	Koperasi Mercantile Ipoh Berhad
026	Koperasi Koguma Berhad
027	Not indicated
028	Koperasi Guru-guru Lepasan Maktab/Pusat Latihan Harian Pahang Bhd.
029	Koperasi Universiti Islam Antarabangsa Berhad
030	Koperasi Kemajuan Tanah Sungai Buloh Berhad
031	Koperasi Serbaguna Felda Ijok Berhad

Serial Number	Name of Co-operative
032	Koperasi Perdanajaya Malaysia Berhad
033	Koperasi Industri Kecil Sulaman dan Jahitan Kelantan Berhad
034	Koperasi Batu Talam Berhad
035	Koperasi Sri Nilam Berhad
036	Koperasi Sedar Berhad
037	Koperasi Belia Nasional Berhad
038	Koperasi Pekebun Kecil Daerah Marang berhad
039	Koperasi Melayu Pulau Pinang Berhad
040	Koperasi Serbaguna Iman Malaysia Berhad
041	Koperasi Pelaburan Pekerja Safeguards Berhad
042	Koperasi Kenderaan dan Pengangkutan (M) Hulu Perak dan Kuala Kangsar Berhad
043	Koperasi Industri Kampung Paka Dungun Terengganu Berhad
044	Koperasi Usahasama Felda Palong Tiga Berhad
045	Koperasi Pelaburan Pekerja Permint Plywood Dungun Bhd.
046	Koperasi Kakitangan Perkhidmatan Pendidikan Johor Berhad
047	Koperasi Kemas Negeri Johor Berhad
048	Koperasi Pembangunan Pendidikan Berhad
049	Koperasi Peserta-peserta Felcra Gugusan Keruak Besut Berhad
050	Koperasi Pekebun Kecil Negeri Sembilan Bhd.
051	Koperasi Pekebun Kecil Daerah Dungun Bhd.
052	Koperasi Bekas-bekas Perajurit Negeri Kelantan Bhd.
053	Koperasi Felda Jerangau Barat Terengganu Bhd.
054	Koperasi Universiti Kolej Terengganu Berhad
055	Koperasi Pegawai Petempatan (M) Bhd.
056	Koperasi Maju Ekonomi Pekerja Bhd.
057	Koperasi Serbaguna Anak-anak Selangor Bhd.
058	Koperasi Pekebun Kecil Daerah Hulu Langat Bhd.
059	Koperasi Gerakan Belia 4B Berhad
060	Koperasi Guru-guru Melayu Larut Matang, Selama dan Dinding Taiping Bhd.
061	Koperasi Pekebun Getah Kelantan Selatan Bhd.
062	Koperasi Peneroka RKT Kesedar Renok Baru Bhd.
063	KOPERASI Pekebun Getah Daerah Jerantut Bhd.
064	Not indicated
065	Koperasi Tenaga Setia Tanah Merah Bhd.

Serial Number	Name of Co-operative
066	Koperasi Peserta-peserta Rancangan Felcra Kubang Kenyeng Bhd.
067	Koperasi Serbaguna Teras Semenyih Bhd.
068	Koperasi Pekerja-pekerja Telekom Negeri Sembilan, Melaka dan Johor Bhd.
069	Koperasi Bina Berhad
070	Koperasi Belia Islam Malaysia Berhad
071	Koperasi Anggota Kerajaan Ipoh Bhd.
072	Koperasi Jabatan Penjara Kuala Lumpur Bhd.
073	Not indicated
074	Koperasi Pasaran dan Perniagaan Perak Berhad
075	Koperasi Keluarga Pemandu Berhad
076	Koperasi Kakitangan Kerajaan dan Badan Berkanun (KOKANUN) Terengganu Bhd.
077	Koperasi Guru-guru Sekolah Malaysia Berhad
078	Koperasi Serbaguna Bumiputra Taiping Bhd.
079	Koperasi Felda Tenang Besut Jerteh Bhd.
080	Koperasi Pembangunan Tanah Kg. Som Jerantut Bhd.
081	Koperasi Pekerja-pekerja Majlis Perbandaran Kota Bharu Kelantan Bhd.
082	Koperasi Kemas Terengganu Bhd.
083	Koperasi Kredit dan Serbaguna Pekerja Pusat Percubaan Penyelidikan Getah Sungai Buluh Bhd.
084	Koperasi Industri Kecil Melati Berhad
085	Koperasi Teksi Melayu Terengganu Berhad
086	Koperasi Ladang Sungai Tong Bhd.
087	Koperasi Pekerja-pekerja Perindustrian Terengganu Utara Bhd.
088	Koperasi Pembangunan Daerah Besut Berhad
089	Koperasi Serbaguna Felda Sungai Tekam Berhad
090	Koperasi Felda Kg. Rahmat Chalok Terengganu Bhd.
091	Koperasi Tentera Bhd.
092	Koperasi Pekebun Kecil Manjong Berhad
093	Koperasi Pegawai Melayu Kelantan Berhad
094	Koperasi Perumahan Melayu Kinta Berhad
095	Koperasi Pekebun Kecil Daerah Kuala Terengganu Bhd.
096	Koperasi Pekerja-pekerja Kerajaan Hilir Perak Berhad
097	Koperasi Peserta-peserta Rancangan Felcra Gugusan Bukit Tandak Bhd.
098	Koperasi Serbaguna Hulu Perak Berhad
099	Koperasi Permodalan dan Perusahaan Perak Selatan Bhd.

Serial Number	Name of Co-operative
100	Koperasi Seri Rembau Bhd.
101	Koperasi Pekebun Kecil Daerah Raub Bhd.
102	Koperasi Perniagaan Guru-guru Muar Bhd.
103	Koperasi Hannan Berhad
104	Koperasi Didik Berhad
105	Koperasi Pekerja-pekerja Kilang Penapis Shell Bhd.
106	Koperasi Serbaguna Tanjung Karang Bhd.

Appendix A5.5: Summary Statistics for the Co-operatives in the Sample

Table 5.1: Number of Samples by Types of Activity

Activity	No. of Co-ops	Sampling Fraction	No. of Samples
Credit/Banking	421	1/5	84
Consumer	616	1/5	123
Transportation	426	1/5	85
Construction	110	1/3	36
Plantation	134	1/3	44
Housing	85	1/3	28
Service	281	1/5	56
Small/Cottage Industry	34	1/3	11
Total	**2107**		**467**

Table 5.2: Summary Statistics of the Number of Members, the Share Capital and the Assets of the Primary Co-operatives in the Sample

	Observation	Mean	Standard Deviation	Min.	Max.
Number of Members	106	2.2830	1.4058	0	4
Share Capital	106	3.0943	1.0913	0	5
Assets	106	2.2547	1.5059	0	5

	No. of Co-ops	Percentage
Number of Members:		
0) 100 or less	6	5.7
1) 101 – 500 members	39	36.8
2) 501 – 1000 members	16	15.1
3) 1001 – 1500 members	9	8.5
4) More than 1500 members	36	34.0
Share Capital (RM):		
0) Not more than 1000.00	17	16.0
1) 1001.00 – 10,000.00	22	20.8
2) 10,001.00 – 100,000.00	16	15.1
3) 100,001.00 – 1,000,000.00	23	21.7
4) 1,000,001.00 – 50,000,000.00	24	22.6
5) More than 50 million	4	3.8
Assets (RM):		
0) Not more than 1000.00	5	4.7
1) 1001.00 – 10,000.00	3	2.8
2) 10,001.00 – 100,000.00	15	14.2
3) 100,001.00 – 1,000,000.00	41	38.7
4) 1,000,001.00 – 50,000,000.00	38	35.8
5) More than 50 million	4	3.8

Notes: Source: Primary Data from the Survey of Malaysian Co-operatives, 2004

Table 5.3: Summary Statistics of the Profile of the Primary Co-operatives in the Sample

	No. of Co-op	%	Mean	Standard Deviation	Computed χ^2 value	*p*-value
Composition of co-op's members by occupation:						
0) Diverse occupation	75	70.8				
1) Homogeneous in occupation	31	29.2				
Total	106	100.0	0.2925	0.4571	29.585	.000
Racial Composition of Members:						
0) Multiracial co-op	37	35.0				
1) Single-raced co-op	69	65.0				
Total	106	100	0.6509	0.4789	27.509	.000
Distribution of Members:						
0) Nationally distributed	25	23.6				
1) Regionally distributed	81	76.4				
Total	106	100.0	0.7642	0.4265	9.660	.002
Co-op area of operation:						
0) Nationwide	26	24.5				
1) Regional	80	75.4				
Total	106	100.0	0.7547	0.4323	18.624	.000

Notes: Source: Primary Data from the Survey of Malaysian Co-operatives, 2004.

Table 5.4: Distribution of the Single-Activity and the Multipurpose Co-operatives

The Area of Activity of the Single-Activity Co-ops:	No. of Co-ops	Percentage
Credit	12	24.5
Consumer	6	12.2
Transport	6	12.2
Construction	5	10.2
Plantation	1	2.0
Housing	4	8.2
Services	10	20.4
Small/cottage industries	5	10.2
Total	**49 (46.2%)**	**100.0**
Number of activity of the Multipurpose Co-ops:	No. of Co-ops	Percentage
2 activities	26	24.5
3 activities	19	17.9
4 activities	5	4.7
5 activities	5	4.7
6 activities	2	1.9
Total	**57 (53.8%)**	**100.0**

Notes: Source: Primary Data from the Survey of Malaysian Co-operatives, 2004

Table 5.5: Distribution of the Co-operatives in the Sample by Main Activity and by Response Rate according to the Stratified Sampling

Main Activity	No. of co-ops	Percentage	No. of co-ops in the stratified sampling	Percentage of the return by activity
Credit	27	25.5	84	32.1
Consumer	19	17.9	123	15.3
Transport	16	15.1	85	18.8
Construction	6	5.7	36	16.7
Plantation	8	7.5	44	18.2
Housing	9	8.5	28	32.1
Services	15	14.2	56	26.3
Small/cottage industries	6	5.7	11	54.5
Total	**106**	**100.0**	**467**	

Notes: Source: Primary Data from the Survey of Malaysian Co-operatives, 2004.

Table 5.6: Involvement of the Co-operatives in the Sample in the Various Types of Activities

Activity	No. of Co-ops	Single-activity co-ops	Percentage
Credit	37	12	32.4
Consumer	33	6	18.2
Transport	27	6	22.2
Construction	28	5	17.9
Plantation	24	1	4.2
Housing	21	4	19.0
Services	36	10	27.8
Small/cottage industries	9	5	55.6
		49	

Notes: Source: Primary Data from the Survey of Malaysian Co-operatives, 2004

Table 5.7: Secondary Co-operatives to the Primary Co-operatives in the Sample

No.	Name of Secondary Co-operative	Years of Existence*	Status*
1.	Konsortium Koperasi Pengguna Malaysia Bhd	7	weak
2.	Konsortium Koperasi Industri Malaysia Bhd.	2	weak
3.	Koperasi Kemas Kebangsaan Bhd (KOKEMAS)	20	weak
4.	Koperasi. Peserta-Peserta Felcra Bhd	23	satisfactory
5.	Koperasi Pekebun Getah Nasional Bhd (NARSCO)	21	satisfactory
6.	Gabungan Koperasi Universiti Bhd.	15	average
7.	Gabungan Koperasi Peneroka FELDA Nasional Bhd	5	inactive
8.	Konsortium Koperasi Kelantan Berhad	2	weak
9.	Koperasi Pembangunan Negeri Kedah Bhd	6	weak
10.	Konsortium Koperasi Terengganu Berhad	1	weak
11.	Koperasi Pembangunan Negara Bhd.	19	inactive
12.	Koperasi Gabungan Pekebun Kecil Perak Bhd	21	satisfactory
13.	Koperasi KOPEMA Berhad	17	satisfactory
14.	ANGKASA	31	

Notes: i) * Information on the years of existence of secondary co-operatives and the status of secondary co-operatives (in terms of their financial performance) are obtained from the DCD's 2004 unpublished documents.
ii) Source: Primary Data from the Survey of Malaysian Co-operatives, 2004.

Table 5.8: Perceived Roles of Secondary Co-operatives

Roles of Secondary Co-operatives	Do not agree (0)	Neither agree no disagree (1)	Agree (2)	Mean	Standard Deviation
Co-ordinate, inform and advise on activities	7 (6.60)	21 (19.81)	78 (73.58)	1.6698	0.5972
Education and training to members	5 (4.72)	22 (20.75)	79 (74.53)	1.6981	0.5550
Represent specific co-op activity.	14 (13.21)	24 (22.64)	68 (64.15)	1.5094	0.7204
Spread knowledge of co-op principles	4 (3.77)	21 (19.81)	81 (76.42)	1.7264	0.5261
Develop strong and effective partnership with other co-op sectors	3 (2.83)	23 (21.70)	80 (75.47)	1.7264	0.5077
Assist with establishment and registration of new co-ops.	31 (29.25)	24 (22.64)	51 (48.11)	1.1887	0.8631
Liaise directly with government agencies	7 (6.60)	23 (21.70)	76 (71.70)	1.6509	0.6023
Link together scattered co-ops	5 (4.72)	23 (21.70)	78 (73.58)	1.6887	0.5583
Go into bigger business opportunities	7 (6.60)	23 (21.70)	76 (71.70)	1.6509	0.6023
Audit service to members	19 (17.92)	25 (23.58)	62 (58.49)	1.4057	0.7780
Constitutional and legal advise	16 (15.09)	25 (23.58)	65 (61.32)	1.4623	0.7455
Produce publications on performance of members	5 (4.72)	24 (22.64)	77 (72.64)	1.6792	0.5614
Procurement	9 (8.49)	24 (22.64)	73 (68.87)	1.6038	0.6426
Marketing members produce	7 (6.60)	23 (21.70)	76 (71.70)	1.6509	0.6023

Notes: i) The figures in parentheses denote percentages.
ii) Source: Primary Data from the Survey of Malaysian Co-operatives, 2004.

CHAPTER 6

THE RELATIONSHIP BETWEEN PRIMARY AND SECONDARY CO-OPERATIVES: AN EMPIRICAL ANALYSIS

6.1. Introduction

In a number of countries, the co-operative sector has made a significant contribution to the economy of their country, although they may account for a relatively small share of the total economic activity of the country. Impressive figures on the economic contribution of co-operatives, more often than not, reflect the successes of secondary co-operatives. For example, in consumer activity, the CWS in Britain was one of the largest businesses in the world in 1958 with sales of £463 million and production of £143 million (Bonner, 1961). In 2002, the Co-operative Group in the UK reported having sales of over £7 billion, profits of £231 million and employing over 70,000 people.[57] The Mondragon Co-operative in Spain is an example of a secondary co-operative for workers co-operatives. The Mondragon group of co-operatives consisted of 85 industrial, 6 agricultural and 14 housing co-operatives in 1982, that is 25 years after starting the first co-operative. In 2002, the Mondragon contributed 3.7% towards the total GDP of the Basque region in Spain. By the end of 2005, the Mondragon had created 78,455 jobs, of which 81% were members of co-operatives, whilst international sales amounted to €3,136 million in 2005.[58] The Marketing Unions in Greece, which are secondary co-operatives for the small local agricultural co-operatives employed more than 6,500 people on a permanent basis, or 61% of the total co-operative labour force in 1985 (Oustapassidis, 1992). The

[57] The Co-operative Group's May 2003 Fact Sheet, available online at http://www.co-op.co.uk [09/03/2004].
[58] All figures pertaining to the Mondragon Co-operative are obtained from the Mondragon's 2005 Annual Report, available online at http://www.mcc.es/ing/magnitudes/cifras_i.html [02/11/2006].

Portuguese Wine Co-operatives (PWCs), also secondary co-operatives, control about 50% of the Portuguese wine production and represent the output of some 70,000 growers at the primary level (Rebelo et al., 2002). In Spain, the COREN, the ANECO-OP and the AN are ranked among the top Spanish agro-food firms by turnover with sales amounting to €610 million, €350 million and €200 million respectively in 2001 (Arcas-Lario and Hernández-Espallardo, 2003).

Savings deposits in credit co-operatives in Germany totalled €183,824 million, which was 30% of the total savings deposits of €613,015 million in 2004. The successful credit co-operative movement in Germany lies in the successful vertical structure of the co-operative movement. In Germany, local primary credit co-operatives set up regional or national co-operative banks, i.e. secondary co-operatives, to deposit their excessive funds in, so as to earn interest on such funds and also to have funds readily available when required. It is the regional or the national co-operative banks that invest funds in country-wide projects and these co-operative banks are the ones that borrow funds from other private banks or from government agencies with ease (Enriquez, 1986). The Japanese Consumer Co-operative Union (JCCU), a secondary co-operative, reported that the retail sales of the 572 consumer co-operatives in Japan accounted for 2.83% of the total market share in the retail sector in Japan in 2003 (JCCU, 2003).

The figures described above, which illustrate the significant economic contribution of the co-operative sector, are largely the outcome of the secondary co-operatives' co-ordinated activities with the primary co-operatives. It is thus not surprising that the literature on co-operatives has focused on the common issues that affect the relevance, the existence, the future viability or the failure of secondary co-operatives (Peter and Scully, 1987; Soegaard, 1994; Ollilla, 1994; Baker, 1997; Guinnane and

Henrikson, 1998; Fairbairn, 2000; Birchall, 2000; Levasseur and Rousseau, 2001; Lambert and Bliss, 2001; Chloupkova et al., 2003; Anderson and Henehan, 2003; Zeuli et al., 2003; and Hogeland, 2003). Alternatively, studies have specifically analysed the performance of a particular type of secondary co-operative (Oustapassidis, 1992; Oustapassidis and Vlachvei, 1998; Singh et al., 2000; Rebelo et al., 2002; Arcas-Lario and Hernandez-Espallardo, 2003; Russo, 1999; Fukuyama et al., 1999; Guinnane, 2001; and Haan et al., 2003). This chapter therefore fits in with the first group, which focuses on secondary co-operatives from a general perspective. In particular, this chapter explores the relationship between primary and secondary co-operatives in Malaysia.

If a co-operative movement were to contribute significantly to the economy of a country, then the work of co-operatives at a higher level than the primary level, in particular the secondary co-operatives, may be important. Most importantly, the economic contribution of the secondary co-operatives follows from their effective functioning as secondary organisations towards their primary members. Therefore, the inability of the co-operative sector in Malaysia to make a significant contribution to the economy may be associated with the ineffective functioning of secondary co-operatives. This chapter explores the relationship between primary and secondary co-operatives in Malaysia using data derived from the survey described in Chapter 5. We present empirical analysis of the effect of being a member of a secondary co-operative on 4 measures of primary co-operative size: the number of members of the primary co-operative; the share capital of the primary co-operative; the assets of the primary co-operative; and an aggregate measure of primary co-operative size. We explore a variety of measures of the size of primary co-operatives since, as Lin and Nugent (1995) argue, the measurement of size is ambiguous. It can mean the

number of members, the amount of resources, or some combination thereof. This chapter also explores the relevance of secondary co-operatives in Malaysia from the primary co-operative's perspective, as the growth of the movement reviewed in Chapter 4 seems to indicate an insignificant role of secondary co-operatives. The remaining sections of this chapter are arranged as follows: Section 6.2 presents a literature review of secondary co-operatives; Section 6.3 presents a discussion of the data and the methodology for the analysis of the primary-secondary co-operative relationship; Section 6.4 presents the results of the analysis of the relationship between primary and secondary co-operatives in Malaysia; Section 6.5 presents the analysis of the relevance of secondary co-operatives; and finally concluding comments are presented in Section 6.6.

6.2. A Review of the Literature on Secondary Co-operatives

In many successful co-operative movements in the West, the task of creating greater visibility, of accessing certain markets and participating in the global market has been taken over by the secondary or federated structure. This is because, individually, co-operatives at the primary level may face limitations in the furtherance of their activities (Soegaard, 1994). Primary co-operatives are usually small firms that need support systems to help in areas such as banking, credit, accounting, transportation and marketing (New Renaissance Magazine)[59]. By themselves, they cannot fulfil all the functions of a large company. Primary co-operatives cooperate where necessary to realise the common interest and to maintain their basic autonomy where possible. It is the common interest in survival and the need to cooperate to survive that should exist among the primary co-operatives and

[59] Online magazine article published by the RenaissanceUniversal. (n.a.). *Cooperative Economics: An Interview with Jaroslav Vanek.* Renaissance Universal. Available: http://www.ru.org/51cooper.html [10/08/2005]

which represent the characteristics of secondary cooperatives (Soegaard, 1994). The secondary co-operatives provide the support system that would follow in the same spirit of the larger firm, maximizing welfare and income for all members. A secondary co-operative is thus the unit of primary co-operatives integrated to achieve economies of scale, greater negotiating power in the market and higher efficiency (*ibid*: 1994).

In general, primary co-operatives in the same line of activity will join together to meet their collective needs. The formation of coalitions is fundamentally attributed to economies of scale pertaining to functions performed by a collective organisation, and where an individual member organisation "does not have the competence or ability to respond sufficiently intelligently or flexibly to the problems faced" (Soegaard, 1994:108). From the perspective of the resourced-based view of the firm, forming or joining secondary co-operatives offers small primary co-operatives a pathway to resources that are critical to the primary co-operatives' economic success, such as access to market information, logistic procedures and new production or development of new products (Arcas-Lario and Hernández-Espallardo, 2003). According to transaction cost theory, each of the primary co-operatives is too small to accomplish the task separately; together they can ameliorate the possibility of market failure (Soegaard, 1994).

Economies of scale explain the transfer of functions to the secondary level. Small individual co-operative firms do not have the market power to control the critical resources required to be competitive. Their strategic weakness could be overcome through inter-organisational relationships. The role of inter-organisational power can be seen as a motive for this inter-organisational relationship or collective strategy (Soegaard, 1994). If cooperation did not extend beyond the first-level

groups, and neither economies of scale nor support links with a broader system were developed, the development of the co-operative movement would lose momentum (Carroll and Bebbington, 2000). Second-level organisations or federations constitute a mechanism through which heterogeneous interests and concerns might gain access to broader institutional spheres, for example, in addressing wider issues such as the emergence of new product markets or services that could probably not be resolved at the individual primary level (*ibid.*, 2000).

It is the secondary co-operatives who detect trends early which are relevant for the group, who formulate strategies, and who push forward the systematic development of the group (Schwarz, 1994). They push through product innovations, advertising, marketing, members and employee training and consultancy programmes (e.g. merchandising, technology, and information technology) (*ibid.*, 1994). Schwarz noted that the potential for accumulating specialized and professional expertise as well as management and marketing know-how at superordinate levels also gives secondary co-operatives a definite added value, which manifests itself in the functions of leadership, drive and promotion. Secondary co-operatives fulfil the functions conferred on them through production and performing services. Their services are reserved for members only, with the purpose of enhancing the economic activity of members with respect to efficiency and effectiveness. As an organisation created by primary co-operatives, the roles of the secondary co-operatives are to support, strengthen and promote the primary cooperatives. In other words, second-level organisations play an important role in the development of primary co-operatives (Schwarz, 1994; Cracknell, 1996).

Secondary co-operatives function better if members need them and if they can give some benefits to members. As organisations owned by primary co-operatives,

activities of secondary co-operatives are being decided upon by the primary co-operatives based on the common needs of the primary co-operatives, such that the better functioning of secondary co-operatives towards their members would depend on whether the secondary co-operatives can function as an integrated unit with the primary co-operatives, providing the co-operatives a pathway to critical resources for the success of the primary co-operatives. Thus, the main activity of the secondary organisation has to be in line with, or closely related to the members' own business at the primary level for the primary-secondary co-operatives' relationship to create economic value for the primary co-operatives (Soegaard, 1994) and for the stability of the business (Nilsson, 2001). Through the establishment of a vertical structure, co-operatives integrate members' own interests to obtain power in negotiations, market power, cost reduction and to ameliorate the possibility of market failure. The secondary co-operative specializes in the task of combining information from diverse sources, then feeding back to the appropriate parts of the system. Thus, primary co-operatives are assumed to benefit from such integration. Otherwise, the question of whether primary co-operatives need secondary co-operatives will arise (Zeuli et al., 2003b). Zeuli et al. also argue for the need for secondary co-operatives when the primary co-operatives have grown as large as their secondary co-operatives, i.e. when primary co-operatives, as single entities, have grown large and are able to address wider issues individually for their survival, in areas such as in credit, product development and marketing. This statement from Zeuli et al. should imply that a secondary co-operative may find its relevance among small primary co-operatives.

In some countries where secondary co-operatives appear to be successful, such as the Andalusian co-operatives and the Mondragon in Spain, the secondary co-

operatives are made up of primary co-operatives whose members are small in number. 88.3% of the Andalusian co-operatives of associated workers in Spain are made up of fewer than 12 members, only 0.96% have more than 100 members (Romero and Pérez, 2003). The Mondragon co-operatives in Spain had an average of 195 members in 1986 (Benham and Keefer, 1991). Benham and Keefer argue that, although the group size of the Mondragon co-operatives is still large by co-operative standards, the Mondragon is an exceptional case because of their involvement in manufacturing activity, which demands specialization. In other countries, the secondary co-operatives grouped together primary members in the same economic activity or which have similar produce, such as the milk unions in India and the marketing unions in Greek. In general, secondary cooperative members are often in the same industry and have common economic interests, which may involve joint marketing, purchasing of supplies and/or the provision of services. Therefore, two elements should constitute the characteristics of a secondary co-operative, i.e. small group size of the primary members (Romero and Pérez, 2003; Benham and Keefer, 1991) and homogeneity of members' activities (Oustapassidis, 1992; Rebelo et al., 2002; Singh et al., 2000).

North (1990) argues that co-operation among economic agents is more likely to exist when economic agents are relatively small in number. In the context of co-operatives, each one of the primary co-operatives is too small to accomplish the task of ameliorating possible market failure, separately. The co-operative banks in Western European countries are a product of the simplest classical forms of credit co-operation, where at first, small credit co-operatives are established and, after some time, they join to form co-operative banks on a regional or central level. Studies of secondary co-operatives such as Oustapassidis (1992), Singh et al. (2000),

Rebelo et al. (2000) and Arcas-Lario and Hernandez-Espallardo (2003) indicate that members of the secondary co-operatives constitute small groups of co-operative businesses. The secondary co-operatives in these studies are large while their member co-operatives are small.

Co-operatives belong to the collective type of socio-economic action. Collective action refers to activities that require the coordination of efforts by two or more individuals. It involves group actions intended to further the interest or well-being of members (Sandler, 1992). In the theory of collective action, small groups are preferred to large groups as small groups are considered effective, largely because a small group with homogeneous narrowly focused objectives would be easier to organize (Lin and Nugent, 1995). Homogeneity is thus an important factor for a successful group approach. Other group characteristics that make collective action feasible, besides small group size and homogeneity, are close social and physical proximity among group members (Olsen, 1965; Lin and Nugent, 1995). Olsen (1965) argues that the advantages of these group characteristics may be strengthened by organizing local, homogeneous groups into federations at the regional or national level (Olsen, 1965). Drimer (1997) focuses on group size, arguing that the size of co-operative groups at the primary level should be small for the organisation and functioning of co-operatives of second, third, or fourth degree.

This concise review of the literature on secondary co-operatives highlights the important role of secondary co-operatives in a co-operative movement, especially where the co-operative sector has been contributing significantly towards the economy. It also highlights issues relating to the relevance of the secondary organisations for the primary co-operatives. The following sections present the

econometric analysis of the primary-secondary co-operative relationship and the analysis of the relevance of the secondary co-operatives in Malaysia.

6.3. Data and Methodology for the Analysis of the Primary-Secondary Co-operative Relationship

The empirical analysis presented in this chapter uses the data collected from the survey described in Chapter 5. Our focus is on whether membership in secondary co-operatives influences the primary co-operatives in terms of the number of members, the share capital and the assets of the primary co-operatives.[60] Hence, we initially explore three different dependent variables. Our three dependent variables, membership in co-operative i (M_i), share capital of co-operative i (S_i) and assets of co-operative i (A_i) are defined as:

$$M_i = \begin{cases} 0 \text{ if the co-operative has 100 members or less} \\ 1 \text{ if the co-operative has 101 to 500 members} \\ 2 \text{ if the co-operative has 501 to 1000 members} \\ 3 \text{ if the co-operative has 1001 to 1500 members} \\ 4 \text{ if the co-operative has more than 1500 members} \end{cases}$$

$$S_i = \begin{cases} 0 \text{ if share capital is RM1000.00 or less} \\ 1 \text{ if share capital is from RM1001.00 to RM10,000.00} \\ 2 \text{ if share capital is from RM10,001.00 to RM100,000.00} \\ 3 \text{ if share capital is from RM100,001.00 to RM1,000,000.00} \\ 4 \text{ if share capital is from RM1,000,001.00 to RM50,000,000.00} \\ 5 \text{ if share capital is more than RM50 million} \end{cases}$$

[60] The aim of our analysis is to pick correlations, not on causality, although causality may operate in both directions i.e. where membership of a secondary co-operative is a function of the primary co-operative's size.

$$A_i = \begin{cases} 0 \text{ if assets are RM1000.00 or less} \\ 1 \text{ if assets are from RM1001.00 to RM10,000.00} \\ 2 \text{ if assets are from RM10,001.00 to RM100,000.00} \\ 3 \text{ if assets are from RM100,001.00 to RM1,000,000.00} \\ 4 \text{ if assets are more than RM1 million} \end{cases}$$

The three dependent variables are categorical variables that are inherently ordered in a sequence, i.e. an index.[61] The percentage of observations in each category of the dependent variables is presented in Table 5.2 in Appendix A5.5 of Chapter 5. For the econometric analysis of the effect of membership in secondary co-operatives on M_i, S_i and A_i, we adopt an ordered probit model, given the ordinal nature of the dependent variable. In general, the probit model is a variant of the qualitative response regression models, often known as probability models. It is a model where Y is qualitative, and the objective is to find the probability of an event occuring (Wooldridge, 2003). In the case of the ordered probit model, our objective is to ascertain the effect of the regressors on the probability that $Y = 1, 2, 3, 4, \ldots n$. Ordinary regression analysis would treat the difference between 4 and 3 the same as that between 3 and 2, whereas in fact they only reflect a ranking (Greene, 1997).

The ordered probit model is built around the latent variable framework:

$$y^* = x'\beta + \varepsilon \qquad (1)$$

[61] Initially, there were 6 categories of assets (A_i), similar to that of share capital (S_i). However, we have collapsed the six categories of assets (i.e. 0, 1, 2, 3, 4, and 5) into 5 categories (i.e. 0 to 4) due to the small number of observations in the fifth category. Category 5 of the assets (i.e. if assets are more than RM50 million) has been recoded into category 4 (i.e. if assets are more than RM1 million). The value of the ranges for share capital and assets are specified in the Malaysian Ringgit (RM), where the exchange rate is £1 for approximately RM7.

where y^* is unobserved.[62] What we do observe is:

$$
\begin{aligned}
&y = 0 \quad \text{if } y^* \le 0 \\
&y = 1 \quad \text{if } 0 \le y^* \le \mu_1 \\
&y = 2 \quad \text{if } \mu_1 \le y^* \le \mu_2 \\
&\cdot \qquad \cdot \\
&\cdot \qquad \cdot \\
&\cdot \qquad \cdot \\
&y = J \quad \text{if } \mu_{j-1} \le y^*
\end{aligned}
\tag{2}
$$

where J is the number of categories of the dependent variable, μ are the thresholds the latent variable must cross to change the value of y. The μ's are unknown parameters to be estimated along with β. Assuming that ε is normally distributed across observations, the mean and variance of ε is normalised to 0 and 1 respectively. We therefore have the following probabilities:

$$
\begin{aligned}
&\text{Prob}(y = 0) = \Phi(-x'\beta) \\
&\text{Prob}(y = 1) = \Phi(\mu_1 - x'\beta) - \Phi(-x'\beta) \\
&\text{Prob}(y = 2) = \Phi(\mu_2 - x'\beta) - \Phi(\mu_1 - x'\beta) \\
&\cdot \\
&\cdot \\
&\text{Prob}(y = J) = 1 - \Phi((\mu_{j-1} - x'\beta)
\end{aligned}
\tag{3}
$$

where Φ denotes the standard normal distribution. From the above equations, the probability that $y = 0$, for example, is a function of the characteristics x and parameter β, which are evaluated based on the standard normal distribution. For the probabilities to be positive, we must have $0 < \mu_1 < \mu_2 < \ldots < \mu_{j-1}$.

[62] The technical analysis from equations (1) to (3) is taken from Greene (1997).

Therefore, for our analysis of the effect of membership in secondary co-operatives on the number of members of a co-operative (M_i), we model the number of members as:

$$M_i^* = x_i'\beta + \varepsilon_i^M \qquad (4)$$

where M^* is the unobserved propensity of the co-operative i to have members, which is a latent variable. M is the observed number of members for the individual co-operative. x_i' is a vector of explanatory variables, ε_i^M denotes the random error term.

For our analysis of the effect of membership in secondary co-operatives on the share capital of a co-operative (S_i), we model share capital as:

$$S_i^* = x_i'\beta + \varepsilon_i^S \qquad (5)$$

where S^* is the unobserved propensity of the co-operative i to have share capital. S is the observed amount of share capital that the individual co-operative has and ε_i^S denotes the random error term.

For our analysis of the effect of membership in secondary co-operatives on the assets of a co-operative (A_i), we model assets as:

$$A_i^* = x_i'\beta + \varepsilon_i^A \qquad (6)$$

where A^* is the unobserved propensity of the co-operative i to have assets. A is the observed value of assets owned by the individual co-operative and ε_i^A denotes the random error term. The data from our survey comes from 106 primary co-operatives so $i = 1, \ldots, n$, where n=106.

Besides membership in a secondary co-operative (*SECOOP*), there are other factors that can be used to explain the number of members of a co-operative, the share capital of a co-operative and the assets of a co-operative. These measures of co-operative size would, in general, describe whether the co-operative is a small or a large co-operative. Small groups are characterised by local nature and homogeneous members (Olsen, 1965), where homogeneity may come in several forms such as homogeneity in sex, race, occupation and income. Therefore, we include homogeneity of the primary co-operative members in terms of homogeneity in members' occupation (*HOCCUP*) and in the racial composition of the members (*SRACE*) as explanatory variables. For local characteristics, we include the distribution of co-operative members (*REGIMB*) and the co-operative's area of operation (*REGIOP)* as explanatory variables because these two characteristics of the co-operative describe the relative local nature of a primary co-operative in Malaysia as compared to a primary co-operative with members distributed nationwide and a primary co-operative that operates on a nationwide scale, respectively. In addition, we also include the main activity of the co-operative (*MAINACT*) in our set of explanatory variables, based on the argument in Enriquez (1986) that the activity of the co-operatives can also affect the number of members, the share capital and the assets of co-operatives. For example, a consumer co-operative, which serves consumers by retailing, requires a relatively larger membership as compared to a worker co-operative to boost sales so as to cover costs and leave sufficient margins. We control for the main activity of the co-operatives by distinguishing between 8 categories of activity: credit, consumerism, transportation; construction; plantation; housing; services; and small/cottage industries.

All of the explanatory variables are dummy variables, which take the value of either 0 or 1: *SECOOP* equals 1 if the co-operative is a member of a secondary co-operative and 0 if otherwise; *HOCCUP* equals 1 if the co-operative members are individuals from the same occupation or employment and 0 if otherwise; *SRACE* equals 1 if the co-operative members are single-raced and 0 if otherwise; *REGIOP* equals 1 if the co-operative operates on a regional scale and 0 if otherwise; *REGIMB* equals 1 if the members of the co-operative are distributed regionally and 0 if otherwise.

There are 8 dummy variables for co-operative activity, i.e. credit, consumerism, transportation; construction; plantation; housing; services; and small/cottage industries. The value is 1 if the main activity of a co-operative falls into a specific category. For example, for the category credit as the main activity, 'credit' equals 1 if the main activity of the co-operative is credit and 0 if otherwise.[63]

6.4. The Results

6.4.1. *The primary co-operatives' membership and secondary co-operatives*

Table 6.1 in Appendix A6[64] presents two specifications of the ordered probit analysis of the effect of membership in secondary co-operatives and the other explanatory variables on the number of members of a primary co-operative. Specification 1 represents the model specified above, while in Specification 2, we have replaced the membership in a secondary co-operative dummy variable with the primary co-operative's tenure of membership in the secondary co-operative. The tenure of membership in the secondary co-operative (*TENURE*) comprises four

[63] Summary statistics relating to the dependent variables and the explanatory variables can be found in Chapter 5.
[64] Table 6.1 and all the other tables (unless otherwise stated) are presented at the end of Chapter 6 in Appendix A6.

categories of dummy variables: not more than 5 years; 6 to 10 years; 11 to 15 years; and more than 15 years. The omitted category for *TENURE* is where the co-operatives are not members of a secondary co-operative. It is interesting to analyse the *TENURE* variable as this allows us to explore the effect of a long standing relationship with secondary co-operatives on the number of members in the primary co-operative.

In Specification 1, the estimated coefficient of being a secondary co-operative member on the number of members after controlling for the other explanatory variables is positive and statistically significant. The estimated coefficient representing regionally distributed members is negative and statistically significant. With respect to area of activity, credit is the omitted category, the group against which comparisons are made for the other seven activities.[65] The estimated coefficients representing transportation activity, construction activity, plantation activity, services activity and small/cottage industry activity are all negative and statistically significant.

In Specification 2, the estimated coefficient for the dummy variable representing more than 15 years of tenure of membership in a secondary co-operative is positive and statistically significant, while the estimated coefficient for not more than 5 years of membership in a secondary co-operative is negative and statistically significant. It is reasonable to expect that a short relationship with a secondary co-operative may not result in an increase in the size of primary co-operatives in terms of the number of members, as compared to primary co-operatives with long standing relationship with secondary co-operatives. Although it may be argued that the tenure of membership in secondary co-operatives may be picking up an age effect of co-

[65] By including all the eight area of activity dummy variables, we would introduce perfect collinearity (Wooldridge, 2003).

operatives, i.e. co-operatives that have joined secondary co-operatives longer would probably be older co-operatives, it is also important to note that co-operatives that have joined secondary co-operatives less than 5 years may also be older co-operatives, as the decision to join a secondary co-operatives lies with the primary co-operative.[66] The estimated coefficients for regionally distributed membership, transportation activity, construction activity, plantation activity, services activity and small/cottage industry activity are all negative and statistically significant.

The estimated coefficients measure the effect of a particular explanatory variable on the number of members in the primary co-operative, holding all other explanatory variables constant. To interpret the coefficients, we need to focus on the marginal effects. This is because the marginal effects of the regressors on the probabilities are not equal to the coefficients. Assume for example, that there are three categories, then the three probabilities are:

$$\begin{aligned} \text{Prob}(y=0) &= 1-\Phi(-x'\beta) \\ \text{Prob}(y=1) &= \Phi(\mu-x'\beta)-\Phi(-x'\beta) \\ \text{Prob}(y=2) &= 1-\Phi(\mu-x'\beta) \end{aligned} \qquad (7)$$

Equation (7) above and equation (8) below are taken from Greene (1997). As for the three probabilities, the marginal effects of changes in the regressors are given by:

$$\begin{aligned} \frac{\partial prob(y=0)}{\partial x} &= -\phi(x'\beta)\beta \\ \frac{\partial prob(y=1)}{\partial x} &= \left[\phi(-x'\beta)-\phi(\mu-x'\beta)\right]\beta \\ \frac{\partial prob(y=2)}{\partial x} &= \phi(\mu-x'\beta)\beta \end{aligned} \qquad (8)$$

[66] Unfortunately, there is no data pertaining to age of the co-operatives that we collected in our survey.

The marginal effects give the predicted effects of the regressors on the probability of each category of the dependent variable occurring. For an ordered dependent variable with five categories, in this case the number of members, there are 5 probabilities (probability $Y = 0, 1, 2, 3,$ and 4), arranged in a sequence, in which 0 is the category denoting the lowest number of members and 4 is the category denoting the largest number of members. The model thus has four threshold parameters. By focusing on the marginal effects, we can find out what category of the dependent variable can be directly attributable to the regressors. Table 6.2 presents the computed marginal effects of the significant estimated coefficients for Specification 1 and for Specification 2 in Table 6.1.

The marginal effects present the predicted effects of the explanatory variables on each category of the number of members. In Specification 1, with respect to having 100 members or less, a co-operative that is a member of a secondary co-operative has a 19% lower probability of having between 101 and 500 members relative to a co-operative that is not a member of a secondary co-operative. There is a 19% higher probability of co-operatives that are members of secondary co-operatives having more than 1500 members relative to co-operatives that are not members of a secondary co-operative. This finding indicates the positive effect of membership in a secondary co-operative on the number of members of the primary co-operative for Malaysia. Co-operatives that are members of secondary co-operatives are more likely to have a larger membership.

In Specification 2, co-operatives that have been members of secondary co-operatives for not more than 5 years have a 37% higher probability of having between 101 and 500 members, a 9% lower probability of having between 1001 and 1500 members

and a 24% lower probability of having more than 1500 members relative to co-operatives that are not a secondary co-operative member. However, co-operatives that have been members of a secondary co-operative for more than 15 years, have a 47% lower probability of having between 101 and 500 members, with an increasing probability of having a larger number of members relative to co-operatives that are not a secondary co-operative member. There is only a 11% lower probability of having between 501 and 1000 members and a 59% higher probability of having more than 1500 members relative to co-operatives that are not a secondary co-operative member. These findings indicate that primary co-operatives that have a long standing relationship with secondary co-operatives are more likely to have a larger number of members.

As for the other explanatory variables with significant estimated coefficients, i.e. regional distribution of members, transport activity, construction activity, plantation activity, services activity and small/cottage industry activity, they all have a similar pattern of probabilities for both Specification 1 and Specification 2, i.e. a decreasing probability of having a larger number of members. For example, in Specification 1, co-operatives that have members distributed regionally have a 35% higher probability of having between 101 and 500 members and a 41% lower probability of having more than 1500 members relative to co-operatives whose members are distributed nationwide. In Specification 2, co-operatives that have members distributed regionally have a 33% higher probability of having between 101 and 500 members and a 36% lower probability of having more than 1500 members relative to co-operatives that have members distributed on a national scale. For the other explanatory variables mentioned above, we will focus on the results for Specification 2 because Specification 2 has a larger pseudo R-squared, i.e. 0.2753

(0.1764 in Specification 1). The pseudo *R*-squared is the coefficient of determination for binary responses. It is comparable to the usual *R*-squared, which tells us the proportion of the variation in the dependent variables explained by the explanatory variable (Wooldridge, 2003; Gujarati, 1999). For Specification 2, about 28% of the variation in the number of members can be explained by the explanatory variables.

Therefore, in Specification 2, relative to credit activity (i.e. the omitted category), co-operatives with transport activity as their main activity have a 42% higher probability of having between 101 and 500 members, a 11% lower probability of having between 501 and 1000 members, a 10% lower probability of having 1001 to 1500 members and a 29% lower probability of having more than 1500 members. The construction co-operatives have a 37% higher probability of having between 101 and 500 members, a 18% lower probability of having 501 to 1000 members, a 12% lower probability of having 1001 to 1500 members and a 27% lower probability of having more than 1500 members relative to credit co-operatives. This pattern can be observed in the co-operatives engaged in plantation activity and services activity. Co-operatives in plantation activity have a 37% higher probability of having 101 to 500 members, a 9% lower probability of having 1001 to 1500 members and a 24% lower probability of having more than 1500 members relative to the credit co-operatives. The services co-operatives have a 44% higher probability of having 101 to 500 members, a 13% lower probability of having 501 to 1000 members, a 11% lower probability of having 1001 to 1500 members and a 30% lower probability of having more than 1500 members relative to the credit co-operatives. However, for the small/cottage industry co-operatives, the higher probability of having between 101 and 500 members is not statistically significant,

but they have a 22% lower probability of having between 501 and 1000 members, a 13% lower probability of having between 1001 and 1500 members and a 30% lower probability of having more than 1500 members relative to the credit co-operatives.

The finding that co-operatives with regionally distributed members are more likely to have a smaller number of members accords with our expectations. It is reasonable to predict that primary co-operatives, whose members are confined within a specific region, would not have a large membership, relative to co-operatives whose members are distributed on a wider area. It is also reasonable to predict that in Malaysia, transportation co-operatives, construction co-operatives, plantation co-operatives, services co-operatives and small/cottage industry co-operatives would also have a smaller membership relative to credit co-operatives. This is because, in Malaysia, most of the credit co-operatives are formed by employees in public services. With more than 1.2 million civil servants throughout the country, it seems reasonable to predict that credit co-operatives formed in the public services would have a large membership, even though the co-operatives operate on a regional scale. Credit co-operatives in the public services that operate on a nationwide scale normally comprise of employees from a specific organisation of the public services such as the credit co-operative of the armed forces. Credit co-operatives in the public services that operate on a regional scale normally comprise civil servants working in a particular state irrespective of the organisation they are working for. Therefore, whether they are nationwide or regional credit co-operatives, the credit co-operatives are able to pool together a relatively large number of individuals with heterogeneous social and economic characteristics as members.

For transport and plantation co-operatives, we expect that these co-operatives, in particular, would not have a large number of members because the transportation and the plantation businesses essentially group together individuals who are actually involved in these businesses, as members. For example, taxi co-operatives group together taxi drivers and coconut growers' co-operatives, which manage coconut plantations, group together coconut growers. These two areas of co-operative activity require a certain degree of involvement of their members in these activities, which may account for the lower probabilities of co-operatives engaged in these activities having a large number of members. The small/cottage industry co-operatives are the KIKs. As noted in Chapter 4, the KIKs are one of the types of co-operatives that have been granted the special provision under Subsection 8(1) of the Co-operative Act to be registered as a co-operative with less than 100 members. We would, therefore, expect that the small/cottage industry co-operatives would not have a large number of members.

6.4.2. The primary co-operatives' share capital and secondary co-operatives

Table 6.3 presents the results corresponding to two specifications of the ordered probit analysis focusing on the effect of membership in secondary co-operatives on the share capital of the primary co-operatives.

Neither membership in a secondary co-operative in Specification 1 nor the tenure of membership in secondary co-operative in Specification 2, have statistically significant estimated coefficients. These results indicate that the share capital of a co-operative is not influenced by the co-operative's membership in a secondary co-operative. The share capital of a co-operative represents the contribution of the co-operative's members. In Malaysia, where the primary co-operative members are

mostly individuals, who do not depend on co-operatives for a living,[67] it seems reasonable to predict that members would not contribute much to co-operative capital. Where the primary co-operative members are a group of individuals running a business activity that they depend on for living, and where the primary cooperative's membership in secondary co-operatives may enhance the economic activity of the members, leading to increased welfare and income of the members, it may be the case that members would be motivated to invest more in the co-operative's capital.

In both Specification 1 and Specification 2, the estimated coefficients for the racial composition of members, the main activity of transportation and the main activity of plantation are negative and statistically significant. Since the pseudo R-squared for Specification 2 is larger, we present in Table 6.4, the marginal effects of the variables with statistically significant estimated coefficients for Specification 2. In Table 6.4, the single-race co-operatives have a 10% higher probability of having between RM1001.00 and RM10,000.00 in share capital relative to the multiracial co-operatives. The probability of the single-race co-operatives having a higher amount of share capital decreases, with a significant 5% lower probability of having between RM100,001.00 and RM1,000,000.00 in share capital and a 16% lower probability of having between RM1,000,001.00 and RM50,000,000.00 in share capital relative to the multiracial co-operatives. A similar pattern is observed in the co-operatives in transport and in plantation. In general, relative to the credit activity co-operatives, the transport activity co-operatives and the plantation activity co-operatives have a higher probability of having between RM1001.00 and RM10,000.00 in share capital, with a 11% higher probability for the transport

[67] The review of co-operatives in Malaysia in Chapter 4 indicates that members of primary co-operatives are mostly employees in an organization with a fixed income.

activity co-operatives and a 9% higher probability for the plantation activity co-operatives. However, the probability of co-operatives in these two areas of activity having a higher category of share capital decreases, with them having a significantly lower probability of having more than RM100,000.00 in share capital. There is a 16% lower probability of the transport activity co-operatives having between RM100,001.00 and RM1,000,000.00 and a 21% lower probability of having between RM1,000,001.00 and RM50,000,000.00 in share capital relative to the credit co-operatives. The plantation activity co-operatives have a 15% lower probability of having between RM100,001.00 and RM1,000,000.00 and a 18% lower probability of having between RM1,000,001.00 and RM50,000,000.00 in share capital relative to the credit co-operatives.

A priori expectations suggested that most of the explanatory variables would be associated with a higher probability of having low levels of share capital. Such expectations were based on the characteristics of the primary co-operative members discussed in Chapter 4, which indicated that most of the co-operative members are fixed income earners. As individuals employed with a fixed income, it is reasonable to assume that it is less likely that the co-operative's members would be entrepreneurs. Davis (1999) argues that where entrepreneurs are absent in co-operatives, it would be difficult for co-operatives to accumulate capital. In such a case, as in Malaysia, we might predict that, in general, primary co-operatives would have low levels of share capital. It is also reasonable to assume that co-operative members tend to keep their contributions to the co-operative's capital to the minimum, as argued by de Drimer (1997). Co-operatives with high levels of share capital would then be co-operatives with a large number of members. Cross-tabulations between share capital and the number of members indicate that 75% of

the co-operatives representing the largest two categories of share capital (i.e. having between RM1,000,001.00 and RM50,000,000.00 in share capital or having more than RM50 million in share capital) belong to the category of co-operatives that have the largest number of members, i.e. more than 1500 members (see the shaded area of Table 6.5).

Although, in accordance with expectations, the estimated coefficients representing most of the other explanatory variables are negative, only the estimated coefficients representing the transport co-operatives, the plantation co-operatives and the single-raced co-operatives are statistically significant. As indicated in Section 6.4.1, the transport co-operatives and the plantation co-operatives are more likely to have a smaller number of members. Therefore, a possible explanation for the low levels of share capital of these co-operatives may, therefore, lie in them having a smaller number of members. The same explanation can also be used for the single-raced co-operatives. Limiting membership to a particular race may be regarded as a form of group homogeneity, which is a characteristic for small groups (Olsen, 1965). Thus, smaller groups are more likely to have small share capital and this may be particularly the case with co-operatives in Malaysia.

6.4.3. The primary co-operatives' assets and secondary co-operatives

Table 6.6 presents the ordered probit analysis focusing on the effect of membership in secondary co-operative on the level of assets of primary co-operatives. In Specification 1, the negative estimated coefficient for membership in a secondary co-operative is insignificant. In Specification 2, however, the estimated coefficients of the dummy variables denoting tenure of not more than 5 years and 11 to 15 years of membership in a secondary co-operative are negative and statistically significant. Also negative and statistically significant in both Specifications 1 and 2 are the

estimated coefficients representing regionally distributed membership, transport activity and small/cottage industry activity. However, the estimated coefficient representing services activity is negative and statistically significant only in Specification 2. Once again, for Specification 2, the marginal effects of the statistically significant variables are presented in Table 6.7.

Co-operatives that have been members of a secondary co-operative for not more than 5 years have a significantly 24% lower probability of having more than RM1 million in assets relative to co-operatives that are not members of a secondary co-operative. Meanwhile, co-operatives that have been members of secondary co-operatives between 11 and 15 years have a significantly 12% higher probability of having between RM10,001.00 and RM100,000.00 in assets and a significantly 23% lower probability of having more than RM1 million in assets relative to co-operatives that are not members of a secondary co-operative.

Co-operatives whose members are regionally distributed have a 13% higher probability of having between RM10,001.00 and RM100,000.00 in assets, a 20% higher probability of having between RM100,001.00 and RM1,000,000.00 in assets and a 40% lower probability of having more than RM1 million in assets relative to co-operatives whose members are distributed nationwide. The transport co-operatives, the service co-operatives and the small/cottage industry co-operatives also, are more likely to have smaller assets relative to the credit co-operatives. They respectively have 13%, 12% and 17% higher probabilities of having between RM10,001.00 and RM100,000.00 in assets and 26%, 24% and 32% lower probabilities of having more than RM1 million in assets relative to the credit co-operatives. These findings accord with our expectations based on the discussion of co-operatives' assets in Chapter 4, which indicated that 84.7% of the assets of co-

operatives in Malaysia are owned by credit co-operatives, which are mostly co-operatives with members distributed nationwide. One might expect therefore that the rest of the co-operatives would be more likely to have lower assets.

6.4.4. An Aggregate Measure of Primary Co-operative Size

Finally, we analyse the effect of membership in a secondary co-operative on an aggregate measure of the size of the primary co-operative. So far, we have analysed 3 measures of size: the number of members; the share capital; and the assets of the primary co-operative. We analysed a 5-point index for the number of members, a 6-point index for the amount of share capital, and a 6-point index for assets. In this section, we analyse an aggregate index by summing all three indexes for each co-operative. Higher values of the index represent larger co-operatives in terms of membership, share capital and assets. The minimum aggregate value of the three indexes is 3.00 and the maximum is 17.00. Although it may be accepted that co-operatives with higher aggregate values are larger co-operatives, the index for the number of members, the share capital and the assets of co-operatives that have the same aggregate value, are not the same. Some co-operatives may have a large number of members index and a low share capital index, whilst another co-operative with the same aggregate value may have a low number of members index and a large share capital index, but when the indexes of each of co-operatives are added together, their aggregate value may be the same.

The distribution of the co-operatives by the aggregate index is given in Table 6.8 below.

Table 6.8: Distribution of Co-operatives by the Aggregate Index

Value of the aggregate index (G_i)	Aggregate value	Percentage
0	3	0.9
1	4	2.8
2	5	0.9
3	6	3.8
4	7	7.5
5	8	14.2
6	9	11.3
7	10	7.5
8	11	13.2
9	12	5.7
10	13	8.5
11	14	5.7
12	15	14.2
13	16	0.9
14	17	2.8
	Total	**100.0**

To analyse the effect of membership in a secondary co-operative on the aggregate index, we define the dependent variable (G_i) as in Table 6.8 above. As G_i is an ordered variable, we again specify an ordered probit model to analyse the relationship between membership in a secondary co-operative and the aggregate measure of the size of the primary co-operative. The model has the same set of explanatory variables as in the previous three subsections.[68]

Table 6.9a in the Appendix presents two specifications of the ordered probit analysis of the effect of membership in a secondary co-operative and the other explanatory variables on the aggregate size index. In Specification 1, the estimated coefficient for membership in a secondary co-operative is positive but not significant. However, in Specification 2, the estimated coefficient for not more than

[68] We have also collapsed G_i into 5 categories: aggregate values 3 to 8 (group 1); aggregate values 9 (group 2); aggregate values 10 and 11 (group 3); aggregate values 12 to 14 (group 4); and aggregate values 15 to 17 (group 5). While the results of the analysis without collapsing the dependent variable are presented in Table 6.9a, we also present the results from collapsing the dependent variable into five categories in Table 6.9b.

5 years membership in a secondary co-operative is negative and statistically significant and the estimated coefficient for more than 15 years membership in a secondary co-operative is positive and statistically significant. As discussed in Section 6.4.1, although it may be argued that the tenure of secondary co-operatives may be picking up an age effect of co-operatives, there may be also older co-operatives that have become a member of secondary co-operatives for not more than 5 years.

The estimated coefficients for transport activity, services activity and small/cottage industry activity are all negative and statistically significant for both Specification 1 and Specification 2. However, the estimated coefficient for consumer activity is negative and statistically significant only in Specification 1 and the estimated coefficient of plantation activity is negative and statistically significant only in Specification 2. Since the explanatory variables in Specification 2 explain about 13% of the variation in the size of co-operatives as compared to about 9% in Specification 1, we will present the marginal effects for Specification 2 in Tables 6.10a and 6.10b.

With the collapsed categories of the aggregate index (see Table 6.9b), the estimated coefficient representing consumer activity co-operatives is negative and significant only in Specification 1. In general, in Specification 1, there is no difference in the results between the collapsed 5-point index in Table 6.9b and the 15-point aggregate index (G_i) in Table 6.9a in terms of the estimated coefficients of the statistically significant variables. However, in Specification 2, the negative and significant estimated coefficients representing the single-raced co-operatives and not more than 5 years membership in a secondary co-operative in Table 6.9a remain negative but insignificant for the collapsed categories of the aggregate index (Table 6.9b).

Meanwhile, the estimated coefficient representing the construction co-operatives, which was negative and insignificant in Table 6.9a, remains negative but is now statistically significant in Table 6.9b.

For the collapsed categories of the aggregate index, we present the marginal effects for Specification 2 in Table 6.10c, as the explanatory variables in Specification 2 explain about 17% of the variation as compared to about 13% in Specification 1. Hence, we focus upon the interpretation of the marginal effects for Specification 2 associated with the estimates presented in Table 6.9b (i.e. the collapsed index).

It is apparent from Table 6.10c that co-operatives that have been members of a secondary co-operative for more than 15 years are more likely to be co-operatives with a higher value of the aggregate index, i.e. larger co-operatives. There is a 23% lower probability of being in category 1 of the collapsed index, a 8% lower probability of being in category 2 of the collapsed index, a 13% higher probability of being in category 4 of the collapsed index and a 23% higher probability of being in category 5 of the collapsed index, relative to co-operatives that are not members of a secondary co-operative. These results indicate that the tenure of membership in a secondary co-operative does influence the size of the primary co-operative. Co-operatives that have been secondary co-operative members for more than 15 years are relatively large in size as measured by the aggregate index.

The overall size of primary co-operatives can also be explained by the other explanatory variables. Co-operatives with regionally distributed members have a 26% higher probability of being in category 1 of the collapsed index, a 9% higher probability of being in category 2 of the collapsed index, a 14% lower probability of being in category 4 of the collapsed index, and a 29% lower probability of being in

category 5 of the collapsed index, relative to co-operatives whose members are distributed nationwide. The findings relating to co-operatives with regionally distributed members suggest that this characteristic of the primary co-operative is likely to affect the size of the primary co-operative.

With respect to economic activity, relative to the credit activity co-operatives (i.e. the omitted category), transport activity, construction activity, plantation activity, services activity and small/cottage industry co-operatives are more likely to be smaller co-operatives. The transport co-operatives have a 49% higher probability of being in category 1, a 13% lower probability of being in 3, a 24% lower probability of being in category 4, and a 14% lower probability of being in category 5, relative to the credit co-operatives. The construction co-operatives have a 35% higher probability of being in the collapsed category 1, a 18% lower probability of being in the collapsed category 4, and a 10% lower probability of being in the collapsed category 5 relative to the credit co-operatives.

The plantation activity co-operatives have a 43% higher probability of being in category 1, 21% and 11% lower probabilities of being in categories 4 and 5 respectively, relative to credit co-operatives. The services activity co-operatives have a 47% higher probability of being in category 1, 12%, 23% and 13% lower probabilities of being in categories 3, 4 and 5 respectively, relative to credit co-operatives. If co-operatives are in the small/cottage industry activity, they have a 37% higher probability of being in category 1, a 19% lower probability of being in category 4, and a 10% lower probability of being in category 5, relative to the credit co-operatives.

The findings for transport co-operatives, construction co-operatives, plantation co-operatives, services co-operatives and small/cottage industry co-operatives indicate that these co-operatives are the co-operatives that are less likely to belong to the large size range relative to the credit co-operatives. The findings pertaining to co-operatives with regionally distributed members, accord with our expectations that co-operatives with this characteristic are likely to be in the small size range.

6.4.5. Summary

In this section, using the data from the survey of Malaysian co-operatives, we have analysed the effect of being a secondary co-operative member on 4 measures of co-operative size: the number of members; the share capital; the assets of the primary co-operatives; and the aggregate index. Our aim was to explore the relationship between primary and secondary co-operatives in Malaysia. The findings indicate that the effect of membership in a secondary co-operative is only statistically significant for the number of members of the primary co-operative, especially for co-operatives that have a long standing relationship with secondary co-operatives. The review of co-operatives in Malaysia in Chapter 4 indicates that there is a large number of primary co-operatives that are not members of a secondary co-operative. Out of the 2817 adult primary co-operatives in 2003, only 1001 co-operatives are members of a secondary co-operative, 1816 (64.5%) co-operatives are not. The question arises therefore as to whether secondary co-operatives are relevant among the primary co-operatives in Malaysia. In the following section, we present econometric analysis pertaining to the relevance of secondary co-operatives for primary co-operatives in Malaysia.

6.5. Analysis of the Relevance of Secondary Co-operatives

From the review of co-operatives in Malaysia in Chapter 4, it is apparent that there are primary co-operatives that are larger than secondary co-operatives. There is also quite a large number of primary co-operatives that are not members of a secondary co-operative. This observation is also apparent in the questionnaire survey, in which out of the 106 primary co-operatives in our sample, 56 co-operatives are members of a secondary co-operative (see Chapter 5). Although over 50% of the sample are members of a secondary co-operative, the percentage of non-members of secondary co-operatives is almost as high as the secondary co-operative members.

In the context of primary co-operatives growing as large as their secondary co-operatives, Zeuli et al. (2003b) raise the question of what the primary co-operatives are using the secondary co-operatives for. This question is also appropriate where secondary co-operatives constitute different types of primary co-operatives as members. In general, in contrast to the secondary co-operatives in the West, most of the secondary co-operatives in Malaysia comprise primary co-operatives that do not have a common economic activity. Thus, it is less likely that in such a situation the presence of the secondary co-operative may create economic value in the primary-secondary co-operative relationship and give added value for the existence of secondary co-operatives. It is therefore important to explore the relevance of secondary co-operatives in Malaysia, to ascertain whether, in general, the secondary co-operatives have been functioning as they should towards their members and whether secondary co-operatives are needed by the primary co-operatives.

Zeuli et al. (2003b) study the relevance of secondary co-operatives among agricultural co-operatives in the US by analysing the satisfaction of the primary co-operatives with their secondary co-operative. In their study, they included sales

growth, the co-operative's perception of duplication of service by the secondary co-operatives, the increase in product and services offered by the primary co-operatives, the increase in the number of the primary co-operative's members and the amount of patronage refunds received from the secondary co-operatives, to explain the satisfaction of the primary co-operative with their secondary co-operatives. In their study of agricultural co-operatives, it is apparent that the co-operatives have a common economic activity and that the secondary co-operatives play the role of supporting and strengthening the primary co-operatives for the survival of the primary co-operatives.

Since this thesis does not focus on any particular type of secondary co-operative in Malaysia, but instead focuses on the co-operative movement in general and since most of the secondary co-operatives have different types of co-operatives as members, in this chapter, we analyse the relevance of secondary co-operatives in Malaysia from these two perspectives: 1) the satisfaction of the primary co-operatives with their secondary co-operatives, which we analyse in Section 6.5.1; and 2) the perceptions of the need for secondary co-operatives, which we analyse in Section 6.5.2. We analyse the satisfaction of the primary co-operatives with their secondary co-operatives from their responses pertaining to the benefits they have acquired from membership in a secondary co-operative (i.e. Questions 13 to 16 in the survey) and we analyse the perceived need for secondary co-operatives from the responses to Question 19 in the questionnaire survey, which asked respondents whether they agree that primary co-operatives need secondary co-operative to develop.

6.5.1. Satisfaction with Secondary Co-operatives

Question 12 in the questionnaire survey asked respondents if they are satisfied with the secondary co-operatives. The satisfaction of the primary co-operative with the secondary co-operative is measured on a 5-point Likert scale, ranging from 1 to 5 (1 denotes 'not at all satisfied', 2 denotes 'not very satisfied', 3 denotes 'neither satisfied nor dissatisfied', 4 denotes 'somewhat satisfied' and 5 denotes 'very satisfied'). Since only the primary co-operatives that are members in a secondary co-operative responded to this question, we assign the 0 category as the category for non-members of secondary co-operatives because our sample for the econometric analysis with only the 56 secondary co-operative members would, otherwise, be somewhat small. Also, considering that the decision to join or to form a secondary co-operative lies with the primary co-operatives, it would not be appropriate to record the non-members of secondary co-operatives under the 5-point scale of satisfaction in secondary co-operatives (in this case it would be under the category that denotes 'neither satisfied nor dissatisfied'). Table 6.11 below presents the responses to Question 12 on the satisfaction of the primary co-operative with secondary co-operatives for the sample of 106 co-operatives.

Table 6.11: The Level of Satisfaction with Secondary Co-operatives

Level of Satisfaction (T_i)	Percentage
0	47.2
1	1.9
2	7.5
3	12.3
4	27.4
5	3.8
	100.0

From the table above, if we take levels 4 and 5 to denote satisfied with secondary co-operatives and levels 1 and 2 to denote dissatisfied with secondary co-operatives, then there is a larger percentage of co-operatives (31.2%) that expressed satisfaction with their secondary co-operatives as compared to 9.4% that expressed dissatisfaction.[69] The higher percentage of co-operatives that are satisfied with their secondary co-operatives does not accord with our expectations as the discussion on the performance of the secondary co-operatives presented in Chapter 4 does not seem to indicate that secondary co-operatives have been performing towards the furtherance of the activities of the primary co-operatives. It is reasonable to assume that it is less likely that the secondary co-operatives would be able to enhance the economic activity of members, where, in general, the activities of secondary co-operatives are not related to the activities of the different types of primary co-operatives. Hence, based on the responses presented in Table 6.11 above, our dependent variable satisfaction with secondary co-operatives (T_i) with the six levels of outcome (i.e. 0 to 5) is defined as:

$$T_i = \begin{cases} 0 \text{ if the co-operative is not a member of a secondary co-operative} \\ 1 \text{ if the co-operative is not at all satisfied with the secondary co-operative} \\ 2 \text{ if the co-operative is not very satisfied with the secondary co-operative} \\ 3 \text{ if the co-operative is neither satisfied nor dissatisfied with the secondary co-operative} \\ 4 \text{ if the co-operative is somewhat satisfied with the secondary co-operative} \\ 5 \text{ if the co-operative is very satisfied with the secondary co-operative} \end{cases}$$

[69] In Zeuli et al. [2003b], the measure of primary co-operative's satisfaction with secondary co-operatives were categorised into: 'Very Satisfied'; 'Somewhat Satisfied'; and 'Not Satisfied'.

As the dependent variable (T_i) is an ordered variable, we specify an ordered probit model to analyse the satisfaction with secondary co-operatives.[70]

Satisfaction with secondary co-operatives may be explained by the perceived and real benefits that primary members receive from their membership with secondary co-operatives (Zeuli et al., 2003b). Such benefits may be in the form of: 1) primary co-operatives using the services provided by their secondary co-operatives (*USERV*); 2) primary co-operatives getting their needs supplied by the secondary co-operatives (*NSUPP*); 3) primary co-operatives receiving dividends or rebates from the secondary co-operatives (*DIVDN*); 4) primary co-operatives experiencing an increase in income (*INCOME*); 5) primary co-operatives experiencing an improvement in their products/services (*PRODUCT*); and 6) primary co-operatives experiencing an increase in the number of members (*MEMBRS*). The information on the perceived benefits from secondary co-operatives is provided by the responses to the survey sent to primary co-operatives in Malaysia (i.e. Questions 13 to 16, see Chapter 5, in Appendix A5.1).

In addition, it can be argued that satisfaction with secondary co-operatives could be related to the ability of secondary co-operative to fulfil the functions conferred on them. Secondary co-operatives fulfil the functions conferred on them through production and performance of services with the purpose of enhancing the economic activity of members with respect to efficiency and effectiveness (Schwarz, 1997), especially among small, local and homogeneous activity primary co-operatives

[70] Collapsing the 0 category and the 1 category of the dependent variable leads to no difference in the results pertaining to the statistically significant explanatory variables. We have also collapsed categories 1 and 2 together and categories 4 and 5 together to create a 4-point index. The estimated coefficients for the statistically significant explanatory variables remain unchanged. While the results of the analysis without collapsing the dependent variable are presented in Table 6.12a, in Table 6.12b, we also present the results of the two ordered probit analysis from collapsing the dependent variable into four categories.

(Benham and Keefer, 1991; Oustapassidis, 1992; de Drimer, 1997; Nilsson, 2001, Arcas-Lario and Hernández-Espallardo, 2003; Romero and Pérez, 2003). Therefore, these characteristics of primary co-operatives (i.e. small, local and homogeneous group) can also be used to explain satisfaction with secondary co-operatives.

As discussed in Section 6.3, a small group is characterised by homogeneous members (Olsen, 1965), in which case homogeneity may be in the form of, for example, homogeneity in religion, occupation or income. Therefore, the homogeneous characteristics of the co-operative in terms of the composition of the co-operative members by occupation and by race may also account for the co-operative being small, relative to co-operatives that are characterised by members comprising individuals in diverse occupations and by a multiracial composition of members. Also, in the context of the Malaysian co-operative, in general, co-operatives that operate on a regional area and co-operatives with regionally distributed members are co-operatives with local characteristics relative to co-operatives that operate on a nationwide scale and relative to co-operatives that have members distributed nationwide. Therefore, as explanatory variables used to determine the primary co-operative's satisfaction with the secondary co-operative, we therefore include the following co-operative characteristics: whether the occupations of the primary co-operative's members are homogeneous (*HOCCUP)*; whether the membership is comprised of a single race (S*RACE)*; whether the co-operative operates on a regional area *(REGIOP)*; and whether the co-operative members are distributed regionally *(REGIMB)*.

Our set of explanatory variables in the analysis of the primary co-operative's satisfaction with the secondary co-operatives therefore includes the benefit variables (*USERV, NSUPP, DIVDN, INCOME, PRODUCT* and *MEMBRS)* and the co-

operative characteristics (*HOCCUP*, *SRACE*, *REGIOP*, and *REGIMB*). The explanatory variables are all dummy variables. The benefit variables are defined as follows: *USERV* equals 1 if the co-operative uses the services provided by the secondary co-operative and 0 if otherwise; *NSUPP* equals 1 if the co-operative gets its needs supplied by the secondary co-operative and 0 if otherwise; *DIVDN* equals 1 if the co-operative received a dividend or rebate from the secondary co-operative and 0 if otherwise; *INCOME* equals 1 if there is an increase in income of the co-operative and 0 if otherwise; *PRODUCT* equals 1 if there is an improvement in the product or services of the co-operative and 0 if otherwise; *MEMBRS* equals 1 if there is an increase in the number of members of the co-operative and 0 if otherwise. As has been described earlier in the previous analysis, the co-operative characteristic *HOCCUP* equals 1 if the co-operative members are individuals from the same occupation or employment and 0 if otherwise, *SRACE* equals 1 if the co-operative members are single-raced and 0 if otherwise, *REGIOP* equals 1 if the co-operative operates on a regional scale and 0 if otherwise, and *REGIMB* equals 1 if the members of the co-operative are distributed regionally and 0 if otherwise.

The Results

Table 6.12a presents the results of the ordered probit analysis of the primary co-operative's satisfaction with the secondary co-operative. The estimated coefficients for the co-operatives receiving benefits from the secondary co-operative in the form of using the services provided by the secondary co-operative, experiencing an improvement in their product or services and experiencing an increase in their membership are all positive and statistically significant. The estimated coefficients for co-operatives whose members are homogeneous in occupation and for single-

raced co-operatives are positive and statistically significant. The marginal effects of the variables with the significant estimated coefficients are presented in Table 6.13.

Although there is a 10% higher probability that co-operatives would be neither satisfied nor not satisfied with the secondary co-operative if the benefit they receive is in the form of the primary co-operative using the services provided by the secondary co-operative, there is a 48% higher probability that they will be somewhat satisfied relative to the co-operative that did not receive this form of benefit from their secondary co-operatives. If, by being a member of secondary co-operatives, there is an improvement in the co-operative's product or services, there is a 7% higher probability of them being neither satisfied nor dissatisfied and a 29% higher probability of being somewhat satisfied with the secondary co-operatives relative to the co-operatives that did not experience any improvement in their product/services from their membership in the secondary co-operative. An increase in the primary co-operative's membership as a result of membership in secondary co-operatives has a 6% higher probability of primary co-operatives being neither satisfied nor dissatisfied with secondary co-operatives relative to the co-operatives that did not experience an increase in their membership as a result of their membership in the secondary co-operative.

There is a 5% higher probability for co-operatives whose members are homogeneous in occupation to be neither satisfied nor not satisfied and a 15% higher probability of them being somewhat satisfied with their secondary co-operatives relative to the co-operatives whose members constitute individuals from diverse occupation. For single-raced co-operatives, there is a 11% higher probability of them being neither satisfied nor not satisfied and a 19% higher probability of them being somewhat satisfied with their secondary co-operatives relative to the multiracial co-operatives.

The findings that relate the benefits in the form of the use of the services provided by the secondary co-operative and the improvement in the co-operative's product/services with the primary co-operative's satisfaction with the secondary co-operatives accord with our expectations. Our expectations are based on the responses from the survey pertaining to the primary co-operative's membership in the secondary co-operative in Chapter 5, where quite a large percentage of co-operatives (38.7%) in our sample indicate membership in the ANGKASA. The membership fee and loan collection service provided by the ANGKASA to members is a popular service among co-operatives. If the co-operatives in the sample were to indicate satisfaction with their secondary co-operatives, one might predict that it is in the use of services provided by the secondary co-operatives and in co-operatives experiencing improvements in their product/services that would generate the most satisfaction. It is reasonable to expect that, by using the ANGKASA fee and loan collection services, the co-operative can be certain that it would receive payments from members and the co-operative may be driven to make improvements in the co-operative product/services, especially among co-operatives that offer credit facilities to their members.

The study by Zeuli et al. (2003b) demonstrates that the growth in the number of producer members in a primary co-operative had a negative impact on satisfaction with secondary co-operatives in terms of their prices, products and services. Even though our survey of the primary co-operative's satisfaction with their primary co-operatives was not confined to a particular type of secondary co-operative, the results of our analysis pertaining to the impact of an increase in co-operative membership on satisfaction with secondary co-operatives, more or less tie in with the findings of Zeuli et al. (2003b). Although the growth in the number of co-

operative members in our analysis indicates a positive impact on satisfaction, nevertheless the marginal effects for growth in membership only indicate statistical significance in the case of an increase in the likelihood of being neither satisfied nor dissatisfied with secondary co-operatives.

In theory, the findings that relate the relatively small co-operatives in terms of homogeneous composition of members by occupation and by race with an increase in the likelihood of being somewhat satisfied with the secondary co-operatives, accord with our expectations. Theoretically, small primary co-operatives are supposed to benefit from the formation of secondary co-operatives. Therefore, it is reasonable to expect that the relatively smaller co-operative groups, especially co-operatives with members in the same occupation, would have a more focused objective when joining as members of a secondary co-operative and are therefore more likely to be somewhat satisfied with the secondary co-operatives.

Summary

Our analysis of the primary co-operative's satisfaction with the secondary co-operatives was not confined to primary co-operatives and their secondary co-operatives in a particular economic sector, in contrast to the study by Zeuli et al. (2003b), which was confined to agricultural co-operatives, where co-operatives occupy a strong position[71] and where the primary co-operatives would have common terms of reference in expressing satisfaction for the secondary co-operative. As our study was set within a more general setting, the findings in our analysis of the primary co-operative's satisfaction with the secondary co-operative for Malaysia, should be regarded as illustrative rather than definitive. For the

[71] In Malaysia, however, across the individual sectors of co-operative activity, perhaps only credit is in a strong position.

analysis of primary co-operative's satisfaction with the secondary co-operative, ideally, the sample would comprise the primary co-operatives that are members of a secondary co-operative. The findings indicate however that even in a situation where the presence of secondary co-operatives does not seem to be economically significant, such as in Malaysia, secondary co-operatives can still have some degree of relevance if they are able to offer services that can be used by the different types of primary co-operatives in the running of their activity as a single business entity.

6.5.2. The Perception of the Need for Secondary Co-operatives

Finally, in this section, we explore the relevance of secondary co-operatives in Malaysia from another perspective, i.e. from the analysis of the need for secondary co-operatives. Question 19 in the questionnaire survey, asked respondents whether they agree that primary co-operatives need secondary co-operatives in order to develop. The responses to Question 19 are measured on a 5-point Likert scale: 0 denotes 'totally disagree'; 1 denotes 'disagree'; 2 denotes 'neither agree nor disagree'; 3 denotes 'agree'; and 4 denotes 'strongly agree'. We collapsed the five categories into three categories: 0 denotes 'disagree' (totally disagree and disagree); 1 denotes 'neither agree nor disagree'; and 2 denotes 'agree' (agree and strongly agree).

From the 106 responses, 51% indicate that they agree that primary co-operatives need secondary co-operatives in order to develop, 13.2% neither agree nor disagree and 35.9% disagree. In analysing the relevance of secondary co-operatives based on the primary co-operatives' perceived need for secondary co-operatives, the dependent variable (N_i) is defined as:

$$N_i = \begin{cases} 0 \text{ if the co-operative does not agree that primary co-operatives need secondary co-operatives to develop} \\ 1 \text{ if the co-operative neither agrees nor disagrees that primary co-operatives need secondary co-operatives to develop} \\ 2 \text{ if the co-operative agrees that primary co-operatives need secondary co-operatives to develop} \end{cases}$$

Since the dependent variable is a measure of the level of agreement, which is arranged in an ordered sequence, we again specify an ordered probit model for the analysis of the need for secondary co-operatives. The determinants of the need for secondary co-operatives (N_i) may be related to arguments that relate the primary co-operative characteristics with what makes secondary co-operatives necessary. While some researches argue on the grounds that primary co-operatives are small (Zeuli et al., 2003b; de Drimer, 1997; Lele, 1981; Oustapassidis, 1992; Nilsson, 2001; and Arcas-Lario and Hernández-Espallardo, 2003), others focus on the local settings of the primary groups (Olsen, 1965; McCarthy et al.; 1998; and Lambert and Bliss, 2001). Lambert and Bliss (2001) argue that not all types of primary co-operatives find secondary co-operatives useful, for example, the case of housing co-operatives in England, while Soegaard (1994) focuses on the ability of the primary-secondary co-operative relationship to create economic value for the primary co-operatives, which may be related to the assumption that primary co-operatives are supposed to benefit from the presence of secondary co-operatives.

Based on the above arguments, the perceived need for secondary co-operatives may therefore be explained by: 1) the group of co-operative characteristics that make up the profile of primary co-operatives: homogeneity of members' occupation (*HOCCUP*); racial composition of its members (*SRACE*); the co-operative's area of operation (*REGIOP*); and the distribution of the co-operative's members (*REGIMB*);

2) the main activity of the primary co-operative (*MAINACT*), which comprises 8 categories of activity (i.e. credit, consumerism, transportation, construction, plantation, housing, services and small/cottage industry); and 3) the benefits from being members of secondary co-operatives, which comprise: primary co-operatives use the services provided by their secondary co-operatives (*USERV);* primary co-operatives get their needs supplied by the secondary co-operatives (*NSUPP)*; primary co-operatives receive dividends or rebates from the secondary co-operatives (*DIVDN)*; primary co-operatives experience an increase in income (*INCOME)*; primary co-operatives experiencing an improvement in their products/services (*PRODUCT);* and primary co-operatives experiencing growth in the number of their members (*MEMBRS).*

By controlling for these factors, we can explore which particular characteristic(s) of co-operatives, which co-operative activity and which particular benefit(s) are related to the perceived need for secondary co-operatives. Based on the state of the development of the Malaysian co-operative movement discussed in Chapter 4, we expect that the need for secondary co-operatives is more likely to be expressed by co-operatives in which members are, to a certain extent, operating in the same activity as the activity of their co-operatives, for example transport co-operatives and small/cottage industry co-operatives and also by co-operatives that have experienced benefits from their membership in secondary co-operatives, especially with primary co-operatives that use the services provided by their secondary co-operatives. The descriptions of all the above explanatory variables are already given in Sections 6.3 and 6.5.1.

Table 6.14 presents the results of the ordered probit analysis of the determinants of the need for secondary co-operatives. The estimated coefficients representing

service co-operatives and small/cottage industry co-operatives are positive and statistically significant. Also positive and statistically significant are the estimated coefficients representing secondary co-operative members (i.e. the primary co-operatives) that use services provided by their secondary co-operatives, that receive dividends or rebates from their secondary co-operatives and primary members that have experienced an increase in the number of their members due to their membership in secondary co-operatives. The result for small/cottage industry co-operatives accords with our expectations as this type of co-operative is, in general, not only small but also it is the type of co-operative in which members are, to a certain extent, engaged in the economic activity that is reflected in the activity of the co-operative, which would make secondary co-operatives necessary.

It is also interesting to note here the result for co-operatives getting their needs supplied by the secondary co-operatives. The finding indicates that getting their needs supplied by secondary co-operatives does not affect the primary co-operative's view regarding the need for a secondary co-operative, especially where secondary co-operatives' activities are not related to the activity of the primary co-operatives. In such a case, as in Malaysia, the secondary co-operatives are just another kind of primary co-operatives, the difference being their membership structure. It might, therefore, be reasonable to assume that the primary co-operatives would find the need for secondary co-operatives if the secondary co-operatives can give dividends from the primary co-operatives' share capital in secondary co-operatives.

Table 6.15 presents the marginal effects of the explanatory variables with statistically significant estimated coefficients. There is a 13% lower probability of small/cottage industry co-operatives, a 10% lower probability of co-operatives that

receive dividend or rebates from their secondary co-operatives and a 12% lower probability of co-operatives that have experienced an increase in their members from their membership in secondary co-operatives to neither agree nor disagree with the need for secondary co-operatives. Service co-operatives and small/cottage industry co-operatives are more likely to agree with the need for secondary co-operatives with each respectively having a 30% and a 40% higher probability of agreeing with the need for secondary co-operatives relative to the credit co-operatives. Primary co-operatives that use the services provided by their secondary co-operatives, that receive dividend or rebates from their secondary co-operatives and that experience growth in their members due to their membership in secondary co-operatives are also more likely to agree with the need for secondary co-operatives, with each respectively having a 31%, a 39% and a 51% higher probability of agreeing with the need for secondary co-operatives. The results pertaining to the positive association between the benefits from membership in secondary co-operatives and agreement with the need for secondary co-operatives can be viewed as answering the question raised in Zeuli et al. (2003b), i.e. what are the primary co-operatives using their secondary co-operatives for. In general, our findings suggest that the need for secondary co-operatives is related to the services that the secondary co-operatives provide, to the increased membership of the primary co-operative and to the dividends or rebates received from the secondary co-operative.

6.6. Summary

The success of secondary co-operatives in some countries, in terms of their economic contribution, has been related to the successful functioning of secondary co-operatives (Oustapassidis, 1992; Nilsson, 2001; Rebelo et al., 2002; Arcas-Lario and Hernández-Espallardo, 2003; and Haan et al., 2003). Secondary co-operatives

function better if the number of primary co-operative members is small and the secondary co-operatives exist to provide support systems and resources to small primary co-operatives, so as to maximise the income of the co-operative members. The review of co-operatives in Malaysia in Chapter 4, where the growth of the co-operative movement has been dominated by primary co-operatives rather than secondary co-operatives did not indicate that the secondary cooperatives have been functioning as their counterparts in countries where the co-operative movement has been successful. In addition, in cases where the activity of most of the secondary co-operatives does not seem to relate to the primary members' business operations, it appears that primary co-operatives in Malaysia do not depend on secondary co-operatives to survive.

This chapter has thus analysed the relationship between primary co-operatives and secondary co-operatives in Malaysia. The analysis of the primary-secondary co-operative's relationship was conducted by analysing the effect of membership in secondary co-operatives on the number of members, the share capital, the assets and the size of the primary co-operatives. The findings indicate that the effect of membership in secondary co-operatives is only positive with respect to the number of members of the primary co-operatives. This chapter has also analysed the relevance of secondary co-operative organisations from two perspectives: by analysing the satisfaction of the primary co-operatives with their secondary co-operatives; and by analysing the perceived need for secondary co-operatives. The analysis of the relevance of the secondary co-operatives was intended to explore what the primary co-operatives are using their secondary co-operatives for and the possibility that secondary co-operatives could be redundant in the Malaysian co-operative movement. From the findings we conclude that secondary co-operatives

in Malaysia have not been very resourceful towards their primary members but that secondary co-operatives are by no way redundant. The need for secondary co-operatives, which was expressed in the survey, can be regarded as showing support for secondary co-operatives, especially from co-operatives that have benefited from being a member of a secondary co-operative. The ability of secondary co-operatives to give some benefits to primary co-operatives, which accounts for the satisfaction of primary co-operatives with secondary co-operatives and the support secondary co-operatives receive, can be taken as some evidence of the relevance of secondary co-operatives.

Appendix A6: Results Tables

Table 6.1: Determinants of the Number of Members of Primary Co-operatives

Explanatory Variables	Specification 1		Specification 2	
	Coefficient	*T*-Statistic	Coefficient	*T*-Statistic
Homogeneous occupation of members	0.0246	0.09	-0.0144	-0.05
Single-raced	-0.3963	-1.37	-0.4839	-1.60
Regional operation	0.2373	0.48	-0.1535	-0.30
Regionally distributed members	-1.1092**	-2.13	-1.0097*	-1.91
Main Areas of Activity:				
- Consumerism	-0.5169	-1.36	-0.2940	-0.72
- Transportation	-1.0299***	-2.50	-1.3788***	-3.16
- Construction	-1.0731*	-1.76	-1.8190***	-2.73
- Plantation	-0.9342*	-1.92	-1.1741**	-2.28
- Housing	-0.2035	-0.44	-0.3881	-0.80
- Services	-0.8915**	-2.22	-1.5425***	-3.41
- Small industries	-2.7660***	-4.57	-2.6834***	-3.95
Membership in secondary co-op	0.5557**	2.13		
Tenure of Membership in Secondary Co-operative:				
- not more than 5 years			-1.1944**	-2.34
- 6 to 10 years			0.5699	1.40
- 11 to 15 years			0.2659	0.63
- more than 15 years			1.6943***	4.56
Cut Off Point 1	-3.4799	0.4695	-4.2455	0.5400
Cut Off Point 2	-1.5207	0.3758	-1.9421	0.4146
Cut Off Point 3	-1.0282	0.3675	-1.3425	0.4011
Cut Off Point 4	-0.7404	0.3620	-0.9928	0.3920
Number of Observations		106		106
Likelihood Ratio Chi Squared		52.06		81.24
Log likelihood		-121.5232		-106.9322
Pseudo R Squared		0.1764		0.2753

Notes: i) * Statistically significant at the 10% level
** Statistically significant at the 5% level
*** Statistically significant at the 1% level
ii) Omitted tenure category: co-operatives not a member of secondary co-operatives
iii) Omitted main area of activity: credit.
iv) The degrees of freedom for Specification 1= 12; for Specification 2=15.
v) For the cut-off points' in both Specifications, standard errors are shown, rather than t-statistics.

Table 6.2: Marginal Effects (ME) for the Significant Coefficients in Table 6.1

Explanatory Variables	Dependent Variable = Number of Members			
	101-500 (1)	501-1000 (2)	1001-1500 (3)	more than 1500 (4)
Specification 1:	ME (*T*-stat)	ME (*T*-stat)	ME (*T*-stat)	ME (*T*-stat)
Regionally distributed members	0.3467*** (2.60)	0.0480 (1.05)	-0.0126 (-0.70)	-0.4081** (-2.17)
Transportation activity	0.3048*** (3.37)	-0.0614 (-1.36)	-0.0604* (-1.86)	-0.2684*** (-3.45)
Construction activity	0.2862*** (3.36)	-0.0803 (-1.11)	-0.0660 (-1.58)	-0.2498*** (-3.03)
Plantation activity	0.2736*** (2.84)	-0.0617 (-1.10)	-0.0569 (-1.57))	-0.2361*** (-2.84)
Services activity	0.2754*** (2.80)	-0.0497 (-1.19)	-0.0523* (-1.68)	-0.2407*** (-2.91)
Small/cottage industry activity	-0.0144 (-0.08)	-0.1862*** (-4.23)	-0.1096*** (-3.15)	-0.3446*** (-6.67)
Member of secondary co-op	-0.1921** (-2.12)	0.0037 (0.28)	0.0237 (1.59)	0.1867** (2.19)
Specification 2:				
Regionally distributed members	0.3285** (2.29)	0.0480 (0.90)	-0.0279 (-1.44)	-0.3579* (-1.85)
Transportation activity	0.4232*** (4.76)	-0.1142* (-1.89)	-0.0982** (-2.41)	-0.2878*** (-4.45)
Construction activity	0.3730*** (3.24)	-0.1827*** (-2.51)	-0.1157*** (-2.80)	-0.2699*** (-5.06)
Plantation activity	0.3690*** (3.59)	-0.1058 (-1.44)	-0.0876** (-2.03)	-0.2396*** (-3.67)
Services activity	0.4395*** (5.48)	-0.1341** (-2.22)	-0.1067*** (-2.63)	-0.3011*** (-4.74)
Small/cottage industry activity	0.1746 (0.75)	-0.2240*** (-4.22)	-0.1292*** (-3.16)	-0.2998*** (-5.57)
Not more than 5 years membership in secondary co-op	0.3748*** (3.74)	-0.1066 (-1.46)	-0.0888** (-2.05)	-0.2446*** (-3.85)
More than 15 years membership in secondary co-op	-0.4730*** (-6.02)	-0.1116** (-2.23)	0.0060 (0.22)	0.5926*** (5.28)

Notes: * Statistically significant at the 10% level
** Statistically significant at the 5% level
*** Statistically significant at the 1% level

Table 6.3: Determinants of the Share Capital of Primary Co-operatives

Explanatory Variables	Specification 1		Specification 2	
	Coefficient	*T*-Statistic	Coefficient	*T*-Statistic
Homogeneous occupation of members	-0.1076	-0.43	-0.1106	-0.44
Single-raced	-0.5709**	-2.13	-0.5877**	-2.19
Regional operation	0.3049	0.71	0.1512	0.34
Regionally distributed members	-0.6418	-1.39	-0.5488	-1.18
Main Area of Activity:				
- Consumerism	-0.3705	-1.07	-0.3808	-1.07
- Transportation	-0.9954***	-2.61	-1.0888***	-2.83
- Construction	-0.1364	-0.25	-0.3273	-0.59
- Plantation	-0.8456*	-1.87	-1.0023**	-2.16
- Housing	0.0109	0.03	-0.0831	-0.20
- Services	-0.2284	-0.63	-0.4633	-1.23
- Small/cottage industry	-0.7516	-1.48	-0.5567	-1.03
Membership in secondary co-op	0.1359	0.59		
Tenure of Membership in Secondary Co-operative:				
- not more than 5 years			-0.4484	-1.02
- 6 to 10 years			0.4374	1.22
- 11 to 15 years			-0.2449	-0.65
- more than 15 years			0.4187	1.44
Cut Off Point 1	-2.1060	0.3451	-2.2496	0.3542
Cut Off Point 2	-1.3827	0.3345	-1.5167	0.3430
Cut Off Point 3	-0.9363	0.3304	-1.0542	0.3380
Cut Off Point 4	-0.2125	0.3194	-0.2917	0.3240
Cut Off Point 5	1.1707	0.3433	1.1285	0.3468
Number of Observations		106		106
Likelihood Ratio Chi Squared		30.57		36.13
Log likelihood		-164.5770		-161.7974
Pseudo R Squared		0.0850		0.1004

Notes: i) * Statistically significant at the 10% level
** Statistically significant at the 5% level
*** Statistically significant at the 1% level
ii) Omitted tenure category: co-operatives not a member of secondary co-operatives
iii) Omitted main area of activity: credit.
iv) The degrees of freedom for Specification 1= 12; for Specification 2=15.
v) For the cut-off points' in both Specifications, standard errors are shown, rather than t-statistics.

Table 6.4: Marginal Effects for the Significant Coefficients for Specification 2 in Table 6.3

Explanatory Variables	Dependent Variable = Share Capital				
	RM1001 - RM10,000 (1)	RM10,001 - RM100,000 (2)	RM100,001 - RM1 million (3)	RM1 million - RM50 million (4)	more than RM50 million (5
	ME (*T*-stat)	ME (*T*-stat)	ME (*T*-stat)	ME (*T*-stat)	ME (*T*-stat)
Single-raced	0.0955** (2.03)	0.0303 (1.44)	-0.0458 (-1.87)*	-0.1575** (-2.12)	-0.0270 (-1.30)
Transport activity	0.1050*** (3.10)	-0.0260 (-0.76)	-0.1592** (-2.34)	-0.2070*** (-3.67)	-0.0205 (-1.59)
Plantation activity	0.0900*** (2.81)	-0.0314 (-0.71)	-0.1531* (-1.88)	-0.1827*** (-3.20)	-0.0164 (-1.55)

Notes: * Statistically significant at the 10% level
** Statistically significant at the 5% level
*** Statistically significant at the 1% level

Table 6.5: Relationship between Share Capital and the Number of Members

Share capital	Number of Members					
	Less than 100	101-500	501-1000	1001-1500	More than 1500	Total
Less than RM1000	2	9	2	0	4	17
RM1001.00 - RM10,000.00	2	2	4	4	3	22
RM10,001.00 - RM100,000.00	0	13	0	0	3	16
RM100,001.00 - RM1,000,000.00	2	8	7	1	5	23
RM1,000,001.00 - RM50 million	0	0	3	3	18	24
More than RM50 million	0	0	0	1	3	4
Total	6	39	16	9	36	106

Table 6.6: Determinants of the Assets of Primary Co-operatives

Explanatory Variables	Specification 1		Specification 2	
	Coefficient	*T*-Statistic	Coefficient	*T*-Statistic
Homogeneous occupation of members	0.0681	0.25	0.0917	0.34
Single-raced	-0.1258	-0.44	-0.1162	-0.40
Regional operation	0.4596	0.97	0.3205	0.67
Regionally distributed members	-1.0848**	-2.10	-1.0368**	-2.01
Main Area of Activity:				
- Consumerism	-0.4720	-1.28	-0.4582	-1.20
- Transportation	-0.6755*	-1.72	-0.7736**	-1.94
- Construction	0.3180	0.52	0.1379	0.22
- Plantation	0.2011	0.41	0.0935	0.18
- Housing	0.3181	0.65	0.2660	0.54
- Services	-0.4934	-1.27	-0.7314*	-1.79
- Small/cottage industry	-1.2242**	-2.36	-1.1188**	-2.02
Membership in secondary co-op	-0.2349	-0.96		
Tenure of Membership in Secondary Co-operative:				
- not more than 5 years			-0.7303*	-1.63
- 6 to 10 years			-0.1919	-0.51
- 11 to 15 years			-0.6892*	-1.75
- more than 15 years			0.2119	0.67
Cut Off Point 1	-2.8768	0.4156	-3.0381	0.4305
Cut Off Point 2	-2.6187	0.4010	-2.7726	0.4154
Cut Off Point 3	-1.8803	0.3805	-2.0143	0.3944
Cut Off Point 4	-0.6398	0.3516	-0.7265	0.3627
Number of Observations		106		106
Likelihood Ratio Chi Squared		29.00		35.35
Log likelihood		-118.6205		-115.4495
Pseudo R Squared		0.1089		0.1328

Notes: i) *Statistically significant at the 10% level
**Statistically significant at the 5% level
***Statistically significant at the 1% level
ii) Omitted tenure category: co-operatives not a member of secondary co-operatives
iii) Omitted main area of activity: credit.
iv) The degrees of freedom for Specification 1= 12; for Specification 2=15.
v) For the cut-off points' in both Specifications, standard errors are shown, rather than t-statistics.

Table 6.7: Marginal Effects for the Significant Coefficients for Specification 2 in Table 6.6

Explanatory Variables	Dependent Variable = Assets			
	RM1001.00 - RM10,000.00 **(1)**	RM10,001.00 - RM100,000.00 **(2)**	RM100,001.00 - RM1,000,000.00 **(3)**	more than RM1 million **(4)**
	ME (*T*-stat)	ME (*T*-stat)	ME (*T*-stat)	ME (*T*-stat)
Regionally Distributed Members	0.0251 (1.53)	0.1306** (2.33)	0.2034* (1.69)	-0.3957** (-2.18)
Transport activity	0.0358 (1.23)	0.1289* (1.90)	0.0208 (0.45)	-0.2573** (-2.33)
Services activity	0.0337 (1.18)	0.1224* (1.77)	0.0221 (0.50)	-0.2447** (-2.13)
Small/cottage industry activity	0.0593 (1.30)	0.1703*** (2.61)	-0.0635 (-0.50)	-0.3177*** (-3.23)
Not more than 5 years membership in secondary co-op	0.0349 (1.07)	0.1225 (1.62)	0.0103 (0.18)	-0.2388** (-2.03)
11 to 15 years membership in secondary co-op	0.0323 (1.15)	0.1160* (1.75)	0.0162 (0.36)	-0.2288** (-2.11)

Notes: * Statistically significant at the 10% level
** Statistically significant at the 5% level
*** Statistically significant at the 1% level

Table 6.9a: Determinants of the Size of Primary Co-operatives (Aggregate Measure)

Explanatory Variables	Specification 1		Specification 2	
	Coefficient	*T*-Statistic	Coefficient	*T*-Statistic
Homogeneous occupation of members	-0.0211	-0.09	-0.0362	-0.15
Single-raced	-0.3977	-1.54	-0.4388*	-1.69
Regional operation	0.2883	0.68	0.0373	0.09
Regionally distributed members	-1.0949**	-2.42	-1.0040**	-2.20
Main Area of Activity:				
- Consumerism	-0.5652*	-1.67	-0.4900	-1.14
- Transportation	-1.0932***	-2.98	-1.3120***	-3.51
- Construction	-0.1852	-0.35	-0.5618	-1.04
- Plantation	-0.7132	-1.63	-0.8815**	-1.95
- Housing	-0.0709	-0.17	-0.2192	-0.53
- Services	-0.6119*	-1.72	-1.0011***	-2.67
- Small/cottage industry	-1.6591***	-3.32	-1.3264***	-2.52
Membership in secondary co-op	0.1919	0.86		
Tenure of Membership in Secondary Co-operative:				
- not more than 5 years			-1.0025**	-2.35
- 6 to 10 years			0.3409	0.98
- 11 to 15 years			-0.2182	-0.59
- more than 15 years			0.8313***	2.91
Cut Off Point 1	-4.1925	0.5632	-4.6960	0.6225
Cut Off Point 2	-3.4482	0.4074	-3.8329	0.4298
Cut Off Point 3	-3.3239	0.3958	-3.6946	0.4155
Cut Off Point 4	-2.9718	0.3750	-3.3277	0.3931
Cut Off Point 5	-2.5189	0.3579	-2.8544	0.3759
Cut Off Point 6	-1.9690	0.3452	-2.2730	0.3623
Cut Off Point 7	-1.6180	0.3390	-1.8964	0.3552
Cut Off Point 8	-1.3887	0.3360	-1.6378	0.3507
Cut Off Point 9	-0.9717	0.3321	-1.1744	0.3446
Cut Off Point 10	-0.7710	0.3300	-0.9532	0.3418
Cut Off Point 11	-0.4158	0.3249	-0.5562	0.3349
Cut Off Point 12	-0.1314	0.3198	-0.2348	0.3281
Cut Off Point 13	1.0686	0.3452	1.0705	0.3527
Cut Off Point 14	1.2419	0.3633	1.2464	0.3700
Number of Observations		106		106
Likelihood Ratio Chi Squared		47.95		65.82
Log likelihood		-235.6587		-226.7222
Pseudo R Squared		0.0923		0.1268

Notes: i) * Statistically significant at the 10% level
** Statistically significant at the 5% level
*** Statistically significant at the 1% level
ii) Omitted tenure category: co-operatives not a member of secondary co-operatives
iii) Omitted main area of activity: credit.
iv) The degrees of freedom for Specification 1= 12; for Specification 2=15.
v) For the cut-off points' in both Specifications, standard errors are shown, rather than t-statistics.

Table 6.9b: Determinants of the Size of Primary Co-operatives (collapsed categories of the aggregate measure)*

Explanatory Variables	Specification 1		Specification 2	
	Coefficient	*T*-Statistic	Coefficient	*T*-Statistic
Homogeneous occupation of members	-0.2622	-1.00	-0.2614	-0.99
Single-raced	-0.2364	-0.85	-0.2741	-0.98
Regional operation	0.4664	0.92	0.1388	0.27
Regionally distributed members	-1.3170***	-2.48	-1.1384**	-2.17
Main Area of Activity:				
- Consumerism	-0.6319*	-1.78	-0.5771	-1.57
- Transportation	-1.2031***	-3.02	-1.3699***	-3.38
- Construction	-0.6032	-1.08	-0.9568*	-1.67
- Plantation	-0.4211	-1.10	-1.1808**	-2.41
- Housing	-0.2941	-0.68	-0.4280	-0.96
- Services	-0.9170**	-2.43	-1.3196***	-3.28
- Small/cottage industry	-1.2684**	-2.38	-1.0045*	-1.76
Membership in secondary co-op	0.3332	1.37		
Tenure of Membership in Secondary Co-operative:				
- not more than 5 years			-0.7160	-1.53
- 6 to 10 years			0.5156	1.37
- 11 to 15 years			-0.1370	-0.35
- more than 15 years			0.9467***	3.03
Cut Off Point 1	-2.0009	0.3612	-2.2878	0.3789
Cut Off Point 2	-1.6449	0.3558	-1.9063	0.3725
Cut Off Point 3	-0.9996	0.3462	-1.1932	0.3589
Cut Off Point 4	-0.1820	0.3332	-0.2834	0.3407
Number of Observations		106		106
Likelihood Ratio Chi Squared		41.75		55.56
Log likelihood		-144.8443		-137.9403
Pseudo R Squared		0.1260		0.1676

Notes: i) *The collapsed category of the aggregate measure as described in Footnote 68 on page 178

ii) * Statistically significant at the 10% level
** Statistically significant at the 5% level
*** Statistically significant at the 1% level

ii) Omitted tenure category: co-operatives not a member of secondary co-operatives

iii) Omitted main area of activity: credit.

iv) The degrees of freedom for Specification 1= 12; for Specification 2=15.

v) For the cut-off points' in both Specifications, standard errors are shown, rather than t-statistics.

Table 6.10a: Marginal Effects for the Significant Coefficients for Specification 2 in Table 6.9a

Aggregate Index	Explanatory Variables			
	Single-raced	Regionally distributed members	Not more than 5 years membership in secondary co-op	More than 15 years membership in secondary co-op
	ME (*T*-stat)	ME (*T*-stat)	ME (*T*-stat)	ME (*T*-stat)
1	0.0098 (1.23)	0.0165 (1.38)	0.0623 (1.11)	-0.0141 (-1.44)
2	0.0040 (0.88)	0.0069 (0.95)	0.0193 (0.87)	-0.0059 (-0.96)
3	0.0163 (1.37)	0.0286* (1.68)	0.0653 (1.42)	-0.0247* (-1.79)
4	0.0355 (1.56)	0.0657** (2.16)	0.1031* (1.94)	-0.0566** (-2.43)
5	0.0587 (1.61)	0.1205** (2.38)	0.1033*** (2.98)	-0.1031*** (-2.73)
6	0.0327 (1.46)	0.0793** (1.94)	0.0186 (0.77)	-0.0664** (-2.20)
7	0.0129 (1.16)	0.0409 (1.48)	-0.0156 (-0.65)	-0.0330 (-1.65)
8	-0.0041 (-0.41)	0.0231 (0.68)	-0.0750 (-1.51)	-0.0148 (-0.64)
9	-0.0138 (-1.38)	-0.0150 (-1.18)	-0.0479* (-1.75)	0.0153 (1.42)
10	-0.0368 (-1.53)	-0.0620** (-2.28)	-0.0862** (-2.23)	0.0561** (2.27)
11	-0.0332 (-1.47)	-0.0690* (-1.88)	-0.0583** (-2.13)	0.0596** (2.01)
12	-0.0756 (-1.51)	-0.2056* (-1.80)	-0.0946*** (-2.88)	0.1663** (2.32)
13	-0.0027 (-0.77)	-0.0102 (-0.80)	-0.0023 (-0.85)	-0.0076 (0.87)
14	-0.0047 (-0.86)	-0.0212 (-0.89)	-0.0035 (-0.98)	0.1511 (1.02)

Notes: *Statistically significant at the 10% level
**Statistically significant at the 5% level
***Statistically significant at the 1% level

Table 6.10b: Marginal Effects for the Significant Coefficients for Specification 2 in Table 6.9a (continued)

Aggregate Index	Explanatory Variables			
	Transport activity	Plantation activity	Services activity	Small/cottage industry activity
	ME (*T*-stat)	ME (*T*-stat)	ME (*T*-stat)	ME (*T*-stat)
1	0.0907 (1.44)	0.0503 (0.96)	0.0567 (1.20)	0.1099 (1.13)
2	0.0265 (0.96)	0.0162 (0.82)	0.0181 (0.90)	0.0301 (0.89)
3	0.0862* (1.82)	0.0558 (1.27)	0.0622 (1.56)	0.0937 (1.55)
4	0.1286*** (2.57)	0.0913* (1.73)	0.1017** (2.16)	0.1283** (2.42)
5	0.1193*** (3.21)	0.0969*** (2.59)	0.1090*** (2.94)	0.0986** (2.42)
6	0.0158 (0.61)	0.0216 (1.12)	0.0257 (1.33)	-0.0045 (-0.11)
7	-0.0230 (-1.01)	-0.0108 (-0.49)	-0.0105 (-0.57)	-0.0359 (-1.04)
8	0.0958** (-2.16)	-0.0636 (-1.25)	-0.0687 (-1.64)	-0.1102* (-1.90)
9	-0.0595** (-2.12)	-0.0424 (-1.49)	-0.0468* (-1.80)	-0.0613** (-1.99)
10	-0.1066*** (-2.69)	-0.0777* (-1.87)	-0.0870** (-2.27)	-0.1030*** (-2.58)
11	-0.0725** (-2.36)	-0.0533* (-1.91)	-0.0607** (-2.11)	-0.0659** (-2.33)
12	-0.1211*** (-3.32)	-0.0875*** (-2.64)	-0.1028*** (-2.91)	-0.1008*** (-3.15)
13	-0.0032 (-0.87)	-0.0021 (-0.86)	-0.0027 (-0.87)	-0.0023 (-0.85)
14	-0.0050 (-1.02)	-0.0032 (-0.99)	-0.0041 (-1.02)	-0.0035 (-0.98)

Notes: * Statistically significant at the 10% level
** Statistically significant at the 5% level
*** Statistically significant at the 1% level

Table 6.10c: Marginal Effects for the Significant Coefficients for Specification 2 in Table 6.9b

Collapsed categories of the aggregate index (aggregate value)	Explanatory Variables						
	Regionally distributed members	More than 15 years membership in secondary co-op	Transport activity	Construction activity	Plantation activity	Services activity	Small/cottage industry activity
	ME (*T*-stat)	ME (*T*-stat)	ME (*T*-stat)	ME (*T*-stat)	ME (*T*-stat)	ME (*T*-stat)	ME (*T*-stat)
1 (3 – 8) smallest size	0.2631*** (2.86)	-0.2276*** (-3.69)	0.4912*** (3.50)	0.3512 (1.58)	0.4333** (2.41)	0.4750*** (3.35)	0.3688* (1.67)
2 (9)	0.0894** (2.02)	-0.0762** (-2.33)	0.0127 (0.44)	0.0156 (0.53)	0.0082 (0.25)	0.0132 (0.48)	0.0146 (0.47)
3 (10 -11)	0.0774 (1.18)	-0.0590 (-1.35)	-0.1253* (-1.93)	-0.0896 (-0.96)	-0.1184 (-1.46)	-0.1214* (-1.91)	-0.0953 (-1.02)
4 (12 – 14)	-0.1446*** (-3.03)	0.1334*** (2.99)	-0.2396*** (-3.68)	-0.1795** (-1.97)	-0.2110*** (-2.92)	-0.2330*** (-3.48)	-0.1868** (-2.12)
5 (15 -17) largest size	-0.2857* (-1.71)	0.2293** (2.39)	-0.1390*** (-3.43)	-0.0977*** (-2.70)	-0.1120*** (-3.17)	-0.1338*** (-3.39)	-0.1013*** (-2.77)

Notes: *Statistically significant at the 10% level
**Statistically significant at the 5% level
***Statistically significant at the 1% level

Table 6.12a: Determinants of the Primary Co-operative's Satisfaction with Secondary Co-operatives

Independent Variable	Coefficient	*T*-statistic
Homogeneous occupation of members	0.5355*	1.79
Single-raced	0.8007**	2.23
Regional operation	0.7128	1.11
Regionally distributed members	-0.5836	-0.86
Co-operative uses the services provided by the secondary co-operative	1.6523***	4.12
Co-operative gets their need supplied by the secondary co-operative	-0.0480	-0.13
Co-operative received dividend or rebate from the secondary co-operative	-0.3573	-1.00
There is an increase in income of the co-operative	0.1894	0.47
There is an improvement in product/services of the co-operative	0.9561**	2.14
There is an increase in number of members of the co-operative	0.6800*	1.62
Cut Off Point 1	1.5204	0.3629
Cut Off Point 2	1.5730	0.3648
Cut Off Point 3	1.9705	0.3811
Cut Off Point 4	2.6943	0.4185
Cut Off Point 5	4.8917	0.5808
Number of Observations		106
Likelihood Ratio Chi Squared (10)		96.21
Log likelihood		-93.8401
Pseudo R Squared		0.3389

Notes: i) * Statistically significant at the 10% level
** Statistically significant at the 5% level
*** Statistically significant at the 1% level
ii) For the cut-off points', standard errors are shown, rather than t-statistics

Table 6.12b: Determinants of Primary Co-operatives Satisfaction with Secondary Co-operatives (collapsed categories of the dependent variable)

Explanatory Variable	Coefficient[a] (*T*-statistic)	Coefficient[b] (*T*-statistic)
Homogeneous occupation of members	0.5649* (1.87)	0.6647** (2.02)
Single-raced	0.8068** (2.22)	0.8481** (2.14)
Regional operation	0.7543 (1.14)	0.7229 (1.09)
Regionally distributed members	-0.4775 (-0.68)	-0.4619 (-0.65)
Co-operative uses the services provided by the secondary co-operative	1.6457*** (4.09)	1.6266*** (3.79)
Co-operative gets their need supplied by the secondary co-operative	0.0022 (0.01)	-0.2389 (-0.56)
Co-operative received dividend or rebate from the secondary co-operative	-0.3745 (-1.05)	-0.3875 (-0.91)
There is an increase in income of the co-operative	0.2577 (0.63)	0.5801 (1.26)
There is an improvement in product/services of the co-operative	0.8663** (1.93)	0.9137* (1.85)
There is an increase in number of members of the co-operative	0.6971* (1.64)	0.7986* (1.74)
Cut Off Point 1	1.7090 (0.3782)	1.7171 (0.3970)
Cut Off Point 2	2.1116 (0.3968)	2.1816 (0.4143)
Cut Off Point 3	2.7872 (0.4318)	2.9363 (0.4548)
Cut Off Point 4	4.9704 (0.5921)	
Number of Observations	106	106
Likelihood Ratio Chi Squared	93.05	98.95
Log likelihood	-89.1582	-77.1438
Pseudo R Squared	0.3429	0.3907

Notes: i) * Statistically significant at the 10% level
** Statistically significant at the 5% level
*** Statistically significant at the 1% level
ii) [a] Collapsing the satisfaction categories 0 and 1 (see Footnote 67 on page 183).
iii) [b] Collapsing the satisfaction categories 1 and 2 together and 4 and 5 together (see Footnote 67 on page 183).
iv) For the cut-off points', standard errors are shown, rather than t-statistics.

Table 6.13: Marginal Effects for the Significant Coefficients in Table 6.12a

Explanatory Variables	Dependent Variable = Satisfaction Level				
	Not satisfied at all (1)	Not so satisfied (2)	Neither satisfied nor dissatisfied (3)	Somewhat satisfied (4)	Very satisfied (5)
	ME (*t*-statistic)	ME (*t*-statistic)	ME (*t*-statistic)	ME (*t*-statistic)	ME (*t*-statistic)
Homogeneous occupation of members	-0.0036 (-0.78)	-0.0098 (-0.62)	0.0591* (1.74)	0.1525* (1.65)	0.0027 (0.83)
Single-raced	-0.0019 (-0.61)	0.0116 (0.53)	0.1091* (1.84)	0.1866*** (2.46)	0.0022 (0.90)
Co-operative uses the services provided by the secondary co-op	-0.0108 (-0.94)	-0.0462 (-1.35)	0.0963* (1.92)	0.4739*** (4.05)	0.0204 (1.11)
There is an improvement in product/services of the co-operative	-0.0075 (-0.85)	-0.0309 (-0.99)	0.0741** (2.02)	0.2861** (1.96)	0.0075 (0.81)
There is an increase in number of members of the co-operative	-0.0049 (-0.76)	-0.0162 (-0.67)	0.0641* (1.77)	0.1979 (1.49)	0.0040 (0.73)

Notes: * Statistically significant at the 10% level
** Statistically significant at the 5% level
*** Statistically significant at the 1% level

Table 6.14: Determinants of the Need for Secondary Co-operatives

Independent Variable	Coefficient	*T*-statistic
Homogeneous occupation of members	-0.1288	-0.42
Single-raced	-0.3143	-0.90
Regional operation	0.7197	1.39
Regionally distributed members	0.0274	0.05
Main Area of Activity:		
- Consumerism	0.5039	1.15
- Transportation	0.3555	0.76
- Construction	0.3301	0.35
- Plantation	0.1935	0.32
- Housing	0.1940	0.38
- Services	0.8460*	1.86
- Small/cottage industry	1.3780**	2.15
Co-operative uses the services provided by the secondary co-operative	0.8322*	1.67
Co-operative gets their need supplied by the secondary co-operative	-0.6123	-1.19
Co-operative received dividend or rebates from the secondary co-operative	1.1391**	2.18
There is an increase in income of the co-operative	-0.4115	-0.73
There is an improvement in product/services of the co-operative	-0.4823	-0.77
There is an increase in number of members of the co-operative	1.5276**	2.40
Cut Off Point 1	0.7151	0.3720
Cut Off Point 2	1.1780	0.3794
Number of Observations		106
Likelihood Ratio Chi Squared (18)		49.18
Log likelihood		-82.2069
Pseudo R Squared		0.2076

Notes: i) * Statistically significant at the 10% level
** Statistically significant at the 5% level
ii) Omitted main area of activity: credit
iii) For the cut-off points', standard errors are shown, rather than t-statistics.

Table 6.15: Marginal Effects for the Significant Coefficients in Table 6.14

Explanatory Variables	Dependent Variable = The Need for Secondary Co-operatives	
	Neither agree nor disagree	Agree
	ME (*t*-statistic)	ME (*t*-statistic)
Services activity	-0.0750 (-1.46)	0.3009** (2.24)
Small/cottage industry activity	-0.1285** (-2.14)	0.4048*** (3.77)
Co-operative uses the services provided by the secondary co-op	-0.0585 (-1.34)	0.3140* (1.83)
Co-operative received dividend or rebates from secondary co-op	-0.0966* (-1.73)	0.3944*** (2.83)
There is an increase in number of members of the co-operative	-0.1172** (-2.11)	0.5100*** (3.34)

Notes: * Statistically significant at the 10% level
** Statistically significant at the 5% level
*** Statistically significant at the 1% level

CHAPTER 7

AN EMPIRICAL ANALYSIS OF THE DETERMINANTS OF THE LEVEL OF TRUST AMONG MALAYSIAN CO-OPERATORS

7.1. Introduction

The analysis of the primary-secondary co-operative relationship in Malaysia, presented in the previous chapter, suggests that primary co-operatives could use their membership in secondary co-operatives to increase membership in the primary co-operatives but not to encourage their members to increase their contributions to the share capital of the primary co-operative. Where primary co-operatives do not depend much on secondary co-operatives to survive, it is mostly the case that the activity of the primary co-operatives does not relate to the activity of the secondary co-operative. Also, where members are not induced to contribute much to the co-operative's capital, it may be the case that the activity of the primary co-operative is not related to members' businesses. Ole Borgen (2001) argues that where the co-operative activity and members' business are related, this may induce members to identify with the co-operative, which serves as a mechanism for generating trust in the co-operative. The members' strong identification with the co-operative may be induced through the existence of joint products, goals and strategy, which is especially the case if a co-operative consists of members who depend on the co-operative activity for living (*ibid.*, 2001). Thus, it is reasonable to expect that where members of co-operatives strongly identify with the co-operatives, this should be reflected in higher levels of trust in the co-operative relative to members who do not identify with the co-operative. On the other hand, Spear (2000) argues that it is the values upheld by co-operatives that make co-operatives trustworthy.

Primary co-operatives, whose activities are related to members' businesses, are common among producer co-operatives, such as agricultural marketing co-operatives and worker co-operatives. Basically, these types of co-operatives, for example worker co-operatives, comprise members, who set up a co-operative to start an economic activity and who depend on the co-operative for their living. The worker co-operatives usually comprise people from specific social structures, i.e. family members and friends, as members (Romero and Pérez, 2003; Woodin, 2006). These groups of people, i.e. family members and friends, are people, who belong to a high trust environment (Casson, 1995). Therefore, trust may be an important factor in the formation of a co-operative group.

Casson (1995) argues that voluntary associations of individuals in economic activity presume a higher degree of trust. Similarly, Romero and Perez (2003) argue that high levels of trust are necessary in setting up a co-operative enterprise because it is an adventure with great risks and sacrifices. In a similar vein, Haddad and Mallucio (2003) argue, from the perspective of a financial group, that a financial group, where members' financial resources are crucial for the group, requires a conscious decision to participate that is often conditioned on trust. A type of co-operative in which a high level of individual trust is needed is the worker co-operatives, i.e. co-operatives in which the owners, i.e. members, commit to both invest and work in the business.[72] Involvement in most worker co-operatives means financial investment. One technology-oriented worker co-operative in the US, for example, requires an initial ownership investment of USD$10,000.

[72] The worker co-operative model dates back to the 1760's in England and to the 1790's in the United States. In general, a worker co-operative is a collection of individuals that make a mutual pact to be in business together. The workers/owners govern the business on the one member one vote principle. They jointly own the business, sharing the company profits as well as the risks.

Casson (1995), Romero and Perez (2003) and Haddad and Mallucio (2003) all refer to trust in family members and friends. These arguments that relate to the formation of a co-operative with people from high trust social structures may be taken to imply that the membership of a cooperative should be based on trust, which should lead to co-operatives being formed among family members and friends. However, the formation of primary co-operatives in Malaysia, in general, has been largely among employees of organisations. Based on the argument in Buchan et al. (2002) that says that the many non-family run businesses in America and Japan is a demonstration of a high level of general trust displayed by the Americans and the Japanese, the many non-family run co-operative businesses in Malaysia may be taken to reflect a high level of general trust among the Malaysian co-operators. A high level of general trust in a country or in a society is where the level of trust in others is high.

The arguments discussed above point to two main aspects pertaining to the relatedness of a member's business to the activity of the co-operative: 1) the generation of trust in co-operatives; and 2) the importance of trust in the formation of a co-operative. Based on these two main arguments, in this Chapter, we analyse the determinants of the level of trust among Malaysian co-operators. Basically, in this chapter we analyse co-operators' trust in co-operatives where, initially, in Section 7.2, we discuss the role played by trust in the formation of a co-operative group, followed by a background discussion on trust in Section 7.3, which includes the definition of trust, the measurement of trust and the determinants of trust. In Section 7.4, we analyse the determinants of the level of trust among co-operator's, in which we explore: i) co-operators' trust in co-operatives; ii) co-operators' trust in co-operatives relative to other types of trust, i.e. trust in various groups of people

and trust in values; and iii) the relationship between trust in co-operatives and willingness to financially commit towards a hypothetical co-operative business. The empirical analysis is based on the data derived from the questionnaire survey described in Chapter 5. As the high level of general trust in the argument of Buchan et al. (2002) relates to a high level of general trust in a country or in a society and since the survey in this thesis only concerns co-operators, we have conducted an electronic mail survey on trust among a more general sample of individuals in Malaysia to compare the general level of and pattern of trust between the sample of co-operators and the more general sample of individuals, which we discuss in Section 7.4.[73]

7.2. Trust in the Formation of Co-operative Groups

Co-operatives are often referred to as economic groups that are formed on a voluntary basis. In the ideology of economic organisations, a voluntary association is an association where individuals with common interests and beliefs naturally associate with each other, for purposes of production and for other activities (Casson, 1995). Casson argues that the voluntary association of individuals in economic activities presumes a higher degree of trust than individualism and collectivism. In individualism, low trust has a more central role because it validates the emphasis on competition between individuals, while in collectivist societies low trust is said to be "an unintended consequence of a repressive political regime arising from failure of the society to respond to the anticipation of the leaders" (Casson, 1995:175). Therefore, as voluntary associations of individuals in economic activity, high trust is necessary in co-operatives, especially in setting up a

[73] Issues relating to co-operative size and trust are analysed in Chapter 8.

cooperative enterprise, which according to Romero and Pérez, (2003), is an adventure with great risks and sacrifices.

The need for high trust in the formation of a co-operative group is a direct analogy to financial capital. Individuals engaged in economic activity can use social relations to meet their financial capital requirements (Portes and Sensenbrenner, 1993). Portes and Sensenbrenner use examples from the immigration literature to explore the different forms in which social structures affect economic actions. They argue that immigrants' economic destinies depend heavily on the social structures in which they become incorporated. Bonding together in tight knit communities based on trust provides a potential source for start-up capital and the basis for the rapid growth of fledgling immigrant enterprises such as the Chinese immigrants in New York and San Francisco in the United States. Normally small budding businesses resort to family resources, and to a further extent friends, on the grounds of trust, for potential start-up capital because financial institutions usually are less optimistic about lending due to the perception of risk and the fear that obligations may not be met in the event of failure (Casson, 1995).

Henehan and Anderson (2001) argue that one of the 6 phases of co-operative formation concerns the development of trust among potential members.[74] This may not, however, be necessary if the formation of a co-operative group takes place among people who trust each other highly. Smith-Ring (1997) argues that economic actors have to invest in the time dimension of relationship to have a track record of trust. Developing trust among people who hardly know each other takes time, for it

[74] The first two phases are, firstly, identifying the opportunity and secondly, building consensus on the potential for a cooperative, while the rest of the co-operative formation phases include securing member commitment, involving other stakeholders and starting up the cooperative enterprise (Henehan and Anderson, 2001).

involves the process of building trust, before a group can be formed.[75] Trust, especially interpersonal trust, is regarded as important for the formation of economic groups, in this case co-operatives, because it is crucial for individuals to pursue their economic activity, i.e. in its ability to raise adequate financial capital for a business. It is reasonable to expect that when it comes to making resources available to others to start a business, not many would be willing.

Portes (1998) argues that the actual source of advantage for the individual, which lies in his/her relationship to others, should be recognised. What really motivates those to make resources available to a person is not uniform. Normally their willingness comes with the expectation that they will be fully repaid in the future, which makes it a sort of an exchange only that it differs from the purely economic exchange in two ways. Firstly, these obligations are repaid in a different "currency" from that with which they were originally incurred and "may be as intangible as the granting of approval or allegiance" (Portes, 1998:7); and secondly, the timing of repayment is unspecified.

The importance of trust can be seen in the setting up of worker co-operatives. Basically worker co-operatives in the West started off among family members and friends, i.e. from social structures where there is high trust environment. The Edinburgh Bicycle Co-operative in the UK for example, which is the largest retailer of bicycles in the UK, was set up by 5 university graduates who were friends (Woodin, 2006) and the Andalusian cooperatives of associated workers in Spain selected their cooperative members at the time of creation, among family members

[75] Ghatak and Guinnane (1999) make reference to Balkin (1993) who discussed the difficulty of the Chicago's Full Circle Fund to form a group that replicated the Grameen Bank, which took 6 to 8 months to be established. Balkin is quoted as saying that "in a setting where potential members, generally, do not initially know each other ... it does seem that it would take considerable time for people to perceive just how honest and trustworthy others would be" (Balkin, 1993:242-242 in Ghatak and Guinnane, 1999).

and friends who had earned their complete trust (Romero and Pérez, 2003). Lazerson (1988) argues that the selection of business partners is always problematic because of the question of trust. Interpersonal relationships in business form the ground for relational contracting, one that settles for an agreement that frames the relationship without attempting the impossible task of complete contracting. This type of relationship not only opens up opportunities but also acts as a safety net or insurance against risk that makes the relationship unworthy of exploitation (*ibid.*, 1988). Thus, social structures play an important part in the formation of an economic group such as a co-operative.

In the following sections, we discuss the definition of trust used in the existing literature in Section 7.3.1, how trust has been measured in the existing literature in Section 7.3.2 and the determinants of trust identified in the existing literature in Section 7.3.3.

7.3. Trust

7.3.1. The Definition of Trust

Researchers taking a micro-perspective regard trust as a moral resource, or a 'soft' variable, which has been used in explaining socio-economic behaviour. Casson and Cox (2001) argue that trust involves a belief that the other person will be honest. To trust means that you rely on others not to take advantage of you. Generally, "when we say we trust someone or that someone is trustworthy, we implicitly mean that the probability that he will perform an action that is beneficial or at least not detrimental to us is high enough for us to consider engaging in some form of co-operation with him" (Gambetta, 1998:217). Trust belongs to one of the incentives that people have traditionally deployed to regulate their common activity besides "solidarity,

reciprocity, reputation, pride, respect, vengeance and retribution" (Bowles and Gintis, 2002:F424).

According to Williamson (1993), there are 2 types of trust: 'trust' and 'calculative trust'. Williamson envisages 'trust' as the high trust among specific social groups, referring to personal relations between family, friends and lovers, while he conceives 'calculative trust' as a calculative behaviour, meaning trust-based decisions, which rest on calculative economic reasoning. Smith-Ring's (1997) use of the terms 'resilient trust' and 'fragile trust' in differentiating trust coincides with Williamson's (1993) 'trust' and 'calculative trust', respectively. Smith-Ring's 'resilient trust' relates to interfamily connections and kinship ties that emphasise trust as "faith in the moral integrity or goodwill of others on whom economic actors depend for the realization of collective and individual goals as they deal with future, unpredictable issues" (Smith-Ring, 1997:122). 'Fragile trust' permits economic actors to deal with each other, but only in a guarded way and is strengthened by parties relying on a formal means, for example, on contracts, for governing and safeguarding their relationship (*ibid.*, 1997).

Where trust appears in the argument pertaining to the membership of a group (Benham and Keefer, 1991; Romero and Pérez, 2003; La Porta et al., 1997; Casson, 1995; Haddad and Maluccio, 2003 and Van Bastelaer, 2002), it is the type of trust that is described as tolerant of and is founded on a willingness to, endure risk and uncertainty (Hart, 1988; Pagden, 1988). This is the kind of trust that would belong to the 'resilient' type of trust of Smith-Ring (1997). The only other kind of interpersonal relation (a relation between persons as persons), which can satisfy the condition of extensive and enduring trust, is friendship (Hawthorn, 1988). Casson

and della Guista (2004) argue that trust produced from personal relations is the fundamental basis of co-operation.

With respect to economic activities, trust is important as it has been argued that, among others, strong interpersonal trust can facilitate investment, especially where a lack of assets limits access to bank credit (Knack and Keefer, 1997). On the other hand, low trust can discourage innovation among entrepreneurs, who would be devoting more time to monitoring possible malfeasance by partners (*ibid.*, 1997). Thus, trust triggers greater investment and other economic actions such as immigrants enterprises in the US (Portes and Sensenbrenner, 1993), as discussed in Section 7.2.

7.3.2. The measurement of trust

In the existing literature, there are 2 methods by which trust is measured: 1) the survey method based on questions from the National Opinion Research Centre's General Social Survey (GSS) or the World Value Survey (WVS); and 2) the monetary experiment method, which was designed by Berg et al. (1995). In this thesis, we were not able to use an experimental approach because it is impossible for us to gather our respondents, who are from disparate co-operatives throughout the country, within a particular premise at a particular time. The empirical literature that uses the experimental method often makes use of undergraduates (see, for example, Berg et al., 1995; Glaeser et al., 2000).

Studies by Alesina and la Ferarra (2002), Knack and Keefer (1997) and Whiteley (2000) focus on responses to the following GSS question: "Generally speaking, would you say that most people can be trusted or that you can't be too careful in

dealing with people?"[76] This particular GSS trust question measures the general level of trust in a society or a country. It has been argued that if a high percentage of people in a society or in a country indicates that most people can be trusted, this would generally indicate a society or a country with a high level of general trust, for example Scandinavia, where almost two thirds of the responses to the GSS trust question indicated that most people can be trusted (La Porta et al., 1997).

Glaeser et al. (2000) argue that measuring trust with this GSS question is a great lacuna, because the question is vague, abstract and hard to interpret. They noted that subject responses to the GSS trust question are difficult to interpret as variations in responses might arise for numerous reasons such as differences in the interpretation of who comprises "most people" and differences in the interpretation of what it means to be able to trust someone. It also depends on the identity of the person the respondent has in mind when answering the question (Knack and Keefer, 1997; Haddad and Maluccio, 2003). Glaeser et al. (2000) therefore use other trust questions from the GSS: questions on fairness and helpfulness. The former asked: "Do you think that most people will try to take advantage of you if they got the chance or would they try to be fair?" The latter asked: "Would you say that most of the time people try to be helpful, or that they are mostly just looking out for themselves?" In addition, Glaeser et al. (2000) also design other trust questions which differ from the GSS trust question, such as questions that elicit past trusting behaviour, for example, how often their subjects lend money or personal possessions to a friend or how often do they leave their room unlocked.

With respect to the argument in Casson (1995) on participation in a group, which is a consequence of some underlying belief about the behaviour of other people, which

[76] The GSS trust question is a primary source for U.S. evidence on trust and social capital. It started in 1972 and the GSS trust question has been adopted in numerous studies.

relates to the question of 'who can be trusted', Whiteley (2000) argues that the basic groups would be families, friends and strangers. Whiteley also argues that the level of trust in a society or a country is indicated by the willingness to trust others, often strangers. In addition, Casson and della Guista (2004) argue that, at the individual level, the questions to be asked should be not only 'who', but also 'how much', 'how' and 'when' they trust.

The empirical analysis presented in the following sections leans towards the methodology of the WVS, but rather than simply importing questions from the WVS, we elected to design questions for the questionnaire of Malaysian co-operatives. Besides asking co-operators to indicate their level of trust in co-operatives, the trust questions in the questionnaire survey of Malaysian co-operatives (as discussed in Section 5.5 of Chapter 5) also constitute questions that asked co-operators to indicate their levels of trust in their families, friends and strangers as well as the GSS trust question that measures the general trust level. In addition, we designed additional trust questions: trust in lending money; trust that the money lent out would be repaid; and trust in values. The questions on trust in values were based on the GSS attitudinal question pertaining to fairness and helpfulness, but which were modified to relate to co-operatives.

7.3.3. The Determinants of Trust

The role of trust has been analysed in various studies, such as in the analysis of governmental efficiency (Putnam, 1993), in the analysis of economic growth (Knack and Keefer, 1997) in the analysis of the performance of large firms (La Porta et al., 1997) and in the analysis of community participation in different types of groups (Alesina and la Ferrara, 2000). The various studies have found that various characteristics of the individual such as age, gender, level of income, level of

education, race and nationality and the characteristics of a group, from where the individual comes, such as group homogeneity, group size, social distance, repeated interactions and past experience may influence the level of trust of the individual, thus affecting the efficiency or performance of organisations and institutions (Knack and Keefer, 1997; Glaeser et al., 2000; Ole Borgen, 2001; Alesina and la Ferrara, 2002; and Eckel and Wilson, 2004). For example, Knack and Keefer (1997) test the effect of income inequality and education rates on trust in 29 market economies (including countries from Europe, Latin America, South Africa and Asia), finding that low levels of income inequality and low levels of education are associated with low trust. They also found that the lack of trust can be used to explain why some countries in the world are less successful economically. La Porta et al. (1997) argue that trust is higher in richer countries (see Appendix A7.2 for a summary of the vast literature exploring the determinants of trust).

The various individual and group characteristics described above have been used to test the level of trust in a country or a society in general, in conjunction with the kind of analysis carried out, i.e. for example, the analysis of government efficiency and economic growth of a country (Putnam, 1993; Knack and Keefer, 1997). In this chapter, however, where we specifically analyse the level of trust in co-operatives, we are not testing what determines the level of trust in general but rather we will explore what determines the level of trust in co-operatives. Therefore, some of the determinants mentioned above may not be appropriate for our analysis, given the nature of co-operatives in the Malaysian co-operative movement. For example, to test whether co-operative members' income affects trust in co-operatives may not be appropriate as the discussion on the composition of co-operative members in Chapter 4, indicates that a large number of co-operative members are employees of

an organisation, indicating that members do not earn their income from the activity of the co-operative. In general, one might predict that trust in co-operatives would be determined by factors different from the factors that determine the general level of trust in a society. We will review such factors in the following section.

7.4. Empirical Analysis of the Determinants of Co-operators' Trust

In this section, we present econometric analysis of: i) the determinants of co-operator's trust in co-operatives in Section 7.4.1; ii) the relationship between co-operator's trust in co-operatives and other types of trust in Section 7.4.2; and iii) the relationship between co-operators' willingness to invest in a co-operative business and trust in co-operatives in Section 7.4.3 to explore whether trust in the co-operative may influence the amount of share capital raised. Finally, we compare the general level of and pattern of trust for the sample of co-operators with a more general sample of individuals in Malaysia in Section 7.4.4 to ascertain to what extent the level of trust for the sample of co-operators differs from that of the general Malaysian sample.

7.4.1. Co-operators' Trust in the Co-operative Institution

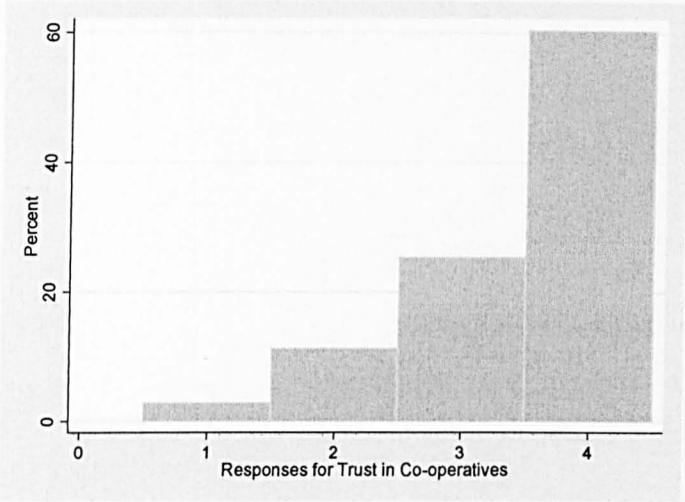
The survey question that asked co-operators to indicate their level of trust in the co-operative (i.e. Question 29) is measured on a 5-point Likert scale: 0 (do not trust at all); 1 (do not trust very much); 2 (neither trust nor distrust); 3 (trust a little); and 4 (trust completely).[77] Figure 7.1 below summarises the responses to the question regarding the level of trust in the co-operative.

It is apparent that 60.4% of the co-operators have complete trust in the co-operative, 25.5% have little trust in the co-operative, 11.3% neither trust nor distrust the co-

[77] Following Whiteley (2000), we use the 5-point Likert scale to measure the level of trust for all other trust questions in the survey, i.e. Questions 21 to 29.

operative and 2.8% do not trust the co-operative very much. None of the respondents do not trust the co-operative at all.

Figure 7.1: The Co-operators' Trust in the Co-operative



These responses do not accord with our expectations as we had expected that the level of co-operator's trust in the co-operative would be low. We based our expectations on the argument put forward by Ole Borgen (2001) that members' strong identification with the co-operative, which is present in co-operatives where the co-operative activity and the members' business activity are related, should be reflected in higher levels of trust in the co-operative. Therefore, where co-operative members are largely fixed-income earners, as in the case of co-operatives in Malaysia as discussed in Chapter 4, it seems reasonable to predict that, in general, the activity of the co-operatives does not reflect what their members are doing for their living. One possible explanation for the reported high level of trust in co-operatives from the responses, relates to the supporting letter from the DCD for the research project, which was attached to the questionnaire. The letter, which indicates that the researcher is an officer with the DCD, may have prompted co-

operators to give such a positive response to the question about the level of trust in co-operatives, which may have biased the responses.[78]

In the following analysis, we analyse the factors that explain the level of co-operators' trust in the co-operative. Our dependent variable represents the level of trust of co-operator i in co-operative (C_i), which is defined as:

$$C_i = \begin{cases} 0 \text{ if the co-operator does not trust the co-operative at all} \\ 1 \text{ if the co-operator does not trust the co-operative very much} \\ 2 \text{ if the co-operator neither trust nor distrust the co-operative} \\ 3 \text{ if the co-operator trusts the co-operative a little} \\ 4 \text{ if the co-operator trusts the co-operative completely} \end{cases}$$

The dependent variable, i.e. the level of co-operators' trust in the co-operative (C_i), is an index that is inherently ordered in a sequence. Therefore, for the econometric analysis of the determinants of C_i, we specify an ordered probit model.

As discussed in Section 7.3.3, various factors may determine the level of trust, which may be categorised into: i) trust determinants representing individual characteristics; and ii) trust determinants representing group characteristics. In the analysis of the determinants of the co-operator's trust in the co-operative, we do not include all the determinants of trust as discussed in Section 7.3.3 as some may not be necessary for this study. In this study of co-operatives in Malaysia, the trust determinants that we analyse are mostly factors reflecting the group characteristics of the co-operatives. Information on individual characteristics is limited because of the methods used to collect the data, i.e. the mail survey questionnaire as discussed

[78] Omitting the official letter from the DCD may have, however, lowered the response rate.

in Chapter 5. We were concerned that if we included more questions or personal questions, this may affect the response rate adversely.

Our explanatory variables thus include both individual and group characteristics. For the group characteristics, we explore factors that are specifically related to the characteristics of co-operatives, which include the homogeneity of the primary co-operative group, the types of primary co-operative and the primary co-operative membership in secondary co-operatives. In accordance with the argument in Alesina and la Lerrara (2002) that trust is lower in groups, which are less homogeneous in terms of, for example, racial and ethnic composition, in the context of the co-operatives in our sample, we therefore expect that co-operators from co-operatives that are homogeneous in terms of members' occupation (*HOCCUP*) and the racial composition of members (*SRACE*) would have higher levels of trust in the co-operative.

We also include two other co-operative characteristics to explain the co-operator's level of trust in the co-operative: the co-operative area of operation; and the distribution of co-operative members. In terms of membership size, co-operatives that operate on a regional scale (*REGIOP*) and co-operatives that have regionally distributed members (*REGIMB*) are relatively smaller than co-operatives that operate on a nationwide scale and co-operatives that have nationwide distributed members, respectively. Being relatively small and local, trust in the co-operative can be expected to be relatively higher than in larger groups because large membership may lead to conflicting interests, which makes the process of trust building complicated (Ole Borgen, 2001).[79]

[79] The relationship between trust in co-operatives and size of membership will be explicitly analysed in the next chapter (Chapter 8).

In addition, we also include the main activity of the co-operative (*MAINACT*), which comprises 8 categories of co-operative activity (i.e. credit, consumer, transportation, construction, plantation, housing, services and small/cottage industry) as explanatory variables. This is because strong identification of members with the co-operative, which serves as a mechanism for generating trust in the co-operative, can be induced in co-operatives where the co-operative activity relates to the members' own business (Ole Borgen, 2001). We therefore expect that, in Malaysia, trust in the co-operative is likely to be higher in co-operatives whose members are more likely to be engaged in economic activities that are reflected in the activity of the co-operative, such as the transport co-operatives or the small/cottage industry co-operatives. We also control for membership in a secondary co-operative (*SECOOP*) to explore whether a higher level of trust in the co-operative exists among co-operators whose co-operative is a member of a secondary co-operative.

As the responses pertaining to trust in the co-operative reflect the individual co-operator's view, we include the age of the co-operator (*AGE*) in the set of explanatory variables. While the first group of variables that constitute co-operative characteristics (i.e. *HOCCUP, SRACE, REGIOP, REGIMB, MAINACT* and *SECOOP)* would indicate which co-operators from which type of co-operative are more likely to trust the co-operative, the individual characteristic (*AGE*) would indicate whether younger or older co-operators trust the co-operative more.

The variables *HOCCUP, SRACE, REGIOP, REGIMB, SECOOP* and *MAINACT,* as described in Chapter 6, are dummy variables, which take the value of 1 if the primary co-operative comprises members with the same occupation (*HOCCUP)*, if the co-operative members are single-raced (*SRACE*), if the co-operative operates on a regional scale (*REGIOP*), if the members of the co-operative are distributed

regionally (*REGIMB*) and if the co-operative is a member of a secondary co-operative (*SECOOP*). As for the 8 categories of co-operative activity under *MAINACT,* the value is 1 if the main activity of the co-operative falls under either one of the eight activities: credit; consumer; transportation; construction; plantation; housing; services; and small/cottage industries. The age of the respondent (*AGE*) consists of four categories: aged less than 30 years;[80] aged between 31 and 40 years; aged between 41 and 50 years; and above 50 years old. 8.5% of the respondents are under 30 years old, 16% are between 31 and 40 years old, 34% are between 41 and 50 years old and 41.5% are over 50 years old.

The Results

Table 7.1 in Appendix A7.1[81] presents the results of the ordered probit analysis of the determinants of co-operators' trust in co-operatives based on the above model, where the set of explanatory variables constitutes variables that represent co-operative and individual characteristics. It is apparent in Table 7.1 that the estimated coefficient representing co-operators from co-operatives that operate on a regional scale is positive and statistically significant. The estimated coefficient representing co-operators from co-operatives that have members distributed regionally is negative and statistically significant. Also negative and statistically significant are the estimated coefficients representing co-operators from transport, services and small/cottage industry co-operatives. The finding pertaining to co-operatives that operate on a regional area accords with our expectations that co-operators from this type of co-operative would have higher levels of trust in the co-operative. However, the finding pertaining to co-operatives, whose members are regionally distributed,

[80] We collapsed the age category 'under 20' and the age category '21 – 30 years old' into a category 'less than 30 years old', because there are only 2 cases in the former age category and 7 cases in the latter age category.
[81] All remaining tables are placed in Appendix A7.1.

does not accord with our expectations. The findings for co-operators from transport co-operatives and from small/cottage industry co-operatives also do not accord with our expectations that they would have higher levels of trust in the co-operative.

The marginal effects of the variables with statistically significant estimated coefficients are presented in Table 7.2. There is a 13% lower probability that co-operators from co-operatives that operate on a regional area have little trust in the co-operative relative to co-operators from co-operatives that operate on a nationwide scale. However, for co-operators from co-operatives whose members are regionally distributed, there is a 22% higher probability that they trust the co-operative a little, relative to co-operators from co-operatives whose members are distributed all over the country. There is a 36% higher probability that co-operators from the co-operatives having the former characteristics have complete trust in the co-operative, but there is a 37% lower probability that co-operators from the latter group of co-operatives completely trust co-operatives. It may be the case that the higher probability of trusting the co-operative completely among co-operators from co-operatives that operate on a regional area could be because local co-operatives offer better opportunities for members to engage in incremental and repeated exchanges, which is one mechanism that facilitates the development of trust (Ole Borgen, 2001). In addition, members may be better informed about what is going on in the co-operative and can, therefore, monitor their co-operatives on a more frequent basis.

Relative to the credit co-operatives, there is a 16% higher probability for co-operators in transport co-operatives and services co-operatives and a 25% higher probability for co-operators in small/cottage industry activity to neither trust nor distrust the co-operative. The level of their trust in co-operative decreases, with co-

operators in transport co-operatives and in services co-operatives, each having a 11% higher probability of trusting co-operatives a little, while co-operators in small/cottage industry co-operatives have a 6% higher probability of trusting the co-operative a little. The probability of having complete trust in the co-operative is 36% lower for co-operators in transport cooperatives and services co-operatives and 50% lower for co-operators in small/cottage industry co-operatives. The results for transport co-operatives and small/cottage industry co-operatives do not tie with our expectations because these are the types of co-operatives in which the members would most likely be individuals whose economic activity is reflected in the activity of their co-operative, for example, the taxi co-operatives for taxi owners/drivers. We would, therefore, expect co-operators from transport co-operatives and from small/cottage industry co-operatives to show relatively high levels of trust in the co-operative.

The Extended Model

In this subsection, we explore additional factors that may explain the level of co-operator's trust in the co-operative by extending the above model to include additional dummy variables. We control for the benefits that the co-operatives received from their secondary co-operatives because it may be the case that the high levels of trust in the co-operative indicated from the responses is because the co-operator, as a member of the co-operative Board (i.e. a co-operative representative), is more likely to indicate trust if he/she recognises that the primary co-operative benefits from membership in a secondary co-operative. Ole Borgen (2001) argues that the roles played by representatives of a co-operative are intimately related to identity and identification. We include 6 additional controls: whether the co-operative uses the services provided by secondary co-operatives; whether the co-operative gets its needs supplied by secondary co-operatives; whether the co-

operative receives dividends or rebates from secondary co-operatives; whether there is an increase in the income of the co-operative; whether there is an improvement in the products or services of the co-operative; and whether there is an increase in the number of members of the co-operative. This allows us to analyse whether any particular benefit affects the co-operators' level of trust in co-operatives.

Table 7.3 presents the results of the ordered probit analysis of the determinants of co-operators' trust in their co-operatives controlling for the six benefit variables. The estimated coefficient representing co-operatives that operate on a regional area remains positive and statistically significant. The estimated coefficients representing co-operatives with regionally distributed members, services co-operatives and small/cottage industry co-operatives also remain negative and statistically significant. With respect to the additional benefit variables, the estimated coefficient for co-operatives that benefit from an increase in co-operative income from membership in secondary co-operatives is negative and statistically significant. The estimated coefficient representing co-operatives that benefit from an increase in membership is positive and statistically significant. The marginal effects for the statistically significant explanatory variables are presented in Table 7.4.

There is a 15% higher probability of co-operators from co-operatives that benefited from an increase in co-operative income from membership in secondary co-operatives having little trust in co-operatives and a 36% lower probability of trusting co-operatives completely, relative to those whose co-operative did not experience such a benefit. On the other hand, co-operators from co-operatives that benefited from an increase in membership are more likely to trust co-operatives more. There is a 10% lower probability of neither trusting nor distrusting co-operatives, a 19%

lower probability of trusting co-operatives a little and a 31% higher probability of having complete trust in co-operatives, relative to co-operators whose co-operative did not experience an increase in membership. The results suggest that the high level of co-operator's trust in co-operatives is not influenced by the benefits the co-operative received from membership in secondary co-operative, except where there is an increase of the co-operative membership.

Summary

To summarise, in general, the high percentage of responses indicating complete trust in co-operatives is a healthy indication that the co-operative institution in Malaysia is well accepted among co-operators. However, in the multivariate analysis, the high level of trust in co-operatives is only indicated by co-operators from co-operatives that operate on a regional scale. Given the nature of co-operatives in the Malaysian co-operative movement as discussed in Chapter 4, where co-operatives largely comprise members with fixed-income employment, we expected that co-operators in Malaysia would not indicate high levels of trust in co-operatives. We also expected that co-operators from co-operatives such as transport co-operatives and small/cottage industry co-operatives, whose activity, to some extent, reflects the activities that the members are engaged in, would have relatively high levels of trust in the co-operatives. Our findings did not, however, support this. Our findings suggest that co-operators in the different types of co-operatives in Malaysia do not identify with their co-operative because if they did, then it would be indicated in a high level of trust in co-operatives from co-operators representing the different types of co-operatives (Ole Borgen, 2001). Only co-operators from co-operatives that experienced an increase in membership from the co-operative's membership in secondary co-operatives indicate a high level of trust in the co-operative.

In the following section, we analyse the co-operator's trust in co-operatives in relation to other types of trust, i.e. in relation to trust in various groups of people and trust in values.

7.4.2. Empirical Analysis of the Relationship between Co-operators' Trust in Co-operatives and Other Types of Trust

In the survey, we asked co-operators to indicate their level of trust in their family members, in their friends and in strangers (Questions 22 and 25). We have defined trust in strangers according to three categories in terms of geographical distance: trust in people from the same district as them; trust in people from the same state as them; and trust in their countrymen. In Table 7.5, we present summary statistics of the co-operators' levels of trust in the various groups of people.

It is apparent from Table 7.5 that, among the Malaysian co-operators, the percentage which have complete trust in their family is lower than the percentage, which have complete trust in the co-operative. Only 27.4% of co-operators trust their family members completely as compared to 60.4%, who completely trust co-operatives (see Section 7.4.1). If we take the scales 0 (do not trust at all) and 1 (do not trust very much), to indicate distrust and the scales 3 (trust a little) and 4 (trust completely) to indicate trust, 74.5% of the respondents trust family members, while only 9.4% do not trust them. 54.7% trust their friends, while 16.0% do not trust them. As with trust in strangers/fellow nationals, 35.9% trust people coming from the same district as them, while 21.7% do not trust them. Meanwhile, 32.1% trust people coming from the same state as them and 24.5% do not trust them. 22.6% of the respondents trust their countrymen but an even larger percentage (27.4%) do not trust them.[82]

[82] The three categories for trust in strangers are in accordance with Whiteley's (2000) trust in fellow nationals.

If we compare the pattern of trust for fellow nationals with Whiteley (2000),[83] the pattern of trust for fellow nationals in Whiteley (2000) shows a higher level of trust in fellow nationals, with 64.1% indicating trust in fellow nationals as compared to the pattern of trust in fellow nationals among our sample of Malaysian co-operators (i.e. an average of 30.2% for the three categories of trust in fellow nationals). While the findings in Whiteley (2000) demonstrate that 44.4% trust fellow nationals a little and 19.7% trust them completely, our sample of co-operators in Malaysia indicates that, on average, 34.9% trust fellow nationals a little and 0.6% trust them completely. Only 13.3% of the sample in Whiteley's study show distrust in fellow nationals as compared to, on average, 24.5% in our sample of co-operators in Malaysia. Although the sample in Whiteley (2000) may be more representative than ours (our sample consists of only co-operators), in general, the level of trust in fellow nationals in our sample of co-operators, appears to be relatively low.

In addition to trust in the various groups of people, we also asked co-operators (in Questions 26 to 28) to indicate their trust in people having three specific values: trust that people, in general, will be honest; trust that people, in general, will not take advantage; and trust that people, in general, will put the interest of others first. Summary statistics of co-operators' levels of trust in values are presented in Table 7.5. A large percentage of the respondents in our sample (56%) indicate that they trust that people will be honest, compared to 23% who indicate that they do not trust that people will be honest. 65% trust that people will not take advantage, while 17% do not trust that people will not take advantage. However, the percentage that responded that they trust that people will put the interest of others first is lower

[83] Whiteley (2000) used three databases of nationals from forty-five countries (not including Malaysia) carried out between 1990 and 1993.

(32%) as compared to 48% that do not trust that people will put the interest of others first.

In Table 7.6, we present a correlation matrix between trust in co-operatives, trust in the various groups of people and trust in values. Trust in co-operatives has a positive correlation with trust in family members, a modest positive correlation with trust in friends and a modest positive correlation with trust in people from the same district. Trust in co-operatives has no correlation with trust in people from the same state and trust in countrymen. The correlation matrix also indicates that trust in family members has a positive correlation with trust in friends, a modest positive correlation with trust in people from the same district, a modest positive correlation with people from the same state and almost no relationship with trust in countrymen. The correlations of the relationships across the various groups of people become smaller as the people became further apart from each other in terms of personal, social and geographical distance. This finding accords with the arguments in Macy and Skvoretz (1998) and Glaeser et al. (2000) that trust increases when individuals are closer socially.

Trust in co-operatives has a modest positive correlation with trust that people are honest and a positive correlation with trust that people will not take advantage yet no relationship with trust that people will put the interests of others first, suggesting that trusting the co-operative does not seem to relate very much to trusting that people, in general, have the values upheld by co-operatives such as honesty, solidarity and caring for others. This may again be taken to confirm the argument in Spear (2000) that it is the values upheld by co-operatives that make them trustworthy.

We now adopt multivariate analysis to explore the relationship between trust in co-operatives and the other types of trust stated above, i.e. trust in the various groups of people and trust in values. With trust in co-operatives, which is an ordered variable, as the dependent variable, we again specify an ordered probit model. The dependent variable is defined in Section 7.4.1. We estimate 3 specifications: Specification 1 is a regression of trust in co-operatives on trust in the various groups of people; Specification 2 is a regression of trust in co-operatives on trust in the various groups of people and trust in values; and Specification 3 is a regression of trust in co-operative on trust in values only. The ordered probit results of the three Specifications are presented in Table 7.7.

In Specification 1, the estimated coefficient representing trust in family members is positive and statistically significant and in Specification 3 the estimated coefficient representing trust that people will not take advantage is positive and statistically significant. The estimated coefficients for trust in family members and trust that people will not take advantage remain positive and significant in Specification 2. The marginal effects of the significant estimated coefficients for Specification 2, which has a larger pseudo R-squared are also presented Table 7.7. The results indicate that an increase in the level of trust in family members and in the level of trust that people will not take advantage is more likely to influence trust in co-operatives relative to trust in other groups of people and trust in the other two categories of values, respectively, with both types of trust having a 7% lower probability of trusting co-operatives a little and a 14% higher probability of completely trusting co-operatives.

Summary

According to the line of reasoning in La Porta et al. (2002), who argue that strong family ties are bad for the development of firms based on their findings of 20 large firms, where the coefficient of trust in people is higher than the coefficient of trust in family, our findings in Table 7.7, which, in general, indicate that the estimated coefficient of trust in family is higher than the estimated coefficients of trust in any of the three groups of people in the 'stranger' category, would suggest that trust in the family is good for building trust in co-operatives. By encouraging family businesses or businesses among people who trust each other highly to be formed as co-operatives, members might be induced to identify strongly with their co-operative and, therefore, enhance trust in the co-operative.

7.4.3 Empirical Analysis of Willingness to Invest in a Co-operative Business and Trust in Co-operatives

Based on the findings in Sections 7.4.1 and 7.4.2 above, it is interesting to explore the relationship between co-operators' trust in co-operatives and the degree of entrepreneurial spirit of co-operators in terms of their willingness to make a financial commitment. Davis (1999) argues that it is the absence of a substantial degree of entrepreneurial spirit in a co-operative group that makes it difficult for co-operatives to raise adequate capital. The absence of entrepreneurs or entrepreneurial spirit in a co-operative can be reflected in the tendency of the co-operative members to keep their contribution to the co-operative's capital to the minimum [de Drimer, 1997], which makes it necessary for a co-operative to have a large number of members for the co-operative to be able to acquire adequate capital.

In the survey, in Question 31, we include a hypothetical business opportunity on a co-operative basis, where we asked co-operators to indicate their willingness to

financially commit towards the start-up capital of a business opportunity to be run co-operatively with a group of people, whom they are familiar with (i.e. not strangers), with possible responses: not willing to contribute yet; willing to contribute the minimum 5% required; or willing to contribute the maximum 15% allowed. There are two shortcomings to this question, which with hindsight we would have included: firstly, we did not indicate the amount of capital required; and secondly, the size of the group in question. We stated a minimum of a 5% financial commitment because if we state only 'minimum', it may be taken as a minimum contribution as in the contribution to the share capital of co-operatives.[84] We also stated a maximum of 15% of financial commitment so as not to exceed the restriction on shareholding in a co-operative in Malaysia.[85] 61.3% responded that they would wait and see, which we take to mean 'no' in the first instance. Only 27.4% responded that they are willing to contribute the minimum amount required (i.e. 5%) and 11.3% would contribute the maximum allowed (i.e. 15%).

It is reasonable to expect that co-operators who expressed willingness to commit more in terms of a monetary contribution towards a co-operatively planned economic activity would be more likely to have higher levels of trust in co-operatives. In this case, the responses to Question 31 above may be a determinant of the co-operator's trust in the co-operative. Therefore, we use the same model as in Section 7.4.1 to analyse the relationship between the co-operator's willingness to make the financial commitment and the co-operator's trust in the co-operative. We, however, extend the model to include the responses to Question 31 as additional explanatory variables.

[84] In general, the minimum contribution of a member to the share capital of the co-operative in Malaysia is the minimum share required to be a member of the co-operative and for the member to exercise his/her membership rights.

[85] Section 33 of the Co-operative Act 1993 states that "no member, other than a registered society, shall hold more than one-fifth of the share capital of any registered society".

The Results

Table 7.8 presents the ordered probit results of the determinants of co-operators' trust in co-operatives with the additional explanatory variables. Based on the results of the main model in Table 7.1, it is apparent from Table 7.8, that the estimated coefficients on the secondary co-operative dummy variable and the consumer co-operative dummy variable have become negative and statistically significant. The estimated coefficients for the dummy variables representing co-operatives in transport, services and small/cottage industry remain negative and statistically significant. The estimated coefficient representing willingness to financially commit the maximum amount allowed for a business is positive and statistically significant. The marginal effects for the statistically significant variables are presented in Table 7.9.

Relative to co-operators from co-operatives that are not members of a secondary co-operative, there is a 7% higher probability of co-operators from co-operatives that are secondary co-operative members to neither trust nor distrust the co-operative, a 10% higher probability to trust the co-operative a little and a 19% lower probability to completely trust the co-operative. Based on the discussion of secondary co-operatives in Chapter 4, it seems reasonable to predict that it is less likely that membership in a secondary co-operative would have a positive influence on a co-operator's trust in the co-operative institution, especially where the secondary co-operatives do not seem to play the role of supporting, strengthening and promoting the primary cooperatives as suggested by the analysis of the relationship between primary and secondary co-operatives in Chapter 6.

The decreasing pattern of probabilities for the consumer co-operatives is similar to that for the transport, services and small/cottage industry co-operatives discussed in

Section 7.4.1. There is a 12% higher probability of co-operators in consumer co-operatives having 'a little trust' in the co-operative and a 30% lower probability of completely trusting the co-operative. This result for consumer co-operatives ties in with our expectations as co-operatives that run consumer activities in Malaysia, in general, are those that operate mini markets and provision stores at the site of an organisation where the members are the employees. Unlike consumer co-operatives in the UK and in Japan, for example, which are also involved in other social activities such as promoting a healthy way of life and environmental issues, this is not the case with consumer co-operatives in Malaysia. Hence, it would be less likely that members of consumer co-operatives would have complete trust in co-operatives, where the co-operative is simply a convenience store. One might also predict that these consumer co-operatives would provide only a limited range of goods that probably not all members would need.

Co-operators, who expressed willingness to contribute the full amount allowed for the business, have a 8% lower probability of neither trusting nor distrusting co-operatives, a 17% lower probability of trusting co-operatives a little and a 27% higher probability of having complete trust in co-operatives relative to co-operators, who are not willing to make any financial contribution. This finding accords with our expectations that co-operators, who indicate willingness to commit the maximum amount would be those, who have a high level of trust in co-operatives, because arguably, only those who have high levels of trust in co-operatives would be willing to commit the maximum amount of financial capital for a business activity to be run co-operatively by a group of people they are familiar with.

Summary

The findings pertaining to the co-operator's willingness to commit financially towards a collective business reveal the side of the co-operator as a 'business co-operator' (Ole Borgen, 2001). The findings suggest that there exist among the co-operators, individuals who have entrepreneurial spirit, whose trust in co-operatives makes them willing to venture into a business with a group of 'familiar faces' on a co-operative basis. It also suggests that co-operatives have been accepted as an alternative way to start a business with a small group of people comprising people who know each other, which could be due to the awareness among co-operators that there are opportunities for support from the DCD, especially in terms of financial support from the funds managed by the DCD as discussed in Chapter 4.

7.4.4. Comparing the General Level of and Pattern of Trust of Co-operators with a General Sample of Individuals

In this section, we compare the trust patterns of our sample of co-operators with that of a more general sample of individuals in Malaysia in order to consider the possibility of generalising the findings as policy implications, since the progress of the co-operative movement in Malaysia would also have to take into account potential co-operators among the general Malaysian population.

The measures of the co-operators' trust in family members, trust in friends and trust in strangers provides another perspective for analysing the general level of trust among the co-operators. As has been discussed in Section 7.3.2, most of the empirical literature that measures the general level of trust of a society or people of a country focuses on responses to the GSS trust question: "Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people?" With our sample of co-operators, only 11.3% responded that most

people can be trusted, 88.7% responded that they cannot be too careful in dealing with people, indicating an astonishingly low level of trust among co-operators in Malaysia. The high levels of general trust in the US and in Japan, as noted in Buchan et al. (2002), are measured at 35.8% in the US in 1999 and 43.1% in Japan in 2000.[86] Singapore, Malaysia's nearest neighbour, also demonstrates high levels of general trust with 43.1% indicating that most people can be trusted.

As there is no available data on trust for Malaysia to compare the general level of and pattern of trust among co-operators with,[87] we conducted a short electronic survey (see Appendix A7.3) based on some of the trust questions from the co-operative survey and sent them via electronic mail to a sample of individuals in Malaysia. It should be acknowledged that this is one of the weaknesses of our survey: it is based on a biased sample of individuals with access to computers. In addition, according to Selwyn and Robson (1998), the validity of the e-mail questionnaire is compromised by means of the automatic inclusion of respondents' e-mail addresses in their reply. But this e-mail survey does provide some background information to enable a comparison of the trust questions in the co-operative survey. We exclude the question related to the level of trust in co-operatives. We sent the e-mail trust questionnaire to 1167 e-mail addresses derived from a search on the internet. The e-mail questionnaire was sent in 5 stages over the period from 25th October 2005 till 10th November 2005. The e-mail addresses were randomly selected from organisations of the public and private sector and non-governmental organisations (NGO's). We did not fix a time frame for the respondents to respond to the questionnaire. The responses came in from the

[86] Data analysed online from the World Value Survey Website: http://www.worldvaluessurvey.com/services/index.html

[87] The organization of the World Value Survey (WVS) conducted the GSS on 80 countries. Malaysia is not in the list of countries surveyed by the WVS.

following day onwards (i.e. 26th October 2005) and the last one was received on 18th December 2005. We achieved a 14.2% response rate (i.e. 166 responses).

The responses to the GSS trust question indicate a lower general level of trust among the general sample of individuals relative to the sample of co-operators. 9% of the sample of individuals responded that most people can be trusted (11.3% in the sample of co-operators), whilst 91% responded that they cannot be too careful in dealing with people. The summary statistics of the various measures of trust for our general sample of individuals are presented in Table 7.10. Except for trust in family members, there is not much difference in the pattern of trust for trust in the other groups of people (i.e. trust in friends and trust in strangers) and for trust in values between the sample of individuals (in Table 7.10) and the sample of co-operators (in Table 7.5). The mean value for trust in family members (3.42) is much higher in our general sample of individuals than in our sample of co-operators (2.92). There is, however, not much difference in the means for the level of trust for the categories of trust in values, i.e. trust that, in general, people will be honest, trust that, in general, people will not take advantage, and trust that, in general, people will put the interest of others first.

There are additional questions pertaining to trust in the questionnaire survey to co-operators and in the electronic survey, which we can use to further compare the pattern of trust among our sample of co-operators with the more general sample of individuals in Malaysia. These questions asked about trust in lending money to their family members and to their friends.[88] 68.8% of the co-operators (see Table 7.11) indicate that they trust a little or trust completely when lending money to their

[88] We did not ask the respondents whether they would lend money to strangers as Hart (1988) noted that loans were never made to strangers; borrowers often invoke friendship as a way of soliciting a loan. We are of the opinion that only banks will give loans to strangers.

family members. With respect to lending their money to friends, 42.5% responded that they trust their friends a little but none of the respondents trust their friends completely when it comes to lending their money to them. The mean for trust in lending to family members (2.75) is higher than the mean for trust in lending to friends (2.03), which indicates higher trust in family members relative to trust in friends. Our general sample of individuals also indicates higher trust in their family members relative to trust in their friends as indicated by the higher mean (3.33) in trust in lending to family members as compared to the mean (2.24) in trust in lending to friends (see Table 7.11).

We have discussed in Section 7.3.2 that, according to Portes (1998), what really motivates those to make resources available to a person normally comes with the expectation that they will be repaid in the future. We explore the possibility that trust in lending to family members and to friends is related to the trust of the co-operators that these groups of people would repay them the money. Questions 23 and 24 in the co-operators survey asked the co-operators to indicate their levels of trust that family members and friends would pay them back their money. 68.9% responded that they trust (i.e. trust a little or trust completely) that their family members will repay the money lent to them, while 43.4% responded that they trust (i.e. trust a little or trust completely) their friends would repay them (see Table 7.11). With respect to getting their money repaid, the general sample of individuals also trusts their family members more. The mean (3.14) trust that family members will repay the money is higher than the mean (2.51) trust that friends will repay them the money.

With respect to willingness to invest in a business opportunity, 44.0% of our general sample of individuals indicate that they would wait and see (61.3% in the co-

operative sample), 43.4% indicate that they are willing to contribute the 5% minimum amount required (27.4% in the co-operative sample) and 12.7% indicate that they would contribute the 15% maximum allowed (11.3% in our co-operative sample). Thus, the general sample of individuals indicates more willingness to venture into the risky business world. Although the percentage of individuals in the sample that indicate willingness to commit the minimum is large relative to the sample of co-operators, the 0.6867 mean for the sample of individuals with a standard deviation of 0.6863 indicates not much difference from the mean for the sample of co-operators (0.5).

A possible explanation for the lower levels of trust in the sample of co-operators relative to the general sample of individuals, as indicated in their responses presented in Tables 7.5 and 7.10 respectively, could be because our general sample of individuals consists of more young individuals. 39.8% of the respondents in the general sample of individuals are under 30 years old as compared to only 7.5% in our sample of co-operators. 29.5% of the respondents in the former are over 40 years old while in the latter, it is 75.4%. Alesina and la Ferrara (2002) argue that at the individual level, trust is lower for people who are older.

Summary

The analysis suggests that there is not much difference in the level of general trust between both the samples, thus allowing the possibility of generalising the findings on the level of and pattern of trust of co-operators for policy implications to aid the progress of the Malaysian co-operative movement. The responses to the trust questions discussed so far provide an insight into the general level of trust and the pattern of trust among the Malaysian co-operators. In general, the level of trust among co-operators appears to be low, with co-operators indicating high levels of

trust in family members and a low level of trust in strangers. However, from the discussion of co-operatives in Malaysia in Chapter 4, it appears that co-operatives in Malaysia comprise largely of groups of individuals who do not belong to high trust social structures, i.e. family members and friends. As a form of financial group, membership of co-operative groups should be conditioned on trust (Haddad and Maluccio, 2003), which would mean co-operatives being formed among people from high trust social structures to help overcome problems of adequate capital acquisition, which co-operatives face in general, as discussed in Chapter 3.

7.5. Summary

In this chapter, we have presented empirical analysis of the determinants of Malaysian co-operators' trust in co-operatives and analysis of the general level of and the pattern of trust among co-operators using a wide variety of measures of trust and trust in values. Trust in co-operatives is arguably generated by members' strong identification with the co-operative (Ole Borgen, 2001), which should be the case with co-operatives, in which the members' business is related to the co-operative activity. The high level of trust in co-operatives among the Malaysian co-operators, however, does not seem to reflect co-operators' strong identification with their co-operative. Not even co-operators in co-operatives such as the transport co-operatives or the small/cottage industry co-operatives, whose members are supposed, to some extent, to be engaged in activity reflected by their co-operatives, indicate high levels of trust in the co-operative. A high level of trust in the co-operative is only indicated by co-operators from co-operatives that experienced an increase in the co-operatives' members as a result of the co-operative membership in secondary co-operatives.

The Malaysian co-operators' level of trust in co-operatives is higher than their levels of trust in family members. The high levels of co-operators' trust in co-operatives are not related to high levels of trust in values that people have, except with trust that people will not take advantage, which suggests that it may be the values upheld by co-operatives that make them trustworthy (Spear, 2000). In the analysis of the relationship between co-operators' trust in co-operatives and trust in the various groups of people, the estimated coefficient of trust in the family is higher than the estimated coefficients of trust in the other groups of people, which according to the line of reasoning in La Porta et al. (2002) would suggest that trust in family is good for building trust in co-operatives. The high level of trust in co-operatives is also related to co-operators indicating willingness to make capital resources available towards a hypothetical business opportunity scenario with people they are familiar with on a co-operative basis. As people whom one is familiar with would normally belong to family members and friends, allowing co-operatives to be formed among people who trust each other highly may help to overcome the general problems faced by co-operatives as an economic group, i.e. the problem of inadequate capital. Thus allowing co-operatives to be formed among people from high trust social structures may be used to enhance high levels of trust in co-operatives. Allowing co-operatives to be formed among people who trust each other highly relates to the population as a whole, as our data suggest that the general level of and pattern of trust among the Malaysian co-operators reflects the general level of and pattern of trust among the general Malaysian population.

The findings related to the absence of members' identification with the co-operative could be the consequence of large membership size (Ole Borgen, 2001). Membership of co-operatives in Malaysia tends to be large not only because co-

operatives have grown in size, but also because it has been large from when the co-operatives were formed (i.e. at least 100 members). If we compare the structural changes in co-operatives worldwide towards reducing the number of members for the formation of co-operatives to a minimum of three members (de Drimer, 1997), it is obvious that the 100 members required to form a co-operative in Malaysia is relatively high. Arguably, the large number required to form a co-operative will induce the formation of co-operatives among individuals with no common activity because it is difficult to group together many people within in a particular region, who are engaged in the same business or economic activity. Thus, it seems reasonable to expect that the number of members will affect trust in co-operatives, which will be analysed in the next chapter (i.e. Chapter 8).

Appendix A7.1: Results Tables

Table 7.1: Determinants of Co-operators' Trust in Co-operatives

Explanatory Variable	Coefficient	*T*-statistic
Homogeneous occupation of members	-0.0938	-0.32
Single-raced	0.2435	0.81
Regional operation	0.9328*	1.70
Regionally distributed members	-1.1800**	-1.95
Membership in secondary co-op	-0.3648	-1.36
Main Area of Activity:		
- Consumerism	-.0.6292	-1.48
- Transportation	-0.9349**	-2.07
- Construction	0.1207	0.17
- Plantation	-0.5518	-0.99
- Housing	-0.7667	-1.52
- Services	-0.9380**	-2.14
- Small/cottage industry	-1.4053***	-2.54
Age of respondent:		
- between 31 and 40 years old	-0.0657	-0.13
- between 41 and 50 years old	-0.0862	-0.18
- over 50 years old	0.0835	0.18
Cut Off Point 1	-3.0033	0.6628
Cut Off Point 2	-2.0815	0.6091
Cut Off Point 3	-1.1584	0.5907
Number of Observations		106
Likelihood Ratio Chi Squared (15)		20.74
Log likelihood		-95.6860
Pseudo R Squared		0.0978

Notes: i) * Statistically significant at the 10% level
** Statistically significant at the 5% level
*** Statistically significant at the 1% level
ii) Omitted *AGE* category: aged less than 30 years
iii) Omitted main area of activity: credit.
iv) For the cut-off points', standard errors are shown, rather than t-statistics

Table 7.2: Marginal Effects for the Statistically Significant Coefficients in Table 7.1

Explanatory Variables	Dependent Variable =Trust in Co-op			
	Do not trust very much (1)	Neither trust nor distrust (2)	Trust a little (3)	Trust completely (4)
	ME (*t*-statistic)	ME (*t*-statistic)	ME (*t*-statistic)	ME (*t*-statistic)
Regional operation	-0.0629 (-0.97)	-0.1601 (-1.53)	-0.1348** (-2.42)	0.3577* (1.79)
Regionally distributed members	0.0281 (1.45)	0.1218** (2.44)	0.2211** (2.24)	-0.3711*** (-2.59)
Transport	0.0738 (1.09)	0.1683* (1.81)	0.1178*** (2.99)	-0.3598** (-2.23)
Services	0.0753 (1.14)	0.1696* (1.83)	0.1160*** (3.02)	-0.3609** (-2.30)
Small/cottage industry	0.1866 (1.22)	0.2518*** (2.68)	0.0604 (0.73)	-0.4988*** (-3.52)

Notes: * Statistically significant at the 10% level
** Statistically significant at the 5% level
*** Statistically significant at the 1% level

Table 7.3: Determinants of Co-operators' Trust in Co-operatives Controlling for Benefits from Membership in Secondary Co-operatives

Explanatory Variable	Coefficient	*T*-statistic
Homogeneous occupation of members	-0.0182	-0.06
Single-raced	0.1297	0.39
Regional operation	1.2147**	2.10
Regionally distributed members	-1.5347**	-2.37
Membership in secondary co-op	-0.5168	-1.29
Main Area of Activity:		
- Consumerism	-0.4201	-0.94
- Transportation	-0.6270	-1.30
- Construction	-0.2169	-0.27
- Plantation	-0.7144	-1.25
- Housing	-0.7022	-1.36
- Services	-0.9521**	-2.12
- Small/cottage industry	-1.2435**	-2.14
Age of respondent:		
- between 31 and 40 years old	-0.4311	-0.79
- between 41 and 50 years old	-0.2916	-0.58
- over 50 years old	-0.1881	-0.37
Benefit from membership in secondary co-op:		
Co-op uses the services provided	0.0251	0.05
Secondary co-op supplied co-op needs	0.0709	0.17
Co-op received dividend or rebate	0.6377	1.49
Co-op income increased	-0.9320*	-1.89
Co-op product/services improved	-0.1420	-0.28
Co-op members increased	0.9180*	1.92
Cut Off Point 1	-3.3478	0.7097
Cut Off Point 2	-2.3725	0.6462
Cut Off Point 3	-1.4107	0.6258
Number of Observations		106
Likelihood Ratio Chi Squared (21)		28.18
Log likelihood		-91.9628
Pseudo R Squared		0.1329

Notes: i) * Statistically significant at the 10% level
** Statistically significant at the 5% level
ii) Omitted main area of activity: credit.
iii) Omitted *AGE* category: aged less than 30 years
iv) For the cut-off points', standard errors are shown, rather than t-statistics

Table 7.4: Marginal Effects for the Statistically Significant Coefficients in Table 7.3

Explanatory Variables	Dependent Variable =Trust in Co-op			
	Do not trust very much (1)	Neither trust nor distrust (2)	Trust a little (3)	Trust completely (4)
	ME (*t*-statistic)	ME (*t*-statistic)	ME (*t*-statistic)	ME (*t*-statistic)
Regional operation	-0.813 (-1.04)	-0.2130* (-1.88)	-0.1619*** (-3.23)	0.4562** (2.35)
Regionally distributed members	0.0272 (1.39)	0.1389*** (2.83)	0.2765*** (3.11)	-0.4426*** (-3.58)
Services	0.0638 (1.08)	0.1740* (1.76)	0.1282*** (3.08)	-0.3659** (-2.29)
Small/cottage industry	0.1246 (0.99)	0.2382** (2.05)	0.0943 (1.39)	-0.4572*** (-2.66)
Co-op income increased	0.0488 (1.02)	0.1567 (1.62)	0.1504*** (2.46)	-0.3559** (-1.95)
Co-op members increased	-0.0200 (-1.30)	-0.1031** (-2.08)	-0.1853** (-2.01)	0.3084** (2.24)

Notes: * Statistically significant at the 10% level
** Statistically significant at the 5% level
*** Statistically significant at the 1% level

Table 7.5: Summary Statistics of Co-operators' Levels of Trust in Various Groups of People and Trust in Values

	Level of Trust*					Mean	Standard Deviation
	0	**1**	**2**	**3**	**4**		
1. Trust in various groups of people:							
- Trust in family	1 (0.9)	9 (8.5)	16 (15.1)	51 (48.1)	29 (27.4)	2.9245	0.9227
- Trust in friends	0 (.0)	17 (16.0)	31 (29.3)	57 (53.8)	1 (0.9)	2.3962	0.7644
- Trust in fellow nationals/strangers:							
i. people from the same district	6 (5.7)	17 (16.0)	45 (42.5)	37 (34.9)	1 (0.9)	2.1887	0.9167
ii. people from the same state	7 (6.6)	19 (17.9)	46 (43.4)	33 (31.1)	1 (0.9)	2.0189	0.8942
iii. people from the same country	8 (7.6)	21 (19.8)	53 (50.0)	24 (22.6)	0 (.0)	1.8774	0.8474
2. Trust in Values:							
- trust that people will be honest	2 (1.9)	21 (19.8)	27 (25.5)	55 (51.9)	1 (0.9)	2.3019	0.8638
- trust that people would not take advantage	0 (.0)	17 (16.0)	24 (22.6)	58 (54.7)	7 (6.6)	2.5189	0.8421
- trust that people would put the interests of others first	13 (12.3)	35 (33.0)	26 (24.5)	31 (29.3)	1 (0.9)	1.7358	1.0447

Notes: i) * 0= do not trust at all, 1= do not trust very much, 2= neither trust nor distrust, 3= trust a little, 4= trust completely.
ii) Figures in parentheses denote percentages.
iii) Number of observations = 106

Table 7.6: Correlation Matrix between the Different Types of Trust from the Sample of Co-operators

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) Trust in co-op	1.000								
(2) Trust in family	0.3779	1.000							
(3) Trust in friends	0.1358	0.3804	1.000						
(4) Trust in people from the same district	0.1839	0.1616	0.3408	1.000					
(5) Trust in people from the same state	0.0547	0.1518	0.5045	0.7250	1.000				
(6) Trust in countrymen	0.0648	0.0489	0.3698	0.5913	0.7571	1.000			
(7) Trust that people will be honest	0.2070	0.3156	0.3796	0.3888	0.3994	0.4024	1.000		
(8) Trust that people will not take advantage	0.3390	0.3941	0.4173	0.4610	0.3916	0.2635	0.5682	1.000	
(9) Trust that people will put the interests of others first	0.0357	-0.0209	0.1681	0.2972	0.3214	0.3288	0.3108	0.3521	1.000

Table 7.7: Trust in Various Groups of People and Trust in Values as the Determinants of Co-operators' Trust in Co-operative

Explanatory Variable	Specification 1	Specification 2	Specification 3
	Coefficient (*T*-statistic)	Coefficient (*T*-statistic)	Coefficient (*T*-statistic)
Trust in family	0.4556*** (3.17)	0.3733** (2.44)	
Trust in friends	0.0429 (0.23)	-0.0293 (-0.15)	
Trust in people from the same district	0.3180 (1.56)	0.2194 (1.04)	
Trust in people from the same state	-0.3152 (-1.24)	-0.3298 (-1.29)	
Trust in countrymen	0.0743 (0.34)	0.1129 (0.50)	
Trust that people will be honest		0.0016 (0.01)	0.0558 (0.32)
Trust that people will not take advantage		0.3569* (1.85)	0.4803*** (2.74)
Trust that people will put the interest of others first		-0.0681 (-0.51)	-0.1361 (-1.08)
Cut Off Point 1	-0.6226 (0.5039)	-0.4909 (0.5245)	-1.0030 (0.4189)
Cut Off Point 2	0.4284 (0.4984)	0.6089 (0.5214)	-0.0477 (0.3884)
Cut Off Point 3	1.3481 (0.5083)	1.5525 (0.5341)	0.8331 (0.3983)
Number of Observations	106	106	106
Likelihood Ratio Chi Squared	16.32	20.53	12.02
Log likelihood	-97.8919	-95.7888	-100.0449
Pseudo R Squared	0.0770	0.0968	0.0567

Categories of Trust in Co-operative	Marginal Effects for Specification 2	
	Trust in family (t-statistic)	Trust that people will not take advantage (t-statistic)
Do not trust very much	-0.0105 (-1.31)	0.0100 (-1.18)
Neither trust nor distrust	-0.0617** (-2.11)	-0.0590* (-1.72)
Trust a little	-0.0718** (-2.14)	-0.0686* (-1.71)
Trust completely	0.1440** (2.43)	0.1377* (1.85)

Notes: i) * Statistically significant at the 10% level
** Statistically significant at the 5% level
*** Statistically significant at the 1% level
ii) For the cut-off points', standard errors are shown, rather than t-statistics.

Table 7.8: Determinants of Co-operators' Trust in Co-operatives Controlling for Willingness to make Financial Commitments

Explanatory Variable	Coefficient	*T*-statistic
Homogeneous occupation of members	-0.0333	-0.11
Single-raced	0.2003	0.66
Regional operation	0.8727	1.58
Regionally distributed members	-0.9409	-1.52
Membership in secondary co-op	-0.5007*	-1.80
Main Area of Activity:		
- Consumerism	-0.7808*	-1.78
- Transportation	-0.9339**	-2.05
- Construction	0.3036	0.41
- Plantation	-0.5669	-1.01
- Housing	-0.6472	-1.27
- Services	-0.9737**	-2.20
- Small/cottage industry	-1.4675***	-2.60
Age of respondent:		
- between 31 and 40 years old	-0.0432	-0.08
- between 41 and 50 years old	-0.2296	-0.47
- over 50 years old	-0.0476	-0.10
Respondent's willingness to invest:		
- the minimum amount required	0.1148	0.40
- the maximum amount allowed	0.8735*	1.75
Cut Off Point 1	-3.0582	0.6707
Cut Off Point 2	-2.1081	0.6145
Cut Off Point 3	-1.1598	0.5948
Number of Observations		106
Likelihood Ratio Chi Squared (17)		24.47
Log likelihood		-93.8208
Pseudo R Squared		0.1153

Notes: i) * Statistically significant at the 10% level
** Statistically significant at the 5% level
*** Statistically significant at the 1% level
ii) Omitted main area of activity: credit.
iii) Omitted *AGE* category: aged less than 30 years
iv) Omitted category for willingness to invest: will not commit
v) For the cut-off points', standard errors are shown, rather than t-statistics

Table 7.9: Marginal Effects for the Statistically Significant Coefficients in Table 7.8

Explanatory Variables	Dependent Variable =Trust in Co-op			
	Do not trust very much (1)	Neither trust nor distrust (2)	Trust a little (3)	Trust completely (4)
	ME (*t*-statistic)	ME (*t*-statistic)	ME (*t*-statistic)	ME (*t*-statistic)
Membership in secondary co-op	0.0167 (1.24)	0.0702* (1.70)	0.0995* (1.74)	-0.1863* (-1.85)
Consumer	0.0469 (0.99)	0.1363 (1.53)	0.1195** (2.39)	-0.3028* (-1.85)
Transport	0.0663 (1.05)	0.1688* (1.76)	0.1243*** (2.98)	-0.3595** (-2.20)
Services	0.0725 (1.13)	0.1775* (1.86)	0.1236*** (3.08)	-0.3736** (-2.38)
Small/cottage industry	0.1881 (1.21)	0.2667*** (2.75)	0.0600 (0.66)	-0.5148*** (-3.76)
Respondent's willingness to invest: the maximum amount allowed	-0.0152 (-1.40)	-0.0834** (-2.36)	-0.1748** (-1.93)	0.2734** (2.31)

Notes: * Statistically significant at the 10% level
** Statistically significant at the 5% level
*** Statistically significant at the 1% level

Table 7.10: Summary Statistics of Trust in Various Groups of People and Trust in Values (Sample = Respondents from E-mail Survey)

	Level of Trust*					Mean	Standard Deviation
	0	**1**	**2**	**3**	**4**		
1. Trust in various groups of people:							
- Trust in family	0 (.0)	8 (4.8)	16 (9.6)	41 (24.7)	101 (60.8)	3.4157	0.8539
- Trust in friends	0 (.0)	30 (18.2)	32 (19.4)	84 (50.9)	19 (11.5)	2.5576	0.9196
- Trust in fellow nationals/strangers:							
i. people from the same district	5 (3.01)	30 (18.1)	61 (36.8)	66 (39.8)	4 (2.4)	2.2048	0.8705
ii. people from the same state	5 (3.01)	39 (23.5)	57 (34.3)	65 (39.2)	0 (.0)	2.0964	0.8615
iii. people from the same country	6 (3.61)	39 (23.5)	69 (41.6)	50 (30.1)	2 (1.2)	2.0181	0.8562
2. Trust in Values:							
- trust that people will be honest	2 (1.2)	37 (22.3)	41 (24.7)	76 (45.7)	10 (6.0)	2.3313	0.9302
- trust that people would not take advantage	3 (1.8)	25 (15.2)	28 (17.0)	90 (54.6)	19 (11.5)	2.5879	0.9434
- trust that people would put the interest of others first	21 (12.7)	41 (24.7)	41 (24.7)	58 (34.9)	5 (3.0)	1.9096	1.1055

Notes: i) * 0= do not trust at all, 1= do not trust very much, 2= neither trust nor distrust, 3= trust a little, 4= trust completely.
ii) Figures in parentheses denote percentages.
iii) Number of observations = 166

Table 7.11: Summary Statistics of Trust in Lending between the Sample of Co-operators and the Sample of Individuals from the E-mail Survey

	No. of Observations (%)	
	Sample of Co-operators	General Sample of Individuals
Trust lending to family members:		
(0) do not trust at all	4 (3.8)	0 (.0)
(1) do not trust very much	11 (10.4)	8 (4.8)
(2) neither trust nor distrust	18 (17.0)	13 (7.8)
(3) trust a little	47 (44.3)	62 (37.4)
(4) trust completely	26 (24.5)	83 (50.0)
Total	106 (100.0)	166 (100.0)
Mean	2.7547	3.3253
Standard Deviation	1.0584	0.8181
Trust lending to friends:		
(0) do not trust at all	5 (4.7)	6 (3.6)
(1) do not trust very much	32 (30.1)	46 (27.7)
(2) neither trust nor distrust	24 (22.6)	25 (15.1)
(3) trust a little	45 (42.5)	80 (48.2)
(4) trust completely	0 (.0)	9 (5.4)
Total	106 (100.0)	166 (100.0)
Mean	2.0283	2.2410
Standard Deviation	0.9607	1.0339
Trust family members will repay:		
(0) do not trust at all	2 (1.9)	1 (0.6)
(1) do not trust very much	15 (14.2)	17 (10.2)
(2) neither trust nor distrust	16 (15.1)	12 (7.2)
(3) trust a little	44 (41.5)	64 (38.6)
(4) trust completely	29 (27.4)	72 (43.4)
Total	106 (100.0)	166 (100.0)
Mean	2.7830	3.1386
Standard Deviation	1.0601	0.9780
Trust friends will repay:		
(0) do not trust at all	3 (2.8)	5 (3.0)
(1) do not trust very much	24 (22.6)	34 (20.5)
(2) neither trust nor distrust	33 (31.1)	19 (11.5)
(3) trust a little	43 (40.6)	87 (52.4)
(4) trust completely	3 (2.8)	21 (12.7)
Total	106 (100.0)	166 (100.0)
Mean	2.0283	2.5120
Standard Deviation	0.9607	1.0487

Appendix A7.2: Summary of the vast literature exploring the determinants of trust

Determinants	Studies
Age	Trust is lower for people who are older (Alesina and la Ferrara, 2002).
Homogeneity	Trust is relatively less the more heterogeneous the community is, in terms of racial, ethnic or religious composition (Knack and Keefer, 1997; Alesina and la Ferrara, 2002).
Gender	Women, who belong to a group that has been discriminated against, are less trusting.
Level of education	Level and type of education received may influence trust. Low levels of education are associated with low trust (Knack and Keefer, 1997).
Income/Wealth	Countries with very low levels of income inequality are countries with the highest levels of trust. Trust is higher in richer countries (La Porta et al, 1997).
Group membership	Participation in social groups is positively correlated with trust (Putnam, 1993; Alesina and la Ferrara, 2000). Knack and Keefer (1997) found that membership in groups may not be associated with trust.
Size of group	Basis of identification is likely to change in large groups, affecting thus the building of trust (Ole Borgen, 2001).
Ethnic origin/religious belief	Religious belief may be important since different religions may have different attitudes towards social interaction (Knack and Keefer, 1997).
Familiarity/Social distance/ Knowledge of counterpart	Unfamiliarity with the others may reduce trust (Alesina and la Ferrara, 2002). People may trust more in family members or members of the same social, racial and ethnic group (Eckel and Wilson, 2004).
Opportunities to engage in incremental and repeated exchanges	People may trust others more with whom they have had a longer interaction. Trust may increased by an expectation of repeated transaction in the future (Ole Borgen, 2001; Alesina and la Ferrara, 2002).
Past (traumatic) experience	A recent history of traumatic experiences is associated with low trust. If an individual has been hurt in past interactions with others, he or she may trust less. One trusts others if he/she used to being treated fairly by others. If a group has been discriminated against, de jure or de facto, members of the group will not expect to be treated fairly in the future and therefore will trust less (Alesina and la Ferrara, 2002).
Values	Shared norms and values are fundamental to build the required degree of trust (Ole Borgen, 2001).
Legal institutions	In a community where criminal behaviour is effectively prosecuted, individuals will trust more because they will feel more protected (Alesina and la Ferrara, 2002).

Appendix A7.3: Translation of the e-mail introducing the survey and the attached e-mail questionnaire

i) The e-mail

Dear Sir/Mdm.,

Can you spare me a few minutes of your time?

I am currently a research student at the University of Sheffield in England. As part of my research, I need to collect data on the level of and pattern of trust among Malaysians. I have prepared 10 simple questions that would not take more than 3 minutes of your time to respond. I attach herewith the questionnaire set. All you need to do is, to double-click on the answer of your choice and e-mail the attachment back to me.

I hope to get your response. I assure you that all information given will be used strictly for academic purposes.

Your co-operation is very much appreciated. Thank you very much.

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ii) The attached questionnaire

A Survey on Trust of Malaysians

To tick ☑ click 2x on the box ☐	
1. Generally speaking, can you trust:	
a. Your family members?	☐ 0. Do not trust at all ☐ 1. Do not trust very much ☐ 2. Neither trust nor distrust ☐ 3. Trust a little ☐ 4. Trust completely
b. Your friends?	☐ 0. Do not trust at all ☐ 1. Do not trust very much ☐ 2. Neither trust nor distrust ☐ 3. Trust a little ☐ 4. Trust completely
2. Do you trust the following people to lend them your money:	
a. Your family members?	☐ 0. Do not trust at all ☐ 1. Do not trust very much ☐ 2. Neither trust nor distrust ☐ 3. Trust a little ☐ 4. Trust completely
b. Your friends?	☐ 0. Do not trust at all ☐ 1. Do not trust very much ☐ 2. Neither trust nor distrust ☐ 3. Trust a little ☐ 4. Trust completely
3. Do you trust the following people to repay your money that you lend them?	
a. Your family members?	☐ 0. Do not trust at all ☐ 1. Do not trust very much ☐ 2. Neither trust nor distrust ☐ 3. Trust a little ☐ 4. Trust completely
b. Your friends?	☐ 0. Do not trust at all ☐ 1. Do not trust very much ☐ 2. Neither trust nor distrust ☐ 3. Trust a little ☐ 4. Trust completely

4. Describe your level of trust in the following people:	
a. people from the same district?	☐ 0. Do not trust at all ☐ 1. Do not trust very much ☐ 2. Neither trust nor distrust ☐ 3. Trust a little ☐ 4. Trust completely
b. people from the same state?	☐ 0. Do not trust at all ☐ 1. Do not trust very much ☐ 2. Neither trust nor distrust ☐ 3. Trust a little ☐ 4. Trust completely
c. people from the same country?	☐ 0. Do not trust at all ☐ 1. Do not trust very much ☐ 2. Neither trust nor distrust ☐ 3. Trust a little ☐ 4. Trust completely
5. How often do you get help from:	
a. individuals?	☐ 0. Never ☐ 1. Once a while ☐ 2. Often
b. organisations/institutions (including government)?	☐ 0. Never ☐ 1. Once a while ☐ 2. Often
6. You are interested in a business opportunity planned by a group of people you are familiar with. You are invited to join in by contributing between 5 to 15 percent towards the start-up capital. You can afford it, but how much are you willing to contribute?	☐ 0. will not contribute yet ☐ 1. minimum 5% ☐ 2. the full 15%
7. Generally speaking, do you trust that:	
a. people will be honest?	☐ 0. Do not trust at all ☐ 1. Do not trust very much ☐ 2. Neither trust nor distrust ☐ 3. Trust a little ☐ 4. Trust completely
b. people would not take advantage?	☐ 0. Do not trust at all ☐ 1. Do not trust very much ☐ 2. Neither trust nor distrust ☐ 3. Trust a little ☐ 4. Trust completely

c. people would put the interests of others first?	☐ 0. Do not trust at all ☐ 1. Do not trust very much ☐ 2. Neither trust nor distrust ☐ 3. Trust a little ☐ 4. Trust completely
8. Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people?	☐ Most people can be trusted ☐ Can't be too careful
9. Your age?	☐ 0. under 20 ☐ 1. 21 – 30 yeas old ☐ 2. 31 – 40 years old ☐ 3. 41 – 50 years old ☐ 4. above 50

CHAPTER 8

CO-OPERATIVE SIZE AND TRUST IN THE CO-OPERATIVE

8.1. Introduction

In Chapter 6, we analysed the relationship between primary and secondary co-operatives in Malaysia, where the findings suggested that primary co-operatives that are members of secondary co-operatives are likely to be large in size in terms of the number of primary co-operative members. In addition, the empirical analysis in Chapter 7 suggested a negative, but statistically insignificant relationship, between membership in secondary co-operatives and the level of trust in the primary co-operative. A related point, therefore, concerns the relationship between trust in the co-operative and co-operative size. It seems reasonable to predict that the level of trust in the co-operative may be low where co-operatives are of large size (Ole Borgen, 2001).

Trust in the co-operative may be a consequence of the members' identification with the co-operative, which is likely to be achieved if the members' business is related to the activity of the co-operative (Ole Borgen, 2001). Therefore, one way to ascertain whether members identify with the co-operative is through the presence of trust in the co-operative. Where a co-operative movement has been noted as making a significant contribution to the economy, such as in the Western European countries, the co-operative movement has been represented by large secondary co-operatives, whose effective functioning depends on the nature of the primary co-operatives. As discussed in Chapter 6, the presence of co-operatives whose activity is related to members' business plays an important role in the effective functioning of secondary co-operatives that may lead to secondary co-operatives making a

significant economic contribution. Hence, the presence of primary co-operatives, whose activity reflects the business of members, may be related to the presence of trust in the co-operative. Trust in the co-operative may be regarded, therefore, as a proxy for having a co-operative, where the co-operative activity reflects the members' business.

A related point concerns the legal requirement of having 100 members to form a primary co-operative in Malaysia, which is high relative to that in other countries, such as in Germany and Switzerland, where 7 members are required to form a co-operative. If trust in the co-operative is inversely associated with co-operative size (Ole Borgen, 2001), it may be the case that institutional barriers in Malaysia are restricting the development of trust in co-operatives. As trust in the co-operative is supposed to be high in co-operatives, whose activity and members' business are related, restricting the formation of such co-operatives may restrict the level of trust in co-operatives. As pointed out in Chapter 7, the kind of co-operatives where the members' business and co-operative activity are related, are producer co-operatives, such as agricultural marketing co-operatives and worker co-operatives. The worker co-operatives, for example, are usually relatively small co-operatives in term of membership size (Enriquez, 1986).

The 100 member requirement for forming a primary co-operative may have restricted the establishment of small producer primary co-operatives. The absence of this type of primary co-operative, which may influence the effective functioning of secondary co-operatives, may hinder the progress of the co-operative movement in Malaysia. Therefore, one possibility is to lower the size requirement to encourage smaller co-operatives to engender trust in co-operatives or indirectly, to encourage

co-operatives, where members' business is reflected in the activity of the co-operative.

In this chapter, we therefore analyse the relationship between trust in co-operatives and co-operative size in Malaysia to explore whether co-operative size affects the development of trust in the co-operative. Initially, in Section 8.2, we present a background discussion of the existing literature related to trust and the size of a co-operative group. In Section 8.3, we present empirical analysis of the relationship between trust in the co-operative and co-operative size in Malaysia, where we use 3 different models: the probit model; the ordered probit model; and the bivariate probit model. In Section 8.4, we analyse the relationship between trust in the co-operative and co-operative performance, where the measures of co-operative performance are: share capital; assets; income; and the profits of the co-operative. Finally, concluding comments are presented in Section 8.5.

8.2. Trust in the co-operative and the size of a co-operative group

Trust in co-operatives can be generated in co-operatives where the members' business is related to the activity of the co-operative. Such co-operatives are common among producer co-operatives, such as agricultural marketing co-operatives and worker co-operatives. In general, there are two types of co-operatives: the 'producer' co-operatives as stated above; and the 'consumer' co-operatives, such as housing co-operatives, services co-operatives and credit unions. Zeuli et al. (2003) argue that 'consumer' co-operatives may play an important role in a local economy but they are not major engines of economic growth. In general, the 'consumer' co-operatives have a larger membership relative to the 'producer' co-operatives. Since trust in the co-operative is common in co-operatives, whose activity and the members' business are related and since this type of co-operative is

common in relatively small 'producer' co-operatives (Ole Borgen, 2001; Enriquez, 1986), then trust in the co-operative appears to be associated with small co-operative size.

There is no one fixed number for defining the membership size of primary co-operatives as 'small' indicated in the literature. However, it has been argued that small co-operative groups at the primary level are important not only for the organisation and functioning of secondary co-operatives, but also for encouraging entrepreneurs into co-operatives (de Drimer, 1997). If primary co-operatives comprise entrepreneurs as members, it is likely that the members' businesses would be reflected in the activity of the co-operative and that members will ensure the survival of the co-operative as the members' living depends on the survival of the co-operative. Small co-operatives will develop alternative organisational strategies, such as integrating vertically to insulate themselves from competition, in this case by forming secondary co-operatives, to have joint production, goals and strategy with the purpose of enhancing the economic activity of members with respect to efficiency and effectiveness (Drimer, 1997; Schwarz, 1997; Ole Borgen, 2001).

Thus, certain measures have been implemented in some countries in the West to ensure small membership size in co-operatives, for example in Spain (Romero and Pérez, 2003) and in the US (Benham and Keefer, 1991), where membership in a co-operative group is restricted to people who trust each other highly, such as family members and friends. To some extent, the small number required to form a primary co-operative in Germany and in Switzerland (i.e. 7 members) can be seen as another way of encouraging people, who have personal relationships and who trust each other highly, to join together as entrepreneurs to form a co-operative. In addition, de

Drimer (1997) noted that in some legislatures the number has reduced to a minimum of five, four or even three members.

As a form of a financial group, Van Bastelaer (2002) argues that the institutional design of group lending that admits only certain individuals into the group may be appropriate for cooperatives. Nevertheless, even with financial groups, the optimal group size is not apparent.[89] For example, the Grameen Bank groups are set at 5 individuals, a figure arrived at, through a process of trial and error (Ghatak and Guinnane, 1999). When Mosley and Dahal (1985, quoted in Ghatak and Guinnane, 1999), who in the context of a Nepalanese program argue that the group size of a financial group should not be larger than twenty persons, Ghatak and Guinnane are of the opinion that "even 20 persons are very large by the standard of most (financial group) programs in existence today" (*ibid.*:217).

In Malaysia, it is not only potentially problematic that 100 individuals are required to form a primary co-operative but also, as described in Chapter 4, co-operatives in Malaysia comprise largely the 'consumer' co-operatives such as credit unions, consumer co-operatives and services co-operatives, which, according to Zeuli et al. (2003), are not major engines of economic growth. Based on the comments related to the small size of co-operatives in, for example, Germany, it can be argued that the 100 members requirement in Malaysia is relatively high, which may restrict the level of trust in co-operatives. In the following section, we analyse the relationship between co-operative size and trust in co-operatives in Malaysia.

[89] A small number of members is especially preferred in financial groups, such as in the case of joint liability group lending, because the advantages of superior information and the ability to impose non-financial sanctions are most likely to be diluted in large groups (Ghatak and Guinnane, 1999).

8.3. Empirical Analysis of the Relationship between Trust in the Co-operative and Co-operative Size

In this section we present econometric analysis of the relationship between trust in the co-operative and co-operative size in Malaysia. We, firstly, specify trust in co-operatives as the dependent variable and co-operative size as one of the explanatory variables in Section 8.3.1 to analyse the effect of co-operative size on trust in the co-operative. Secondly, we specify co-operative size as the dependent variable and trust in co-operatives as one of the explanatory variables in Section 8.3.2 to analyse the effect of the level of trust in the co-operative on the different categories of co-operative size. Thirdly, we specify both trust in co-operatives and co-operative size as the dependent variables in a two equation model in Section 8.3.3. In the first equation, trust in co-operatives is the dependent variable and, in the second equation, co-operative size is the dependent variable.

8.3.1. The Effect of Co-operative Size on Trust in the Co-operative

Ole Borgen (2001) argues that increasing the size of membership may complicate the building of trust in co-operatives. Therefore, it seems reasonable to predict that co-operative size in terms of membership is inversely associated with the level of trust in the co-operative: trust in the co-operative decreases as the size of the membership increases. Trust in co-operatives may be specified, therefore, as a function of the number of members of the primary co-operative. Hence, we specify the measure of co-operator's trust in co-operatives as the dependent variable. For simplicity, we collapse the 5 indexes of trust in co-operatives into a dummy variable (*BITRUST*): 0 denotes do not trust; and 1 denotes trust. *BITRUST* equals 1 if the co-operators' trust in the co-operative lies in the top two trust categories, i.e. trust a little (category 3) or trust completely (category 4) and equals 0 if it is in the lower three trust categories, i.e. do not trust at all (category 0), do not trust very much

(category 1) and neither trust nor distrust (category 2). Since the dependent variable (*BITRUST*) is a dummy variable, we specify a probit model for the analysis of the effect of the number of members of a co-operative on the presence of trust in the co-operative.[90]

The explanatory variable denoting co-operative size, i.e. the number of members, is an index, which comprises 5 categories: 0 if the co-operative has 100 members or less; 1 if the co-operative has 101 to 500 members; 2 if the co-operative has 501 to 1000 members; 3 if the co-operative has 1001 to 1500 members; and 4 if the co-operative has more than 1500 members. In addition, we control for other variables that may also affect the level of trust in co-operatives, as discussed in Chapter 7: the homogeneity in members' occupation (*HOCCUP*); the racial composition of the members (*SRACE*); the distribution of co-operative members (*REGIOP*); the co-operative's area of operation (*REGIMB*); the main activity of the co-operative (*MAINACT*); and membership in secondary co-operatives (*SECOOP*). The explanatory variables *HOCCUP, SRACE, REGIOP, REGIMB, MAINACT* and *SECOOP* are dummy variables, as defined in Chapter 7, Section 7.4.1.

We summarise the probit analysis of specifying trust as a function of co-operative size in terms of the number of members of the primary co-operative in Table 8.1 in Appendix A8.1. We only present the results for co-operative size: we do not present the results for the other explanatory variables as there is no difference with the results presented in Table 7.1 in Chapter 7, with respect to the negative and statistically significant coefficients: the estimated coefficients representing co-operatives that operate on a regional scale, the transport, the services and the small/cottage industry co-operatives all remain negative and statistically significant.

[90] Using the index of trust as the dependent variable does not yield any difference in the estimated coefficients of the explanatory variables.

It is apparent from Table 8.1 that the estimated coefficient for the number of members is negative and statistically significant.[91]

The marginal effect for the number of members, which, calculated at -0.0525 and with a t-statistic of -2.20, is statistically significant at the 5% level. The marginal effects indicate that an increase by 1% in the number of members decreases the probability of trusting the co-operative by 5%. The findings, which suggest an inverse relationship between co-operative size and trust in the co-operative, accord with Ole Borgen (2001), who argues that as co-operatives grow in membership size, this affects the building of trust in the co-operative.

To ascertain which category of co-operative size has the largest effect on the presence of trust in the co-operative, we also regress *BITRUST* on a set of dummy variables (rather than an index) for co-operative size. The model is the same as the above probit model, except that we have replaced the index of co-operative size with dummy variables generated for the 5 categories of co-operative size: i) if the co-operative has not more than 100 members; ii) if the co-operative has 101 to 500 members; iii) if the co-operative has 501 to 1000 members; iv) 3 if the co-operative has 1001 to 1500 members; and v) if the co-operative has more than 1500 members; where the smallest size category is the omitted category.

Again, we only present in Table 8.1, the results for the dummy variables denoting co-operative size. For the set of 5 dummy variables denoting co-operative size, the estimated coefficient for the dummy variable representing co-operatives with more than 1500 members is negative and statistically significant. The estimated coefficients for co-operatives that operate on a regional scale, the transport, the

[91] Regressing the index of trust in the co-operative on the membership index did not change the negative coefficient for membership (i.e. -0.0423).

services and the small/cottage industry co-operatives all remain negative and statistically significant. Co-operatives with more than 1500 members have a 62% lower probability of having trust in the co-operative relative to co-operatives with not more than 100 members.

The findings above suggest that trust in the co-operative is associated with small co-operative size, i.e. the findings support an inverse relationship between trust in the co-operative and membership. Therefore, to engender trust in co-operatives, it may be necessary to allow the formation of co-operatives with a small membership size. In the following section, we will further explore the relationship between the level of trust in co-operatives and the different categories of co-operative size in Malaysia.

8.3.2. The Level of Trust in Co-operatives and Different Categories of Co-operative Size

It is apparent that our findings so far say nothing about the direction of causality. We can specify the dependent variable as the 5-point index of co-operative size. Since the membership index is an ordered variable, we adopt, therefore, an ordered probit model to analyse the relationship between level of trust in co-operatives and the different categories of co-operative size. We use the same explanatory variables as above: *HOCCUP, SRACE, REGIOP, REGIMB, MAINACT* and *SECOOP*, except that now we include the dummy variable trust in co-operatives (*BITRUST*) in the set of explanatory variables in place of the number of members, which is now the dependent variable.[92]

[92] We have also regressed the membership index on the trust index and on a set of dummy variables for each value of the trust index. In the former, the estimated coefficient for trust in the co-operative remains negative. In the latter, the estimated coefficients for 'complete trust' and 'trust a little' in co-operatives are also negative, whilst the estimated coefficient for 'neither trust nor distrust' co-operatives is positive.

In Table 8.1, we summarise the ordered probit analysis of the relationship between the level of trust in the co-operative and the different categories of co-operative size.[93] The estimated coefficients representing co-operatives with members distributed regionally, the transport, the construction, the plantation, the services and the small/cottage industry co-operatives all remain negative and statistically significant as in the model in Table 6.1 in Chapter 6. The estimated coefficient representing trust in the co-operative (*BITRUST*) is negative and statistically significant.

The marginal effects relating to the ordered probit analysis of the effect of the level of trust in co-operatives on the 5 categories of co-operative size are presented in Table 8.1. There is a 28% higher probability of trusting the co-operative for co-operatives with membership between 101 to 500 relative to co-operatives with less than 100 members and a 31% lower probability of trusting the co-operative in co-operatives with more than 1500 members relative to co-operatives with less than 100 members.

The results confirm that trust in co-operatives is likely to be associated with a lower membership size. It is difficult, however, to rationalise why trust in co-operatives may lower membership size as opposed to trust in the co-operative being lower in large co-operatives. From a statistical perspective, however, causality may operate in both directions. In the following section, we further explore the relationship between trust in the co-operative and co-operative size.

[93] In Table 8.1, we present only the results relating to trust in the co-operative and co-operative size for the various models analysed in this chapter, i.e. the probit model in Section 8.3.1, the ordered probit model in Section 8.3.2 and the bivariate probit model in Section 8.3.3.

8.3.3. *Trust in the Co-operative and Membership Size: Bivariate Probit Analysis*

The bivariate probit analysis allows us to explore the relationship between trust in the co-operative and co-operative size allowing for a joint modelling approach. In this case, we model the joint outcome of trust in the co-operative and co-operative size. The bivariate probit model is an extension of the the probit model to allow for more than one equation, with correlated disturbances. A bivariate probit model will therefore estimate a pair of probit models. The general specification of the two-equation model with the possibility of different sets of explanatory variables in each, is as follows:[94]

$$y_1^* = \beta_1' x_1 + \varepsilon_1, \qquad y_1 = 1 \text{ if } y_1^* > 0, 0 \text{ otherwise}$$

$$y_2^* = \beta_2' x_2 + \varepsilon_2, \qquad y_2 = 1 \text{ if } y_2^* > 0, 0 \text{ otherwise} \qquad (9)$$

where the dependent variables y_1 and y_2 are binary variables and x_1 and x_2 are lists of variable names for the two regressor vectors. The two equations use the same explanatory variables as those in the probit models. The random error terms, ε_1 and ε_2 in the equations are assumed to be correlated.

The benefit of a joint modelling approach is that, it indicates whether a bivariate probit model is more efficient than estimating two separate probit models. Bivariate probit estimation returns a correlation coefficient ('rho'), which is the correlation coefficient between the residuals of each of the two probit models. If rho is statistically significantly different from zero, then estimating the two probit models simultaneously is efficient. If rho is not statistically significantly different from zero, then there are no efficiency gains from joint estimation.

[94] The technical analysis in equation 9 is taken from Greene (1997).

As we have collapsed the 5 categories of trust in the co-operative into a dummy variable (*BITRUST*), we do the same for the 5 categories of membership size. We generate a dummy variable for membership size (*BINUM*): 0 denotes small size; and 1 denotes large size co-operative. *BINUM* equals 1 if the co-operative is in the top three membership categories, i.e. 501 to 1000 members (category 2), 1001 to 1500 members (category 3) and more than 1500 members (category 4). *BINUM* equals 0 if membership size is in the lowerst two membership categories, i.e. less than 100 members (category 1) and 101 to 500 members (category 2).

The independent variables in the model are as follows: i) where the dependent variable is *BITRUST*, the independent variables are the explanatory variables in Table 7.1 in Chapter 7 (i.e. *HOCCUP, SRACE, REGIOP, REGIMB, MAINACT, SECOOP* and *AGE*) plus the dummy variable indicating a large co-operative in terms of membership (*BINUM)*; ii) where *BINUM* is the dependent variable, the independent variables are the explanatory variables in Table 6.1 in Chapter 6 (i.e. *HOCCUP, SRACE, REGIOP, REGIMB, MAINACT* and *SECOOP*) plus *BITRUST*. In addition, in the second equation we include the share capital and assets of co-operatives as over-identifying instruments, i.e. variables, which are not in the trust equation that are likely to be associated with co-operative size but not with trust in the co-operative.[95]

The estimated coefficient of co-operative size is negative and statistically significant (see Table 8.1), indicating that a large size co-operative in terms of the number of members decreases the likelihood of having trust in the co-operative. The correlation coefficient of the bivariate probit, which is the correlation coefficient

[95] This set of over-identifying instruments appears to be valid since if we include share capital and assets in the trust equation, the coefficients for share capital (0.1774) and assets (-0.0735) are insignificant, with a t-statistics of 1.10 and -0.33, respectively.

between the residuals of each of the probit models suggests that the joint modelling approach is an efficient way to model the relationship between co-operative size and trust in the co-operative. However, the very large t-statistic as indicated by the very low standard error means that the result should be interpreted with caution.[96]

In the analysis of the relationship between trust in the co-operative and co-operative size presented in Section 8.3, the findings from all three modelling approaches support an inverse relationship between trust in the co-operative and co-operative size, suggesting robustness of this finding. Our findings, however, do not say anything about the direction of causality although we would predict that it runs from size to trust given the minimum size requirement of co-operatives in Malaysia. The legal requirement of having at least 100 members for forming a co-operative in Malaysia, which is high relative to that in other countries such as in Germany and in Switzerland, may be an institutional barrier, which has hindered the building of trust in co-operatives in Malaysia.

8.4. Trust in the Co-operative and Co-operative Performance

Trust has been used to measure the performance of organisations and institutions. For example, political scientists such as Putnam (1993) have explored how measures of trust influence government efficiency, whilst economists such as Knack and Keefer (1997) analyse how measures of trust influence economic growth. La Porta et al. (1997) analyse the effect of trust on the size of the largest 20 firms (by sales) in 40 countries. Thus, in this section we analyse the effect of the level of trust in the co-operative on measures of co-operative financial performance (FP_i) including: the

[96] We ran a separate probit regression of BITRUST on BINUM plus the other regressors (i.e. *HOCCUP, SRACE, REGIOP, REGIMB, MAINACT, SECOOP* and *AGE*). The estimated coefficient of co-operative size was negative.

level of share capital, the level of assets, income and the profits of the co-operative. To be specific, we analyse the relationship between FP_i and *BITRUST* as follows:

$$FP_i = b_0 + b'x + b_1 BITRUST + \varepsilon_i^{FP} \quad (10)$$

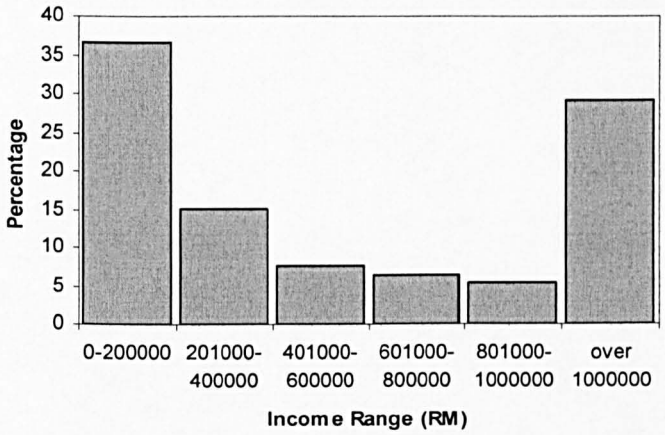
Where ε_i^{FP} denotes the random error term. We, firstly, specify two ordered probit models with share capital and assets of the co-operative as the dependent variables. The explanatory variables for both share capital and assets are the same variables as in the model presented in Tables 6.3 and 6.6 in Chapter 6, i.e. *HOCCUP, SRACE, REGIOP, REGIMB, MAINACT* and *SECOOP.* In addition, we control for the number of members of the co-operative (an index).

There is a lack of information related to monetary measures of the performance of co-operatives in the co-operative survey. In the primary data collection as described in Chapter 5, we did not gather information on co-operative performance, such as income and profits, as we were concerned that if we had requested such information, the response rate may have been even lower. Instead, we have obtained income and profit data from a secondary source, i.e. from the DCD's database, the INFOKOP (see Appendix 8.2 for the data on the income and profits of the co-operatives in the sample for the financial year ending 31.12.2003, obtained from the INFOKOP).

Out of the 106 co-operatives in the sample, we managed to gather income and profit data for 93 co-operatives. Hence, there are 13 missing values due to either the name of the co-operative not being indicated in the survey response to allow us to match in its income and profit data (5 co-operatives) or there is no income and profit data available for the co-operative in the DCD's database (8 co-operatives). The lowest income reported is RM460.00 and the highest is RM24.8 million, the mean for

income is RM1,611,459.00 with standard deviation 3439741.[97] Figure 8.1 below presents the distribution of income data.[98] 36.6% of the co-operatives have less than RM200,000.00 in income, 15.1% have income between RM201,000.00 and RM400,000.00, 7.5% have income between RM401,000.00 and RM600,000.00, 6.5% have income between RM601,000.00 and RM800,000.00, 5.4% have income between RM801,000.00 and RM1 milion and 29.0% have more than RM1 million in income.[99]

Figure 8.1: Distribution of Income across the Co-operatives in the Sample



The profit data in Appendix 8.2 comprises data for both profit and losses. The accumulated losses range from RM610.00 to RM1.6 million.[100] The lowest profit is RM1,159.00 and the highest is RM5.4 million.[101] The mean profit is RM197,560.80 with standard deviation 900483.4. Figure 8.2 below presents the distribution of profit. 36 of the 93 co-operatives (40.9%) experience losses, 28.0% make less than RM100,000.00 in profits, 16.1% make between RM101,000.00 and RM200,000.00 in profits, 2.2% make between RM201,000.00 and RM500,000.00 in profits, 5.4%

[97] The income and profit figures are specified in the Malaysian Ringgit (RM), where the exchange rate in 2007 is £1 for approximately RM7: RM460.00 is equivalent to £66.00; RM24.8 million is equivalent to £3.5 million.
[98] In Figures 8.1, 8.2 and 8.3, we exclude the co-operatives with missing values.
[99] RM200,000.00 is equivalent to £28,500.00; RM400,000.00 is equivalent to £57,000.00; RM600,000.00 is equivalent to £86,000.00; RM800,000.00 is equivalent to £114,000.00; RM1 million is equivalent to £0.14 million.
[100] RM610.00 is equivalent to £87.00; RM1.6 million is equivalent to £0.2 million.
[101] RM1,159.00 is equivalent to £166.00; RM5.4 million is equivalent to £0.8 million.

make between RM501,000.00 and RM1 million in profit and 7.5% make over RM1 million in profit.[102]

Figure 8.2: Distribution of Profit of the Co-operatives in the Sample

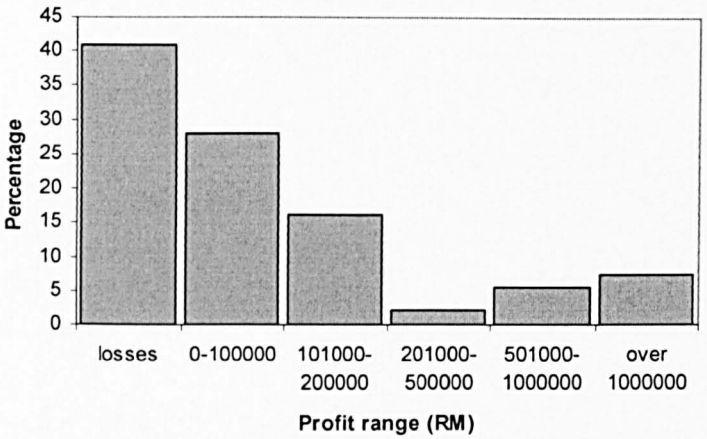
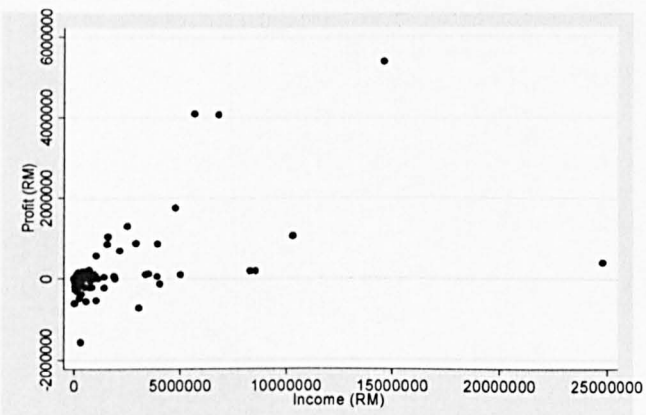


Figure 8.3 below presents a scatter plot of the income and profit data. It suggests that income and profit may not be related: a co-operative with a high income may not necessarily have high profits. The scatter plot also suggests that co-operatives that experience losses tend to have low income.

Figure 8.3: Scatter Plot of the Relationship between Income and Profit for the Co-operatives in the Sample



[102] RM500,000.00 is equivalent to £71,000.00.

With log(income) and log(profit) as dependent variables for the analysis of the relationship between trust in the co-operative and co-operative performance as in Equation 10 above, we conduct Ordinary Least Squares (OLS) analysis because income and profit are continuous variables.[103] The explanatory variables are the same as the explanatory variables for share capital and assets described above.

In Table 8.2, we only present the estimated coefficient of *BITRUST*.[104] The analysis of the relationship between the level of trust in the co-operative and measures of co-operative financial performance, i.e. the level of share capital, the level of assets, income and the profits of the co-operative yields estimated coefficients for the trust in the co-operative (*BITRUST*) dummy variable, which are positive but statistically insignificant for share capital and the income of the co-operative. The estimated coefficients for *BITRUST* are negative and statistically insignificant for the assets and the profits of the co-operative. The overall regression results for the OLS estimations of *BIRUST* on the income and profit of the co-operative do not yield large F-statistics, indicating that the overall regression is not a good fit. As income, for example, is usually affected by factors such as education, training and work experience of individuals, the poor overall regression diagnostics may reflect omitted variables. In general, the findings suggest that trust in the co-operative is not related to the financial performance of co-operatives.[105]

[103] Where losses are recorded, the dependent variable is specified as (-1) * log(|losses|).
[104] In accordance with the results in Table 8.2, changing the nature of the dependent variable *BITRUST*, firstly into an index and secondly into a set of dummy variables from the index did not yield a significant relationship between performance and trust.
[105] We also regressed the financial performance of the co-operative on other measures of trust (i.e. trust in family members, friends and strangers). The findings suggest that these measures of trust are also not related to the co-operative's financial performance.

8.5. Summary

In this chapter, we have presented empirical analysis of the relationship between trust in the co-operative and co-operative size. We found that the number of members of co-operatives is inversely related to trust in the co-operative as argued by Ole Borgen (2001). The findings indicate that an increase by 1% in the number of members decreases the probability of trusting the co-operative by 5%. We also found that there is a higher probability of having trust in the co-operative in a smaller co-operative group, which is in accordance with the previous finding.

On the other hand, our findings do not suggest a positive relationship between trust in the co-operative and the financial performance of co-operatives (as measured by share capital, assets, income and profits). A possible explanation for why trust is not positively related to financial performance may be because the co-operatives in Malaysia are large co-operatives. As small co-operatives do not exist in Malaysia, we are not able to study the relationship between trust and financial performance within such smaller groups. When co-operatives are large, the process of trust building is more complicated and resource consuming due to, for example, conflicting interests among a large number of members (Ole Borgen, 2001). Also the structural complexity of large organisations means that members often lack the opportunity to engage in incremental and repeated exchanges, which facilitate the development of trust (*ibid.*, 2001). Therefore, it is possible that the Malaysian co-operative movement would benefit from small size co-operatives, where members' business is related to the activity of the co-operative. The presence of such primary co-operatives may lead to the effective functioning of secondary co-operatives, which has been the hallmark of many successful co-operative movements in other countries.

It should be acknowledged that the aim of this chapter is not necessarily to demonstrate the importance of trust in the co-operative within the existing co-operative movement but rather to suggest possible ways to encourage a new type of co-operatives characterised by high levels of trust amongst co-operators. The empirical findings suggest that trust in the co-operative is low, where primary co-operative membership is large. Therefore, one possibility is to lower the size requirement for forming a primary co-operative in Malaysia to encourage smaller groups of primary co-operatives to engender trust in the co-operative. Indirectly, this may lead to more primary co-operatives, where the members' business is related to the activity of the co-operative.

Appendix A8.1: Results Tables

Table 8.1: Relationship between Trust in the Co-operative and Co-operative Size

	Coefficient	t-stat	ME	t-stat
i. The Probit Estimates	Dependent Variable = *BITRUST*			
Number of Members (an index)	-0.4280**	-2.35	-0.0528**	-2.20
Likelihood Ratio Chi Squared statistics (14 df)				20.84
Log likelihood				-31.7957
Pseudo R Squared				0.2643
ii. The Probit Estimates	Dependent Variable = *BITRUST*			
Number of Members (dummy variables):				
101-500 members	-1.6226	-1.21	-0.2886	-0.91
501-1000 members	-1.5260	-1.09	-0.3665	-0.77
1001-1500 members	-2.2472	-1.44	-0.6566	-1.31
more than 1500 members	-2.8173*	-1.91	-0.6210*	-1.70
Likelihood Ratio Chi Squared statistics (17 df)				24.33
Log likelihood				-31.0521
Pseudo R Squared				0.2815
iii. The Ordered Probit Estimates	Dependent Variable = Number of Members (Index)			
BITRUST	-0.8694**	-2.33		
BITRUST: 101-500 members			0.2720***	2.88
BITRUST: 501-1000 members			0.0608	1.14
BITRUST: 1001-1500 members			-0.0270	-1.32
BITRUST: more than 1500 members			-0.3093**	-2.17
Likelihood Ratio Chi Squared statistics (18 df)				98.70
Log likelihood				-98.2009
Pseudo R Squared				0.3345
	Coefficient (t-stat) of the Dependent Variables:			
iv. The Bivarate Probit Estimates	*BITRUST*		*BINUM*	
BINUM	-1.4442*** (-3.78)			
BITRUST			-1.5302*** (-3.68)	
Chi2 (1 df)				20.9736

Notes: i) * Statistically significant at the 10% level; ** Statistically significant at the 5% level; *** Statistically significant at the 1% level

ii) Number of observations = 106

Table 8.2: Trust in the Co-operative and Co-operative Financial Performance

Dependent variable (Measures of Financial Performance)	Explanatory Variable = *BITRUST*	
	Coefficient	t-statistic
The Ordered Probit Estimates: Share Capital	0.2420	0.76
Number of Observations		106
Likelihood Ratio Chi Squared statistics (14 df)		43.82
Log likelihood		-157.9532
Pseudo R Squared		0.1218
The Ordered Probit Estimates: Assets	-0.1035	-0.31
Number of Observations		106
Likelihood Ratio Chi Squared statistics (14 df)		51.11
Log likelihood		-120.7768
Pseudo R Squared		0.1746
The OLS Estimates: Log(Income)	0.2190	0.39
Number of Observations		93
F-stat (17 df)		2.94
Adjusted R-Squared		0.2640
The OLS Estimates: Log(Profit)	-5.2889	-1.50
Number of Observations		93
F-stat (17 df)		1.98
Adjusted R-Squared		0.1536

Notes: i) All the regressions above control for the other explanatory variables (i.e. *HOCCUP, SRACE, REGIOP, REGIMB, MAINACT,* and *SECOOP*)

Appendix A8.2: Co-operative's Income and Profit/Loss for year ending 31.12.2003

Co-op Serial Number	Income from all activities (RM)	Profit/ (Loss) (RM)
001	652	(610)
002	71,665	2,997
003*	313,040	(1,569,372)
004	52,474	(85,792)
005	35,685	1,794
006	801,197	(196,691)
007	76,961	22,939
008	3,890,870	52,827
009	56,091	(187,184)
010	9,300	(26,593)
011	842,157	93,427
012	130,416	(119,304)
013	113,133	61,282
014	n.a.	n.a.
015	n.a.	n.a.
016	24,798,861	386,312
017	735,648	(29,371)
018	n.a.	n.a.
019	3,479,565	125,190
020	24,210	1,159
021	n.a.	n.a.
022	2,473,205	1,310,506
023	n.a	n.a.
024	n.a.	n.a.
025	214,350	138,496
026	1,551,922	862,162
027	n.a.	n.a.
028	344,804	124,585
029	517,491	(195,922)
030	47,494	(35,056)
031	642,360	8,383
032	378,632	174,414
033	36,452	(11,229)
034	52,748	16,516
035	1,581,917	1,048,626
036	149,335	(91,773)
037	6,779,644	4,079,377
038	4,025,835	(118,961)
039	1,014,298	(541,822)
040	621,466	161,685

Co-operative's Income and Profit/Loss for year ending 31.12.2003 (continued)

Co-op Serial Number	Income from all activities (RM)	Profit/ (Loss) (RM)
041	593,717	138,002
042	3,176	(2,126)
043	22,340	(379)
044	252,959	(486,578)
045	1,868,503	62,746
046	704,661	(209,908)
047	149,391	(314,568)
048	162,400	(138,831)
049	64,343	20,392
050	3,059,311	(724,324)
051	990,617	91,470
052	345,000	(373,839)
053	312,447	(164,509)
054	n.a.	n.a.
055	80,839	56,576
056	526,969	88,828
057	10,295,433	1,066,468
058	915,723	115,718
059‡	278,454	76,368
060	675,630	217,482
061	140,250	(30,581)
062	241,125	(100,407)
063	5,014,306	103,705
064	n.a.	n.a.
065	5,559	1,792
066	83,285	11,369
067	543,678	135,867
068	135,540	99,294
069	760,703	(1,507)
070	4,741,099	1,775,826
071	5,634,266	4,100,078
072	921,872	12,367
073	n.a.	n.a.
074	165,578	46,790
075	306,037	(116,189)
076	3,917,145	872,016
077	14,613,408	5,392,065
078	108,574	(194,876)
079	1,117,246	7,707
080	460	(11,651)
081	400,981	8,356
082	201,655	157,806

Co-operative's Income and Profit/Loss for year ending 31.12.2003 (continued)

Co-op Serial Number	Income from all activities (RM)	Profit/ (Loss) (RM)
083	50,869	28,670
084	n.a.	n.a.
085	350,800	(40,121)
086	1,906,959	6,762
087	561,188	(562,836)
088	93,961	(151,709)
089	173,056	(85,347)
090	1,415,970	(204,164)
091	n.a.	n.a.
092	n.a.	n.a.
093	2,914,121	890,275
094	1,023,718	562,656
095	8,545,561	184,453
096	2,142,321	693,976
097	8,288,691	187,212
098	57,190	(11,149)
099	6,560	(4,297)
100	546,986	195,652
101	3,353,692	107,504
102	1,414,707	46,129
103	21,817	(615,835)
104	387,407	113,111
105	326,395	56,999
106	69,114	(276,570)

Notes: i) * Co-operative's Income and Profit/Loss for year ending 31.12.2002

ii) ‡ Co-operative's Income and Profit/Loss for year ending 31.12.2005

CHAPTER 9

CONCLUSION

The number of co-operatives in Malaysia has reached thousands and is likely to increase in the future. But nevertheless, even after almost a century of the existence of the co-operative movement in Malaysia, there is no available data to gauge the significance of its economic contribution such as the number of employees accounted for by the co-operative sector. The growth of the co-operative movement in Malaysia can, generally, be assessed in terms of the growth in the number of co-operatives, the number of co-operative members, the share capital and the assets of co-operatives. The 25 largest co-operatives in terms of membership and in terms of share capital in 2004 are all primary co-operatives. The main aim of this thesis was to explore weaknesses of the Malaysian co-operative movement, which may have diminished the economic presence of the co-operative sector and to suggest possible avenues by which the co-operative movement could be improved. The Malaysian co-operative movement differs from the successful co-operative movement in the West, where co-operative organisations at a higher level than the primary co-operatives, i.e. the secondary co-operatives, have played a key role. As discussed in Chapter 4, empirical evidence suggests that in Malaysia, the co-operative movement as a whole may be hampered by the weaknesses of the secondary co-operatives.

This thesis has reviewed three important aspects of co-operatives in Malaysia: the relationship between primary and secondary co-operatives; the level of trust among co-operators; and the relationship between co-operative size and trust in co-operatives in Malaysia. In order to explore the Malaysian co-operative movement, we had to collect our own primary data, especially data pertaining to the relationship

between primary and secondary co-operatives and data on trust among co-operators in Malaysia. Data pertaining to the relationship between primary and secondary co-operatives and data on trust among co-operators in Malaysia do not exist, as this is an under-researched area for Malaysia. Furthermore, due to the nature of co-operatives in the Malaysian co-operative movement, there were problems collecting data especially pertaining to the relationship between primary and secondary co-operatives. Nevertheless, the unique econometric analysis of an original data source, constructed for this thesis, represents a significant original contribution to this area of research.

It has been argued that a co-operative "must develop strategies to maintain and develop its market share, strengthen its membership base, reduce its cost base and develop its suppliers' capacity to meet the co-operative members' need" (Davis, 1999:64), to be able to compete in free markets. For co-operatives in the Western European countries, these are areas for secondary co-operatives to develop. In order to be able to function effectively, there has to be close cooperation between the secondary co-operatives and the primary co-operatives that make up their members (Kissling, 1992). Close co-operation between primary and secondary co-operatives is determined by how related the activities of the secondary co-operatives and the primary co-operatives are, where the latter run activities that are related to members' businesses. Thus, the kind of primary co-operatives, where the members' business is related to the co-operative activity appears to be a prerequisite for the efficiency of secondary co-operatives, enabling them to enhance the effectiveness of the co-operative movement. This kind of primary co-operative is common among producer co-operatives such as agricultural marketing co-operatives and worker co-operatives.

The discussion in Chapter 4 on co-operatives in Malaysia, where primary co-operatives are largely consumer co-operatives as opposed to producer co-operatives, did not suggest that the type of primary co-operatives, where the members' business is reflected in the primary co-operative activity, is present in Malaysia. In Malaysia, where secondary co-operatives largely have different types of primary co-operatives as members and where the activity of secondary co-operatives does not reflect the activities of the different types of primary co-operatives that make up their members, it is less likely that the secondary co-operative acts as an integrated unit with the primary co-operatives, failing to achieve economies of scale, greater negotiating power in the market and greater efficiency for the primary co-operative.

In Chapter 6, we analysed the primary-secondary co-operative relationship in terms of the effect of membership in secondary co-operatives on the number of members, the share capital and the assets of the primary co-operatives. Our findings suggest that membership in secondary co-operatives has a significant positive effect only on the number of members of the primary co-operatives, especially among primary co-operatives that have a long-standing relationship with their secondary co-operative. We did not find evidence of a positive effect of membership in secondary co-operatives on the share capital or assets of the primary co-operatives. This result suggests that membership in secondary co-operatives does not attract members of primary co-operatives to invest more in the co-operative capital, which could reflect the level of the members' economic involvement in the co-operative. To be specific, where members do not depend on the co-operative for a living, the benefit of the primary co-operative's membership in the secondary co-operative may not be felt by members. Thus, members of the primary co-operative may not be induced to invest more in the co-operative's capital. Members may not be inclined to increase their

share capital in the co-operatives, other than, perhaps, what is needed either to become a member, or to be eligible for the co-operative's product/services (especially loans) or to exercise their rights as members of the co-operative.

The economic involvement of the co-operative's members in the co-operative is reflected in the average share capital per member of a co-operative: in credit co-operatives it is RM2,400.00; in the plantation activity co-operatives it is RM1121.00 per member; RM1,007.00 per member in the services activity co-operatives; RM995.00 per member in the housing activity co-operatives; less than RM400.00 per member in the transport and in the consumer co-operatives; and less than RM200.00 in the construction activity and in the small/cottage industry activity co-operatives.[106] These figures relating to a member's average contribution to the share capital are not particularly high, suggesting that it is necessary for co-operatives to have a large number of members to have large share capital as suggested by the positive relationship between the number of members and the share capital of co-operatives (see Chapter 6). This may explain the finding in Chapter 6 that suggests that primary co-operatives, which experience an increase in membership due to membership in a secondary co-operative, are likely to be in favour of secondary co-operatives as this may indirectly enhance their share capital. Although secondary co-operatives in Malaysia do not seem to be particularly resourceful towards their primary members, some degree of satisfaction with secondary co-operatives and support for their existence is reported in Chapter 6, which can be regarded as demonstrating the relevance of secondary co-operatives in Malaysia.

In Chapter 7, we have explored the determinants of the level of trust in co-operatives among co-operators in Malaysia as it has been argued that where the co-operative's

[106] These figures for 2003 are calculated from the figures in Tables 4.3 and 4.4 in Chapter 4.

activity and the members' businesses are related, this may induce members to identify with the co-operative, which serves as a mechanism for generating trust in the co-operative (Ole Borgen, 2001). We found that not even co-operators in the transport co-operatives or the small/cottage industry co-operatives, where we expected members to indicate high levels of trust in the co-operative, reflect a high level of trust in co-operatives. The findings suggest that in Malaysia, the activities of the primary co-operatives are less likely to reflect members' businesses, which could probably be due to co-operatives being large. We also found that trust in co-operatives is positively associated with high levels of trust in the family, suggesting that allowing co-operatives to be formed among people from high trust social structures is good for building trust in co-operatives. This suggestion can be generalised for the general population as we found that the general level of and pattern of trust among the Malaysian co-operators reflects the general level of and pattern of trust among the general Malaysian population.

In the empirical analysis of the relationship between the level of trust in the co-operative and co-operative size in Malaysia presented in Chapter 8, we found that the number of members of co-operatives is inversely related to the level of trust in the co-operative as argued in Ole Borgen (2001) and, in accordance with this finding, we also found that there is a higher probability of having trust in the co-operative in a smaller co-operative group. Although, in the existing literature, high levels of trust have been found to be positively associated with the performance of organisations or institutions, our findings, however, do not suggest a positive relationship between trust in the co-operative and the financial performance of co-operatives as measured by co-operatives' share capital, assets, income and profits. This finding may be related to the relatively large membership size of the Malaysian

primary co-operatives, given that the minimum number of individuals required to form a co-operative is set at 100 members as compared to that in Germany and Switzerland, for example, where only 7 members are required to form a primary co-operative.

Arguably, the large number of individuals required to form a co-operative in Malaysia will induce the formation of co-operatives among individuals with no common activity because it is difficult to group together so many individuals within a particular region, who are engaged in the same business or economic activity. In addition, as an economic group, where the financial contribution to the capital of the business is important, large membership size does not accord with the low level of general trust (i.e. where trust in others is relatively low), indicated among co-operators in Malaysia, in particular and among the general sample of Malaysians, as indicated in the responses to the e-mail survey analysed in Chapter 7. In a low trust society such as Malaysia, it appears to be the case that co-operatives proliferate among people, who are less likely to trust each other highly such as among employees of organisations. In such a situation, it is less likely that co-operative members would be willing to make large financial contributions to the co-operative's capital, other than the minimum requirement.

The relatively high membership requirement hinders the proliferation of small groups of entrepreneurs to form co-operatives in Malaysia as indicated by the responses to the co-operators' survey analysed in Chapter 5: 57.6% of the co-operatives in the sample have more than 500 members, which is not likely to reflect small groups of entrepreneurs. Furthermore, even the relatively smaller groups (i.e. co-operatives with 100 to 500 members) are unlikely to reflect groups of entrepreneurs. The formation of a primary co-operative group in Malaysia is based

on 'common interest', a term not specifically defined by the Registrar for co-operatives in Malaysia. In addition, the Government supports the large co-operatives formed based on the 100 membership requirement in the form of, for example, grants and 'soft' loans, which may be regarded as merely encouraging co-operatives to venture into entrepreneurial activity rather than encouraging entrepreneurs to join co-operatives.

Therefore, allowing co-operatives to be formed among people from high trust social structures, i.e. among family members and friends, may encourage entrepreneurs to form co-operatives that are more focused in their activity. Granovetter (1995:130) argues that before the 1970s, the organisation of economic activity around kin and friends may be regarded as fundamentally backward, but the general orientation of the 'New Institutional Economics' has brought about its reinterpretation "that transformed it from a retrograde vestige of traditional times to a clever solution for a difficult problem". The formation of co-operatives among low trust social structures may have resulted in multipurpose co-operatives going into businesses that are not clearly related to one another, picking up and adding whatever activity that could generate income to the co-operative, to enable the co-operative to distribute dividends to members (Hogeland, 2003). These multipurpose co-operatives then become large co-operatives that can survive individually without having to depend on secondary co-operatives. In contrast, where co-operatives comprise entrepreneurs as members, it is the type of co-operative where the member's business is reflected in the activity of the co-operative, which is common in producer co-operatives, such as worker co-operatives. Allowing for small groups in co-operatives will allow individuals to choose who they trust to go into business with and to commit to it financially and spiritually.

Based on the original empirical analysis presented in this thesis, we conclude that restrictive government policies related to the formation of co-operatives such as imposing a requirement of a large number of individuals to form a co-operative, may affect individuals' choices, which, in turn, may affect co-operative development. Entrepreneurs might be dissuaded to choose the co-operative form as a way to start a business. Therefore, lowering the size requirement for forming a primary co-operative as a way to encourage smaller groups of primary co-operatives to be formed, leading to the establishment of a new type of primary co-operative, where the members' business is related to the activity of the co-operative, may play an important role in enhancing the co-operative movement in Malaysia, leading to the effective functioning of secondary co-operatives. The new type of co-operatives, due to their small size, may need to co-operate with other small co-operatives with the same interests to form larger organisations to survive. The survival of the co-operative becomes important, therefore, for the survival of the members' business. As there is no one fixed number for defining 'small' membership size of a primary co-operative suggested in the literature, we suggest that an unspecified number of individuals is stipulated, which may be not less than 5 persons, to allow the second principle of co-operatives to prevail, i.e. democratic control to be exercised. We base this number requirement on the Edinburgh Bicycle Co-operative in the UK and on the institutional design of the Grameen Bank financial groups in Bangladesh, which have been widely acknowledged for their success.

Reducing the number of individuals required for the formation of co-operatives may encourage a proliferation of worker co-operatives in the Malaysian co-operative movement, in which case the present institutional arrangements for co-operatives will not suit this new level of economic activity. As such, amendments to the co-

operative law in Malaysia would have to be made not only to allow for small groups of primary co-operatives to be formed but also in anticipation of the birth of a new form of co-operative. Such amendments would pertain to: firstly, Section 5 and Section 8 of the Co-operative Act 1993 relating to the minimum requirement to form a co-operative; and secondly, Regulation 16 of the Co-operative Societies Regulations 1995 pertaining to the appointment to and the vacation of members of the co-operative Board. Regulations 16(1)(a) and (b) specify that at least one-third of the members of the co-operative Board shall vacate their posts annually at the annual general meeting, which is to be repeated in rotation annually so that all members of the Board, at least once, have to vacate their post. This regulation may not suit co-operatives with a small membership size.

In addition to legal matters, the DCD would also have to restructure its resources towards supporting a new dimension of the co-operative movement in Malaysia. Its extension programme would have to be expanded to create public awareness of the presence of and the opportunities related to an alternative way for starting and running a business. The DCD would also have to co-ordinate and work closely with the various small entrepreneur development agencies to build a national network of support and to develop wider trading opportunities for the new type of co-operative. Eventually, this role could be handed over to the secondary co-operatives formed by the new co-operatives.

An interesting avenue for future research lies in investigating the degree of complementarity between trust and participation in co-operatives, i.e. whether trust can be linked to higher or lower participation in large or small co-operatives. It should be noted, however, that in order to conduct further research on co-operatives in Malaysia, the collection of further co-operative level data is essential.

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