City Livability and its Impact on City Branding:
A Comparative Analysis of Bangkok and London

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Abstract

This study explores the relationship between city livability and branding, focusing on London and Bangkok. Addressing identified gaps in the literature, the research emphasises the historical significance of livability amid urbanisation and population growth, stressing its role in competitive advantages and city branding. Identified research gaps include the need for an effective city livability framework and improved data collection methods. The study outlines research objectives, formulates guiding questions, and proposes a novel framework, drawing on perspectives from city stakeholders in Bangkok and London. A literature review merges city livability and branding theory, introducing a conceptual framework and hypotheses.

Bibliometric analysis examines the development of city livability and branding fields, providing insights into trends, thematic shifts, and contributions. Scale development involves a pilot study and the creation of a livability measurement tool, validated through a large-scale survey: 600 samples in total (300 Bangkok residents, and 300 London residents). The study tests both direct and indirect relationships between perceived city livability, personality, brand attitude, and behavioral intentions, the study employs multiple regression analysis within the Structural Equation Modeling (SEM), revealing both supported and non-supported connections. The research expands city branding theory and challenges existing notions about demographics' impact on perceived city personality and brand attitude. The integration model contributes to both city livability and branding fields.

In conclusion, this research significantly advances our understanding of the complex interplay between city livability and branding in London and Bangkok. By addressing identified gaps, it contributes to theoretical frameworks and offers practical applications for effective city management and brand enhancement, shedding light on factors influencing urban experiences. The findings provide valuable insights and pave the way for future research in this dynamic and critical area.

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Declaration

I declare that this thesis is a presentation of original work, and I am the sole author. This work has not previously been presented for a degree or other qualification at this University or elsewhere. All sources are acknowledged as references.

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Chapter 1 Introduction

1.1 Chapter Introduction

This chapter provides the general context for this study. It explains the choice of the topic researched on 'city branding'. Section 1.2 will provide the research background information to readers, for a basic understanding of this emerging research topic both of theoretical and practical aspects. In section 1.3, the city branding research problem statement will be also addressed, in order to establish the main research objectives and questions of the thesis discussed in section 1.4. Furthermore, the proposed thesis contributions will be discussed in section 1.5 and the outline of the whole thesis will be illustrated in section 1.6, followed by the chapter summary in section 1.7.

1.2 Research Background

1.2.1 City livability definition and approaches

During recent years, population growth and urbanisation have continually been increasing and have become more serious issues, as highlighted by the United Nations (UNDP, 2020). The United Nations estimates an increase of urban population by 68 percent in 2050 (The United Nations Department of Economic and Social Affairs, 2021). This estimated two-thirds of people in the future will be living in urban settlements by 2050 (Alderton et al., 2019;UNDP, 2020). The rising trend of urbanisation can be considered as a global phenomenon that happens to all big cities in different parts around the world (Paul and Sen, 2020).

Apart from the rapid urbanisation, there are also big challenges of environmental nature (Osiyevskyy et al., 2020), along with many infectious diseases to various cities and regions worldwide (Dykas and Wisła), that happen not only in urban cities but also in small towns. These contagious diseases have been spreading at an increasing scale and more frequency such as the severe acute respiratory syndrome (SARS) which many people were infected worldwide between 2002 and 2004, and the recent pandemic of the coronavirus disease (COVID-19) which has been widely spreading since late of 2019 all around the world (Kimura et al., 2020; Hu, Li, & Dong, 2021). The rapid urbanisation

can lead to a number of risk factors that contribute to the spread of infectious diseases (Patel & Burke, 2009; Li et al., 2021). For example, poor housing conditions, inadequate water supplies, sanitation, and waste management in densely populated cities can lead to the proliferation of insect and rodent vectors that transmit diseases like malaria and dengue (Neiderud, 2015).

In regards to aforementioned issues, urbanisation is one of the most relevant factors for infectious diseases as it provide the environmental and physical conditions for the fast spreading (Pisano, 2020).

In order to respond to the growth of population, rapid urbanisation, and natural disaster concerns raised by the United Nations, creating "Livable cities" has become a concern for governments at multiple institutional levels across the world and it needs to take an urgent action (OECD, 2017; Higgs et al., 2019a).

There are many definitions of city livability. Okulicz-Kozaryn (2013) suggests that livability can be simply defined as "Best place to live", which refers to the quality of life, standard of living or general well-being of a resident in place such as a city. However, there are some livability definitions which focus on environmental quality. For example, Clinton Livability Agenda (1999) defines livability as a best practice which can encourage communities to maintain green space, eco-friendly transportation choices and sustain regional intelligent growth policies for the sustainable future. Newman (1999) defines livability as human environment though it can never be separated from the natural environment. Higgs et al. (2019) developed a comprehensive definition "urban livability is a community that is safe, attractive, socially cohesive and inclusive, and environmentally sustainable; with affordable and diverse housing linked by convenient public transport, walking and cycling infrastructure to employment, education, public open space, local shops, health and community services, leisure and cultural opportunities" (Higgs et al., 2019, pp.1-2). It is obviously seen that Higgs et al. (2019)'s definition is clear and can reflect social of health and well-being, as well as cultural determinant. Likewise, Jomehpour (2015) states that livability is the sum of the socio-physical and socio-cultural.

Regarding the implementation at the national level, numerous countries have embraced the concept of livability in addressing global challenges, as previously discussed, with the

aim of improving the quality of life for their citizens. In Australia, for example, the Urban Livability programme has been implemented to different levels such as the Federal Government's Nation Cities Performance Framework, the State of Victoria's plan in Melbourne, and the Cardinia Shire's Livability Plan (Higgs et al., 2019), with the support of the United Nations Global Compact – Cities Programme or UNGCCP: the UNGCCP is the urban branch of the UN Global Compact and it is administrated by an International Secretariat which has been hosted by RMIT University since 2007 (Alderton et al., 2019). Moreover, this programme works with the UN Global Compact's network of city members to achieve fair, inclusive, sustainable and resilient cities and societies, through the UN Sustainable Development Goals (SDGs) (UNGCC, 2024).

When it comes to the case of Bangkok, Thailand. Bangkok is now facing challenges from the fast growth, the major issues are heavy traffic (Matthews et al., 2023), unhealthy environments and social inequalities (Alderton et al., 2019). Therefore, in 2017, Bangkok Metropolitan Administration (BMA) has been working hard on the issues by adopting the Urban Livability Framework which was developed from the collaborative research project between the BMA, The Royal Melbourne Institute of Technology (RMIT university) and the UNGCCP (UNGCC, 2024). Then, in 2017, the BMA led by the Strategy and Evaluation Department, laid out a new 20-year development plan aiming to increase the city livability and improve resident's well-being and quality of life, following the Sustainable Development Goals by the United Nations. With this action, the BMA is an official key authority in the promotion of the urban liveability and sustainability agendas in Bangkok (Alderton et al., 2019).

Another example is London, United Kingdom. As the Mayor of London, Mr. Sadiq Khan, has set the budget and been responsible for making London a better place for every city stakeholder who come to visit, live, or works in the city (Priorities for London, 2024). His work is directly associated to the urban livability which includes 1) helping people to easily move in and around the city, 2) improving the city environment, 3) supporting capital's businesses to grow, 4) providing residents with more affordable housing, and 5) giving more opportunities to young people (Mayor of London Strategies and Plans, 2024). The Mayor of London also has plans and policies which cover urban livability attributes such as art and culture, business and economy, healthcare, housing, transport, environment, education, policing and crime, and etc (The role of the Mayor of London, 2024). Moreover, there is the livability research programme run by the Policy Exchange

London, the UK's leading think tank (Liveable London, 2024). This organisation aims to develop and promote new policy ideas for better public services and have provided many policy ideas to the government. The goal of livability research programme is to identify the policy recommendations which can bring Londoners together, as well as bridge increasingly tense political divisions and ensure the city remains a predominant global and cultural center (Liveable London, 2024). These examples illustrate the importance of urban livability approach to different cities in different parts of the world.

According to Zanella (2015), city livability is now acknowledged as a crucial element contributing to competitive advantage. Similarly, there is an approach which is the most impactful to cities across the world in terms of enhancing city's competitive advantage to boost their economies (Kashef, 2016). This approach is urban livability in popular press and global ranking in the connection with the rising environmental concerns and the growing competition among cities in global stage and he highlighted city branding as a key variable in this process.

Kashef (2016) explains that the rankings have also been used as a guideline for businesses that intend to expand their branches and relocate in different parts of the world. He also suggests that cities are branded by rankings (Kashef, 2016). Likewise, Lowe et al. (2015) observe that livability ranking are useful in practice, as a guideline for city policy makers and for monitoring progress towards achieving policies, as well as enhancing connection and engagement between government and community or private sectors (Lowe et al., 2015). Overall, global livability rankings have been increasingly used by the government sectors to examine their socioeconomic and environmental conditions in order to leverage their competitive advantages (Cramer-Greenbaum, 2020).

1.2.2 City branding definition and approaches.

The concept of city branding is rooted in place marketing, which emerged in the 1990s as cities increasingly sought to promote themselves amidst growing global competition (Jansen-Verbeke, 1991; Kotler and Gertner, 2002). As a relatively recent marketing strategy, promoting cities has gained importance due to the competitive pressures stemming from the second wave of globalisation that began in the 1980s (Kavaratzis and Ashworth, 2005a). While city branding has become a significant topic of interest, the definition of city branding remains contested, with no universally accepted definition.

Rainisto (2003) suggests that city brands, like any other brands, fulfil functional, symbolic, and emotional needs, and their core elements should align with a city's unique characteristics. However, there remains debate about how to encapsulate the full complexity of a city brand in a single definition. Dinnie (2008) provides a useful approach by adapting the concept of nation branding to cities, defining a city brand as 'the unique multidimensional blend of elements that provide the city with culturally grounded differentiation and relevance for all of its target audiences' (Dinnie, 2008). This adaptation captures the layered complexity of city branding, recognising the unique cultural, social, and economic contexts that shape a city's brand.

This study adopts Dinnie's (2011) definition of city branding, as it provides a robust framework that recognises the multifaceted nature of urban identity, and the complexities involved in branding cities. This definition is regarded as thorough because it encompasses various dimensions, including cultural, historical, social, and economic aspects that shape a city's unique identity.

The cultural dimension involves the unique traditions, arts, and values that define a city's character (Parr, 2007). Next, social dimensions pertain to the demographics and community dynamics within a city, reflecting how different groups perceive and interact with their urban environment (Cheshmehzangi, 2015). Understanding these social aspects allows cities to resonate with diverse target audiences, tailoring branding efforts to engage various communities effectively. For the economic dimension, it focuses on the city's role as a hub for commerce, innovation, and opportunity (Lee, 2017). The complexities inherent in city branding stem from the need to balance these various dimensions while responding to the evolving needs and perceptions of residents and visitors.

By employing Dinnie's definition, this study aims to bridge the gap between the theoretical concept of branding and its practical application to cities. It recognises that successful city branding is not merely about marketing but involves a holistic understanding of how various dimensions interact to shape a city's identity and how that identity is perceived by different audiences. This approach not only enriches the academic discourse on city branding but also offers practical insights for policymakers and city planners seeking to develop robust and resonant urban brands.

This emerging area of study has attracted a vast amount of researchers from various disciplines, such as urban planning (Bonakdar and Audirac, 2020; Mohammadi Aydoghmish, 2022), urban sociology (Ulldemolins, 2014), public policy (Mabillard, Pasquier and Vuignier, 2024), political science (Lucarelli, 2018; Eshuis and Edwards, 2013), economics (Ma et al., 2020), heritage studies (Desille, 2024; Henninger, 2016), tourism (Dai, 2022; Kusumawati, 2017), geography (Capozziello, 2022) or even marketing (Vijaygopal, 2023; Ma, 2021) who have contributed with different perspectives (Lucarelli, 2012). In fact, the total number of academic papers on city branding has increased within the last two decades, as shown for instance by Acharya and Rahman (2016)'s thematic review, which identifies 147 articles on place branding during 2004 to 2014. Their study reveals that there is a nearly four-fold increase in the number of articles, from 8 articles in 2004 to 31 articles in 2013, as well as the number of authors which rose from 30 in 2004 to 52 in 2013. The theme of city branding research is diverse, there can be seen more than 11 themes according to Acharya and Rahman (2016)'s thematic review; the main identified research themes from the total article reviewed are: 1) Place Brand Identity 2) Stakeholders Aspect 3) Planning and Strategy 4) Place Brand Image 5) General Aspect 6) Literature Review Papers 7) Promotional Aspect 8) Sustainable Aspect 9) Place Brand (Umbrella Branding) Architecture 10) Place Brand Personality and 11) Others.

Moreover, recent evidence obtained from the Scopus and ScienceDirect databases shows that the number of research articles have been exponentially soared between 2010 and 2020. In the Scopus database, the number of published articles in 2019 and 2020 is 251 in total, this is more than double of total publications in 2015 which was 102. The number in 2020 is also roughly three-time more than the number in 2010 which was 74 (Elsevier, 2019). In summary, Oguztimur and Akturan (2016) observe that roughly 70 percent of city branding journal articles were published after 2010 as this field of research has been being considered as "a serious domain of research". As all of systematic studies show the rapid growth of interest in city branding, Vuignier (2017) assumes this development could lead to more "institutionalisation" of the field because there has been more scientific analysis of the field.

The good explanation for the higher demand of city branding studies than it was in the past would be that cities all around the world are becoming more engaged in marketing and branding effort, so as to keep themselves competitive and relevant on the global

market (Hospers, 2010). The examples of city branding given by Anholt (2006) are Paris is romance, Milan is style, New York is energy, Washington is power, Tokyo is modernity, Lagos is corruption, Barcelona is culture, Rio is fun. Anholts explains these are the brands of cities are unavoidably tied to the histories and destinies of the places. Since 1980s, the globalisation is bringing an unavoidable shift from local to a globalised circumstances, together with a more tightly connected global economic system, and more open relationship between state players (Anholt, 2005). This has led to a growing competition between cities both at national and global levels (Kavaratzis, 2004).

There is substantial evidence demonstrating that city administrators and governors are eager to implement city branding strategies as a competitive advantage (Ashworth and Kavaratzis, 2009). These strategies are aimed at influencing the behavioral intentions of stakeholders—encouraging visits, investments, and relocations to the city (Gómez et al., 2016; Kaya and Marangoz, 2014; Lee, 2017; Middleton, 2011). For instance, the successful case of "I love Budapest" campaign launched between 2005 and 2006 illustrates how city brand was used to promote the city and differentiate it among competitors in tourism (Kavaratzis, 2008). Another example is the nomination of the European capital of culture by the European Union (EU) since 1985. The main objective of this initiative has been to bring European cultures closer together, as well as strengthen its richness and diversity, as well as its histories and values (European Commission, 2024). This campaign has been very successful not only in giving a chance for the cities to promote and boost their image on international scale every year, but also has a long-term implications in terms of the economic and social development of the city and region (European Commission, 2024).

Additionally, it might be true to say that one of the interesting research domains these days is the sustainable development (see section 3.3.1, chapter 3). This is because we are now facing rapid population growth and urbanisation in almost every part of world which unavoidably lead to environmental and economic damages (UNDP, 2020). Consequently, the United Nations has raised these serious issues and called for urgent action from every state member to implement the Sustainable Development Goals (SDGs) to their states and local policies (United Nations, 2015). When considering the city branding for sustainability, Fok and Law (2018) observe that many cities around the world have been implemented urban greening to their city branding strategies so as to present their green brand image. They also elaborate the great benefits of being urban greenery for the city,

it can be seen that urban greening has indirect effect an inward financial and human capital flows, as it can attract investment and talented people to the city. Additionally, being greenery city also brings about social cohesion which significantly fosters social capital, identity and citizenship (Fok and Law, 2018),. This can make the local communities more strong and solid, as well as preserve their local culture. The good example is Hong Kong, as the government has a strong commitment to make the city more sustainable, as we can see from their sustainable activities to promote Hong Kong brand as one of the most greenest city in Asia; through Green Belt, Greening Master Plan, Community Garden Programme and Skyrise Greening campaigns (Fok and Law, 2018), as well as the historical Feng Shui wood in Hong Kong, which conveys the rural culture where people and nature can live together in harmony way (Marafa, 2003, cited in Fok and Law, 2018, p.1042).

These are some illustrations of how an increasing number of cities is investing in branding activities so as to have a competitive edge in today's global stage, as well as to obtain a strong reputation and achieve their social, cultural, economic goals (Anholt, 2006). Therefore, they illustrate the role of city branding and how powerful it is in competition in today's world. They also show how it can be used as an instrument to communicate the competitive advantage of the city, their history, quality of the place, lifestyle and culture (Björner, 2013).

1.2 Research Problems

The Web of Science database (2022) indicates a consistent annual increase in research publications on livable cities, surpassing four times the amount recorded in 2014. Notably, the primary sources of these publications are found in sustainability, urban planning, urban foresting, urban greening, and landscape journals (Fletcher et al., 2013; Sun et al., 2016; Giles-Corti et al., 2016). Strikingly, among the top 20 sources for city livability papers, there is a notable absence of research in marketing or branding journals. This underscores a gap in the exploration of how the concept of city livability intersects with marketing, a void largely unaddressed except for Kashef (2016)'s work, which posited that livability rankings contribute to city branding. The current study aims to address a significant gap in the literature by examining the impact of livability on city branding, thereby expanding the scope of research in this area and contributing to the broader field of branding studies. Despite the increasing interest in city livability and city

brand personality (Merrilees, Miller and Herington, 2008; Lucarelli and Berg, 2011), research has largely treated these concepts in isolation. This fragmented debate highlights a lack of a holistic approach to understanding how city livability functions, particularly during times of crisis, uncertainty, and socio-political discourse (Yang et al., 2019; Ruth and Franklin, 2014). The current reliance on livability indices and measures of resident satisfaction is insufficient for elucidating the dynamics of city branding, as these metrics often fail to capture the broader complexities that influence residents' perceptions and behaviours. Understanding the interaction between livability and branding is essential for developing well-rounded strategies that effectively address urban challenges and enhance resident engagement.

Moreover, existing studies on city livability have primarily focused on the livability index and its effect on resident satisfaction (Zenker and Rütter, 2014; Hong and Yang, 2009a; Mouratidis and Yiannakou, 2022; Senlier, Yildiz, and Aktaş, 2009). However, there remains a significant gap in research regarding how perceived city livability translates into residents' attitudes and behavioral intentions. This oversight underscores the importance of exploring not just satisfaction, but also the decision-making processes that guide residents in their engagement with their cities. Specifically, questions regarding whether individuals are more inclined to advocate for, invest in, or choose to reside in a city they perceive as highly livable have not been extensively explored. This study aims to address this gap by investigating the relationship between perceived city livability and attitude towards brand, as well as subsequent behavioral intentions. By delving into how perceptions of livability influence resident's attitude and actions or decisions in the urban context, the research seeks to contribute valuable insights to the understanding of urban experiences.

Another important consideration is the effectiveness of city livability measurement tools. Although the concept of livability has been proposed as a way to help cities manage rapid urbanisation, enhance their appeal, and leverage competitive advantages, current livability frameworks still present significant issues (Paul and Sen, 2017). Research indicates ongoing debate among scholars regarding livability indices, with various measures being extracted to define their dimensions (Paul and Sen, 2017). This inconsistency can lead to confusion, as different measurements may yield conflicting results. For example, a city that performs well in a specific dimension on one ranking may score poorly in the same category in another survey (Kashef, 2016). This discrepancy arises from the differing weight assigned to each domain—such as education, healthcare,

public services, social equity, transportation, natural environment, and infrastructure—depending on the survey. For instance, Melbourne was ranked first by the Economist Intelligence Unit (EIU) but placed 18th in the Mercer ranking (Kashef, 2016). Therefore, a clear challenge remains in establishing consistent standards or criteria within livability ranking tools to measure cities accurately.

Next concern is about source of data collection. Some notable indices such as Mercer Quality of Living Survey has collected data only from expatriate professionals (Okulicz-Kozaryn, 2013a), instead of adding long-life city residents who can represent true city value as they have been living in that city longer than the expatriates. Therefore, to make the measurement framework accurate, city inhabitants should be the key sample of the study (Merrilees, Miller and Herington, 2008).

The selection of Bangkok and London for this comparative study is strategically motivated by their diverse characteristics. These cities represent distinct cultural values, levels of economic development, and historical trajectories. Bangkok, as a rapidly growing metropolis in Southeast Asia, contends with challenges such as traffic congestion and social disparities (Edelman, 2022), whereas London, with its more established urban infrastructure, focuses on maintaining its liveability amidst increasing population density and environmental concerns (Crookston, 1997).

Examining such contrasting cases allows for the identification of core principles of city branding that transcend specific contexts. If similar relationships between livability and branding emerge in both cities despite their differences, this would suggest the presence of universal principles applicable to a broader range of urban environments. This comparative approach enhances the generalisability of the findings and contributes to a more nuanced understanding of the complex interplay between city livability and branding.

Both cities have adopted distinct yet overlapping approaches to enhancing liveability as part of their branding strategies. For Bangkok, the emphasis on aligning development with sustainable goals is crucial for fostering long-term urban resilience (Alderton et al., 2019). In contrast, London focuses on refining established systems to ensure continued liveability in a highly competitive global city landscape (London Recharged: Our Vision for London in 2025, 2024). Despite these differences, both cities demonstrate the

importance of integrating liveability into their branding efforts to attract residents, tourists, and investors alike. These examples illustrate the importance of urban liveability approaches in different parts of the world, highlighting how diverse cities can adapt shared principles to address their unique challenges while striving for sustainable and inclusive growth.

1.3 The research objectives and questions

According to the key issues identified in urban livability literature, this research aims to deepen the understanding of how urban livability and city branding interact. Specifically, the study will examine both the direct and indirect relationships among perceived city livability, perceived city personality, attitudes toward the city brand, behavioral intentions, and demographics (as control variables). Table 1.1 outlines the research objectives and questions that guide this investigation. The primary goal is to establish and validate a novel branding model that integrates with the city livability framework, providing insights into the connections among these factors. Additionally, the study seeks to explore how city residents perceive their city's livability through the research question, "How do city residents perceive their city livability?" Lastly, it will assess perceived city personality among residents of both Bangkok and London, with the research question, "How do city residents perceive their city personality?"

Table 1.1 Research Objectives and Questions

Research Objectives	- Examine the relationships between perceived city livability and city personality. - Assess how perceived city livability effects attitudes towards the city brand. - Investigate the connection between perceived city personality and attitudes towards the city brand. - Analyse the impact of perceived city livability on behavioural intention. - Explore how perceived city personality affects behavioural intention.

	• Evaluate the relationship between attitudes towards the city brand and behavioural intentions.
	• Examine the sequential mediation effect of perceived city personality and attitude towards the city brand on the relationship between perceived city livability and behavioural intention.
	• Develop a new framework to analyse perceived city livability among residents.
	• Investigate the perceived city personality of residents.
Research Questions	• Is there any relationship between perceived city livability and perceived city personality?
	• Is there any impact of perceived city livability on attitude towards city brand?
	• Does perceived city personality affect attitude towards city brand?
	• Is there any association between perceived city livability and behavioural intention?
	• Does perceived city personality impact behavioural intention?
	• Is there any relationship between attitude towards city brand and behavioural intention?
	• How does perceived city livability relate to behavioural intention through the sequential mediation of perceived city personality and attitude towards the city brand?
	• How do city residents perceive their city livability?
	• What are city residents' perceptions of their city personality.

Table 1.1 illustrates the research objectives and research questions of this study.

1.4 Contribution of the thesis

Regarding the research objectives, this thesis is expected to have both theoretical and practical contributions to the areas of urban livability and city branding as follows (in table 2).

Table 1.2 Theoretical and practical contributions of the study.

Theoretical Contributions	Practical Contributions
• Combining and organising the development of city livability and city branding studies. • Extend the city livability research by providing a city livability framework as a measurement tool to evaluate residents' perception towards city livability. • Adopting the brand personality framework in the city branding context. • Extend the city branding research by establishing and validating a branding model that integrate with the city livability framework.	• Providing a comprehensive measurement tool for policy makers to evaluate residents' perception towards urban livability. • Providing a new measurement tool for policy makers to evaluate residents' perception towards city personality. • Providing a new insights of city livability and city branding to make the city competitive in the global stage.

Table 1.2 illustrates the theoretical and practical contributions of the study.

Theoretical contributions include the integration of city livability and branding studies, which aims to synthesise and advance the existing literature in these fields. This thesis will provide a comprehensive framework that enhances readers' understanding of the interconnectedness of city livability and branding. Additionally, a robust city livability framework will be introduced as a measurement tool to evaluate residents' perceptions of their urban environment. This framework will encompass a holistic definition of city

livability, addressing multiple dimensions that contribute to overall quality of life. Furthermore, the research will adopt Aaker's (1997) brand personality framework within the context of city branding, enriching the theoretical foundation and allowing for deeper insights into how personality traits influence perceptions of a city. The study will also establish and validate a new branding model that integrates elements of brand personality, attitudes towards the brand, and behavioural intentions within the city livability framework. This model will illustrate the interplay between livability and branding, underscoring the necessity for cities to enhance livability across various dimensions to achieve effective branding.

In terms of practical contributions, this thesis will offer a new measurement tool designed for policymakers to assess residents' perceptions of urban livability. This tool will empower city leaders to gain a better understanding of how residents view their city's livability and to identify key areas for improvement. Additionally, the research will present a city personality measurement framework that enables city practitioners to gauge the characteristics perceived by residents. This insight will assist policymakers in understanding their city's market positioning and in planning effective branding campaigns. Ultimately, by revealing new insights into city livability and branding strategies, this study aims to equip cities with the knowledge necessary to enhance their competitiveness on the global stage. The findings will provide actionable recommendations to help cities attract residents, businesses, and tourists.

Overall, the contributions of this thesis seek to bridge the gap between theory and practice, facilitating a deeper understanding of how urban livability and city branding can collaboratively enhance the quality of life in cities.

1.5 Structure of the thesis

This thesis consists of the following chapters:

Chapter 1- Introduction: this chapter provides an outline of the thesis structure, research background, research problems, research objective and questions in order to give a direction and procedure to achieve thesis's overall purposes.

Chapter 2 – Literature Review: This chapter provides an overview of the city livability concept, defining its main dimensions and examining key aspects of the construct. Additionally, it reviews literature related to brands and branding, covering definitions, brand elements, brand personality, attitudes toward brands, the decision-making process, and the concepts of destination and city branding, including measurement frameworks for city branding. The chapter concludes by developing a conceptual framework for this study, identifying research questions aimed at addressing existing gaps in the literature based on the review of relevant studies.

Chapter 3 – Literature review part 2: this chapter consists of the bibliometric analysis that provides the understanding of scope and development of city livability and city branding studies. There are 2 bibliometric research methods using to answer the chapter's research questions: 1) Citation analysis will be used to assess the impact of articles, authors, or journals using citation rates. 2) Co-wording that a method to connect between keywords when they exist in the same title, abstract, or keyword list. Lastly, the discussion of the findings is also provided in this chapter.

Chapter 4 – Scale development and pilot study: this chapter explains the process of city livability and city branding scale development for questionnaire survey. Firstly, the 4 main constructs are illustrated. After that, the measurement scales of perceived city livability are tested the exploratory factor analysis, and all measurement scales are tested the reliability. All items were revised and considered the necessity. Finally, all selected items were set up to test the hypotheses via a survey.

Chapter 5 - Methodology: this chapter discusses the research design and the methodology of the study by being divided into three sections. The first section is the research design and illustrates the philosophical positions taken in this research. The second section discusses the research planning, which elaborates the survey design and the population and sampling procedure, as well as data process and analysis.

Chapter 6 – Research findings: the outcomes of the analysis of the survey data are thoroughly illustrated in this chapter. The first step is an explanation of the analytical approaches utilised to analyse the survey data. The internal consistency and reliability of the scales are evaluated using the coefficient Alpha (Cronbach's Alpha), which is used as a reliability test. The measurement model is then assessed the validity of each variable.

The proposed hypotheses are tested using multiple regression analysis after validating and evaluating all measures. The association both direct and indirect (mediation analysis) among perceived city livability, perceived city personality, attitude towards city brand, behavioural intention, and demographic as control variables are examined. In addition, the descriptive statistics are also provided in this chapter.

Chapter 7 – Discussion: key research findings from the research questions are highlighted and discussed by linking back to the existing literature, to show what the original findings are resulting of this research.

Chapter 8 – Conclusion: This chapter briefly summarises the study and highlights the main theoretical contributions. Moreover, there are managerial and practical implications regarding to the study are explained and, limitations of the study are also provided in this chapter.

1.6 Chapter summary

This chapter provided a comprehensive overview of the study, discussing the research background, identified issues, and gaps highlighted by secondary sources. It began with a brief history and significance of the concept of livability, presenting it as a solution for cities facing population growth and rapid urbanisation. The chapter emphasised the importance of livability concepts and rankings, which have been applied in various cities worldwide in recent years to leverage competitive advantages and influence city branding and reputation. Additionally, it examined the development of city branding, noting the growing number of studies in this area and illustrating how city branding is used as a tool to enhance competitive advantage and reputation.

The research problems section highlighted significant gaps, including the absence of research on city livability in marketing or branding journals, revealing a lack of understanding of how city livability connects with marketing. Another identified gap was the lack of an effective, comprehensive city livability framework that can encompass a full definition of livability. A third gap related to data collection issues, particularly the reliance on expatriate professionals rather than long-term residents as the primary sample, which limits insightfulness. Based on these research gaps, the objectives were defined, followed by the establishment of research questions that will guide the study in examining

both direct and indirect relationships between perceived city livability, perceived city personality, attitudes towards the brand, subsequent behavioural intentions, and demographics. The study also aims to develop a new framework for analysing city livability according to city stakeholders' perceptions in both London and Bangkok. The final section of this chapter outlined the overall structure of the thesis.

Chapter 2 Literature Review

2.1 Introduction

This section provides an overview of city livability concept and elaborates the main dimensions of the variables. Section 2.2 reviews the literature associating city livability with livability frameworks and indicators. Section 2.3 provides literature of branding, brand elements, destination and city branding, city branding measurement frameworks, brand personality, attitude towards brands, decision-making process. In section 2.4, a conceptual framework of this study has been developed. Based on the review of the relevant literatures, research hypotheses to address existing research gaps are constructed in section 2.5. Ultimately, the final section encapsulates the conclusion, incorporating all crucial content discussed throughout this chapter.

2.2 City Livability Concept

2.2.1 Sustainable development as the international agendas

The word "Sustainability" first appeared in English around 1972, associated with the system that support life on the earth (Robertson, 2014). This meaning was different from the ecological meaning of "sustainability" given by The Oxford English Dictionary that "Of, relating to, or designating forms of human economic activity and culture that do not lead to environmental degradation, especially avoiding the long-term depletion of nature resources" (Simpson and Weiner, 2009, cited in Robertson, 2014). Attaining sustainability requires a well-rounded vision that incorporates multi-dimensional indicators, illustrating the interconnection between economic, social, and cultural aspects (Evans, 2009; Rehan, 2014). Campbell (1996, cited in Maheshwari, Vandewalle and Bamber, 2011) indicates that "sustainability" is the ability of a system in operation to maintain an equilibrium of key planning goals which are 1) economic growth, 2) social harmony, employment and financial relief, and 3) environmental protection. Likewise, (Rehan, 2014) states that sustainability implies the non-renewable resources protection at an acceptable cost to benefit the society and state.

During recent years, population growth and urbanisation are continually increasing and have become more serious issues highlighted by the United Nations (UNDP, 2020). For example, there is the fact there are already half of world population living in the cities, and it is estimated two-thirds of people in the future will be living in urban settlements by 2050 with the most rapid rates of urbanisation occurring in low-to-middle income countries (Alderton et al., 2019a). In addition, there is also a big challenge of the environmental change to cities and regions all around the world even in poor cities and towns, which are suggested to take an urgent action. Otherwise, these fluctuated and unpredictable weather patterns will lead to the increasing frequency and severity of extreme events, or even extensive loss of life and environmental and economic damage (Simon, 2016). Therefore, many international agendas such as the Sustainable Development Goals (SDGs), the New Urban Agenda, and the Healthy Cities Movement have been increasing call for urban setting all around the world to health and environmental restoration (Alderton et al., 2019a).

2.2.2 Urban sustainable development

Recently, there are debates as well as research and policy agendas about sustainable urbanisation (see section 3.3.1, chapter 3). This is because of a rapid rise of urbanisation across countries and regions all around the world; now occurring in China, India and also other low- and middle- income countries (United Nations, 2018). The United Nations has developed 17 Sustainable Development Goals (SDGs) at the 2015 General Assembly in 2015, to be the "Global Goals which has been adopted by all 193 United Member States. The main purpose is to call for action to resolve poverty, protect the world, and to make sure that would population will be enjoy peace and prosperity by 2030 (Sustainable Development Goals: UNDP, 2020). This SDGs contains of 17 goals as follows: 1) No Poverty, 2) Zero Hunger, 3) Good Health and Well-being, 4) Quality Education, 5) Gender Equality, 6) Clean Water and Sanitation, 7) Affordable and Clean Energy, 8) Decent Work and Economic Growth, 9) Industry, Innovation and Infrastructure, 10) Reducing Inequality, 11) Sustainable Cities and Communities, 12) Responsible Consumption and Production, 13) Climate Action, 14) Life Below Water, 15) Life On Land, 16) Peace, Justice, and Strong Institutions, and 17) Partnerships for the Goals (United Nations, 2015).

A key factor that makes urban issue more significant is the specific urban development goal; SDG number 11 which aims to make cities and human settlements inclusive, safe, resilient and sustainable. To clarify, according to the statement of sustainable development goal number 11, making cities sustainable means to create career and business opportunities, safe and affordable housing, as well as to build up resilient societies and economies. Moreover, this goal also includes investment in public transport, creating green public spaces, improving urban planning and management by getting a broader range of people involved in urban planning decisions (United Nations, 2015).

Apart from the United Nations Sustainable Development Goals, there are some previous literatures focusing on sustainable cities. According to Simon (2016), sustainable cities or towns always have three central dimensions within: 1) they should be accessible. This refers to freedom or ability to get any kind of products and services, as well as having opportunities of various kinds to facilitate human well-being in basis, 2) they should be green. It means the ecosystem services approach to value city natural assets within urban areas, and also including the imperative of addressing climate change issues and reducing natural disaster risk. 3) they should be fair. To meet the global sustainable developmental aspiration, the cities need to be fair. It means that cities must provide fairness to their people in terms of urban equity (rights, opportunity, access, and affordability), justice (electoral, procedural, distributional, and enforcement), and redistribution (urban welfare). It is observable that both of UN's sustainable urban development goal and Simon (2016)'s statement have common elements such as opportunities, affordability, green public spaces development. However, the UN's sustainable urban development goal has not included or directly mention the fairness of the city such as human rights, justice, redistribution, etc., except citizen participation like city planning involvement.

2.2.3 The rise and the definitions of urban livability

According to Paul and Sen (2020), more than 50 percent of the world population is living in urban areas, they observe this as a global phenomenon which is the rising trend in urbanisation. The United Nations also shares the data that the urban population is estimated to increase by 68 percent in 2050 (The United Nations Department of Economic and Social Affairs, 2021).

In order to respond to the growth population, rapid urbanisation, and climate change issues raised by the United Nations, creating "Livable cities" has become a policy for multiple levels of government across the world (OECD, 2017; Higgs et al., 2019a). The concept of city livability, as we have used in both academic and practical contexts until today, first appears during 1950s in the political activity, in Vancouver, Canada (Mansour, 2016). In 1980s the livability term became a "catchphrase" in urban studies because Donald Appleyard introduced this word in his book named "Livable Street" (Appleyard et al., 1981). Recently in 2019, this word became even more popular and got greater attention when the New Partnership for Sustainable Communities (PSC) set the livability guideline principle (Paul and Sen, 2020). The Partnership for Sustainable Communities, formed under the Obama Administration to integrate affordable housing, transportation, and environmental considerations into policies and funding. Its goal is to support communities in providing housing choices, improving transportation efficiency, and fostering vibrant neighborhoods that attract businesses (Partnership for Sustainable Communities, 2024). Zhan et al. (2018) observe that the policy makers and urban practitioners have considered the city livability idea from an urban sustainability viewpoint (Zhan et al., 2018). As a result, the city policy makers and other advocacy groups suggest that livability approaches can be the elementary standard to deeply access the living standards of cities across the globe (Paul and Sen, 2020).

In Australia, the Urban Livability program was implemented in 2008 (Badland et al., 2015) across various levels and regions, encompassing initiatives like the Federal Government's Nation Cities Performance Framework, the State of Victoria's Melbourne plan, and the Livability Plan in Cardinia Shire, supported by the United Nations Global Compact – Cities Programme (UNGCCP)(UNGCC, 2024). The UNGCCP serves as the urban division of the UN Global Compact, overseen by an International Secretariat hosted by RMIT University since 2007 (Alderton et al., 2019). Collaborating with the UN Global Compact's network of city members, the program aims to advance equitable, inclusive, sustainable, and resilient cities and societies in alignment with the UN Sustainable Development Goals (SDGs) (UNGCC, 2024).

Bangkok, Thailand, demonstrates a comparable initiative as the Bangkok Metropolitan Administration (BMA) actively tackles the UN Sustainable Development Goals (SDGs). In 2017, the BMA, in collaboration with The Royal Melbourne Institute of Technology (RMIT University) and UNGCCP, adopted the Urban Livability Framework as a key

component of Bangkok's 20-year development plan (Alderton et al., 2019). This initiative aims to enhance the livability of Bangkok.

When it comes to the definition of city livability, the definition of city livability may differ from one culture to others, as well as it is changeable from time to time (Khorrami et al., 2020). This is because the livability concept depends on place, time, and purpose of the assessment. Khorrami et al. (2020) find that the livability is an ensemble concept because there is no universal agreement upon the definition. Likewise, Higgs et al. (2019) observe that despite the large use of livability concept, it is rarely explicitly defined. The scope of livability can be broad or narrow, depending on the contexts, organisations, and authorities around the world which usually have their own definitions (Khorrami et al., 2020).

City livability can be simply defined as "Best place to live" (Okulicz-Kozaryn, 2013a). However Webster dictionary defines that it is "suitability for human living". Okulicz-Kozarync (2013) clarifies that livability means quality of life, standard of living or general well-being of a resident in place such as a city. Therefore, according to Okulicz-Kozaryn (2013)'s definition, people who are living in a livable city are supposed to be happy.

Given the novelty of the urban livability policy domain, there are divergent perspectives on what should fall under its extensive umbrella. The debate revolves around whether it should be narrowly defined as stability for human living or broadened to encompass social wellbeing and healthcare considerations (Zanella, Camanho and Dias, 2014). Additionally, the city livability is multi-dimensional and hierarchical, as well as contains of diverse criteria and sub-criteria which can be determined in various ways. During the initial phase of livability research in the 1990s, researchers predominantly focused on investigating physical amenities and facilities. However, with the advent of globalisation and liberalisation, there has been a shift towards recognising the socio-economic impacts associated with increasing urbanisation (Paul and Sen, 2020). Balsas (2004) also suggests that livability is a holistic paradigm of community well-being and human development which are based on both physical-environmental and cultural dimensions of cities and their associated regions.

Many scholars or organisations explain the livability approaches based on their perspectives and contexts of their research. For example, Clinton Livability Agenda

defined this term in 1999 as a best practice which can encourage communities to maintain green space, eco-friendly transportation choices and sustain regional intelligent growth policies for the sustainable future (Clinton-Gore Livability Agenda, 1999). Another explanation is from the Australian Bureau of Statistics (2012), it is strongly associated to well-being and can also be used in a collective context to define how well cities meet the requirements and the needs of their people (Paul and Sen, 2017).

The Department of Infrastructure and Transport, Australian Government in the 2011 State of Australian Cities Report page 139 defined the urban livability as "the degree to which a place supports quality of life, health and wellbeing. In broad terms, livable cities are healthy, safe, harmonious, attractive and affordable (State of Australian Cities 2011, 2021). They have high amenity, provide good accessibility and are environmentally sustainable". Although this definition has been developed and used by the Australian government at all levels, Higgs et al. (2019) argues that it is not explicitly defined. Therefore, they decided to develop a more comprehensive definition according to the extant literature reviews as "urban livability is a community that is safe, attractive, socially cohesive and inclusive, and environmentally sustainable; with affordable and diverse housing linked by convenient public transport, walking and cycling infrastructure to employment, education, public open space, local shops, health and community services, leisure and cultural opportunities". Likewise, Jomehpour (2015) states that livability is the sum of the socio-physical and socio-cultural. It is obviously seen that Higgs et al. (2019)'s definition is more clear and can reflect social of health and well-being, as well as cultural determinant.

Comparing to the concept of sustainability which incorporate with three main dimensions: social, economic and environmental sustainability, Bijl (2011) observes that the livability concept overlaps the sustainability concept as it is mainly concerned with human well-being, future life, and society as a whole. Besides, both of sustainable and livable urban planning have the same purposes, which aim to generate co-benefits across the urban planning, public health and environment sectors (Lowe et al., 2015b), Nevertheless, Maheshwari, Vandewalle and Bamber (2011), as well as Langemeyer et al. (2021) explain that sustainability has a longer term and wider perspective (global level) than livability which is usually more detailed and localised to real city implementation.

In conclusion, the urban livability is the potential ways to minimise environmental, economic, social and human well-being issues which are considered as the global priority noticed by the United Nations. These issues are also the consequences of the rapid urbanisation occurring in cities around the world. Hence, with the great support of the organisation like the United Nations, together with the engagement of state and local governments, it is certain that the urban livability development programme will be more a solid core of urban planning at any levels of city administrators.

2.2.4 The Livability frameworks and Indicators

Livability frameworks and indicators are very useful in practice, as a guideline for city policy makers and for monitoring progress towards achieving policies, as well as enhancing connection and engagement between government and community or private sectors (Lowe et al., 2015a). Like any other city development frameworks, there is a wide range of indicators related to urban livability ranging from social, economic, physical to environmental factors (Khorrami et al., 2020). Farber et al. (2013) explain that the livability dimensions always involve many complex characteristics, urban patterns, and forms. Therefore, Khorrami et al. (2020) conclude that there are three elements that should be interconnected; 1) the urban form and environment, 2) the economic values, and 3) social sustainability. Moreover, it is suggested that the livability indicators should be simple, elegant, effective, sensitive to change, conceptually sound, understandable, unambiguous, measurable and verifiable (in a standardised way), objective and drawn upon data that is easy to obtain and exist (Khorrami et al., 2020).

This section reviews eight existing livability measurement approaches; namely, the Mercer Quality of Living (2009), the Organisation for Economic Co-operation and Development (OECD)'s Better Life Index (2011), The Livability Assessment Model created by Zanella, Camanho and Dias (2014), Lowe et al. (2015)'s livability framework, The Economist Intelligence Unit (2015), The American Association for Retired Person (2015)'s index, Higgs et al. (2019)'s livability index, and Urban Livability Index for a low-to-middle income country (2019). These indices have been selected because they are relatively recent (between 2009 and 2019), as well as these well-known models were frequently cited in many urban livability publications (Khorrami et al., 2020; Paul and Sen, 2020). Consequently, with this critical review, all key livability dimensions will be

identified and extracted, to construct the city branding framework for urban livability in the further process.

Table 2.1 Comparision of livability framework

Dimensions / Frameworks	Lowe et al. (2015)	Higgs et al. (2019) Urban livability Index	Zanella, Camanho and Dias (2014)'s livability assessment model	Urban livability index for a low-to-middle income country (2019)	The Economist Intelligence Unit 2019 (EIU) (2015)	Mercer's quality of living (2009)	The American Association for retired person (AARP)'s index (2015)	The Organisation for Economic Co-operation and Development (OECD) conducts the Better Life Index (BLI) (2011)
Stability	Crime and safety	N/A	N/A	Safety	Prevalence of petty crime Prevalence of violent crime Threat of terror Threat of military conflict Threat of civil unrest/ conflict	Political and social environment	N/A	Safety
Healthcare	Health and social services	N/A	Human health	Health	Availability of private healthcare Quality of private healthcare Availability of public healthcare Quality of public healthcare Availability of over-the-country drug General healthcare indicators	Medical and health consideration	Healthcare (Prevention, access, and quality)	Health
Cultural and Social	Social cohesion Leisure and culture Food and other local goods	Social infrastructure	Culture and leisure	Sense of community Work-life Balance Passive recreation Green space pocket parks Access to temple, museum and music Local amenities	Level of corruption Social and religious restrictions Level of censorship Sporting availability Consumer goods and services Cultural availability	Recreation Consumer goods Sociocultural environment	Neighbourhood (Access to life, work, and play) Engagement (Civic and social involvement)	Civic engagement Community Life satisfaction Work-life-balance
Environment	Public open space Natural environment	Housing Green infrastructure Ambient environment	Air pollutions	Air quality Tree canopy coverage Drinking water Food quality Green space pocket parks	Humidity/ temperature rating Discomfort of climate to travellers Food and drink	Natural environment	Environment (Clean air and water)	Environment
Education	Education	N/A	Education	Education	Availability of private education Quality of private education Public education indicators	Schools and education	Opportunity (Economic and education)	Education
Infrastructure	Transport Housing	Walkability Transport	Solid waste Housing quality Accessibility and transportation	Water quality and pollution Flooding Waste management Sewerage Access to fuel Housing affordability Mass transit availability Public	Quality of road network Quality of public transport Quality of international links Availability of good quality housing Quality of energy provision Quality of water provision	Public services and transportation Housing	Housing (Affordability and access) Transportation (Safe and convenient options)	Housing

				transportation network Traffic congestion Local employment opportunities	Quality of telecommunications			
Economic	Employment and income	Employment	Economic and social development	Job security Opportunity to earn a faire wage	N/A	Economic environment	N/A	Income Jobs

Table 2.1 compares eight livability assessment models by looking at their indicators which can be categorised into seven dimensions; Stability, Healthcare, Cultural and Social, Environment, Education, Infrastructure, and Economic.

As we can see from the table 2.1, there are eight important livability frameworks created between 2011 and 2019. Firstly, Lowe et al. (2015) identified livability indicators across 11 policy domains, encompassing a wide range of aspects. In the domain of 1) Crime and Safety, the focus is on perceptions of safety, rates of crimes against property and individuals. 2) Transport, considerations include infrastructure accessibility, quality, layout, travel times, car ownership, parking, connectivity, safety, and traffic noise. 3) Housing involves aspects such as housing quality, affordability, density, land use mix, residential population, housing stock, and tenure. 4) Employment and Income domain incorporates considerations of income, income distribution, employment rates, job availability, and types of jobs locally. 5) Social Cohesion and Local Democracy cover community participation, membership, a sense of belonging, social support, volunteering, diversity acceptance, community pride, and connectedness. 6) Public Open Space is a domain focusing on access to, quantity, quality, and frequency of use of public open spaces. 7) Leisure and Culture considerations relate to the access and presence of cultural and leisure activities. 8) Health and Social Services, the indicators encompass distance to General Practices, access to various services, aged-care facilities, hospital beds, and public amenities. 9) Natural Environment dimension includes water and air quality, greenhouse gas emissions, water conservation, precipitation, climate, biodiversity, and energy consumption. 10) Education covers aspects such as access to education, formal educational opportunities, rates of secondary-school student retention, and internet access. Finally, 11) Food and Other Local Goods involve considerations of access to different types of food and shops, food prices, food security, and local retail activities. These indicators were derived from an extensive review of 336 academic paper. Notably, "crime and safety" emerged as the most studied theme, with 43 papers, followed by "transport" and "housing" with 38 and 35 papers, respectively. Conversely, the least studied dimension was "food and other local goods" with only 22 research articles.

When it comes to the second city livability framework, in 2019, Higgs et al. introduced the urban livability index, constructing a framework rooted in existing literature and empirical evidence, including the Australian health and well-being dataset. Their goal was to establish a measurement model aligned with urban planning policies, evaluated at appropriate geographic scales to minimize ecological bias, and linked to health and well-being outcomes. Essentially, this model is intended for use in informing and assessing urban planning policies. The urban livability framework by Higgs et al. comprises seven domains: 1) Transport, focusing on access to public transport; 2) Social Infrastructure, encompassing education, sport, recreation, culture, leisure, community centers, and health and social services; 3) Employment, addressing local work opportunities; 4) Walkability, concerning neighborhood street connectivity; 5) Housing, emphasizing affordable housing; 6) Green Infrastructure, considering the distance to public open spaces and their number and size; and 7) Ambient Environment, indicating air quality and pollution in the city. These indicators, as asserted by the researchers, align with the Sustainable Development Goals (SDGs), particularly goal number 11: sustainable cities and communities. The model has undergone testing in a real city planning case, specifically Melbourne, Australia, and there are plans to expand its application from the starting city, Melbourne, to other Australian cities, forming a national livability index (Lowe et al., 2015).

The urban livability assessment model, developed by Zanella, Camanho, and Dias in 2014, was designed to gauge city livability in European cities. Comprising two primary components, namely Human Wellbeing and Environmental Impact, the model draws on dimensions derived from prior literature reviews. The researchers contend that their model lays the groundwork for constructing a conceptual model featuring key indicators representative of the livability concept. Utilising data from the Urban Audit project—a collaboration between the European Commission and Eurostat—the researchers selected 24 key indicators from over 300, focusing on amenities quality related to specific livability dimensions. These selected indicators span eight domains, encompassing Housing Quality, Accessibility and Transportation, Human Health, Economics and Social Development, Education, Culture and Leisure, Solid Waste, and Air Pollutants. Employing Data Envelopment Analysis (DEA) as a linear programming technique, the researchers evaluated the relative efficiency of 120 European cities in utilizing multiple inputs to produce multiple outputs. The results indicated performance scores varying from 0 (best performance) to 0.218 (worst performance), with an average score of 0.066.

Notably, 34 cities, predominantly German, achieved the highest score, suggesting no potential for improvement. The study's temporal scope covers the years 2007 to 2010, with DEA-based CI models revealing correlations between environmental and human well-being components. The authors assert that their measurement framework serves as a valuable tool for assessing city livability, identifying areas for improvement, and establishing benchmarks for practitioners to enhance the livability of their cities.

The fourth city livability framework is The urban liveability for a city in a low-to-middle-income country: a case of Bangkok, Thailand. In collaboration with the UN Global Compact – Cities Programme, the Victorian Department of Health and Human Services, and RMIT University in Australia, the BMA launched a three-year research project starting in May 2017. This project aimed to define urban livability in the context of Bangkok, establish a Livability Working Group, identify indicators aligned with the UN SDGs, and address core issues for BMA's implementation of a Pilot Bangkok Livability Framework. The framework, comprising 24 indicators, covers various aspects such as water and air quality, housing affordability, employment opportunities, traffic congestion, safety, education, and health. Notably, the BMA plans to integrate this framework into its 20-year development plan, serving as a guideline for city departments and district offices to enhance the city's livability and sustainability.

Another index to consider is the Global Livability Index developed by the Economist Intelligence Unit (EIU) in 2015 (The Economist Intelligence Unit (EIU) and Economist Intelligence Unit, 2018). This index ranks all 140 cities every year on over 30 qualitative and quantitative factors across the 5 categories: 1) Stability, 2) Healthcare, 3) Culture and environment, 4) Education, and 5) Infrastructure, enables direct comparisons between cities. Each city is assigned a relative comfort rating based on qualitative and quantitative indicators, categorizing factors as acceptable, tolerable, uncomfortable, undesirable, or intolerable. The COVID-19 pandemic has impacted living conditions globally, particularly in healthcare, culture and environment, and education. To reflect this, new indicators measuring stress and restrictions levels have been introduced, including healthcare resource strain, limitations on events, and restrictions on various activities. These new indicators influence existing healthcare, culture and environment, and education ratings. The overall livability score, ranging from 1 to 100: where 1 is intolerable and 100 is ideal (The Economist Intelligence Unit, 2024).

Next, the oldest but most well-known is Mercer's quality of living model which was constructed in 2009 by the Mercer Asset Management Company (Mercer, 2024). The MERCER, a city ranking survey utilising the Mercer Index is published every year. Widely recognised, the Mercer survey is among the most popular tools for assessing and ranking cities based on their livability or standard of living (Okulicz-Kozaryn and Valente, 2019). This assessment contains of 10 indicators which are 1) Political and social environment, 2) Medical and health consideration, 3) Recreation, 4) Consumer goods, 5) Sociocultural environment, 6) Natural environment 7) Schools and education 8) Public services and transportation 9) Housing, and 10) Economic environment.

Another approach is from the American Association of Retired Persons (AARP), it is a public institute which created the livability index for the American cities in 2015. This framework mainly focuses on creating the livable communities in the United States through 7 main indicators: which are 1) Healthcare (prevention, access to life, and quality), 2) Neighbourhood (access to life, work, and play), 3) Environment (clean air and water), 4) Engagement (civic and social involvement), 5) Opportunity (economic and education), 6) Housing (affordability and access), and 7) Transpportation (safe and convenience options) (Lynott et al., 2018). Followed by the last framework, the Organisation for Economic Co-operation and Development (OECD)'s Better Life Index which was created in 2011 (OECD, 2021). This framework measures livability based on 11 social-economic factors: 1) Safety, 2) Health, 3) Environment, 4) Civic engagement, 5) Community, 6) Life satisfaction, 7) Work-life-balance, 8) Education, 9) Housing, 10) Income, and 11) Jobs (Paul and Sen, 2020).

Although these frameworks are widely accepted and used to measure livable cities, if considering carefully, it can be found that using just one measurement framework does not cover the definition of the city livability. For example, Higgs et al. (2019)'s urban livability framework does not have any stability and healthcare indices, or the American Association of Retired Persons (2015)'s framework also does not have the security and economic indices. Higgs et al (2019) conclude that the current city livability frameworks have been unclear. This is the reason why the researcher needs to review and combine various settled frameworks, in order to create the holistic and comprehensive city livability framework to measure the city livability.

After reviewing all selected livability frameworks, there are 108 indicators in total which can be categorised into 7 main dimensions; which are 1) Stability that refers to safety,

crime and political environment, 2) Healthcare which indicates the quality of healthcare and services, 3) Environment, this dimension refers to the natural environment 4) Cultural and social which indicate leisure, culture, community and civic engagement, 5) Education, which means quality and availability of education, 6) Infrastructure, it indicates availability and quality of housing, public services, waste and energy management, and transportation, and 7) Economic which refers employment and opportunity. All 7 identified groups are considered to be the key livability dimensions for the livable city measurement framework. The generation of the items is available in section 4.3 and table 4.1 in the pilot study and scale development, chapter 4.

2.3 Branding and City branding concepts

2.3.1 Branding and City Branding definitions

There are plenty of discussions about the definition of brand and it has been likely shifted all the time, as it has a long journey through different ages. Going back to the root of all branding activities, Bastos and Levy (2012) observe that branding is used to create a personal and social identity for 3 main reasons; 1) to be a part of community (to belong), 2) to differentiate themselves, and 3) to have a good reputation, by using sign and symbol as essential ingredients. They also point out that branding activities have been practiced since the early bronze era, in the Ancient Egypt in 2700 BCE and the Indus Valley or Harapan civilization between 2250 and 2000 BCE, it has been over 4500 years ago as oxen and slaves were marked to identify an ownership (Moore and Reid, 2008).

Even marks have been used in span of thousand years, trademarks as people are using today, are created in a nineteenth-century. There is a common agreement among legal historians and business historians that the current forms of trademarks emerged only in the nineteen-century when a defensible property right in marks are sufficient for the emergence of modern marketing tasks, and France can be good example as it is the earliest country to establish the system of trademark registration in 1803 (Lopes and Duguid, 2013). Mercer (2010) explains the difference between trademark and brand that the former is the tangible item of intellectual property – logo, name, design or image – on which the brand rests. But brands also incorporate intangibles such as identity, associations, and the personality. However, Lopes and Duguid (2013) define brand as "a name, term, symbol, or design (or combination of these) used by a firm to identify its

good or services and differentiate them from the competition" and indicate that trademark is an extension part of brand which can legally register to gain protection. This brand definition is similar to those given by marketing resaerchers such as Aaker (1991, cited in Kapferer, 2008), Jeon (2017), and the old definition of brand defined by the American Marketing Association (AMA) in 1960; it could be the most widely cited definition (Kladou et al., 2017). Given this point, the definitions which are defined by all authors mentioned above, can be classified brand as the physical elements, as they all emphasis the use of name, logo, or any symbol to identify product or service and distinguish it from competition.

Despite the popularity of the American Marketing Association (AMA)'s definition in 1960 which defined brand as "A name, term, design, symbol, or a combination of them, intended to identify the goods of one seller or group of sellers and to differentiate them from competitors" (The American Marketing Association, 1960), Keller, Apéria and Georgson (2012) argue that it is outdated definition. More importantly, Kladou et al. (2017) point out that the biggest drawback of the AMA's old definition is it excessively emphasis on the elements of name, term or sign. In the different view, Gordon (1999), cited in Kladou et al. (2017) highlights the emotion, association, personality and value and sees brands as "products or services which people attach to a pack of tangible (functional), and intangible (emotional and symbolic) meanings that always come with values."

These given definitions can be categorised as the intangible feature-led meaning. However, in 2007, the American Marketing Association (AMA) has redefined the meaning of brand as

"A brand is a name, term, design, symbol or any other feature that identifies one seller's good or service as distinct from those of other sellers." (The American Marketing Association, 2007). This would make the AMA's definition broader and can be classified as both of tangible and intangible-led meanings.

The new definitions given by the American Marketing Association (AMA) in 2007 (The Definition of Branding, AMA, 2020), it can be used in the city branding context. This is because their definitions have directly mentioned about intangible and emotional values, which are linked to the fact that the city has attributes both tangible (constructions, buildings, roads. Etc.) and intangible (values, information, knowledge, image, identity,

culture. Etc.) that are perceived by stakeholders whether in a positive or negative way (Oguztimur and Akturan, 2016).

For the city branding terminology, Anholt (2005) comments that a significant limitation within the literature on city branding is the evident absence of consensus and clarity regarding definitions and terminology. It is apparent that various concepts such as destination, place, urban, and city branding are frequently used interchangeably, contributing to the overall ambiguity in this field (Oguztimur and Akturan, 2016, p.357). Therefore, this section will review the definition of destination, place, urban, and city branding, as well as highlight the differences between them. In fact, there is no common agreement on what destination brand is (?) (Gertner, 2011, cited in Kladou et al., 2017). More importantly, there is a shift in the definition of destination brand over time (Kladou et al., 2017).

To begin with the definition of destination branding, it can be seen that the study on destination image started by Hunt in 1975 and this study explains the relevance of destination image in the tourism development, as the image is an antecedent and also an important factor of destination branding (Hunt, 1975). Then in 1998, branding theories in the context of tourism appeared as the main topic of the Annual Travel and Tourism and Research Association's conference (Hanna and Rowley, 2008). In the same year, the earliest definition of destination branding was given by Ritchie and Ritchie (1998, p.103). They use the concept of 'destination brand' (for the first time) and define it as "a name, symbol, logo, word mark or other graphic that identify and differentiate the destination".

They also observe that the symbols and logos of the destination can significantly make the promise of a tourism experiences that will be memorable and that it will be concerned with the particular destination only. Despite their observations, do not include the word "tourism" or "experience" in the definition. In addition, there is a study on destination branding showing that it is generally understood as 'the communication of the distinctive and unique destination identity in order to differentiate it from its competitors' (Blain, Levy and Ritchie, 2005). However, Hanna and Rowley (2008) develop new definition for destination branding in 2008 as "name, symbol, logo, word or other graphic that both identifies and differentiates the destination…[while] convey[ing] the promise of the memorable travel experience…[as well as] serv[ing] to consolidate and reinforce the recollection of pleasurable memories of the destination experiences".

This definition could be considered as a completed version for destination branding as it includes destination and travel experiences which Ritchie and Ritchie (1998) observed. Lastly, Qu et al. (2011) suggest that unlike product brands, destination brands include a complicated variety of both tangible and intangible entities that represent them, ranging from historical site or national geographies to culture, traditions and history.

It can be concluded that destination branding is established from tourism marketing and always refer to the efforts to increase the number of tourist and tourist visit, and destination can be anything from big geographical scale like nations, regions, cities, or small scale such as resorts (Sundaram, cited in Hanna and Rowley, 2008). In other words, the form of geographical entity does not limit the scope of destination branding (Anholt, 2005).

When it comes to place branding, Lucarelli and Olof Berg (2011) indicate that place branding is like an umbrella encompassing nation, region, and city branding. Therefore, it can be defined as "the practice of applying brand strategy and other marketing techniques and disciplines to the economic, political and cultural development of cities, regions and countries" (Ashworth and Kavaratzis, 2009)."

From this definition, place branding is similar to destination branding in terms of unlimited geographical scope. However, both of them are conceptually different; while destination branding is only explained and implemented in tourism dimension, place branding can be used in broader dimension ranging from tourism, economic and business investment, sustainable urban development, to cultural social policies, as well as dealing with various type of audiences or stakeholders such as tourists, investors, residents and etc. (Kumar and Panda, 2001).

Considering to the definition of place branding, the city branding undoubtedly have the same function as place branding, but it is a smaller scale; being restricted to the specific scope of city area, as it is defined as "the purposeful systembolic embodiment of all information connected to a city in order to create association around it" (Lucarelli and Olof Berg, 2011)"

Moreover, due to the similar function to the place branding as well as the same multidisciplinary of science, it is certain that the audiences or stakeholders can be unavoidably as board as in place branding. These multiple stakeholders can be residents, businesses, tourists, investors and any supporters of the environments (Merrilees, Miller and Herington, 2012). Also, it can be implemented as a strategic tool to provide cities with a source of economic, political and culture value (Kavaratzis, 2004). Table 2.2 below delineates various concepts encompassing destination brand, place branding, city branding, as well as nation and region branding.

Table 2.2 The comparison of destination brand, place branding, and city branding concepts.

	Specific Audience	Inclusive Audience
Different Scales	Destination Branding	Place branding
Specific Scale	None	City branding Nation Branding

These concepts (in table 2.2) differ notably in terms of geographical scope, spanning different scales (applicable to villages, towns, cities, or nations) or specific scales (exclusive to cities or nations). Additionally, they vary in the stakeholders involved, targeting specific audiences (tourists) or inclusive audiences (residents, visitors, or business investors)

Form the given information in the table, it can be seen that while the destination branding has a specific audience; namely tourists, it the concept however can apply to any scope of areas such as countries, regions, cities, districts or even communities (VanHoose, Hoekstra and Bontje, 2021). In contrast, although place branding concept can be applied freely at any areas like the destination branding, its audience is wider. When it comes to the city branding, which can be implemented to various stakeholders, but it is limited to a particular area, only city.

2.3.2 Lack of City Branding Research in Relation to City Livability

City branding has become a key focus for urban authorities, as cities increasingly seek to differentiate themselves and attract residents, businesses, and visitors. However, a critical

aspect—city livability, which reflects residents' quality of life—appears to be underexplored in much of the city branding literature. Despite the acknowledged importance of livability in enhancing a city's attractiveness, many studies tend to prioritise other objectives such as economic growth, tourism, and investment, often overlooking the resident-centric perspective that city livability encompasses. The articles reviewed here were chosen to highlight this gap, each shedding light on how city branding research has either indirectly referenced or largely overlooked livability as an integral element. This section critically examines these studies, identifying how city branding discourse has evolved and where it falls short in addressing city livability as follows:

2.3.2.1 City Branding: Theory and Cases (Dinnie, 2011)

Dinnie's City Branding: Theory and Cases (2011) underscores the increasing importance of livability in city branding, noting that contemporary city branding practices now include green spaces, sustainable infrastructure, and quality of life considerations. These elements demonstrate an emerging awareness of livability as a significant aspect of branding strategies. However, while the book implies that livability is a valuable component, it does not delve into the concept comprehensively. Instead, it selectively touches upon aspects of livability without providing a holistic view. This approach suggests that while city branding practitioners are recognising certain livability elements, they may lack an integrated framework that truly represents livability as experienced by residents. Thus, the treatment of livability remains piecemeal, highlighting the need for further exploration into how a city's overall livability can be effectively incorporated into its branding.

2.3.2.2 City Branding Research and Practice: An Integrative Review (Green et al., 2016)

In City Branding Research and Practice: An Integrative Review (2016), Green et al. trace the evolution of city branding research from image-focused approaches to more recent, holistic perspectives that account for sustainability and citizen well-being. Although the article does not explicitly state that past research has neglected city livability, it provides valuable insights by documenting how early branding studies may have prioritised projecting a certain image over addressing residents' lived experiences. The authors discuss a "critical wave" in city branding research, which questions ethical considerations

and power dynamics in branding, including the potential for branding strategies to create inequalities or displace communities. This shift towards a more inclusive, ethical perspective indirectly suggests that earlier studies may have underemphasised livability factors in favour of external impressions. Therefore, while Green et al. do not directly state that livability has been overlooked, their review indicates an evolving understanding of city branding that increasingly includes elements of livability.

2.3.2.3 Place Branding: A Systematic Literature Review and Future Research Agenda (Swain et al., 2023)

Swain et al.'s Place Branding: A Systematic Literature Review and Future Research Agenda (2023) provides a broad overview of place branding, including cities, regions, and communities. While it does not directly demonstrate that previous studies have neglected city livability, the review reveals a predominant focus on economic growth, tourism, and attracting investment—objectives that centre on external audiences like tourists and investors. This external orientation implies that the internal audience—residents, and by extension, their quality of life—is given less priority, indirectly suggesting an oversight of livability in city branding discourse. The study highlights how place branding has often prioritised the attraction of visitors over enhancing resident well-being, which is a core component of livability. By focusing on these external factors, Swain et al. imply that there is a need for future research to address city branding from a resident-focused, livability-oriented perspective.

2.3.2.4 Place and Destination Branding: A Review and Conceptual Mapping of the Domain (Hanna et al., 2020)

The structure and content of Hanna et al.'s 2020 study focus on city branding as a tool to attract tourists and investors, with an emphasis on promoting economic development. While these elements are undeniably important to place branding, the relative absence of livability considerations highlights a potential gap in past research. Hanna et al. suggest that a more resident-centred, holistic approach to city branding is needed, one that values livability as a core component for long-term sustainability and success. Addressing this gap in future research could help establish a more comprehensive understanding of place branding that not only attracts external audiences but also prioritises residents' quality of life.

2.3.2.5 City Image, City Brand Personality, and Generation Z Residents' Life Satisfaction Under Economic Crisis (Priporas et al., 2019)

Priporas et al. (2019), in City Image, City Brand Personality, and Generation Z Residents' Life Satisfaction under Economic Crisis, specifically examine the relationship between city image, brand personality, resident satisfaction, and social media engagement. Although the study does not directly address city livability, its focus and acknowledged limitations suggest that livability may not have been comprehensively addressed in prior research. The article's emphasis on image and personality aspects of city branding, especially in a generational context, highlights gaps in understanding how livability factors into overall resident satisfaction. While the study offers useful insights into brand image and resident satisfaction, it falls short of fully addressing the broader concept of livability, underscoring a need for further exploration of how livability shapes city brand perceptions.

2.3.2.6. Synthesis of City Branding Literature (1988–2014) as a Research Domain (Oğuztimur & Akturan, 2015)

Oğuztimur and Akturan's article "Synthesis of City Branding Literature (1988–2014) as a Research Domain (2015)" offers an in-depth review of city branding studies but does not explicitly state that livability has been overlooked. Nonetheless, their analysis reveals a predominant focus on drivers like tourism and economic growth, indirectly suggesting that livability factors have been underemphasised. The review identifies prevailing research trends but does not thoroughly address quality of life or resident satisfaction, which are central to livability. This omission reinforces the idea that previous research has largely concentrated on external branding factors, overlooking how city branding impacts residents' daily lives and experiences.

In reviewing these articles, it becomes evident that while city branding research has evolved to include more resident-focused elements, there remains a considerable gap in addressing city livability comprehensively. Most studies focus on external factors like tourism, investment, and economic growth, often sidelining resident-centric perspectives essential to city livability. Although there is an emerging recognition of livability aspects, as seen in Dinnie (2011) and Green et al. (2016), city branding research has yet to fully incorporate a holistic approach that includes resident satisfaction, quality of life, and long-term sustainability. Addressing this gap could enhance city branding's relevance, creating

strategies that not only attract visitors and investors but also improve livability for residents, ultimately fostering more sustainable and vibrant urban communities.

2.3.3 The Importance of Brand Measurement

Brand equity is a cornerstone of marketing and branding, representing one of the most valuable assets for firms (Christodoulides et al., 2015). It enables competitive advantage, financial security in the form of future cash flows, and growth in shareholder wealth (Keller, Apéria, and Georgson, 2012). Consequently, successful firms consistently monitor their brand performance to understand the nature and value of their brand equity (Drugan, 2014).

Similar to corporate brands, place brands aim to attract and retain customers or stakeholders, thereby reinforcing the success of a city (Kotler and Levy, 1969). However, Trueman et al. (2001) argue that an in-depth analysis of city branding must account for a broad range of stakeholders, including local businesses and the community. While research on place branding has expanded, particularly within tourism contexts, Acharya and Rahman (2016) suggest that evaluating brand equity specifically in relation to residents requires greater focus. Although studies have explored brand equity from tourism and visitor perspectives (Konecnik and Gartner, 2007; Jacobsen, 2012), place brand equity among residents remains an area for further research. Merrilees et al. (2008) assert that including city residents as a primary sample group yields more deeper insights into city branding.

2.3.4 The Development of City Brand Measurement Concepts and Tool

The growing need to evaluate city brands has been well acknowledged (Here et al., 2018). However, a cohesive framework to measure city brands remains underdeveloped, with significant gaps and limitations in existing models (Benedek, 2017). Despite recent advancements, finding a model that thoroughly captures city brand attributes remains a major challenge. To explore these concepts and identify potential areas for conceptual enhancement, this section reviews notable city brand evaluation models that have recently been cited in city branding literature (see Table 2.3).

Table 2.3 The comparison table of the city branding measurement frameworks

Measurement tools	Authors	Year of publication	Samples	Methods	City brand parameters	Contributions	Limitations
The Anholt-GMI City Brands Index	Simon Anholt (ACBI) (Anholt, 2006)	2006	17,502 from 30 different cities in 18 countries	Quantitative approach: online survey	• People • Place • Potential • Pulse • Prerequisite • Presence	Both practical and theoretical	Population type and Factor development are unclear
Saffron European City Brand Barometer	Jeremy Hildreth (Hildreth, 2008).	2008	Populations in 72 European cities	Mixed methods: qualitative desk research, professional judgement and experiences, as well as quantitative research; namely surveys	• Pride and personality of its people • Distinctive sense of place (on the ground) • Ambition/vision (policy) and business climate • Current recognition and perceptions • Worth going to see • Ease: access and comfort • Conversational value • Locational context and value • Attractions and anomalies • "Ooh, I could live here" factor	Mainly practical	Limited samples, Methodology and data analysing process are questionable
The Citizen Satisfaction Index	Sebastian Zenker Sibylle Petersen Andreas Aholt (Zenker, Petersen and Aholt, 2009)	2009	611 German Citizens	Exploratory and confirmatory factor analysis, and multidimensional scaling	• Urbanity and diversity • Nature and Recreation • Job chances • Cost efficiency	Both practical and theoretical implications	Parameters and Samples are limited
The Investor-based place brand equity	Björn P. Jacobsen (Jacobsen, 2009)	2009	N/A	Based on extant literatures on FMCG brand equity models	• Quality • Impression • Promotion • Awareness • Heritage • Personality • Reputation • Confidence or Trust	Theoretical implications	Solely theory-based, lack of empirical research
The City Brand Evaluation Tool for Sustainable Urban Growth	Tianren Yang, Minghai Ye, Pei Pei, Yongjiiang Shi and Haozhi Pan (Yang et al., 2019a)	2019	26 Cities in the Yangtze River Delta, China	Secondary research for framework development and using analytic hierarchy process (AHP) and factor analysis (FA) and follow-up questionnaires for testing the model validity	• Pulse • Potential • People • Economic Development • Environment • Infrastructure • Governance	Both practical and theoretical	Limited data sources, Subjective index is not included, lack sufficient insight from international experts
The City Branding Framework for Stressed Satellite Cities	Merrilees, Miller and Herington (Merrilees, Miller and Herington, 2013)	2011	490 inhabitants in Logan and 448 inhabitants in Ipswich, Australia	Secondary resources for framework development and confirmatory factor analysis, exploratory factor analysis, Average variances extracted (AVE) assessment, and multiple regression analysis	• Clean Environment • Safety • Nature • Business Opportunities • Shopping • Transport • Cultural Activities • Government Services • Social Bonding	Both practical and theoretical	Limited samples to only 2 cities in Australia
The Global Power City Index (GPCI)	Institute for Urban Strategies, The Mori Memorial Foundation (the Global Power City Index, 2008)	Since 2008	48 cities across the world	Secondary data as the main sources and the ranking is created after the compared total scores	• Economy • Research and Development • Cultural Interaction • Livability • Environment • Accessibility	Mainly practical	Lack of information about methodology
The Arcadis's Sustainable City Index	John Batten (Batten, 2016)	2016	100 cities all around the world	Secondary data as the main sources and the ranking is created after	• Education • Health • Demographics • Income Inequality	Mainly practical	Lack of information about methodology

Measurement tools	Authors	Year of publication	Samples	Methods	City brand parameters	Contributions	Limitations
				the compared total scores	- Affordability Work-life balance - Crime - Environmental risks - Green spaces - Energy - Air pollution - Greenhouse gas emission - Waste management - Drinking water - Sanitation - Transport infrastructure - Economic development - Ease of doing business - Tourism - Connectivity - Employment		

Table 2.3 compares eight influential city brand measurement models based on their development, methodology, parameters, and notable limitations. Each of these frameworks has made significant contributions, yet they exhibit key similarities and differences, as outlined below.

As we can see from the table, there are eight city branding frameworks which were published within 13 years. The oldest but influential framework is the Anholt's GMI City Brands Index (ACBI) which were created in 2006. Although it was developed long time ago; more than 10 years, it has been widely cited and used as a foundation of other city branding frameworks later on; such as the green resource brand framework of Chan and Marafa (2014), as well as The City Brand Evaluation Tool for Sustainable Urban Growth of Yang et al. (2019) which is the newest model in the table. For the research methodology, it can be seen that there are six out of eight studies were adopted purely quantitative methods namely, the exploratory, confirmatory factor analysis, multiple regression analysis, analytic hierarchy process, average variances extracted assessment, multidimensional scaling, and surveys (Anholt, 2006; Zenker, Petersen and Aholt, 2009; Merrilees, Miller and Herington, 2013; Batten, 2016; Yang et al., 2019a). Whereas, only the Saffron European City Brand Barometer (Hildreth, 2008) used mixed-methods and The Investor-based place brand equity framework (Jacobsen, 2009) used qualitative method; literature reviews for their framework development.

When considering the type of research contributions, it can be seen that the contribution of three research; the Saffron European City Brand Barometer (Hildreth, 2008), The Global Power City Index (GPCI) (The Mori Memorial Foundation, 2020) and The Arcadis's Sustainable City Index (Batten, 2016) can be considered as the practical

contributions. This is because all of these frameworks were developed by companies or organisations, and they aimed to use it for practical purposes. Furthermore, the Anholt-GMI City Brands Index (ACBI) (Anholt, 2006), the Citizen Satisfaction Index (Zenker et al., 2009), the City Brand Evaluation Tool for Sustainable Urban Growth (Yang et al., 2019a), and The City Branding Framework for Stressed Satellite Cities (Merrilees, Miller and Herington, 2013) can provide both practical and academic contributions to the city branding field, as their finding results can be the guidelines for city practitioners. More importantly, their systematic literature reviews as well as the elaboration of data analysis methods in the research are also useful for people in academia. In contrast, the Investor-based place brand equity (Jacobsen, 2009) can mainly give academic contribution as this framework was developed by using only theory-based approach and it has not been verified to any cities.

After examining all selected city branding frameworks, three primary limitations can be identified. Firstly, many frameworks were developed and tested using restricted samples, limiting their generalisability across diverse urban contexts. For example, Hildreth's (2008) study focused only on residents in European cities, while Merrilees, Miller, and Herington's (2013) work targeted stressed satellite cities in Australia. Similarly, Yang et al. (2019) developed their City Brand Evaluation Tool exclusively for cities in China. This restricted sample base reduces these frameworks' applicability to cities with differing social, economic, and cultural dynamics.

Secondly, several frameworks lack crucial city brand parameters essential for a holistic approach, particularly those related to livability. For instance, subjective indices such as quality of life and residents' satisfaction are missing from Yang et al.'s (2019) City Brand Evaluation Tool for Sustainable Urban Growth, limiting its ability to capture resident-centric aspects of livability. Zenker et al. (2009) also suggest that personal factors, such as family bonds and relationships, should be incorporated into the Citizen Satisfaction Index to provide a deeper view of resident well-being and satisfaction.

Lastly, many research articles provide insufficient information on their literature reviews and methodologies, particularly regarding framework development and data analysis. This lack of transparency restricts the frameworks' credibility and replicability in new studies. Additionally, many frameworks, such as the Anholt-GMI City Brands Index (2006) and the Arcadis Sustainable Cities Index (2016), predominantly focus on factors

that appeal to external audiences, like tourists and investors, while neglecting core resident-centric elements that are crucial to livability, including social cohesion, long-term quality of life, and community well-being.

Furthermore, some frameworks fragment livability into selective aspects, such as green spaces or safety, without adopting a holistic view that encompasses broader social dimensions essential to a city's brand. For example, while the Global Power City Index (GPCI) and Arcadis include indicators for sustainability, they fall short of addressing social sustainability factors such as inclusivity and access to social services. Such gaps underscore the need for future frameworks to incorporate both objective and subjective indicators to capture residents' experiences fully and to integrate social and environmental sustainability as core components of livability.

Ultimately, addressing these limitations would support the development of city branding models that more accurately reflect the complex and multifaceted nature of livability, ensuring they resonate with both residents and external audiences.

2.3.5 City Brand personality

The idea of brand personality has been around for over three decades, but it gained significant traction in research after the foundational work by Aaker (1997) who introduced a functional brand personality framework. At the beginning, the development of the personality factors aims to characterise human personalities. The idea of personality has recently been extended by academics to nonhuman entities. After that, the evaluation of brand personalities is a significant application in the business sector. In a same context, personality traits can be ascribed to brands. As Wee (2004) points out, "the personality functions in much the same way as the human personality, and by extension, the personality of brands would likely operate similarly to that of humans." Consequently, "brands," like humans, may exhibit distinctive personality characteristics (Plummer, 2000). Regarding the symbolic meanings of brands, Aaker (1997) has studied the development and extension of a theoretical framework of the brand personality dimensions as a primary phase for marketing researchers. She measured consumer perceptions of American brands in order to conceptualise and hypothesise about brand personality. Therefore, Aaker (1997) defines the brand personality that "the set of human characteristics associated with a brand". This definition also highlights the notion that

brand personality is not an inherent quality within the branded entity but is instead formed through the attribution of various traits by external parties, such as consumers. For the brand personality framework, Aaker (1997) developed a scale of 15 main traits with 5 underlying aspects of brand personality (sincerity, excitement, competence, sophistication, and ruggedness), see in table 2.4 (Aaker, 1997).

Table 2.4 Aaker (1997)'s brand personality dimensions and traits

Sincerity	Excitement	Competence	Sophistication	Ruggedness
Down to earth	Daring	Reliable	Upper class	Outdoorsy
Honest	Spirited	Intelligent	Charming	Tough
Wholesome	Imaginative	Successful		
Cheerful	Up to date			

The table 2.4 illustrated the brand personality model by Jennifer Aaker (1997) which consists of 5 main dimensions and 15 traits: 1) Sincerity (Down to earth, Honest, Wholesome, Cheerful), 2) Excitement (Daring, Spirited, Imaginative, Up to date), 3) Competence (Reliable, Intelligent, Successful), 4) Sophistication (Upper class and Charming), and 5) Ruggedness (Outdoorsy, and Tough).

This framework has since been adapted across various branding sectors, including politics (Rutter, Hanretty & Lettice, 2018), sports marketing (Braunstein, 2010), higher education marketing (Watkins & Gonzenbach, 2013), and city branding (Hosany et al., 2006; Amatyakul & Polyorat, 2016).

Keller (2003) explains that "brand personality is an outcome of people's perceptions about a brand, influenced by their beliefs regarding the brand's attributes, marketing approach, and more". Consequently, brand personality can establish a unique identity for a brand, enhancing its competitiveness within its industry, particularly when dealing with limited product differentiation among similar offerings in that market (Aaker and Joachimsthaler, 2000). Crafting a brand's personality holds significant importance when it comes to cultivating brand preference. This persona can be shaped by various factors, including the alignment with consumers' self-image, the opportunity for self-expression, cultural influences, and demographic attributes. Consequently, the blend of consumers' aspired

and inherent personality traits plays a pivotal role in shaping their perception of the brand's personality (Phau and Lau, 2000).

When closely looking at the city brand personality, Kaplan et al. (2010) define city brand personality as "the set of human characteristics associated with the city brand". Priporas et al. (2020) point out that the critical review of previous studies on the implementation of brand personality in the city context are mainly from tourist point of view. The previous studies indicate the different indices and number of personality dimensions (Fazil Ahmad and Bolong, 2013; Ekinci, Sirakaya-Turk and Baloglu, 2007; Hosany, Ekinci and Uysal, 2006; Kaplan et al., 2010; Sahin and Baloglu, 2011). This can be explained that there were different group of research samples, hence there acknowledged different personality dimensions even in the same city (Sahin and Baloglu, 2011). Although various studies have yielded differing outcomes in the assessment of city personality dimensions, these results collectively affirm the applicability of the brand personality concept within the context of cities, even though cities are not traditional products (Hosany et al., 2006). Ahmad and Bolong (2013) also state that cities with a clear brand personality can attract city consumers such as residents and visitors, it can likewise influence city consumers' preferences and engagement (Selby, 2004; Sirgy and Su, 2000). Moreover, the city personality significantly shapes perceptions and attitudes towards the city's brand (Freling and Forbes, 2005). Ragde and Ragde (2020) point out that tourists choose their destinations not solely based on the infrastructure but by considering how the location emotionally resonates with their own personality. There is also interesting finding on the examination of the brand personality as perceived by tourists visiting a destination for the first time as well as those who had visited it multiple times. The research revealed that both sets of tourists had similar perceptions of the destination, but those who had visited repeatedly held additional perceptions, likely influenced by fresh experiences during their subsequent trips. This highlights the tendency of tourists to accumulate more perceptions about a destination through repeated visits (Usakli and Baloglu, 2011). It is evident that while numerous studies have explored the personalities of cities, their primary focus has been on tourists, with a notable dearth of research on city residents.

In summary, the concept of brand personality, initiated by Aaker in 1997, has evolved into a pivotal element in various sectors, shaping the unique identity of brands and fostering consumer preference. Aaker's framework, with dimensions like sincerity, excitement, competence, sophistication, and ruggedness, has extended beyond traditional

consumer products to fields such as politics, sports, education, and city branding. While city brand personality has been predominantly studied from a tourist perspective, it has shown its applicability, influencing both residents and visitors. Tourists choose destinations based on emotional resonance, and repeated visits can alter perceptions. However, there remains a noticeable research gap concerning city residents' viewpoints on brand personality.

2.3.6 Attitude towards brand

The concept of attitude is considered to be important for understanding human behaviour (Peter and Olson, 2010). Initially, attitude was characterised as the degree of an individual's fondness for a particular object, as per Thurstone (1931)'s definition. The attitude is also referred to the willingness to respond to certain stimuli (Allport, 1935). After that the meaning of attitude has evolved to refer to individual of an object (Fishbien, 1975). Brand attitudes can be defined as a consistent and singular assessment of a brand, which can influence consumer actions (Surendra et al., 2004). In simple terms, these attitudes indicate whether a consumer feels positively or negatively about a brand (De Pelsmacker et al., 2017). Mitchell and Olson (1981) see brand attitude as an individual's overall evaluation of a brand, reflecting its overall appeal to consumers. They also see that the attitude can be considered as an internal state of individual and therefore has internal evaluation as another component. Consumer attitudes towards a brand encompass their positive or negative reactions when assessing a product's attributes such as brand name, design, logo, or any distinguishing characteristics that set one seller's product apart from others (Wood, 2000). This perspective is largely shaped by an individual's own understanding and beliefs about the brand.

Ever since Fishbein and Ajzen (1975) posited a causal link between attitude and behavioral intention within the theory of reasoned action, scholars have delved into exploring the connection between attitude and intention in diverse contexts. It is widely accepted, as Shimp (2009) points out, that these attitudes serve as reliable predictors of consumer behavior towards brands. Spears and Singh (2004) also state that positive attitude brand can lead to purchasing intention. Likewise, Surendra et al. (2004) describe brand attitudes as "a sustained, singular evaluative judgment of the brand that potentially drives behaviour".

In studies on city branding, for example, it is evident that the brand's image significantly influences the behavior of the city's residents and visitors (Zenker, 2011). Furthermore, places typically strive to transform unfavorable associations into positive ones, as it is believed that such associations can foster favorable behaviors among the intended audience for that location (Gertner and Kotler, 2004). In addition, in the realm of city branding, the attitude towards a city brand is significantly influenced by perceived livability, which includes residents' well-being and quality of life. Senlier et al. (2009) propose a strong connection between the quality of life and the attitude towards a city brand as perceived by the population.

The concept of attitude is fundamental for understanding human behavior. Initially characterised as an individual's fondness for an object, it has evolved to refer to an evaluation of an object. Brand attitudes represent a consistent assessment of a brand, influencing consumer actions. Fishbein and Ajzen (1975) established a link between attitude and behavioral intention, widely accepted as a predictor of consumer behavior towards brands. In the context of city branding, a city's brand image significantly influences the behavior of its residents and visitors, and places aim to change negative associations into positive ones. The attitude towards a city brand is shaped by perceived livability, impacting how the population views the city.

2.3.7 Behavioural intention

In marketing studies, consumer behavioral intentions (CBIs) play a pivotal role in determining brand results (Anselmsson et al., 2007). Intentions reveal the level of determination and commitment individuals are prepared to invest in order to engage in a particular behavior (Matthews et al., 2020). Similarly, behavioral intention is the likelihood that an individual will engage in a specific behavior, as described by Lim (2017). Indeed, behavioral intentions are often conceptualised as a form of customer loyalty, typically assessed through indicators like the intention to make repeat purchases and the intention to engage in word-of-mouth marketing (East et al., 2007; Hong and Yang, 2009). Spears and Singh (2004) define purchase intention as an individual's deliberate decision to attempt buying a brand.

From a review of many past studies, it can be found that behavioural intention is often used as the dependent variable of various independent variables such as attitude towards

the brand and perceptions of the customers. In the city livability and city branding for example, cities typically aim to transform unfavorable associations into favorable ones, as it is commonly believed that these associations will encourage positive behavior within the targeted audience for the place (Gertner and Kotler, 2004). This is supported by Fishbein and Ajzen (1975)'s statement that attitudes play a significant role in determining behavior via behavioral intentions. Moreover, While Palagi (2020) emphasizes that the choice between staying in the city or relocating is linked to objective livability factors, Okulicz-Kozaryn and Valente (2019) highlight that comprehending the connection between city livability and subjective factors like satisfaction can elucidate residents' decision-making processes regarding whether to remain in or depart from the city. Lastly, there are numerous findings suggesting that cities endowed with a distinct brand personality have the capacity to strongly appeal to urban consumers, including both residents and visitors (Ahmad and Bolong, 2013). Furthermore, a city with a well-defined brand personality can exert influence over the preferences and engagement of various city stakeholders (Selby, 2004). Consequently, it has been ascertained that a clearly established brand personality can wield significant influence over the decision-making process or behavioural intention and eventual brand selection of consumers (Kaplan et al., 2010). These are the examples of choosing "Behavioural Intention" to be a dependent variable in the city livability and city branding antecedents.

In conclusion, consumer behavioral intentions (CBIs) are pivotal in marketing, reflecting commitment to specific behaviors and customer loyalty indicators. They are influenced by factors like attitudes and perceptions. In city livability and branding, they affect decisions to stay or leave. Cities with a strong brand personality attract residents and visitors, influencing stakeholder preferences and consumer choices (Fazil Ahmad and Bolong, 2013; Selby, 2004; Kaplan et al., 2010). These examples demonstrate the use of "Behavioral Intention" as a dependent variable in various contexts.

2.4 The construction of a conceptual framework

2.4.1 Introduction

The main purpose of this section is to introduce research conceptual framework to illustrate the development of the key constructs for this study. This research is guided by a cohesive set of interconnected concepts. These ideas not only steer the direction of the

study but also outline what it aims to evaluate and anticipate the associations it seeks to uncover and deal with the disadvantages of the existing framework that are no holistic. Essentially, this framework tackles two core inquiries: 1) What issues is this study addressing? and 2) Why is the chosen method believed to provide a viable resolution?

Drawing from the literature review, there are two main concept areas in this study: the concept of city livability (perceived city livability) and the city branding (perceived city personality, attitude towards city brand, and behavioural intention). This study proposes that 1) resident's perception towards city livability has a positive impact on their perceived city personality, 2) perceived city livability of resident is positively associated with attitude towards city brand 3) resident's perceived city personality significantly influences attitude towards city brand 4) perceive city livability of the city resident is significantly related to their behavioural intention 5) perceived city personality of the city resident has a positive influence on behavioural intention, 6) the attitude towards city brand of city resident is significantly associated to their behavioural intention, and 7) perceived city livability positively associates with behavioural intention through a sequential mediation effect of perceived city personality and attitude towards the city brand. In addition, the demographics of the city resident: gender identity, age, annual income, and education are test all dependent variables (perceived city livability, attitude towards city brand, and behavioural intention) as the control variables. The characterisation of each variable is elaborated. Followed by the implications of the conceptual framework to state the importance of the conceptual framework and its application. This framework demonstrates how this research merges the theories of city livability and branding within the thesis, offering a thorough perspective on their interrelationships.

2.4.2 Perceived city livability

Upon examining the research surrounding city livability, this study characterises it as a community marked by safety, appeal, social unity, inclusivity, and environmental sustainability. This encompasses affordable and diverse housing options, easily accessible through public transport, walking, and cycling routes. Such routes connect residents to workplaces, educational institutions, open public spaces, local markets, health and communal services, and avenues for leisure and culture (Higgs et al., 2019). The concept of city livability can be segmented into seven dimensions: 1) stability, 2)

healthcare, 3) environment, 4) culture and social elements, 5) education, 6) infrastructure, and 7) economic factors (Zanella, Camanho and Dias, 2014; Lowe et al.,2015; The Economist Intelligence Unit, 2015; The OECD's Better Life Index, 2011; The American Association for Retired Person, 2015; Mercer Quality of Living, 2009; The Urban Livability Index for a low-to-middle income country, 2019). Notwithstanding the significance of studying city livability, there exists a notable gap in research that provides a holistic conceptualisation and implementation of city livability parameters as mentioned in section 2.2.4. This leads the researcher to posit that the previously mentioned seven dimensions holistically encapsulate the definition of city livability and offer a thorough metric for evaluation.

2.4.3 Perceived city personality

When it comes to perceived city livability, this research draws inspiration from one of the most renowned brand personality models: Aaker's brand personality model. Aaker (1997) conceptualises brand personality as "the set of human characteristics associated with a brand." This model outlines five primary dimensions: 1) sincerity, 2) excitement, 3) competence, 4) sophistication, and 5) ruggedness. These dimensions are deemed holistic, having been derived from a range of sources, including marketing scales from both theoretical and practical standpoints as well as psychological scales. Although many researchers and marketers initially applied the idea of brand personality universally to products during its early prominence, this concept has since found applications in various domains. Examples include political fields (Rutter, Hanretty, and Lettice, 2018), sports marketing (Braunstein, 2010), higher education marketing (Watkins and Gonzenbach, 2013), and notably, city branding (Hosany et al., 2006; Amatyakul and Polyorat, 2016). Therefore, in this research, this concept has been adopted as one of the important variables in investigating relationship between the city livability and city branding, as well as establishing a new model of branding antecedent that connects city brand personality to the city livability, attitude towards brand, and behavioural intention.

2.4.4 Attitude towards city brand

The construct for the attitude towards the city brand is as follows. Attitude towards a brand encompasses evaluations, feelings, and inclinations related to a product (Kotler et

al., 2017). Essentially, it reflects one's positive or negative stance towards a specific brand. For the purposes of this study, the attitude towards the city brand is gauged using three questions: I love Bangkok/London, I have a favourable opinion to Bangkok/London, and Living in Bangkok/London is a good decision, as detailed in table 4.2.

2.4.5 Behavioural Intention

The last construct explored in this research is behavioral intention. Rooted in broad marketing studies, behavioral intention plays a pivotal role in brand outcomes (Anselmsson, Johansson, and Persson, 2007), East et al. (2007) and Hong and Yang (2009) highlight that propensities for repurchasing and word-of-mouth referrals are typical markers of consumer loyalty, gauged through behavioral intentions. In the context of this study, the behavioral intention of city residents is captured through five items: BI1-I will definitely live in Bangkok/London as long as I can. BI2 - I will definitely recommend other people to live in Bangkok/London. BI3 - I will definitely recommend other people to travel or visit Bangkok/London. BI4 - I will definitely recommend other people to work or do business in Bangkok/London, and BI5 - I will definitely recommend other people to study in Bangkok/London.

Figure 2.1: Conceptual framework

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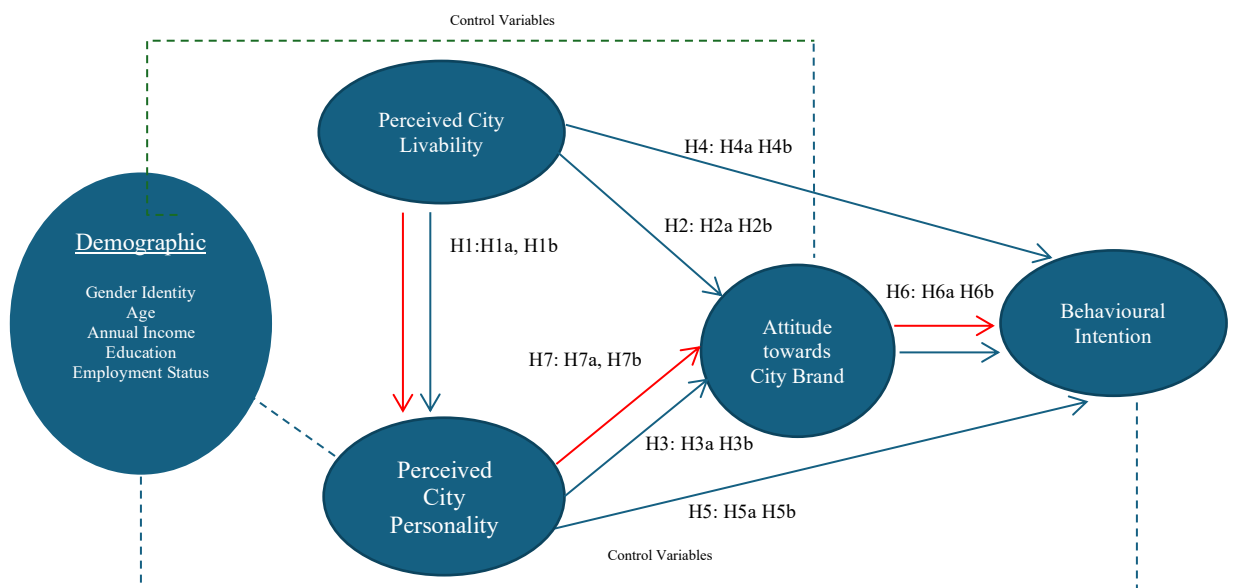
Figure 2.1 illustrates the relationships among perceived city livability, perceived city personality, attitude towards the city brand, behavioural intention, and demographic variables, with each variable represented within circles. Blue arrows denote direct relationships, while red arrows indicate mediation effects (indirect effects). The dashed line represents control variables. H1a and H1b propose the association between perceived city livability and perceived city personality, while H2a and H2b suggest the link between perceived city livability and attitude towards the city brand. H3a and H3b propose the relationship between perceived city personality and attitude towards the city brand. H4a and H4b indicate the association between perceived city livability and behavioural intention. H5a and H5b propose the association between perceived city personality and behavioural intention. H6a and H6b denote the relationship between attitude towards the city brand and behavioural intention. Finally, H7a and H7b propose the serial mediation effect of perceived city personality and attitude towards the city brand on the relationship between perceived city livability and behavioural intention. In this context, 'a' refers to Bangkok samples, while 'b' refers to London samples, allowing for the comparison of relationships across these two distinct groups and providing insights into how city perceptions may differ between residents or visitors of Bangkok and London.

2.5 Hypothesis development

2.5.1 Impact of city livability on city personality

Branding, traditionally associated with products, has increasingly permeated the urban landscape. This research aims to bridge the gap between urban livability and city branding by exploring the relationship between city livability and brand personality. While both concepts have been examined individually, significant areas of livability research, such as environmental science, ecology, and engineering, have been highlighted (Adam et al., 2017). Consequently, the interplay between city livability and city branding remains under-researched (Vuignier and Renaud, 2017). By hypothesising a connection between city livability and brand personality, this study seeks to provide a holistic understanding of urban development and branding, offering valuable insights for both fields.

This research investigates the relationship between brand personality and city livability, expanding our understanding of how branding concepts operate in non-traditional commercial contexts. Although city livability and city brand personality have been

studied separately, it is crucial to comprehend how they interact. Establishing a link between these two concepts can offer a deeper perspective on strategies for branding and urban development. In essence, proposing the hypothesis that city livability influences city brand personality may lead to meaningful insights that benefit both urban development and the research area of city branding. Therefore:

H1: Perceived city livability has a positive impact on their perceived city personality.

2.5.2 Impact of perceived city livability on attitude towards city brand

Although the definition of livability has been given by many authors, Higgs et al. (2019) gave a holistic city livability definition as "urban livability is a community that is safe, attractive, socially cohesive and inclusive, and environmentally sustainable; with affordable and diverse housing linked by convenient public transport, walking and cycling infrastructure to employment, education, public open space, local shops, health and community services, leisure and cultural opportunities". It can be summarised that the city livability means quality of life and standard of living or general well-being of people who live in such city (Okulicz-Kozaryn, 2013). Perceived city livability, which encompasses residents' sense of well-being and quality of life, plays a central role in shaping attitudes towards a city's brand as Senlier et al. (2009) suggest that quality of life is strongly related to perceptions and feelings of the population to the city.

Brand attitudes are described as 'a sustained, singular evaluative judgment of the brand that potentially drives behaviour (Surendra et al., 2004). Essentially, they encapsulate how much a brand is liked or disliked and reflect the depth of a consumer's positive or negative perspective on it (De Pelsmacker et al., 2017). Mitchell and Olson (1981) describe "Brand Attitude" as a person's holistic assessment of a brand, and it the general appreciation of a brand perceived by consumers. Essentially, this attitude is shaped by a consumer's personal perceptions about a brand. Such attitudes are posited to be dependable indicators of how consumers might behave in relation to brands, as highlighted by Shimp (2009).

In conclusion, city livability is a multifaceted concept that resonates deeply with the quality of life, standard of living, and overall well-being of its inhabitants. As highlighted

by Higgs et al. (2019) and encapsulated by Okulicz-Kozaryn (2013), the essence of a city's livability is woven into the fabric of its community's safety, inclusivity, sustainability, and access to amenities. This perceived livability significantly influences residents' attitudes toward the city's brand, drawing parallels with established branding principles. Just as consumers form attitudes based on their perceptions of a brand, as indicated by Surendra et al. (2004), De Pelsmacker et al. (2017), Mitchell and Olson (1981), and Shimp (2009), residents' perceptions of their city's livability shape their holistic assessments and attitudes towards the city's brand. Therefore:

H2: Perceived city livability has a positive impact on their attitude towards city brand.

2.5.3 Impact of Perceived City Personality on Attitude Towards City Brand

City brand personality, as defined by Kaplan et al. (2010), refers to "the set of human characteristics associated with the city brand." This concept builds upon Aaker's (1997) framework of brand personality, which suggests that places can be regarded as brandable entities, differentiated by their unique characteristics (Kavaratzis & Ashworth, 2005). Notably, cities, much like other brands, exhibit distinct personalities that resonate with both residents and visitors (Priporas, Stylos, & Kamenidou, 2020).

The influence of city brand personality on attitudes towards the city brand is substantial. Freling and Forbes (2005) highlight that city personality plays a crucial role in shaping perceptions and attitudes. Keller (2003) elaborates further, stating that "brand personality reflects how people feel about a brand based on their perceptions of what the brand represents and how it is marketed." Additionally, research indicates that humans have a natural tendency to anthropomorphise brands, attributing positive traits to them. This inclination enhances familiarity and comfort while reducing perceived risks (Haigood & Traci L., 1999).

While Freling and Forbes (2005) and Keller (2003) establish a general link between brand personality and attitudes, less is known about how this relationship functions within the context of city branding, particularly in cities with rapidly changing demographics or competing cultural narratives, such as Bangkok (Amatyakul and Polyorat, 2018) and London, characterised by rapid, high-density urban growth and dynamic changes in its landscape (Kusumawati, 2019; Merrilees, Miller, and Herington, 2008; Glińska and

Kilon, 2014). Therefore, understanding the factors influencing residents' perceptions of city brand personality and their impact on attitudes towards the city brand represents a meaningful research opportunity. This gap in the literature indicates a need for more nuanced exploration of how specific urban characteristics influence the perception of city personality and, consequently, attitudes towards the city brand.

In summary, city brand personality, as articulated by Kaplan et al. (2010), underscores the human traits associated with a city's brand, a notion derived from Aaker's (1997) principles. The unique personalities of cities, as emphasised by Kavaratzis and Ashworth (2005) and Priporas et al. (2020), significantly influence public perceptions and attitudes. This relationship is further corroborated by the findings of Freling and Forbes (2005) and Keller (2003). However, the existing literature does not sufficiently address the complexities introduced by specific urban characteristics.

Thus, we propose the following hypothesis:

H3: Perceived city personality has a positive impact on attitudes towards the city brand.

This hypothesis not only aligns with existing literature but also seeks to fill a critical gap by examining how unique attributes of cities shape the relationship between brand personality and public attitudes, providing a foundation for further exploration.

2.5.4 Impact of perceived city livability on behavioural intention

City liveability is commonly defined by a range of factors, including stability, healthcare, environment, social and cultural aspects, education, infrastructure, and economic dimensions (Zanella, Camanho, & Dias, 2014; Lowe et al., 2015; The Economist Intelligence Unit, 2015; OECD Better Life Index, 2011; American Association for Retired Persons, 2015; Mercer Quality of Living, 2009; Urban Liveability Index for Low-to-Middle Income Countries, 2019). While a considerable amount of research focuses on the objective factors of liveability or liveability measurement indices, Senlier et al. (2009) suggest that city liveability is strongly tied to people's feelings, perceptions, and subjective values. They emphasise that "it is not the objective quality of infrastructure but how people perceive it that matters." Therefore, the appeal of a city lies not only in its physical attributes but also in the lived experiences and perceptions of its residents. This is why the present study focuses on perceived city liveability.

While Palagi (2020) notes that decisions regarding staying in or relocating from a city are often linked to objective liveability factors, Okulicz-Kozaryn and Valente (2019) highlight that understanding the relationship between city liveability and subjective values, such as satisfaction, can provide insights into the decision-making process of whether residents choose to stay or leave.

Most research related to city liveability has concentrated on liveability indices and their effects on residents' satisfaction. However, questions remain largely unanswered: How does perceived city liveability translate into residents' and visitors' behavioural intentions? Are individuals more likely to advocate for, invest in, or remain in a city they perceive as highly liveable? This gap in research is the focus of this study, which aims to explore the relationship between perceived city liveability and behavioural intentions, examining how urban experiences influence actions and decisions within the urban context.

H4: Perceived city liveability has a positive impact on behavioural intention.

Additionally, each dimension of liveability—namely stability, healthcare, environment, social and cultural aspects, education, infrastructure, and economic factors—will be separately analysed in terms of its correlation with behavioural intention. These analyses will be presented as supplementary results in Section 6.5 of Chapter 6 to determine which dimensions show the strongest relationships with behavioural intention among city stakeholders.
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2.5.5 Impact of perceived city personality on behavioural intention

The concept of brand personality has appeared for more than three decades but it has been soared in number of research since the pioneer work of Aaker (1997), which developed an applicable brand personality framework, and the frame work has been applied to many fields of branding such as in the field of politics (Rutter, Hanretty and Lettice, 2018), sport marketing (Braunstein, 2010), higher education marketing (Watkins and Gonzenbach, 2013), and city branding (Hosany et al., 2006; Amatyakul and Polyorat, 2016).

There is evidence that cities which have a clear brand personality can significantly attract city consumers such as residents and visitors (Ahmad and Bolong, 2013). Moreover, a clear brand personality city can influence the city stakeholder's preference and engagement to the city (Selby, 2004). As a result, it is found that a well-settled brand personality can play an important role in decision making process and the ultimate brand choice of consumers (Kaplan et al., 2010). Kaplan et al. (2010) propose that the studies of place branding are insufficient to investigate how city consumer's perception influence their attitudes and behaviour. Therefore, this research aims to examine the impact of perceived city personality on behavioural intention.

In summary, the concept of brand personality, which gained prominence after Aaker's foundational framework in 1997, has since been applied across various fields, from politics (Rutter, Hanretty and Lettice, 2018) to city branding Clear city brand personalities are proven to attract residents and influence stakeholders, playing a pivotal role in consumer decision-making. However, as highlighted by Kaplan et al. (2010), there's an existing gap in understanding how this perceived city brand personality impacts consumer attitudes and actions. Therefore:

H5: Perceived city personality has a positive impact on their behavioural intention.

2.5.6 Impact of attitude towards city brand on behavioural intention

As mentioned earlier, brand attitudes are characterized as a consistent, individual evaluative judgment about a brand that can influence behavior (Surendra et al., 2004). They convey the degree to which a brand is favored or disfavored, mirroring the depth of a consumer's sentiment towards it (De Pelsmacker et al., 2017). As outlined by Mitchell and Olson (1981), Brand Attitude represents an individual's holistic evaluation of a brand, reflecting the broader consumer appreciation. These attitudes, molded by consumers' unique perceptions of a brand, serve as reliable predictors of their behavior towards that brand, as underscored by Shimp (2009).

In the marketing literature, consumer behavioural intentions (CBIs) are considered as a significant role in brand outcomes (Anselmsson et al., 2007). Behavioral intention denotes an individual's anticipated probability of exhibiting a particular behaviour (Lim,

2017). Spears and Singh (2004) conclude that purchase intention is an individual's conscious plan to make an effort to purchase the brand. It can be also found that attitude significantly influences behaviour through behavioural intentions (Fishbein and Ajzen, 1975).

In the city branding study, there is evidence that the attitude towards the brand drives the behavior of the place's customers (Zenker, 2011). Moreover, places generally try to change negative associations into positive ones, since it is believed that this association will lead to positive behavior among place target group (Gertner and Kotler, 2004). These studies have confirmed the link between attitude towards city brand and behavioural intention. Therefore:

H6: Attitude towards city brand has a positive impact on their behavioural intention.

2.5.7 Impact of demographics on dependent variables (perceived city personality, attitude towards brand, and behavioural intention)

According to the previous literature, it can be found that studies on the effects of demographics on perception, attitudes, and behavioural intention in city livability and city branding are relatively insufficient. However, Tournois and Rollero (2020) point out that the impact of residents' socio-demographic backgrounds on their attitudes and actions has been extensively researched in the areas of tourism, environmental psychology, and human geography. It can be seen that gender, age, annual income, education, and employment status are considered as crucial demographic factors in previous studies. Concerning with gender, there are controversy in results from the different studies, some research show that women are likely to have stronger place attachment (Hidalgo and Hernández, 2001). On the other hand, it can be found in Anton and Lawrence (2014)'s studies that gender is not significant on either place attachment or place identity. Hence, the results about gender are still inconsistent. Age is also another vital factor, there is a study found that older resident is less likely to relocate to other city, and shoe higher residential stability (Permentier et al., 2009). Besides, to comprehend the relationship between a higher income level and risk-taking behaviours in individuals, increased income has often been indicative of greater confidence in consumer decisions (Day, 1970). In addition, prior research shows that education level has a positive impact on resident's perception and attitudes towards their self-identity (Anton and Lawrence,

2014). The last factor is employment status, Payne and Webber (2006) clearly state that the employment status has an influence on affective commitment. Moreover, there is also a study found that perceived brand personality is influenced by the demographics (Phau and Lau, 2000). These are examples of studies illustrating the relationship between the demographic factors and perception, attitude, and action or behavioural intention.

Although research on the impact of demographics on shaping perceptions, attitudes, and behaviour is limited, this study will use demographics—including gender, age, annual income, education, and employment status—as control variables. By controlling for these demographic factors, the study aims to isolate and better understand their specific effects on city residents' perceptions of city personality, attitudes toward brands, and behavioral intentions. This approach ensures that any observed relationships between the dependent variables and independent variables are not confounded by demographic differences, leading to more accurate and reliable findings. Control variables help to account for the diversity in respondents' backgrounds, allowing for a clearer analysis of how these factors individually and collectively influence the variables of interest (Nielsen and Raswant, 2018).

2.5.8 Serial mediation effect of perceived city personality and attitude towards the city brand on the relationship between perceived city livability and behavioural intention

In order to delve deeper into the intricate relationships between perceived city livability, perceived city personality, attitude towards the city brand, and behavioural intention, this section explores the serial mediation of these variables. Specifically, it examines how perceived city livability influences behavioural intention through two intervening factors: perceived city personality and attitude towards the city brand. This serial mediation analysis offers insights into how individuals' perceptions of a city's livability first shape their perceptions of its personality, which then influences their attitudes towards the city brand, ultimately leading to behavioural intentions such as staying in the city, recommending it, or engaging in other forms of advocacy.

The conceptual framework established in earlier sections forms the foundation for this analysis. Each of the variables—perceived city livability, perceived city personality, attitude towards the city brand, and behavioural intention—has been shown to play a significant role in the domain of city branding. By integrating these constructs within a serial mediation model, the study seeks to provide a deeper understanding of how residents and visitors internalise their experiences of urban life and how these experiences translate into concrete actions and decisions.

The process underlying this serial mediation can be understood as follows. Perceived city livability, which reflects individuals' views on various factors such as stability, healthcare, environmental quality, and overall quality of life (Higgs et al., 2019), shapes the perceived personality of the city. When a city is seen as highly livable, it often develops a distinct personality in the minds of its inhabitants. A city perceived as offering a high standard of livability is likely to be associated with characteristics such as competence, sincerity, and sophistication, aligning with the dimensions of Aaker's brand personality model (1997). This perception of city personality, in turn, informs individuals' attitudes towards the city brand. Cities with a perceived personality of competence and excitement, for instance, are more likely to elicit positive evaluations from residents, leading to favourable attitudes towards the city's brand identity. These positive attitudes are not merely abstract opinions but reflect an emotional connection and personal affiliation with the city's image (Kaplan et al., 2010).

The final link in this serial mediation process concerns the influence of attitudes towards the city brand on behavioural intention. Positive attitudes towards the city brand foster a sense of loyalty and commitment, encouraging individuals to take concrete actions such as continuing to live in the city, recommending the city to others, or supporting local businesses and tourism initiatives (Zenker, 2011; Gertner & Kotler, 2004). Thus, the overall process reveals how perceptions of livability lead to behavioural outcomes through the mediating roles of city personality and brand attitudes. Based on the serial mediation approach and supported by the literature, the following hypothesis is proposed:

H7: Perceived city livability positively associates with behavioural intention through a sequential mediation effect of perceived city personality and attitude towards the city brand.

This hypothesis suggests that the relationship between perceived city livability and behavioural intention is not direct but is instead mediated by two key constructs: perceived city personality and attitude towards the city brand. Testing this hypothesis will provide valuable insights into how urban experiences are internalised and translated into emotional responses and behavioural intentions, thus contributing to an understanding of the relationship between city livability and city branding. This, in turn, will offer practical implications for urban planners, policymakers, and marketers seeking to enhance the attractiveness and overall appeal of their cities.

2.6 Conclusion

This chapter discussed the conceptual foundations of the city livability (Zanella, Camanho and Dias, 2014; Lowe et al.,2015; The Economist Intelligence Unit, 2015; The Organisation for Economic Co-operation and Development (OECD)'s Better Life Index, 2011; The American Association for Retired Person, 2015; Mercer Quality of Living, 2009; The Urban Livability Index for a low-to-middle income country, 2019; Aaker, 2009; Amatyakul and Polyorat, 2016; Keller, 1993; Yoo et al., 2000 and city branding theory (Anholt, 2006; Zenker, Petersen and Aholt, 2009; Merrilees, Miller and Herington, 2013; Batten, 2016; Yang et al., 2019; Hildreth, 2008; Jacobsen, 2009). The gap in the literature were also addressed: lack of city branding or marketing work in the relation to city livability, Lack of comprehensive city livability framework, issue about data collection sources that normally collect from expatriate or visitor that could not represent core value of the city compared to city residents. In addition, the chapter highlighted the importance of considering the impact of city livability on the city branding which could expand the knowledge by merging between city livability concept and city branding concepts together. After that, the following section offered the conceptual framework and hypotheses of the thesis. It described in details of the direct associations between perceived city livability and perceived city personality, perceived city livability and attitude towards city brand, perceived city personality and attitude towards city brand, perceived city livability and behavioural intention, perceived city personality and behavioural intention, attitude towards brand and behavioural intention, as well as indirect relationship between perceived city livability, perceived city personality, attitude towards the city brand, and behavioural intention-as serial mediation. These associations constitute integral components of a novel city branding model, amalgamating the concept

of city livability into the realm of city branding. Lastly, the impact of demographic factors, encompassing gender, age, annual income, education level, and employment status on the dependent variables, was examined as control variables. The inclusion of demographics aims to enhance the accuracy and comprehensiveness of the antecedent.

Chapter 3

Bibliometrics of City Livability and City Branding

3.1 Introduction

This chapter addresses the challenges identified in urban livability and city branding literature, particularly the issue of scattered research, as discussed in Chapter 2 (literature review). Utilising bibliometric methods, the chapter aims to enhance our comprehension of the scope and development of these studies. Bibliometric methods (such as co-citation analysis and bibliographic coupling) can create structural pictures of scientific domains using bibliographic data from published databases such as Web of Science (WOS) or SCOPUS databases. They add a measure of objectivity to the assessment of scientific literature and can be used to identify unofficial research networks that exist below the surface but are not formally connected (Garfield, 1979).

Researchers can use bibliometric methods to base their findings on aggregated bibliographic data that has been created by other experts in the subject who share their perspectives through writing, cooperation, and citation. This data can be combined and evaluated to gain insights into the field's structure, social networks, and topics of interest. Therefore, the bibliometric approaches can be a beneficial tool to organise the fragmented and disorganised information and will produce the holistic image and identify a clear scope of city livability study to offer a better understanding and will be helpful for future research. Section 3.2 will be methodology for this chapter. Next section (section 3.3) is analysis, it will be divided into 2 sections: section 3.3.1 does the bibliometric analysis for city livability and section 3.3.2 does the bibliometric analysis for city branding. Section 3.4 will delve into the findings, while Section 3.5 will explore the limitations of the bibliometric methods. Finally, Section 3.6 will offer a concluding summary of the chapter.

3.2 Methodology

According to Baier-Fuentes et al. (2019), performance analysis and science mapping are the two main applications for bibliometric approaches. Performance analysis aims to

assess how well people and organisations perform in terms of their research and publication. Science mapping tries to make the dynamics and organisation of scientific areas visible. When a researcher seeks to review a certain line of research, this information regarding structure and development is helpful. Bibliometric approaches provide quantitative rigour to the subjective evaluation of literature, and can provide evidence in a review paper to support existing theoretical categories (Zupic and Čater, 2015).

Bibliometrics is a technique that analyses and assesses the effect and impact of academic literature (Donthu et al., 2021) measures (Donthu et al., 2021). It entails assessing the research output, impact, and influence of certain researchers, journals, and institutions using a variety of measures, including citation counts, h-index, and impact factor. Bibliometrics is frequently used in research to evaluate the effectiveness and significance of studies, to spot patterns and trends in the scientific literature, and to help decide on research funding and policy (Ford et al., 2021).

Research employing bibliometrics has a number of benefits according to Zupic and Čater (2015). One significant benefit is that it makes it simple and quick for researchers to evaluate the value and significance of their study. Researchers can evaluate the influence and impact of a certain research publications or researcher by applying quantitative metrics like citation counts and impact factors. This can be helpful for determining the most significant research in a given topic or for evaluating the significance of a particular research endeavor. Bibliometrics proves valuable in identifying trends and patterns in scientific literature, allowing researchers to discern the most cited papers or journals within a specific topic through the analysis of citation trends in research publications (Zupic and Čater, 2015). This might be helpful for locating the most important research areas or top experts in a certain field. The ability to guide decisions about research funding and public policy is another benefit of bibliometrics. Policy makers and funding organizations can identify the most influential research and distribute resources appropriately by analysing the impact and influence of the study (Ford et al., 2021).

There are five common bibliometric methods that are usually used: citation analysis, co-citation analysis, bibliographical coupling, co-author, and co-word (Donthu et al., 2021). To create measures of influence and similarity, the first three methods employ citation data. While co-author analysis measures collaboration by using co-authorship data. Co-

word analysis identifies relationships between ideas that appear in document titles, keywords, or abstracts together. However, this chapter aims to answer two questions 1) Which journals and disciplines had the most impact on a research stream?, and 2) What are the dynamics of the conceptual structure of a field? Each question will be addressed using a different bibliometric method according to different focus on their usage and data consideration. Therefore, there are 2 bibliometric research methods using to answer the research questions: 1) Citation analysis will be used to assess the impact of articles, authors, or journals using citation rates. 2) Co-wording that a method to connect between keywords when they exist in the same title, abstract, or keyword list.

Table 3.1 Chapter questions and bibliometrics methods

Chapter Questions	Bibliometric Methods
1) Which journals and disciplines had the most impact on a research stream?	Citation analysis
2) What are the dynamics of the conceptual structure of a field?	Co-word analysis

Table 3.1 shows the list of chapter questions and the bibliometric methods for the analysis.

Apart from the core methods of bibliometrics mentioned above, this chapter also use add-on techniques that can enrich the analysis applied in bibliometric, which is network metrics. Network metrics provide insight into the relative relevance of research constituents (authors, institutions, and countries), which may not always be shown in publications or citations (Donthu et al., 2021).

When it comes to data gathering, all data were only derived from the Web of Science database because the most common database for bibliometric studies in the management and organization field of study is the Web of Secience database. It already comes with most university subscriptions and has enough information to be appropriate for the majority of bibliometric analyses (Zupic and Ater, 2015). More importantly, Web of Science (WoS) stands as the world's most established, extensively utilized, and authoritative database for research publications and citations (Birkle et al., 2020). The search term of this study was "city livability", "city liveability", "urban liveability" and "urban livability" at all year of publication and searched by topic. The chosen search terms are based on two considerations: 1) "liveability" represents the British English spelling, while "livability" is the American English style, 2) In city livability literature

reviews, the terms "City" and "Urban" are sometimes interchangeable (Xiao, 2022; Liu et al., 2023). Consequently, it returned 1,446 publications for the period between 1981 and 2021. For city branding study, the search term is "city branding" because it is considered as the only one main keyword for the study that focus only branding in the city, and 5,209 publications can be found for the period between 1969 and 2023. Then, all finding data were downloaded in forms of Plain text file format and imported to RStudio Software: Biblioshiny application for bibliometric analysis.

3.3 Result Analysis

3.3.1 Bibliometric analysis for city livability

This section employs the Bibliometric method to analyse the evolution of city livability. The primary objectives are to organise scattered research development information and to reinforce the literature review in Chapter 2. This analysis also aims to confirm the research gap, providing motivation for the thesis.

Figure 3.1 illustrates the overall annual scientific production of city livability studies between 1981 and 2021.

Figure 3.1 Annual scientific production of city livability studies
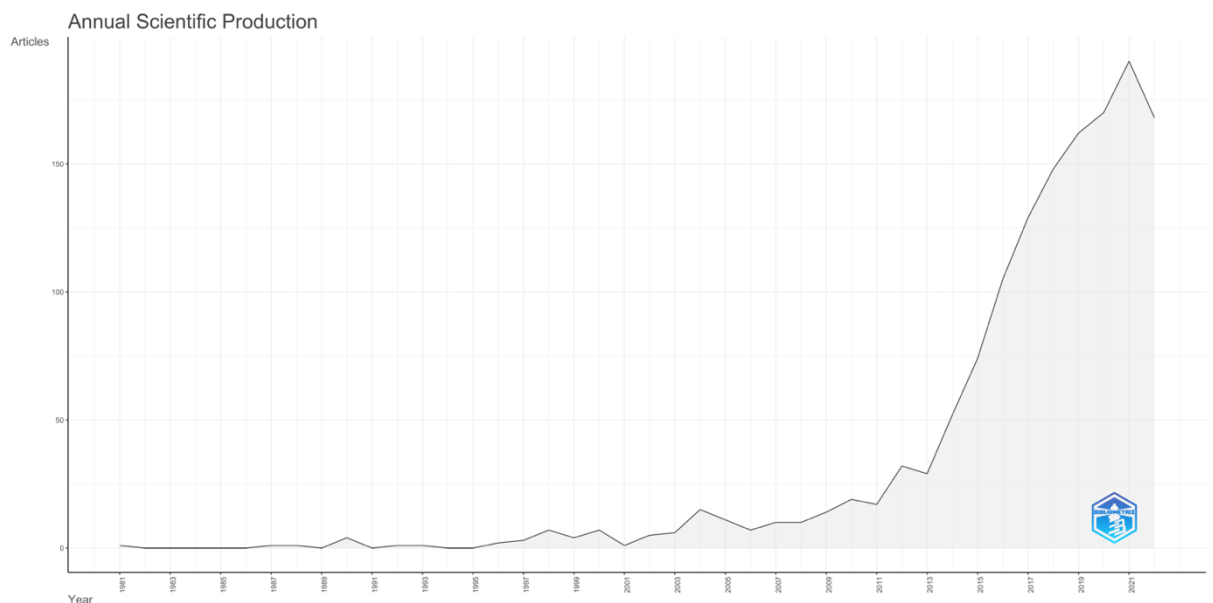
It is evident that between 1981 and 1997, there was a minor increase in the number of publications on city livability. The numbers of produced scientific papers were below 5 papers annually. Then, a gradual rise from 7 in 1998 to 29 in 2013 occurred. From 29 in 2012 to 190 in 2021, the number of publishing papers has increased by about 7 times. This can be seen as a significant shift in the yearly scientific output of the city livability field.

The figure 3.2 illustrated below shows the document that has been referenced the most times in articles published in City Livability.

Figure 3.2 Citation analysis of city livability studies
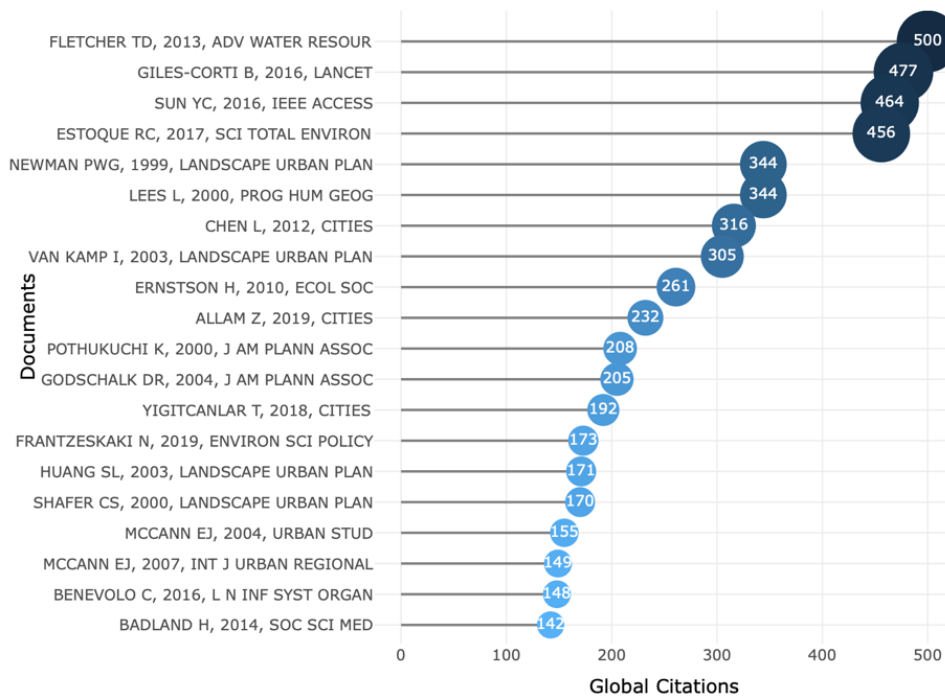
It exposes the body of knowledge regarding city livability and offers hints about the thematic organisation of city livability. With 500 citations, Advances in Water Resources of Fletcher, Andrieu and Hamel (2013) is the most cited work. It was followed by Internet of Things and Big Data Analytics for Smart and Connected Communities (Sun et al., 2016)which received 464 citations, and City Planning and Population heath: a Global Challenge (Giles-Corti et al., 2016) which received 477 citations. It is apparent that issues related to resource management, urbanisation, the environment, and urban planning dominate the top 20 lists.

Figure 3.3 shows which journals have received the most citations on city livability.

Figure 3.3 Most cited city livability sources
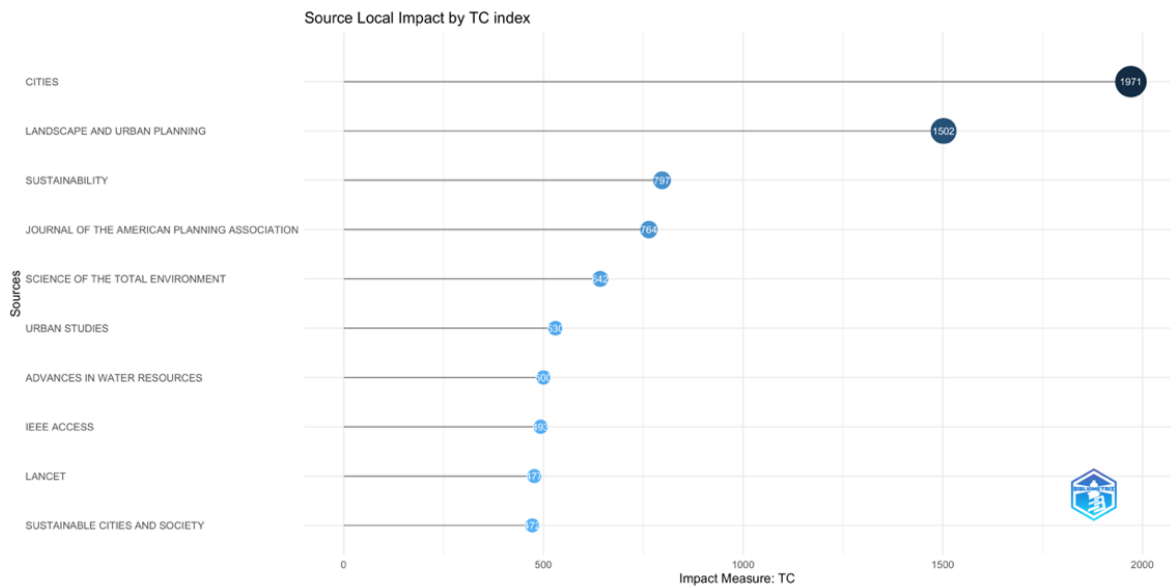
It can be seen that the Cities is the most often cited journal, receiving 1,971 citations, followed by Landscape and Urban Planning with 1,502 citations. The third-placed Sustainability journal has 797 citations, which is less than double the total amount of citations in The Cities journal. However, the remaining publications on the list share the same themes as the top three journals, which are sustainability and urban planning.

Figure 3.4 introduces the thematic map of the city livability. This map was created by using co-word analysis method to examine the dynamics of the conceptual structure of a field.

Figure 3.4 Thematic map of city livability studies

Table 3.2 introduces top 10-word occurrences in city livability studies. This table was generated using the co-word analysis method to explore the dynamics of the conceptual structure within a field.

Table 3.2 Word occurrences in city livability studies

Occurrences	Words	Cluster	Cluster_Label
167	city	3	city
137	cities	3	city
74	urban	3	city
70	health	1	health
66	sustainability	3	city
65	design	3	city
63	impact	4	impact
56	quality	3	city
52	land-use	3	city
49	indicators	3	city

The themes of city livability found in the articles are illustrated in the Figure 3.4 and table 3.2 above. By examining keywords, the themes in the papers have been found. As can be observed, with 167 and 137 appearances in the papers, City and Cities had the highest density on the map. Urban and Health were the third and fourth largest groups with 74 and 70 occurrences, both of which were two time smaller than the two biggest one. Followed by Design, Impact, Quality, Land-use, and Indicators which were also in the top ten on the city livability themes with 65, 63, 56, 52, and 49 occurrences respectively.

Figure 3.5 presented below shows the evolution of the city livability themes between 1981 and 2022

Figure 3.5 Thematic evolution of city livability studies
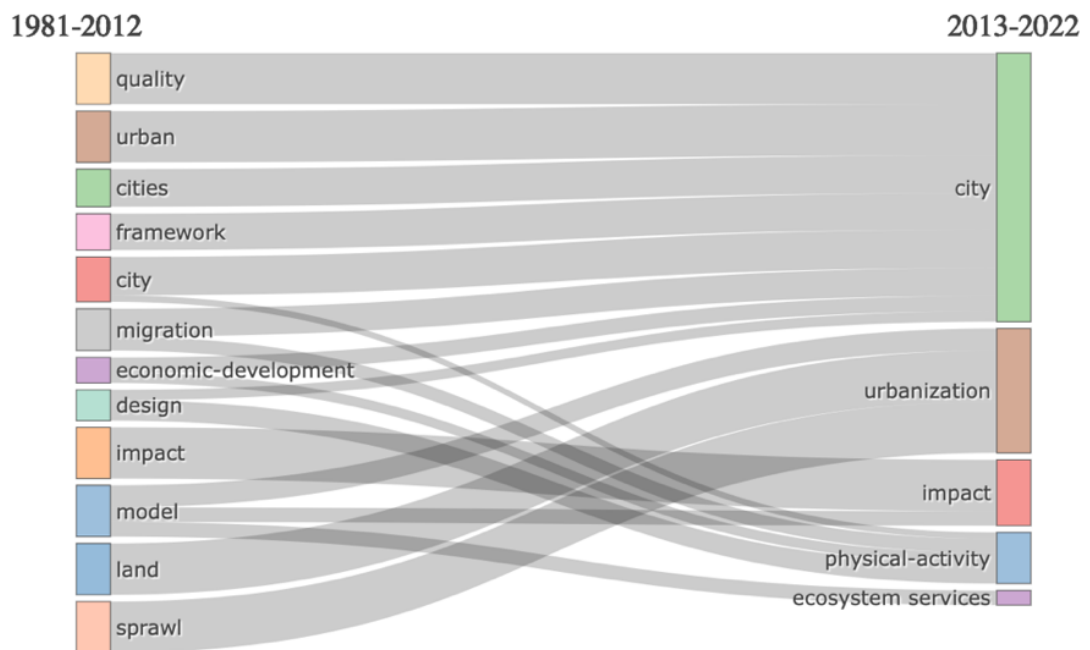
Figure 3.5 presented above shows the evolution of the city livability themes between the early stage of the field: 1981-2012 and the rise of city livability concept: 2013-2022. It can be obviously seen that there are five main city livability themes at the present which are City, Urbanisation, Impact, Physical-activity, and Ecosystem services themes. These current themes have been developed from the previous studies since 1981 until now. The first theme is City, it derived from the concepts of Quality, Urban, Cities, Framework, City, Migration, Economic Development, and Design. Secondly, the Urbanisation theme has been developed from Model, Land, and Sprawl. Next is Impact, this theme has been evolved from Impact and Model themes in the past. The fourth theme is Physical activity

which has been evolved from City, Migration, Economic development, and Design. Lastly, the Ecosystem services has been developed from the Model theme. The evolution of these themes reflects the holistic integration of the city livability field, encompassing both tangible elements such as infrastructure and land, and intangible aspects like economic development, quality, migration, and ecosystem services. This integration is essential, given the challenges posed by urbanisation, as emphasised by the United Nations (UNDP, 2020). The study's focus on city livability is motivated by the need to address these critical urban challenges.

Figure 3.6 displays the top 10 affiliations with the highest research publications in city livability studies.

Figure 3.6 The most relevant institutions in city livability studies
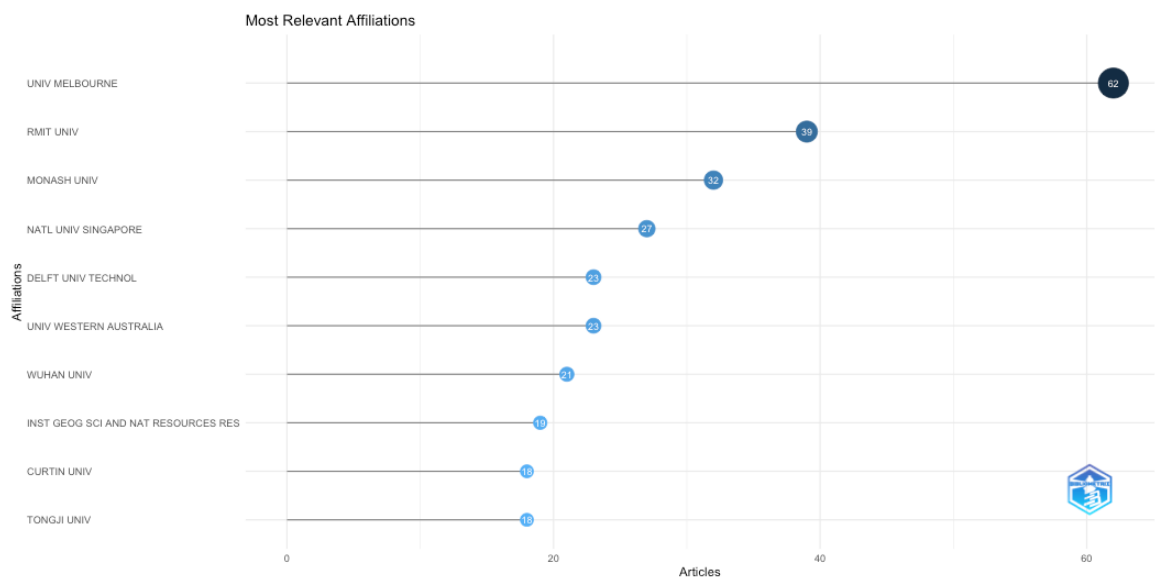
The most important organisations in the field of city livability are featured in figure 3.6. With 62 publications, the University of Melbourne is the institution that has published the most research on urban livability. RMIT University came in second with 39 papers, and Monash University came in third with 32 papers. The National University of Singapore, with 27 papers, is fourth in the list of the top ten institutions, followed by Delft University of Technology with 23, The University of Western Australia with 23, Wuhan University with 21, the Institute of Geographical Sciences and Natural Resources Research with 19, Curtin University with 18, and Tongji University with 18 papers each. Surprisingly, 5 of the top 10 universities are from Australia, 3 are from China, and 1 is from each of Singapore and the Netherlands. This underscores the rationale for choosing a case study

in Australia to exemplify the significance of city livability, as detailed in Section 2.2.3 of Chapter 2.

Figure 3.7 reveals map of articles production by countries for the topmost productive countries in city livability studies.

Figure 3.7 Country scientific production in city livability studies
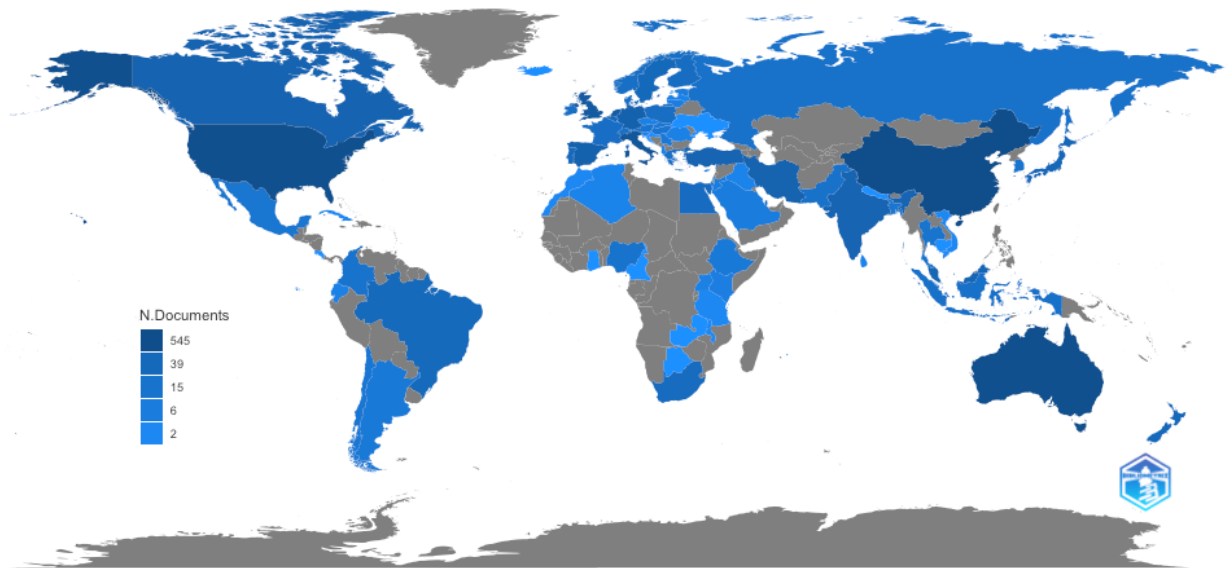
Table 3.3 illustrates number of articles production by countries for the topmost productive countries in city livability studies.

Table 3.3 Country scientific production in city livability studies

Region	Freq
CHINA	545
USA	439
AUSTRALIA	429
ITALY	231
UK	158
NETHERLANDS	119
SPAIN	77
GERMANY	74
IRAN	68
CANADA	63

Within these 10 countries, there were 5 countries from Europe, 2 countries from North America, 2 countries from Asia, and 1 country from Oceania. China was ranked in the first among all countries with the highest number of articles (545), followed by the United States (439), Australia (429), Italy (231), the United Kingdom (158), Netherlands (119), Spain (77), Germany (74), Iran (68), and Canada (63). When considering the corresponding author's countries (appendix A and appendix B), it can be obviously seen that China also was ranked the first with the highest number of multiple country publications (MCP) or highest number of inter-country collaboration with 54 articles. Followed by Australia with 49 articles, the United States with 31 articles, Italy with 20 articles, the United Kingdom with 14 articles, Germany with 13 articles, Netherlands, and Canada with 10 articles each, Singapore with 8 articles, and Spain with 7 articles.

Figure 3.8 shows which countries have received the most citations on city livability.

Figure 3.8 Most cited country in city livability studies

83
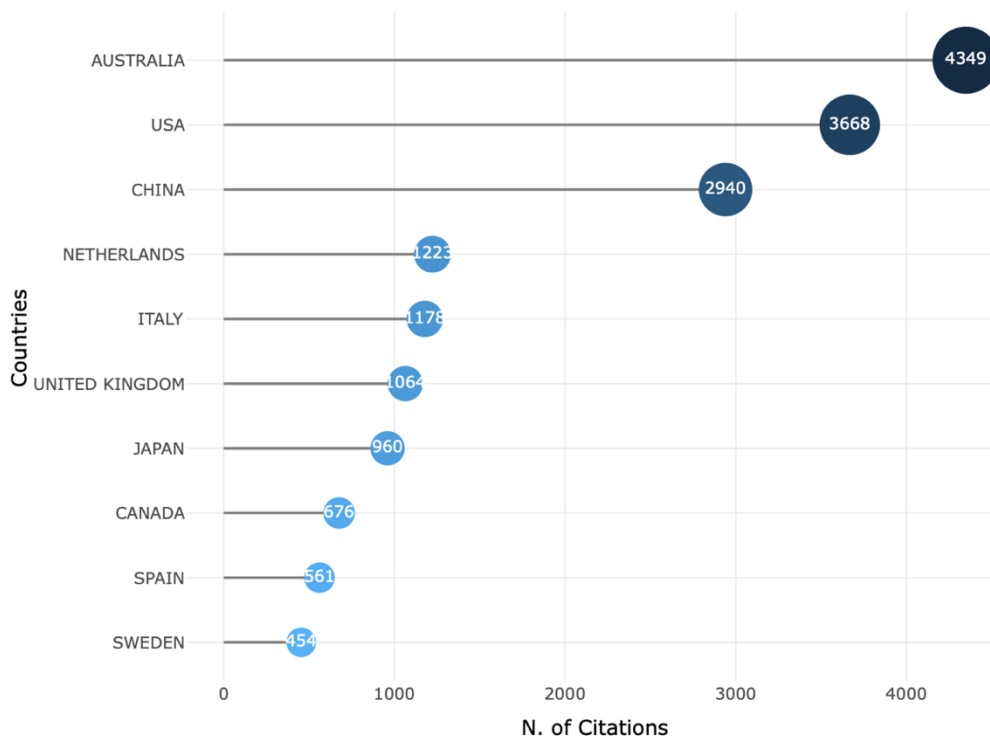
Table 3.4 presents top 10 of most cited countries in city livability research.

Table 3.4 Most cited country in city livability studies

Country	TC	Average Article Citations
AUSTRALIA	4349	23.13
USA	3668	19.72
CHINA	2940	12.89
NETHERLANDS	1223	22.24
ITALY	1178	9.06
UNITED KINGDOM	1064	17.44
JAPAN	960	53.33
CANADA	676	23.31
SPAIN	561	17.00
SWEDEN	454	50.44

It can be seen that Australia is the most often cited country, receiving 4,349 citations, followed by the United States with 3,668 citations. The third-placed country, China has 2,940 citations. The rest countries are Netherlands with 1,223 citations, Italy with 1,178 citations, the United Kingdom with 1,064 citations, Japan with 960 citations, Canada with 676 citations, Spain with 561 citations, and Sweden with 454 citations respectively. It is evident that, despite China's leading role in article production and inter-country collaborations, Australia stands out as the most cited country. This point will be discussed in section 3.4.

3.3.2 Bibliometric analysis for city branding

This section entails a bibliometric analysis of city branding studies. Given the thesis's emphasis on the influence of city livability on city branding, an exploration of the progression of city branding topics is crucial in addition to examining the development of city livability studies. The bibliometric findings serve a dual purpose by facilitating the arrangement of publication information and providing support for the chapter 2 literature review in this thesis.

Figure 3.9 illustrated below is the annual scientific production of city branding study between 1969 and 2023.

Figure 3.9 Annual scientific production of city branding studies
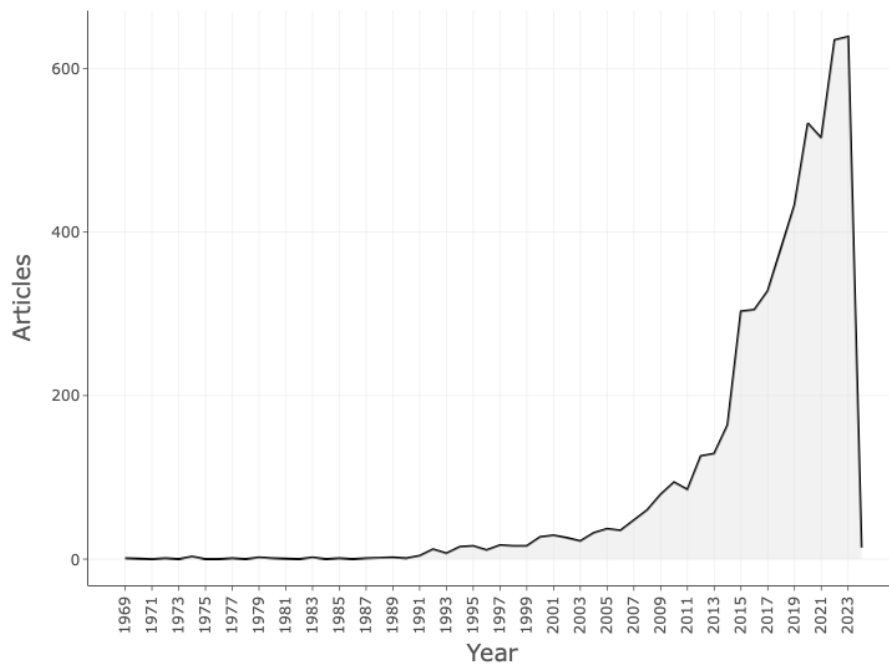
It is evident that the number of publications slowly increased in between 1969 and 2005: from 1 to 37 journals. After those year, there was a rapid increase from 37 in 2005 to 303 in 2015. Then, the academic production city branding soared more than double from 303 journals in 2015 to 639 in 2023. This can be considered a huge change in the annual scientific production of the city branding field compared between 1969 to 2023.

The figure 3.10 presented below reveals the journals that have been cited the most times in city branding publication.

Figure 3.10 Citation analysis of city branding studies
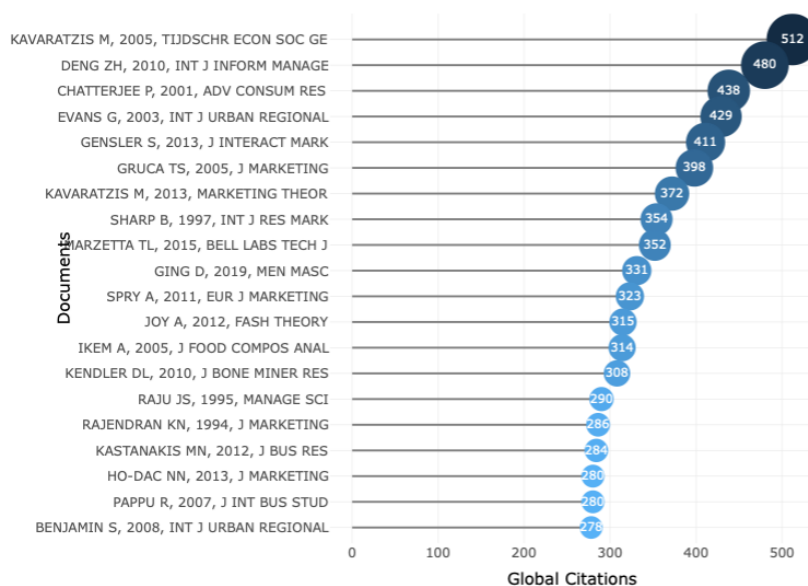
This figure exposes the body knowledge regarding city branding and provide hints about the thematic organisation of the city branding. With 512 citations, "City branding: an effective assertion of identity or a transitory marketing trick" by Kavaratzis and Ashworth (2005) is the most cited paper. Then, it was followed by "Understanding customer satisfaction and loyalty: An empirical study of mobile instant messages in China" (Deng et al., 2010) which received 480 total citations, and "Online Reviews: Do consumers use them?" (Chatterjee, 2001) received 438 citations. This study also references the work of Kavaratzis and Ashworth (2005) because their paper contributes fundamental knowledge to city branding, covering the transition from product to place and from place marketing to place branding. This foundational aspect could explain the significant impact of their article in the field.

Figure 3.11 shows the journals with the highest total citations in the field of city branding.

Figure 3.11 Most cited city branding sources

This figure reveals the Journal of Business Research leads with 3,331 total citations, followed by the Cities journal with 2,881 citations. The Journal of Marketing ranks third, accumulating 1,814 citations. Other highly cited journals pertain to themes such as urban studies, management, and marketing, aligning with the predominant themes of the top three journals.

Figure 3.12 introduces the thematic map of the city branding. This map was created by using co-word analysis method to examine the dynamics of the conceptual structure of a field.
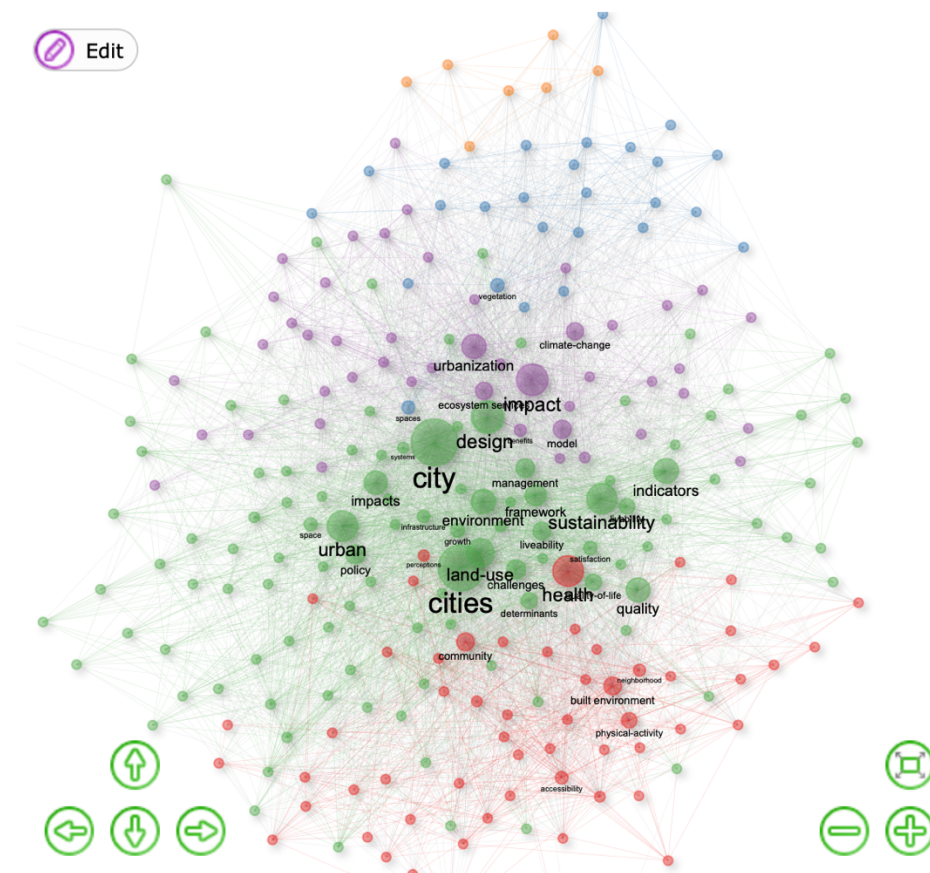
Figure 3.12 Thematic map of city branding studies
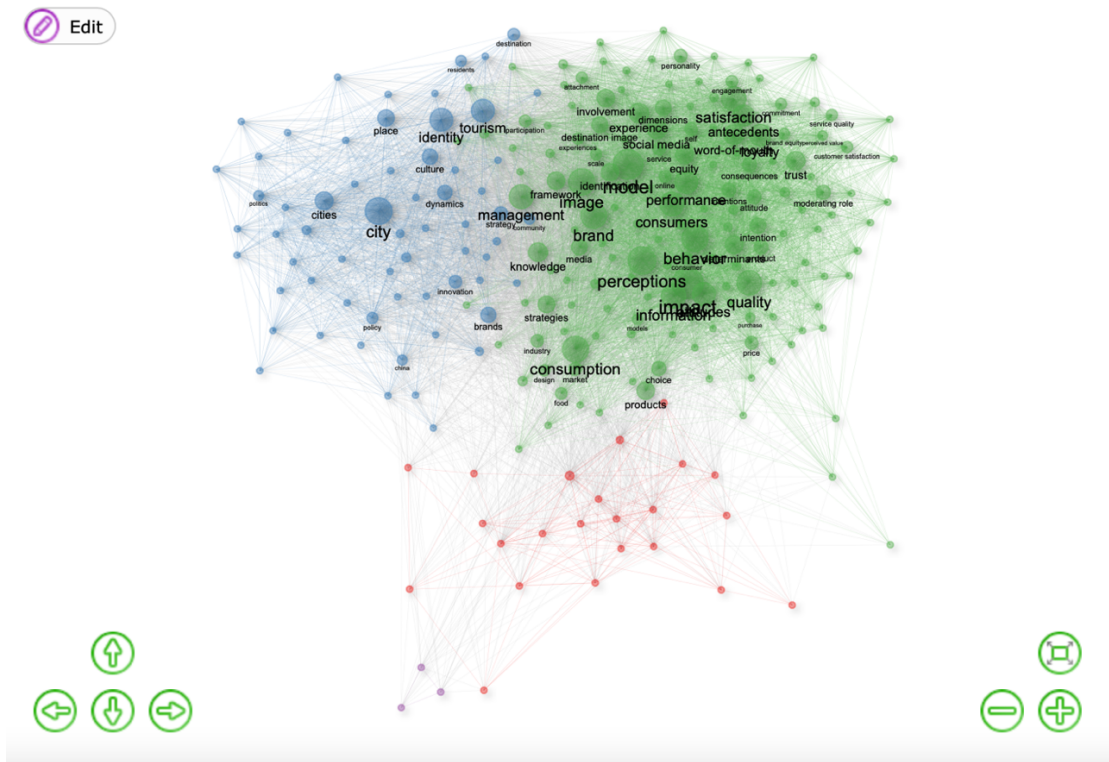
Table 3.5 introduces top 10-word occurrences in city branding studies. This table was generated using the co-word analysis method to explore the dynamics of the conceptual structure within a field.

Table 3.5 Word occurrences in city branding studies

Occurrences	Words	Cluster	Cluster_Label
465	city	2	city
451	impact	3	impact
394	model	3	impact
264	perceptions	3	impact
249	image	3	impact
247	satisfaction	3	impact
241	brand	3	impact
229	identity	2	city
214	behavior	3	impact
203	cities	2	city

Figure 3.12 and table 3.5 present the thematic map and word occurrences in city branding studies. When considering keywords, the main themes of city branding were found. As can be observed, City gained the highest density on the map, with 465 appearances in the publications. Followed by word Impact with 451 occurrences, becoming second largest theme for city branding studies. The third and fourth largest groups were Model and Perceptions, receiving 394 and 264 occurrences in the paper. The word Satisfaction, Brand, Identity, Behaviour, and Cities were also in top ten of the city branding themes, with 247, 241, 229, 214, and 203.

Figure 3.13 presented below shows the evolution of the city branding themes between 1969 and 2024

**Figure 3.13 Thematic evolution of city branding studies**
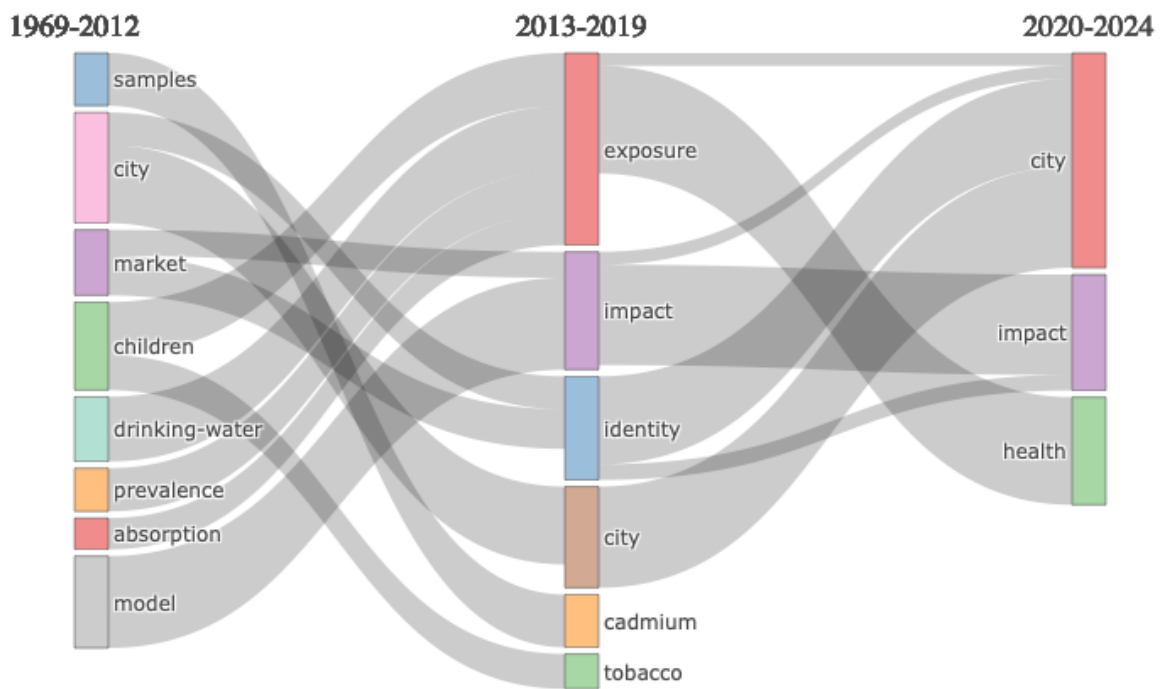
Figure 3.13 traces the evolution of city branding themes across three distinct periods: the early stage (1969–2012), the middle period (2013–2019), and the current period (2020–2024). Notably, three primary themes emerge in the present: City, Impact, and Health. Firstly, the City theme persists across all periods, evolving in the current period to encompass Exposure, Impact, Identity, and City. This theme bears resemblance to the largest theme in city livability studies, evolving from various past topics. This correlation

serves as one of the reasons to investigate the impact of city livability on city branding in this thesis.

Secondly, the Impact theme originated in the middle period, evolving from Market and Model themes in the early stage, and in the current period, it further develops from Impact itself and Identity themes. Finally, Health emerges as a distinct theme, notably accentuated during the Covid-19 pandemic (2020–2024), evolving from Exposure themes. As highlighted in the literature reviews in chapter 2, healthcare stands as a key domain in city livability. This thematic development reinforces the connection between city branding and city livability.

Figure 3.14 discloses the primary institutions contributing to the city branding field.

Figure 3.14 The most relevant institutions in city branding studies
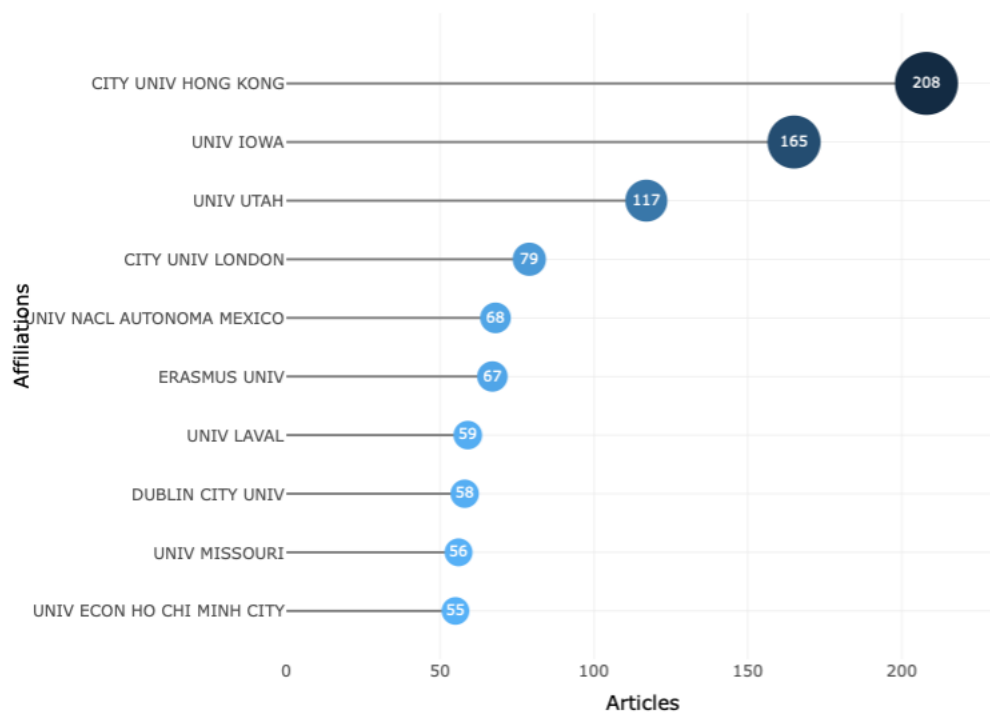
According to the chart, City University of Hong Kong leads with 208 publications, followed by the University of Iowa with 165, and the University of Utah with 117. The City University of London holds the fourth position with 79 publications, trailed by the National Autonomous University of Mexico with 68, Erasmus University with 67, Laval University with 59, Dublin City University with 58, University of Missouri with 56, and the University of Economics Ho Chi Minh City with 55. Notably, the top 10 include 3

institutions from the United States of America, 2 from the United Kingdom, and 1 from each of China, Mexico, the Netherlands, Canada, and Vietnam.

Figure 3.15 reveals map of articles production by countries for the topmost productive countries in city branding studies.

Figure 3.15 Country scientific production in city branding studies
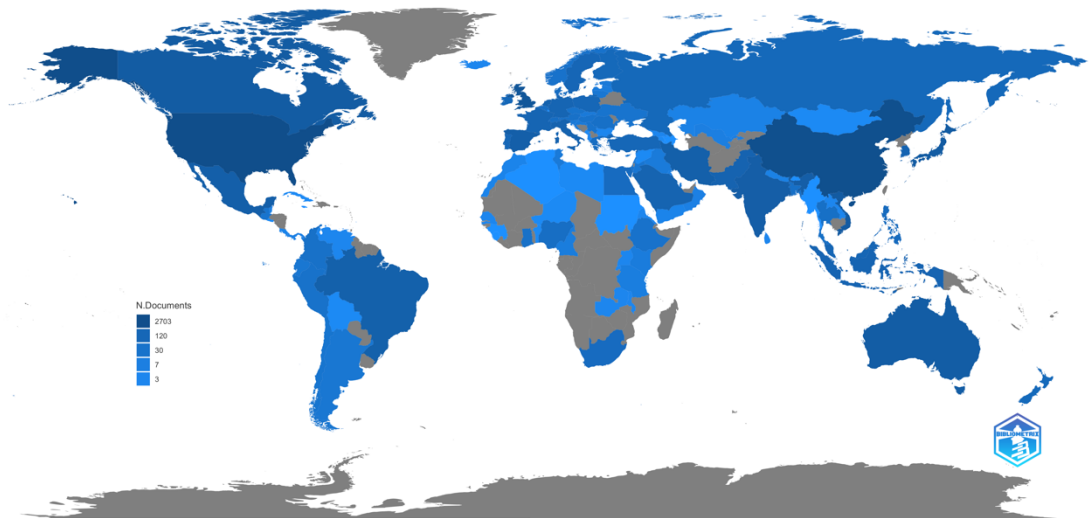
Table 3.6 illustrates number of articles production by countries for the topmost productive countries in city branding studies.

Table 3.6 Country scientific production in city branding studies

Region	Freq
USA	2703
CHINA	2200
UK	910
VIETNAM	529
JAPAN	488
CANADA	473
AUSTRALIA	430
INDIA	374
MEXICO	324
SPAIN	315

Figure 3.15 and Table 3.6 present the article production by countries for the most productive nations. The United States of America leads with the highest number of

publications (2,703), followed by China (2,200), the United Kingdom (910), Vietnam (529), Japan (488), Canada (473), Australia (430), India (374), Mexico (324), and Spain (315). Among these top 10 countries, there are 4 from Asia, 2 from Europe, 2 from North America, and 1 each from Oceania and Canada. When examining the corresponding author's countries (refer to appendix C and appendix D), China stands out as the foremost country with the highest number of Multiple Country Publications (MCP) or intercountry collaborations, gaining 232 publications. Following are the USA with 196, the United Kingdom with 132, Australia with 75, Canada with 57, Vietnam with 50, Netherlands with 41, Japan with 38, and Italy and Korea with 33 articles.

Figure 3.16 Most cited country in city branding studies
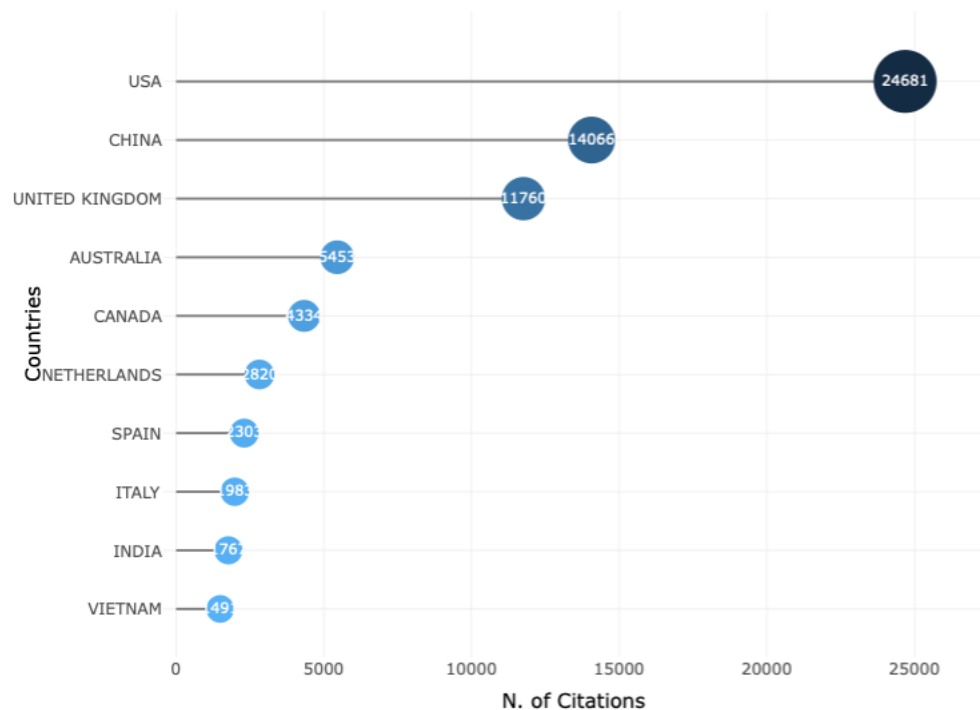
Table 3.7 Most cited country in city branding studies

Country	TC	Average Article Citations
USA	24681	24.81
CHINA	14066	16.71
UNITED KINGDOM	11760	28.34
AUSTRALIA	5453	28.85
CANADA	4334	25.95
NETHERLANDS	2820	31.33
SPAIN	2303	16.33
ITALY	1983	21.32
INDIA	1767	10.84

Country	TC	Average Article Citations
VIETNAM	1491	7.73

Figure 3.16 and Table 3.7 depict the countries that have received the most citations in city branding. The United States of America leads with 24,681 citations, followed by China with 14,066 citations, and the United Kingdom with 11,760. Subsequent countries include Australia with 5,453, Canada with 4,334, Netherlands with 2,820, Spain with 2,303, Italy with 1,983, India with 1,767, and Vietnam with 1,491 citations, respectively. Notably, despite China having the highest number of Multiple Country Publications (MCP), the most cited country aligns with the most academically productive country, which is the USA.

3.4 Discussion

This section aims to address the chapter's key questions: 1) Identifying the journals and disciplines with the most impact on a research stream, and 2) Understanding the dynamics of the conceptual structure of the field. The following discussion will delve into these questions and offer further insights. Commencing with the evolution of city livability studies, the increasing number of city livability publications confirms many international agendas such as the Sustainable Development Goals (SDGs), the New Urban Agenda, and the Healthy Cities Movement which call for health and environmental restoration (Alderton et al., 2019a), as well as the necessity of city livability to cope with to the growth of population, rapid urbanisation, and natural disaster (OECD, 2017; Higgs et al., 2019a) as mentioned in section 1.2, chapter 1.

In addition, "Cities: The International Journal of Urban Policy and Planning" journal stands out as one of the most cited in this field, likely due to its thorough coverage of topics such as urban adaptation to climate change, gentrification, housing, homelessness, urban management, public-private sector cooperation, development and planning challenges, urban regeneration, neighborhood conservation, urban design, immigration, international labor migration, urban politics, theory, governance, smart cities and regions, infrastructure, livability, quality of life, greening, and the complex dynamics of sustainable cities (Science Direct, 2024). This extensive scope aligns with the definition of city livability as articulated by Higgs et al. (2019). This could explain why this journal holds the highest citation count in the city livability field. Moreover, The Web of Science

database reveals a significant annual surge in livable cities research. This research area is primarily found in sustainability and urban planning journals, indicating a noticeable gap in marketing or branding literature as discussed in chapter 1. Recognizing this deficiency, particularly in light of Kashef's limited work, serves as a motivation for this thesis to delve into the exploration of the impact of livability on city branding.

Regarding the conceptual structure dynamics, the current research landscape in the city livability field is characterised by 5 primary themes: *City*, *Urbanisation*, *Impact*, *Physical Activity*, and *Ecosystem Services*. These themes have developed and evolved from earlier research dating back to 1981, reflecting the continuous growth and integration of the field over time.

The largest theme, *City*, has evolved from several foundational concepts including Quality, Urban, Cities, Framework, Migration, Economic Development, and Design. Over the years, these diverse sub-themes have converged into a singular, significant theme that focuses on the city as a central element in urban research. This evolution suggests that the research focus has shifted towards understanding cities holistically, encompassing aspects like governance, infrastructure, and urban design that contribute to overall livability.

The second key theme, *Urbanisation*, has developed from earlier studies on Model, Land, and Sprawl. This theme highlights the ongoing challenges posed by rapid urban growth and land use management, which are critical for city planning. The importance of urbanisation in city livability research is emphasized by global concerns, such as those raised by the United Nations (UNDP, 2020), where addressing issues like population growth, sprawl, and sustainable land use remains central to creating livable cities.

The third theme, *Impact*, stems from earlier discussions surrounding both Impact and Model. This theme explores the various effects that urban development, policies, and planning decisions have on city livability. It reflects the growing need to understand how different interventions—whether social, economic, or environmental—affect urban populations and their quality of life (Mouratidis, 2021).

Physical Activity, the fourth theme, has emerged from earlier studies on City, Migration, Economic Development, and Design. This theme underscores the critical role that urban design and planning play in promoting active lifestyles, health, and well-being. Cities that

facilitate physical activity through accessible green spaces, walkability, and recreational infrastructure are seen as better equipped to enhance the livability of their residents. Finally, the fifth theme, *Ecosystem Services*, evolved from the earlier Model theme. This theme focuses on the integration of natural systems and environmental sustainability into urban planning. Ecosystem services—such as clean air, water management, and green spaces—are crucial for maintaining a healthy urban environment and are now seen as vital components of a livable city.

The evolution of these themes reflects a thorough and integrated understanding of city livability, encompassing both tangible elements like infrastructure, land, and physical space, as well as intangible factors such as economic development, quality of life, migration patterns, and ecosystem health. This integration is particularly important given the complex challenges posed by urbanisation, as highlighted by international bodies like the United Nations (UNDP, 2020). As cities continue to grow and face increasing pressures, the focus on city livability becomes a critical part of addressing urban challenges. The motivation behind this study is to contribute to the understanding of how these themes intersect and influence the livability of modern cities.

When examining both country scientific production and the most cited country, it is apparent that while China has received the highest number of article productions over time and engaged in inter-country collaborations, Australia emerges as the most cited country. This observation could be attributed to Australia's top-ranking position in terms of the most academically productive institutions in the field of city livability. Specifically, five Australian universities are among the top 10 most relevant affiliations for publishing articles on city livability. Consequently, publications under these affiliations may have more opportunities to be cited.

Regarding the bibliometric analysis findings in the field of city branding, there has been a significant surge in academic publications, particularly from 2015 to 2023. This trend aligns with the observations made in Acharya and Rahman's (2016) thematic reviews, which highlighted a substantial increase in the number of city branding research articles from 2004 to 2014. The current bibliometric analysis provides updated information, revealing that the volume of production surpasses the findings of previous literature reviews. Furthermore, examining the most cited sources in city branding reveals a diverse selection of journals from various fields within the top 10, encompassing Business

Research, Cities, Journal of Marketing, Urban Studies, Tourism Management, Destination Marketing, Consumer Research, Tobacco Control, Sustainability, and more. This diversity aligns with Lucarelli's (2012) perspective that city branding is a multidisciplinary field, attracting researchers from various domains. This assertion supports the rationale of this thesis, which focuses on investigating the impact of city livability on city branding.

Moreover, it's evident that the number of themes in the city branding field has undergone a reduction, decreasing from 8 themes in the early stage (1969 – 2012) to 6 themes in the middle period (2013 – 2019), and ultimately consolidating into 3 main themes in the present (2022 – 2024): City, Impact, and Health. These overarching themes have evolved from a multitude of specific topics such as Market, Children, Drinking-water, Identity, Exposure, Cadmium, Tobacco, etc., emerging as central focus areas in the contemporary context. Similar to the thematic development observed in the city livability field, the city branding field exhibits a trend of integrating topics over time. This phenomenon can be attributed to the multidisciplinary nature of the city branding field (Lucarelli, 2012), which has progressively evolved towards greater institutionalisation with increased scientific scrutiny (Vuignier, 2017). Additionally, a noteworthy development is the emergence of a Health theme between 2022 and 2024, which appears to have evolved from the Exposure topic in previous years. It is possible that the COVID-19 pandemic has played a significant role in influencing the inception of this theme.

In examining both the scientific production by country and the most cited country, the United States of America holds the top position, followed by China. However, when considering the corresponding author's country and the most relevant affiliations, China surpasses others in the number of multiple country publications (MCP). Specifically, the City University of Hong Kong, China, stands out with the highest number of publications compared to universities from other countries. These strong academic collaborations suggest that China has the potential to emerge as the leading country in the future, such as Yang et al. (2019)'s research which created the City Brand Evaluation Tool for Sustainable Urban Growth. This research has collaboration between Tongji University in Shanghai, China, and the University of Cambridge, in the United Kingdom.

3.5 Limitation of the bibliometrics methods

There are significant restrictions and disadvantages of employing bibliometrics in study. Its reliance on quantitative measures, which might be biased and limited, is one of its main drawbacks (Donthu et al., 2021). For instance, a research paper's citation count can be influenced by a variety of variables, such as the journal's visibility or the authors' popularity, which may not always be indicative of the study's quality or significance.

Additionally, the fact that bibliometrics primarily assesses the influence and impact of published research means that it might not fully account for the real impact of research. For instance, the new publishing studies that have not currently received a lot of attention or hasn't been frequently referenced may yet have a big impact on the field in the future even though the bibliometric metrics may not show it. There is a study indicated that publications need to be published for at least two to three years before they receive enough citations for bibliometric indicators to be trustworthy (Abramo, Cicero and D'Angelo, 2011). Therefore, it needs to take the length of time into account (Belter, 2015).

In conclusion, the analysis and evaluation of the influence and impact of scholarly publications can be done effectively using bibliometrics. However, it has significant limits and disadvantages, such as its reliance on quantitative indicators and its concentration on published research, which might not adequately capture the impact of research.

3.6 Conclusion

In summary, this section addresses key questions about the impact of journals and disciplines on city livability and city branding research. The evolution of city livability studies from 2012 to 2021 aligns with international agendas, emphasizing health, environmental restoration, and the need for livability to address urban challenges. "Cities: The International Journal of Urban Policy and Planning" emerges as the most cited journal in city livability, reflecting its well-rounded coverage of diverse urban topics. The conceptual structure dynamics reveal 5 primary themes, with "City" being the largest, demonstrating an integrated understanding of the field.

In the city branding field, a surge in academic publications from 2015 to 2023 reflects growing scholarly interest and a multidisciplinary nature. Thematic evolution results in 3 main themes: "City," "Impact," and "Health." The emergence of the "Health" theme, possibly influenced by the COVID-19 pandemic, signifies the field's responsiveness to contemporary challenges. Examining scientific production and citations by country, the United States leads, while China exhibits strength in multiple country publications, especially through the City University of Hong Kong. This collaboration highlights China's potential to play a prominent role in the future of city branding research. The analysis provides valuable insights into the dynamic landscapes of city livability and city branding, offering a glimpse into current trends, thematic shifts, and the contributions of various countries and institutions to these dynamic fields.

Lastly, the findings presented in this chapter serve a dual purpose, functioning not only to systematically organise the extensive research information within both city livability and city branding fields but also to substantiate the identified research gap in this thesis. Furthermore, these findings contribute to reinforcing the underlying rationale of the study, which centers on the exploration of the interplay between city livability and city branding.

Chapter 4 Scale Development and Pilot Study

4.1 Introduction

This chapter explains the process of city livability scale development for questionnaire survey. Section 4.2 explains the methodology employed for the development and testing of the scale. It elaborates the process of item generation and outlines the approach taken for conducting exploratory factor analysis (EFA). Then, the Perceived City Livability (PCL) which contains of 7 sub-dimensions: stability (SD), healthcare (HC), environment (EN), culture and social (CS), education (ED), infrastructure (IN), and economic (EC) are constructed and items in each variable are created in section 4.3. Next, section 4.4 is about construction of the questionnaire and data collection for the pilot study. After that, the perceived city livability measurement scales are examined the exploratory factor analysis and all scales are tested the reliability in section 4.5. All items are also revised and considered the necessity in this section. Furthermore, all selected items were set up to test the hypotheses via a survey in the following chapters. Finally, the conclusion is presented in section 4.6 to encompass all essential content within this chapter.

4.2 Methodology of Scale Development and Testing

When conducting a survey, it is necessary to define the variables and then develop the measurement items as well as test them. As explained in chapter 2, these processes are important to this research as we are going to identify the relationship among perceived city livability, perceived city personality, attitude towards brand, and behavioural intention. Therefore, scale development and testing are introduced before going to the main survey. The approaches suggested by Churchill (1979) are followed for operationalising constructs. The process consists of four basic steps: 1) defining the domain of the constructs: specifying the scope of the construct under the study 2) creating the pool of item: generating the full set of the potential measurement items , 3) purifying the measure: refining and selecting the most associated and effective from the initial pool, and 4) evaluating the items by determining their validity and reliability: establishing trustworthiness and accuracy of the research instrument (Churchill, 1979; Netemeyer et al., 2003).

In the initial step, we need to explicitly outline what we're measuring. This process is called defining the scope of the constructs. Essentially, a construct needs to distinctly mention what falls under its definition and what doesn't (Churchill, 1979). Chapter 2 and section 4.3 in this chapter provide the specific definition of construct based on an in-depth review of research related to perceived city livability. This definition guide the development of the construct's components.

When it comes to the methodology used for the step 2, 3, and 4, it can be divided into 2 parts which are 1) methodology for generation of items and 2) methodology of quantitative analysis. Both methodologies are the focus of this chapter.

4.2.1 Method for generating items

According to Churchill (1979), the next phase in the process of enhancing measurements involves creating items that align with the defined domain. Techniques often effective in exploratory research, such as literature reviews, experience surveys, and examples that evoke insights, are usually beneficial in this context. Previous literature can indeed provide insights into how the variable was defined before and the number of dimensions or components it possesses. During the initial phase of item creation, the focus is on formulating a collection of items that encompass each aspect of the relevant construct (Netemeyer et al., 2003). Moreover, the researcher might opt to incorporate items with subtle variations in meaning, as the initial list will undergo refinement to create the ultimate measurement (Churchill, 1979). According to the recommendation of the author, this research draws on existing the city livability models as discussed in chapter 2 (Zanella, Camanho and Dias, 2014; Lowe et al.,2015; The Economist Intelligence Unit, 2015; The Organisation for Economic Co-operation and Development (OECD)'s Better Life Index, 2011; The American Association for Retired Person, 2015; Mercer Quality of Living, 2009; The Urban Livability Index for a low-to-middle income country, 2019; Aaker, 2009; Amatyakul and Polyorat, 2016; Keller, 1993; Yoo et al., 2000).

4.2.2 The quantitative analysis methodology

Factor analysis is a part of a bigger number of statistical methods referred to as data reduction techniques. In general, all data reduction strategies are created to take a bigger

number of observed variables and combine them in some way to get a smaller set of variables. There are different types of factor analysis models. On the one hand, there is the fully exploratory model, which makes no use of a priori data, such as the potential number of factors or the relationships between indicators and factors. On the other hand is a purely confirmatory factor model, where the researcher specifies the number of factors and the way in which the observed indicators map onto each factor (Finch, 2020).

In this scenario, the purpose here is to confirm that the idea of city livability has 7 dimensions (38 items in total), and all constructs can be assessed using a restricted number of items. The city personality (15 items in total), attitude towards city brand (3 items), and behavioural intention (5 items) will not be assessed the EFA and generate items as they are all well-established concepts. Which of the candidate variables is most likely to make up a valid and reliable measurement tool should be revealed by factor analysis. In accordance with the literature's recommendations, one data set is used to build the measurement model in an EFA, and a second data set is used to assess the model's fit and validity in a CFA (Gerbing and Hamilton, 1996). A trustworthy survey company gathers one data set: n=600 that is divided into two parts at random: one for the EFA in pilot study (n=200) and one for the CFA in final study (n=600) on both city (Bangkok and London).

4.2.2.1 Method for Exploratory Factor Analysis (EFA)

Exploratory factor analysis (EFA) is a commonly employed statistical method in the realm of social sciences.) Hair (1999) defines EFA as follows: "It is an interdependence technique whose primary purpose is to define the underlying structure among the variable in the analysis". According to Fabrigar et al. (1999), the EFA is carried out using SPSS programme, and the researcher is required to choose the extraction strategy and rotation. To improve clarity and interpretation of the results, it is advised to choose one of the two basic rotation approaches, which are accessible for factor extraction (Fabrigar and Wegener, 2012).

Principal Component Analysis (PCA) is frequently employed for factor extraction, though some scholars such as Fabrigar et al. (1999) who do not view it as factor analysis. A significant limitation of PCA is its basis on sample variance, meaning it emphasizes factors present in the data, independent of error terms (such as discrepancies between the

sample and the actual population). This is not an issue when a sample mirrors the population precisely. However, due to the limited sample size in this study and the overrepresentation of certain socioeconomic categories, the Maximum Likelihood method is favoured over PCA. Unlike PCA, this method factors in error terms and, as a result, derives factors more representative of the population than just the sample (Thompson, 2004). It necessitates checking the normality of the data distribution and offers a goodness-of-fit measure, indicating the model's appropriateness (Fabrigar et al., 1999).

Rotations come in two forms: orthogonal and oblique. Unlike variables, factor axes possess arbitrary positions that can be adjusted to enhance the interpretability of the factor structure (Thompson, 2004). An orthogonal rotation, such as Varimax, maintains uncorrelated factors, while an oblique rotation assumes inter-factor correlations. Among oblique rotations, Promax is prevalent, offering a series of k rotations that can be configured. In this instance, four rotations are employed. The scale's configuration can be enhanced by excluding specific items, guided by pre-established criteria. Drawing from the literature, this dissertation evaluates an item's quality of representation (the data contribution of an individual item to the model) and its loadings (the significance of an item to a particular dimension) as suggested by Hair (1999). Ideally, items should possess a representation quality above 0.5, signifying the model accounts for 50% of the variance. However, a threshold of 0.4 can be considered acceptable during an exploratory analysis.

In summary, EFA is instrumental in deciphering inherent relationships among variables in the social sciences. Using tools like SPSS, researchers judiciously choose extraction methods and rotations. While Principal Component Analysis (PCA) is common, its limitations in certain samples make alternatives like the Maximum Likelihood method more suitable (Thompson, 2004). Decisions on orthogonal versus oblique rotations refine the analysis, with this study favouring the latter. Items are scrutinized for their contribution to the model, with a preference for a representation threshold of 0.5, though 0.4 is acceptable in explorative stages. Overall, this study adeptly harnesses EFA to deliver a full data analysis.

4.3 Generation of Items

When closely considering the studies into the city livability, this research defines city livability as a community that is safe, attractive, socially cohesive and inclusive, and environmentally sustainable; with affordable and diverse housing linked by convenient public transport, walking and cycling infrastructure to employment, education, public open space, local shops, health and community services, leisure and cultural opportunities (Higgs et al. (2019). The city livability also can be divided into 7 dimensions: 1) stability, 2) healthcare, 3) environment, 4) culture and social, 5) education, 6) infrastructure, and 7) economic (Zanella, Camanho and Dias, 2014; Lowe et al.,2015; The Economist Intelligence Unit, 2015; The Organisation for Economic Co-operation and Development (OECD)'s Better Life Index, 2011; The American Association for Retired Person, 2015; Mercer Quality of Living, 2009; The Urban Livability Index for a low-to-middle income country, 2019). Despite the importance of city livability study, there is a lack of research demonstrating the well-rounded conceptualisation and operationalisation of city livability constructs. Furthermore, this study argues that it has potential impact in marketing studies, especially in the topic of city branding, as discussed in chapter 1 introduction and chapter 2 literature review. The researcher believes that all 38 items grouping in 7 dimensions mentioned earlier can absolutely cover the city livability definition and can be comprehensive city livability measurement (see table 4.1). Nevertheless, the variables of perceived city personality, attitude towards the brand, and behavioral intention are already recognised as established concepts. Therefore, there is no need to generate items for them at this stage; they will be introduced later in the construction of the questionnaire and reliability test sections.

Table 4.1 Perceived city livability items extracted from the previous literatures.

Items	Sources
Perceived City Livability	
Stability Dimension	Dias (2014), Lowe et al.(2015), The Economist Intelligence Unit (2015), The Organisation for Economic Co-operation and Development (OECD)'s Better Life Index (2011), The American Association for
SD1 - I feel safe when I live in Bangkok/London.	
SD2 - There is no prevalent crime in the city that I am living in.	
SD3 - There is no threat of terror in the city that I am living in.	
SD4 - There is no threat of military conflict in the city that I am living in.	
SD5 - There is no threat of civil unrest/conflict in the city that I am living in.	
SD6 - The political and social environment are good in the city that I am living in	
Healthcare Dimension	
HC1 - There is an availability to healthcare in the city that I am living in.	
HC2 - There is a high quality of healthcare in the city that I am living in.	
HC3 - There is an availability of drugs including vaccination in the city that I am living in.	
Environment Dimension	

Items	Sources
EN1 - The humidity and temperature in the city that I am living in is suitable for living. EN2 - The natural environment in the city that I am living in is in good condition. EN3 - The city provides enough green infrastructure. EN4 - The city provides enough public open space. EN5 - The level of air pollution is low in the city that I am living in.	Retired Person (2015), Mercer Quality of Living, (2009), and The Urban Livability Index for a low-to-middle income country (2019)
Culture and Social Dimension	
CS1 - There are sport activities in the city that I am living in. CS2 - There are some recreational services in the city that I am living in. CS3 - There are choices of food and local goods in the city that I am living in. CS4 - I don't have any problem with the social and religious restrictions in the city that I am living. CS5 - There are cultural activities in the city that I am living in. CS6 - There is civic engagement in the city that I am living in. CS7 - I am satisfied with my life in the city I am living in. CS8 - This city can provide work-life-balance to people.	
Education	
ED1 - There is an education opportunity in the city that I am living in. ED2 - There is an availability for private education in the city that I am living in. ED3 - There is high quality private education in the city that I am living in. ED4 - There is an availability for public education in the city that I am living in. ED5 - There is high quality public education in the city that I am living in.	
Infrastructure	
IN1 - There is high quality road networks in the city that I am living in. IN2 - There is high quality public transport in the city that I am living in. IN3 - There is high quality international links in the city that I am living in. IN4 - There is an availability of good quality housing in the city that I am living in. IN5 - There is high quality energy provision in the city that I am living in. IN6 - There is high quality water provision in the city that I am living in. IN7 - There is a good solid waste management in the city that I am living in.	
Economic	
EC1 - There is job security in the city that I am living in. EC2 - There is opportunity to earn a fair wage in the city that I am living in. EC3 - There is a high employment rate in the city that I am living in. EC4 - There is economic and social development in the city that I am living in.	

Source: Dias (2014), Lowe et al.(2015), The Economist Intelligence Unit (2015), The Organisation for Economic Co-operation and Development (OECD)'s Better Life Index (2011), The American Association for Retired Person (2015), Mercer Quality of Living, (2009), and The Urban Livability Index for a low-to-middle income country (2019)

In conclusion, this research interprets city livability by integrating elements like safety, inclusivity, and environmental sustainability, amongst others, drawing from Higgs et al. (2019). These attributes can be distilled into seven key dimensions, addressing a gap in the current literature.

4.4 Data Collection

The collections of all new data were undertaken to formulate the scale and evaluate its validity via both EFA and CFA (Gerbing and Hamilton, 1996; Thompson, 2004). This section details the development of the survey and the sample's composition. The data

acquisition resulted from a collaboration between the researcher and a trustworthy survey agency.

4.4.1 Developing the questionnaire for data collection

The questionnaire (see appendix K) will be used as a tool to collect data from research samplers: 100 residents in Bangkok, and 100 residents in London. After that, the data will be analysed by the EFA for validating the perceived city livability construct, and the reliability of all variables: perceived city livability, perceived city personality, attitude towards brand, and behavioural intention will be tested.

Figure 4.1 Structure of the Questionnaire

Section 1	• Presentation of the Questionnaire and Reminding of anonymity
Section 2	• Demographics (gender, age, annual income, education, and employment status)
Section 3	• Resident's perception towards city livability
Section 4	• Resident's perception towards city personality
Section 5	• Attitude towards city brand
Section 6	• Behavioral Intention
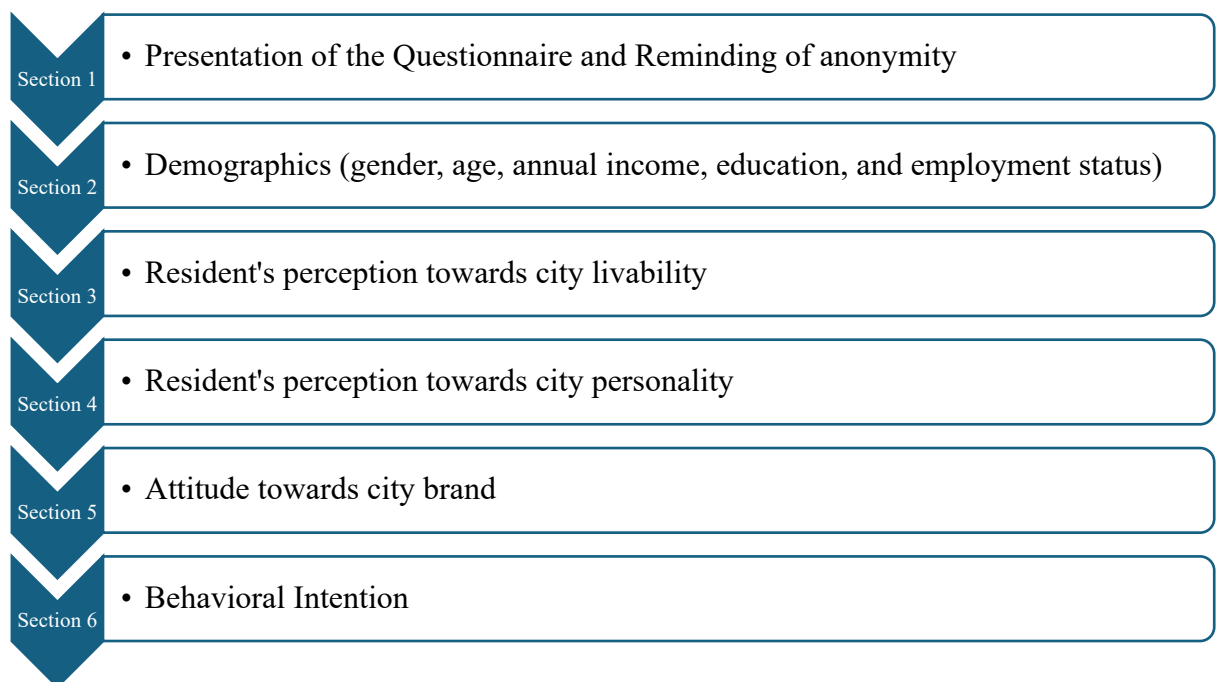
There are 6 parts in the questionnaire (see figure 4.1), beginning with the general information that all participants were informed that they are participating in the survey about the study of city livability and its impact on the city branding, and were reminded about the anonymity. The second part is about the demographics of the survey respondents, there were asked about their gender, age, annual income, education, and employment status. Next section is about the questions of resident's perception towards city livability. All 7 constructs of city livability: 38 items in total, were measured on the seven points Likert scale with 1 (strongly disagree), 2 (disagree), 3 (somewhat disagree),

4 (neutral), 5 (somewhat agree), 6 (agree), and 7 (strongly agree), such as "please indicate the degree of your agreement or disagreement with each of following statements".

The fourth phase is about resident perception towards city personality. There are 5 main variables with 15 items in total that were also assessed on the seven points Likert scale ranging from 1 (strongly unlikely), 2 (unlikely), 3 (somewhat unlikely), 4 (neutral), 5 (somewhat likely), 6 (likely), and 7 (strongly likely). The example of this section is "please indicate how much of the following characteristics do you think Bangkok/London is?" (see table 4.2).

Furthermore, all participants were asked about their attitude towards city brand in the fifth part. The attitude towards city brand were also measured on seven points Likert scale with 1 (strongly disagree) to 7 (strongly agree), such as please indicate the degree of your agreement or disagreement with each of the statement "I love Bangkok/London" (see table 4.2). The last section of the survey is about participant behavioural intention. This part contains of 5 statement and respondents were asked to indicate their agreement of disagreement with the given statement such as "I will definitely live in Bangkok as long as I can". (see table 4.2)

In conclusion, the questionnaire comprises six sections, starting with general information where respondents were informed about the study's focus on city livability and its influence on city branding, with an assurance of anonymity. The second section captures demographic details like gender, age, income, education, and employment. The subsequent sections, using a seven-point Likert scale, gauge residents' perceptions on city livability across 38 items, their perspectives on city personality with 15 items, and their attitude towards the city brand. The final section explores participants' behavioural intentions, probing their sentiments about residing in the city long-term.

Table 4.2 illustrates the composition of items in the questionnaire, totaling 41 items distributed across four primary constructs: perceived city livability, perceived city personality, attitude towards the city, and behavioural intention.

Table 4.2 Overall items extracted from the previous literatures.

Items in the questionnaire	Sources
Perceived City Livability	
Stability Dimension SD1 - I feel safe when I live in Bangkok/London. SD2 - There is no prevalent crime in the city that I am living in. SD3 - There is no threat of terror in the city that I am living in. SD4 - There is no threat of military conflict in the city that I am living in. SD5 - There is no threat of civil unrest/conflict in the city that I am living in. SD6 - The political and social environment are good in the city that I am living in	Dias (2014), Lowe et al.(2015), The Economist Intelligence Unit (2015), The Organisation for Economic Co-operation and Development (OECD)'s Better Life Index (2011), The American Association for Retired Person (2015), Mercer Quality of Living, (2009), and The Urban Livability Index for a low-to-middle income country (2019)
Healthcare Dimension HC1 - There is an availability to healthcare in the city that I am living in. HC2 - There is a high quality of healthcare in the city that I am living in. HC3 - There is an availability of drugs including vaccination in the city that I am living in.	
Environment Dimension EN1 - The humidity and temperature in the city that I am living in is suitable for living. EN2 - The natural environment in the city that I am living in is in good condition. EN3 - The city provides enough green infrastructure. EN4 - The city provides enough public open space. EN5 - The level of air pollution is low in the city that I am living in.	
Culture and Social Dimension CS1 - There are sport activities in the city that I am living in. CS2 - There are some recreational services in the city that I am living in. CS3 - There are choices of food and local goods in the city that I am living in. CS4 - I don't have any problem with the social and religious restrictions in the city that I am living. CS5 - There are cultural activities in the city that I am living in. CS6 - There is civic engagement in the city that I am living in. CS7 - I am satisfied with my life in the city I am living in. CS8 - This city can provide work-life-balance to people.	
Education ED1 - There is an education opportunity in the city that I am living in. ED2 - There is an availability for private education in the city that I am living in. ED3 - There is high quality private education in the city that I am living in. ED4 - There is an availability for public education in the city that I am living in. ED5 - There is high quality public education in the city that I am living in.	
Infrastructure IN1 - There is high quality road networks in the city that I am living in. IN2 - There is high quality public transport in the city that I am living in. IN3 - There is high quality international links in the city that I am living in. IN4 - There is an availability of good quality housing in the city that I am living in. IN5 - There is high quality energy provision in the city that I am living in. IN6 - There is high quality water provision in the city that I am living in. IN7 - There is a good solid waste management in the city that I am living in.	
Economic EC1 - There is job security in the city that I am living in. EC2 - There is opportunity to earn a fair wage in the city that I am living in. EC3 - There is a high employment rate in the city that I am living in. EC4 - There is economic and social development in the city that I am living in.	
Perceived City Personality	
Sincerity SIN1 - Down to earth (Down-to-earth, Family oriented, and small town) SIN2 - Honest (Honest, Sincere, and Real) SIN3 - Wholesome (Wholesome and Original) SIN4 - Cheerful (Cheerful, Sentimental, and Friendly)	Aaker (1997) Amatyakul and Polyorat (2016) Hosany, Ekinci and Uysal (2006) Watkins and Gonzenbach (2013)
Excitement EXT1 - Daring (Daring, Trendy, and Exciting) EXT2 - Spirited (Spirited, Cool, and Young) EXT3 - Imaginative (Imaginative and Unique) EXT4 - Up-to-date (Up-to-date, Independent, and Contemporary)	
Competence	

Items in the questionnaire	Sources
COM1 - Reliable (Reliable, Hardworking, and Secure) COM2 - Intelligent (Intelligent, Technical, and Corporate) COM3 - Successful (Successful, Leader, and Confident)	
Sophistication	
SOP1 - Upper Class (Upper class, Glamorous, and Good Looking) SOP2 - Charming (Charming, Feminine, and Smooth)	
Ruggedness	
RUG1 - Outdoorsy (Outdoorsy, Masculine, and Western) RUG2 - Tough (Tough and Rugged)	
Attitude Towards City Brand	
ATD1 - I love Bangkok/London. ATD2 - I have a favourable opinion to Bangkok/London. ATD3 - Living in Bangkok/London is a good decision.	Keller (1993) Kotler et al. (2017) Yoo et al. (2000)
Behavioural Intention	
BI1 - I will definitely live in Bangkok/London as long as I can. BI2 - I will definitely recommend other people to live in Bangkok/London. BI3 - I will definitely recommend other people to travel or visit Bangkok/London. BI4 - I will definitely recommend other people to work or do business in Bangkok/London. BI5 - I will definitely recommend other people to study in Bangkok/London.	Hong and Yang (2009) Anselmsson, Johansson and Persson (2007) East, Hammond, and Wright (2007)

4.4.2 Sample used for the pilot study

a. Panel

The form of questionnaire was created by using the Qualtrics survey platform (Qualtrics, 2023), as it is a trustworthy and professional software for advanced quantitative research and the University of York provides a free license to the researcher. However, the survey was conducted and administrated by the Prolific research company (Prolific Research, 2023). They used their own research panel with 120,000 active and engaged samples. All participants received payment at 13.21 pounds per hour and the average time spent on survey was 10 minutes.

b. Structure of the pilot sample

According to the total number of target participants (600 people), the confidence level and probability will be set at 0.95 and 0.05 respectively. In other words, problems with a prevalence of 5% will be identified (with 95% confidence) and the sample size in pilot study is at least 59 people (Viechtbauer et al., 2015). However, for the accuracy of the data analysis, the sample number was increased to 100 samples per city: 100 for Bangkok samples and 100 for London samples.

When closely considering the demographic of the pilot samples, Bangkok had more female respondents than male respondents (71percent) but London had a 50:50 split of

the genders. Regarding employment, Bangkok and London both had the greatest proportions of respondents who were employed, at 51 percent and 60 percent, respectively. In terms of education, there were significant differences between the two cities: London had a greater number of respondents with a bachelor's degree (48 percent vs. 37 percent in Bangkok), while Bangkok respondents were more likely to possess a master's degree (47 percent versus 26 percent in London). In terms of yearly income, a striking disparity is apparent between respondents from Bangkok and London in the £50,000–£100,000 range, where only 6 percent of respondents from Bangkok, while there was 30 percent of London samples fall into that range.

Table 4.3 Structure of the Pilot Samples

	Demographic	Bangkok respondents		London Respondents	
		N	%	N	%
Gender	Male	24	24.0	45	45.0
	Female	71	71.0	50	50.0
	Prefer not to say	3	3.0	1	1.0
	Other	2	2.0	4	4.0
	Total	**100**	**100**	**100**	**100**
Employment	Unemployed	11	11.0	14	14.0
	Employed	51	51.0	60	60.0
	Self-employed	16	16.0	17	17.0
	Other	22	22.0	9	9.0
	Total	**100**	**100**	**100**	**100**
Education	High School	8	8.0	14	14.0
	Bachelor's Degree	37	37.0	48	48.0
	Master's Degree	47	47.0	26	26.0
	PhD or Higher	4	4.0	5	5.0
	Prefer not to say	4	4.0	3	3.0
	Other	0	0.0	4	4.0
	Total	**100**	**100**	**100**	**100**
Annual Income	Less than £9,999	16	16.0	6	6.0
	£10,000 - £24,999	24	24.0	12	12.0
	£25,000 - £34,999	8	8.0	11	11.0
	£35,000 - £49,999	12	12.0	18	18.0
	£50,000 - £100,000	6	6.0	30	30.0
	More than £100,000	22	22.0	14	14.0
	Prefer not to say	12	12.0	9	9.0
	Total	**100**	**100**	**100**	**100**

Table 4.3 provides an overview of the demographic characteristics of respondents from Bangkok and London, including their gender, employment status, education level, and annual income.

In summary, the pilot sample structure was adjusted for full data analysis in both Bangkok and London. Noteworthy demographic differences emerged, with Bangkok having a female majority, while London exhibited an even gender split. Both cities showed high employment rates, and educational variations were observed, emphasising the importance of considering diverse characteristics in the pilot sample for an understanding of the research context.

4.5 Data Analysis for Pilot Study

This section illustrates the exploratory factor analysis and the reliability test. 200 samplers in total were used in the EFA to purify the measurement scale and verify the dimensionality in Perceived City Livability (PCL) construct which contains of 7 sub-dimensions: stability (SD), healthcare (HC), environment (EN), culture and social (CS), education (ED), infrastructure (IN), and economic (EC). Then all scales: perceived city livability (PCL), perceived city personality (PCP), attitude towards brand (ATD), and behavioural intention (BI) were tested the reliability to ensure that results are obtained consistently before the variables are examined.

4.5.1 Exploratory Factor Analysis (EFA)

The purpose of the Exploratory Factor Analysis is to purify the measure and evaluate the content validity. The pilot samples of 100 respondents per each city (200 samples in total) is a sufficient size to perform the EFA which needs 10 cases for each variable (Hair, 1999). There are 4 major variances that were assessed the EFA of both Bangkok and London samples as illustrated below.

4.5.1.1 Exploratory Factor Analysis

a. Exploratory Factor analysis: Perceived City Livability (PCL)

According to the existing literatures (Zanella, Camanho and Dias, 2014; Lowe et al., 2015; The Economist Intelligence Unit, 2015; The Organisation for Economic Co-

operation and Development (OECD)'s Better Life Index, 2011; The American Association for Retired Person, 2015; Mercer Quality of Living, 2009; The Urban Livability Index for a low-to-middle income country, 2019), there are 7 dimensions that were used to measure perceived city livability: Stability (SD), Healthcare (HC), Environment (EN), Culture and Social (CS), Education (ED), Infrastructure (IN), and Economic (EC). First of all, the Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) value should be 0.6 or above, and the Barlett's Test of Sphericity value should be significant at a level of 0.05 (Pallant, 2010). It was found in perceived city livability construct for Bangkok samples that the Kaiser-Meyer-Olkin measure of sampling adequacy for was 0.818. This means the indicators share 81.8% of common variance and they are sufficient for each factor. Lastly, Bartlett's test of sphericity (χ^2) was significant: less than 0.5, $p < .001$, see table 4.4 below.

Secondly, the communalities represent the relation between the variable and all other variables. The communality for every value should be higher than 0.4 (extraction). According to the principle component analysis for Bangkok samples, all communalities in this study were all above 0.4. Given these overall indicators, factor analysis was deemed to be suitable with all 38 items (see appendix E). Furthermore, the principal component analysis was used to identify and compute the composite score for factors underlying the short version of the city livability. The Eigenvalues indicated that the first 8 factors explained 32.76%, 10.17%, 6.24%, 5.54%, 4.63%, 3.74%, 3.34%, and 3.06% respectively. The rest factors had the Eigenvalue lower than 1.0. Therefore the 8-factor model was suggested to be consistent as it can explain 69.503% of total variance (see appendix F). When considering the rotated factor matrix, it includes the rotated factor loadings, which show the association between the variable and the factor as well as how the variables are weighted for each factor (Bruin, 2006). The result of EFA showed a different pattern from the proposed conceptual model that has been previously discussed (please see appendix G) even though almost all items were greater than 0.5 for the factor loading values.

Table 4.4 KMO and Bartlett's Test of Perceived City Livability Variable for Bangkok Samples

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy	0.818	
Bartlett's Test of Sphericity	Approx. Chi-Square	2342.416
df	703	
Sig.	<.001	

Table 4.4 shows the KMO and Bartlett's Test of perceived city livability variable for Bangkok samplers. The indicators collectively account for 81.8% of shared variance, indicating their adequacy for each respective factor.

When it comes to the EFA results of London samples, based on the results of factor analysis illustrated in table 4.5, the results indicate KMO value of 0.825. This means the indicators share 82.5% of common variance and they are sufficient for each factor. Also, the Bartlett's test of sphericity (χ^2) was significant: less than 0.5, $p < .001$, see table 4.5 below. In addition, all communalities in this study were above 0.4 according to the Bangkok samples' principal component analysis. Regarding these key indicators, factor analysis was appropriate for all 38 items (see appendix H). Additionally, the components underlying the short version of the city livability were identified and their composite scores were computed using the principal component analysis. According to the Eigenvalues, the first 8 components collectively explained 34.02%, 11.93%, 5.47%, 4.80%, 3.90%, 3.81%, 3.64%, and 3.25% of the data. The Eigenvalue for the other factors was less than 1.0. As a result, it was proposed that the 8-component model, which can account for 70.85% of the total variance, is consistent (see appendix I). Lastly, the results in rotated factor matrix showed a slightly different pattern from the proposed conceptual model that has been previously discussed as you can see in appendix J.

Closely examining the Exploratory Factor Analysis for the Perceived City Livability Construct with samples from Bangkok and London, Hair (1999) highlights the importance of seamlessly integrating a theoretical foundation with empirical evaluations of the factor structure for more comprehensive insights. The intention is not just to lean on statistical methodologies to designate the number of factors and their associated loadings. Instead, there is a distinct emphasis on ensuring that the items align with constructs that have been previously recognised in earlier research.

An essential reason behind the retention of all items in the analysis is that they are considered as formative indicators. This means each item plays a unique role in shaping the construct, rather than just reflecting its nature. A deeper dive into the data substantiates its suitability for factor analysis. Multiple assessments, such as the KMO, Bartlett's test, communality test, considerations of Eigenvalues, and factor loading values, have been satisfactorily achieved. Given these favourable conditions and the inherent importance of the formative indicators, no items were eliminated. The study persistently retains 7 dimensions in the perceived city livability construct, and the organisation of items remains adherent to the initially outlined construct.

Table 4.5 KMO and Bartlett's Test of Perceived City Livability Variable for London Samples

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy	0.825	
Bartlett's Test of Sphericity	Approx. Chi-Square	2714.875
df	703	
Sig.	<.001	

Table 4.5 shows the KMO and Bartlett's Test of perceived city livability variable for London samplers. The indicators collectively account for 82.5% of shared variance, indicating their adequacy for each respective factor.

4.5.2 Assessment of Reliability

Before examining the variables, it's crucial to ensure consistent results. The reliability of measurements, or how much they are devoid of random errors, can be defined by their freedom from such discrepancies (Malhotra, 2009). Put differently, the Cronbach's Alpha coefficient should gauge the internal uniformity of an item group to determine the research instrument's quality (Churchill, 1979). Typically, a value above 0.7 for Cronbach's Alpha signifies satisfactory internal consistency (Malhotra, 2009).

4.5.2.1 Reliability Test for Bangkok Samples

Table 4.6 displays the reliability of each variable and their corresponding measurements for the Bangkok samples.

Table 4.6 Reliability Test for Bangkok Samples

Variables	Factors	Cronbach's Alpha	Number of items
Perceived City Livability	Stability	0.748	6
	Healthcare	0.846	3
	Environment	0.791	5
	Culture and Social	0.816	8
	Education	0.841	5
	Infrastructure	0.910	7
	Economic	0.851	4
Perceived City Personality	Sincerity	0.880	4
	Excitement	0.878	4
	Competence	0.903	3
	Sophistication	0.730	2
	Ruggedness	0.840	2
Attitude towards the city		0.888	3
Behavioural Intention		0.800	5

Based on data from the Bangkok samples, the "Perceived city livability in the Stability dimension" (SD), which includes items SD1 to SD6, shows a Cronbach's Alpha (α) of 0.748. This suggests a high level of consistency as all scores in this category are above 0.7. According to Pallant (2010), a good item-total correlation score should be over 0.3. It's promising to note that all items in the Stability dimension (SD) have correlations surpassing this benchmark, with figures like 0.348, 0.442, 0.663, 0.451, 0.508, and 0.544.

The Healthcare dimension of perceived city livability (HC) is made up of three components: HC1, HC2, and HC3. With a Cronbach's Alpha of 0.846, it showcases good reliability. When examining the 'Cronbach's Alpha if Item Deleted' metrics, the values (0.779, 0.721, and 0.837) are all lower than the overall 0.846. This indicates that removing any of these components would not improve reliability. Looking at the Correct-Item-Total-Correction values, all items exceed the 0.3 threshold (with scores of 0.720, 0.781, 0.665), suggesting strong correlation with the entire scale.

The Environment (EN) is the third dimension of perceived city livability, encompassing five components, from EN1 to EN5. With a Cronbach's Alpha score of 0.791, it demonstrates strong reliability. The figures from Alpha-if-Item-Deleted indicate that removing any items except EN5 (0.817) would not enhance the current 0.791 score, with values such as 0.780, 0.733, 0.697, 0.725 among others. Hair et al. (2021) suggests that for consistent reliability, every item should have a significant correlation with the complete scale. The observed Correct-Item-Total-Correction scores for all items,

including 0.480, 0.644, 0.757, 0.648, and 0.393, surpass the recommended 0.3 benchmark.

The "Culture and Social (CS)" is another dimension of city livability that we assessed. It contains eight components, namely: CS1 through CS8. The overall reliability of this dimension is represented by a Cronbach's Alpha score of 0.816, reflecting its strong consistency and dependability. According to the Alpha-if-Item-Deleted data, there is no advantage in excluding items CS1, CS2, CS4, CS5, CS6, CS7, and CS8 as their values (0.772, 0.787, 0.816, 0.791, 0.793, 0.782, and 0.793) fall below the overarching 0.816 score. The exception is item CS3, which has a value of 0.820, surpassing the collective Alpha score. Additionally, the results indicate that each item within the CS dimension has a Corrected-Item-Total-Correlation value above the recommended 0.3 benchmark. Given the existing high Alpha score, this dimension's internal consistency is evident. All components within the CS dimension play a crucial role in shaping our understanding of the primary variable, making it unnecessary to exclude any components.

The viewpoint of education, referred to as ED, as a city's livability factor is the fifth factor. There are five components to this: ED1 through ED5. The scale's commendable reliability rating of 0.841 is higher than the required level of 0.7. It is evident that the reliability of the scale is unaffected by the removal of any of the items after examining the impact of each component based on the Alpha-if-Item-Deleted measure. This is due to the fact that all of the Alpha-if-Item-Deleted values (which are 0.840, 0.795, 0.787, 0.805, and 0.815) are equal to or worse than the overall dependability score of 0.841. Furthermore, since all Corrected-Item-Total Correlation values are higher than the threshold of 0.3, there is no need to remove any components from the scale.

Infrastructure, also referred to as IN, is the next aspect of a city's perceived livability. It consists of the IN1 through IN7 components. Cronbach's Alpha scores the scale as having a reliability of 0.910. The analysis showed that all components should remain in place after looking at the potential implications of deleting particular components. The fact that the Alpha-If-Item-Deleted values (0.902, 0.890, 898, 902, 897, 894, 0.891) are all lower than the overall Alpha value of 0.910 confirms this evident. Furthermore, there is no compelling reason to exclude any items from the scale because the Corrected-Item-Total-Correlation values for this construct range from 0.678 to 0.785.

The last element of perceived city livability is economic (EC). This construct consists of four parts. With a Cronbach's Alpha of 0.851, overall internal consistency reliability is deemed to be satisfactory. Furthermore, based to the values of Alpha-If-Item-Deleted, none of the items in this dimension should be removed from the scale because doing so would not increase dependability. When the connection is taken into account, the scale also has a strong internal consistency correlation. This is due to the fact that the corrected item total correlation values (0.616, 0.704, 0.741, and 0.706) surpass the intended value of 0.3.

Applying Cronbach's Alpha, the reliability of the perceived city personality is also assessed. Sincerity, or SIN, will be discussed first. This construct has 4 components: SIN1, SIN2, SIN3, and SIN4. This dimension has an extremely consistent and reliable total Cronbach's Alpha of 0.880. According to the Alpha-If-Item-Deleted data, the deletion of SIN1, SIN2, and SIN3 (0.856, 0.825, and 0.809, respectively) has no impact on the overall Alpha value other than SIN4, which has a value of 0.888. All components are formative indicators that contribute to the construct's meaning, and the aggregate Alpha value is high enough (0.880). Furthermore, the values of this scale's Corrected-Item-Total-Correlation (0.716, 0.796, 0.832, and 0.626) are all higher than 0.3. There is therefore nothing that needs to be taken away.

The second component of the stated city personality attribute is excitement, or EXT. This scale has the following four elements: EXT1, EXT2, EXT3, and EXT4. The EXT scale exhibits a high degree of reliability, scoring a 0.878 on the Cronbach's Alpha scale. Additionally, deleting an item would have no effect on the total Alpha because all Alpha-If-Item-Deleted values (0.838, 0.845, 0.851, and 0.844) are lower than the overall value (0.878). Additionally, the results of the reliability tests demonstrate that the EXT scale has values of the Corrected-Item-Total-Correlation higher than the recommended value of 0.3, namely 0.755, 0.737, 0.723, and 0.739. This result seems to be strong, so everything on the scale should be conserved.

The overall Cronbach's Alpha of the competence dimension (COM) of the perceived city personality is likewise found to indicate a high level of reliability (0.903). Three components make up the COM scale: COM1, COM2, and COM3. The total Alpha value (0.903) would not change if COM2 and COM3 were deleted, according to the Alpha-If-Item-Deleted data, as their values (0.790 and 0.856) are lower than the overall Alpha value. Only COM1 is receiving an Alpha-If-Item-Deleted value (0.926) that is slightly

touch higher than the average (0.903). It is encouraging that all data have Corrected-Item-Total-Correlation values above 0.3 (0.726, 0.887, and 0.812). Therefore, it can be said that none of these things need to be eliminated.

The "Sophisticate (SOP)" is an attribute of the perceived city personality that consists of two items: SOP1 and SOP2. Its internal reliability is certain with an overall Cronbach's Alpha of 0.730. It is not possible to analyse the Alpha-If-Item-Deleted statistic because there are only two items. The Corrected-Item-Total-Correlation values of 0.578 for both items, however, the results show a remarkable level of internal consistency. These numbers are higher than the advised cutoff point of 0.3.

Ruggedness, or RUG, is the final component of perceived city personality and consists of two items: RUG1 and RUG2. Cronbach's Alpha overall is 0.840, which indicates a high level of reliability. The Alpha-If-Item-Deleted statistic cannot be used to examine this data because there are only 2 items in the scale; however, all items should be included in the computation because they have Corrected-Item-Total-Correlation values over 0.3 (0.724 and 0.724).

The variable "Attitude Towards City Brand" (ATD) requires a reliability analysis. The data reveals an overall reliability of 0.888 for ATD, which includes items ATD1, ATD2, and ATD3. Given the Alpha-If-Item-Deleted values (0.804, 0.837, and 0.883) are all less than the primary Alpha of 0.888, it's clear that all items should remain in the scale for optimal reliability. Additionally, the scale's internal consistency is robust, as evidenced by the Corrected-Item-Total-Correlation values of 0.824, 0.789, and 0.740—all of which significantly exceed the 0.3 benchmark.

The last variable is Behavioural Intention (BI), it has an overall Cronbach's Alpha value that highlights a robust reliability at 0.800. The BI dimension is composed of 5 items: BI1 to BI5. Based on the Alpha-If-Item-Deleted statistics, removing BI1, BI2, BI3, and BI4 wouldn't elevate the total Alpha value of 0.800, as their respective values (0.785, 0.737, 0.749, and 0.729) are below this score. Only BI5 has an Alpha-If-Item-Deleted value (0.806) that marginally exceeds the average. Notably, all items possess Corrected-Item-Total-Correlation values exceeding the 0.3 benchmark (with values like 0.516, 0.661, 0.624, 0.703, and 441). Thus, there's no need to exclude any of these items from the analysis.

In conclusion, drawing from the Bangkok sample data, various dimensions of perceived city livability and personality were critically analysed for reliability using the Cronbach's Alpha metric. Impressively, most dimensions exhibited commendable scores, underscoring their methodological soundness. Notably, the Stability dimension yielded a 0.748 alpha score, Healthcare at 0.846, Environment at 0.791, and the Culture and Social dimension was consistent at 0.816. The Education factor, Infrastructure, Economic aspect, and the Behavioural Intention (BI) dimension had strong reliability scores of 0.841, 0.910, 0.851, and 0.800 respectively. In the domain of city personality, Sincerity recorded a robust 0.880, Excitement at 0.878, Competence at 0.903, with both Sophisticate and Ruggedness showing commendable reliabilities at 0.730 and 0.840 respectively. Furthermore, the "Attitude Towards City Brand" yielded an impressive 0.888. These consistently high scores, combined with the Corrected-Item-Total-Correlation values exceeding the 0.3 benchmark across the board, accentuate the reliability and validity of the scales used, making them pivotal for assessing city livability and personality.

4.5.2.2 Reliability Test for London Samples

Table 4.7 presents the reliability and corresponding measurements of each variable for the London samples.

Table 4.7 Reliability Test for London Samples

Variables	Factors	Cronbach's Alpha	Number of items
Perceived City Livability	Stability	0.809	6
	Healthcare	0.723	3
	Environment	0.797	5
	Culture and Social	0.870	8
	Education	0.912	5
	Infrastructure	0.833	7
	Economic	0.781	4
Perceived City Personality	Sincerity	0.848	4
	Excitement	0.927	4
	Competence	0.867	3
	Sophistication	0.674	2
	Ruggedness	0.723	2
Attitude towards the city		0.919	3
Behavioural Intention		0.837	5

Based on the results from the London Samples, the Perceived city livability in the Stability dimension (1SD) construct, comprising items SD1 through SD6, has a Cronbach's Alpha (α) value of 0.809. All scores in this stability dimension exceed 0.7, indicating high consistency and reliability among the items. Referring to the corrected item-total correlation, which measures how each item correlates with the overall score, an ideal value should surpass 0.3, as per Pallant (2010). Encouragingly, all items in the Stability dimension construct (SD) have correlations greater than 0.3, with values like 0.566, 0.562, 0.574, 0.499, 0.639 and 0.580.

Next, the Healthcare dimension of perceived city livability (HC) comprises three items: HC1, HC2, and HC3. Its Cronbach's Alpha value stands at 0.723, signifying strong reliability. The results also show the 'Cronbach's Alpha if Item Deleted' figures, which represent the Alpha value if a particular item is omitted. Notably, these figures (0.652, 0.545, and 0.683) are less than the overall 0.723, suggesting that omitting any item wouldn't enhance reliability. Reviewing the Correct-Item-Total-Correction values, each item surpasses 0.3 (with values of 0.552, 0.613, 0.551), indicating that they correlate well with the complete scale.

The Environment (EN) represents the third dimension of perceived city livability and includes five items: between EN1 and EN5. It has a Cronbach's Alpha of 0.797, indicating a robust reliability. The Alpha-if-Item-Deleted figures suggest that omitting any of these items will not boost the overall 0.797 value, with values such as 0.793, 0.696, and so on. Hair et al. (2021) recommends that for a scale to be reliable, all its items should correlate with the entire scale. The results display that the Correct-Item-Total-Correction values for all items, like 458, 0.766, etc., exceed the suggested threshold of 0.3.

The next city livability dimension to evaluate is "Culture and Social (CS)." This dimension comprises 8 elements, specifically: CS1, CS2, CS3, CS4, CS5, CS6, CS7, and CS8. The dimension's collective reliability stands at 0.870, signifying its consistency and trustworthiness. Delving into the Alpha-if-Item-Deleted metrics, it's advised not to remove items CS1, CS2, CS3, CS4, CS5, CS6 and CS8. The rationale is that their values (0.851, 0.837, 0.850, 0.856, 0.843, 0.852 and 0.865, respectively) are below the value of 0.870. Only items CS7 surpasses the overall Alpha value with readings of 0.876. Moreover, the output showcases that the Corrected-Item-Total-Correlation values for all CS items can exceed the recommended threshold of 0.3. Nonetheless, the prevailing overall Alpha score is sufficiently elevated to affirm internal consistency. Each

component within this dimension acts as a formative marker, contributing to the full understanding of the principal variable. Hence, there's no compelling reason to omit any items.

Education, or ED, the fifth aspect of perceived city livability, consists of five components: ED1, ED2, ED3, ED4, and ED5. The scale's overall reliability is 0.912, which is satisfactory (>0.7). Additionally, if any of the items are removed based on the Alpha-if-Item-Deleted, none of them will have an impact on the reliability overall. This is due to the fact that all items now have Alpha-if-Item-Deleted values that are equal and lower than the overall Cronbach's Alpha value, which is 0.912 (0.889, 0.881, 0.888, 0.881, and 0.912, respectively). All of the Corrected-Item-Total Correlation values—0.789, 0.816, 0.783, 0.818, and 0.672—are more than or equal to 0.3. As a result, there is nothing that needs to be removed from the scale.

The next perceived city livability dimension Is Infrastructure or IN. This variable consists of 7 items which are IN1, IN2, IN3, IN4, IN5, IN6, and IN7. The overall Cronbach's Alpha value is 0.830. Then the impact of eliminating each item from the scale was investigated. The results showed that all items should be retained in the scale as the values of the Alpha-If-Item-Deleted (0.802, 0.812, 0.826, 0.819, 0.797, 0.799, and 0.794) are lower than the total Alpha value (0.830). In addition, the values of Corrected-Item-Total-Correlation in this construct (0.611, 0.545, 0.450, 0.533, 0.642, 0.626, and 0.664) indicate that there is no item should be removed from the scale.

Economic (EC) is the final component of perceived city livability. There are 4 components in this construct. Overall internal consistency reliability is considered to be satisfactory with a Cronbach's Alpha of 0.781. Additionally, none of the items in this dimension should be removed from the scale, as doing so would not raise the level of reliability, according to the values of Alpha-If-Item-Deleted. To put it another way, none of the Alpha-If-Item-Deleted values in this construct are greater than the Cronbach's Alpha (0.781) value. The scale also has a high internal consistency correlation when the correlation is considered. This is because the proposed value of 0.3 is exceeded by the corrected item total correlation values (0.577, 0.666, 0.439, and 0.689).

The perceived city personality is also evaluated the reliability by using the Cronbach's Alpha. Starting with the first dimension: Sincerity or SIN. There are 4 items in this construct: namely SIN1, SIN2, SIN3, and SIN4. The overall Cronbach's Alpha of this

dimension is 0.848 that is considerably consistent and reliable. When looking at the Alpha-If-Item-Deleted statistics, it shows that removing SIN2, SIN3, and SIN4 (0.765, 0.784, and 0.822) does not affect the overall Alpha value except SIN1 with 0.858. However, the overall Alpha value is high enough (0.848) and all items are formative indicators that form the meaning of construct. In addition, all Corrected-Item-Total-Correlation values of this scale (0.590, 0.788, 0.745, and 0.651) are greater than 0.3. Therefore, no item should be removed from the scale.

Excitement or EXT is the second dimension of the perceived city personality characteristic. There are four components on this scale: EXT1, EXT2, EXT3, and EXT4. The EXT scale demonstrates a good level of reliability with a Cronbach's Alpha of 0.927. Additionally, since all Alpha-If-Item-Deleted values (0.905, 0.903, 0.898, and 0.914) are lower than the overall value (0.927), deleting an item would not have an impact on the overall Alpha. Additionally, the reliability testing results show that the EXT scale is internally consistent with values of the Corrected-Item-Total-Correlation that are higher than the suggested value of 0.3, namely 0.831, 0.836, 0.851, and 0.802. All things in the scale should be retained because this result appears to be strong.

The overall Cronbach's Alpha of the competence dimension (COM) of the perceived city personality is likewise found to indicate a high level of reliability (0.867). Three components make up the COM scale: COM1, COM2, and COM3. The total Alpha value (0.867) would not change if COM2 and COM3 were deleted, according to the Alpha-If-Item-Deleted data, as their values (0.742 and 0.810) are lower than the overall Alpha value. Only COM1 is receiving an Alpha-If-Item-Deleted value that is slightly touch higher than the average (0.884). It is encouraging that all data have Corrected-Item-Total-Correlation values above 0.3 (0.674, 0.825, and 0.748). Therefore, it can be said that none of these things need to be removed.

The "Sophisticate (SOP)" is the fourth dimension in the perceived city personality, comprising two items: SOP1 and SOP2. With an overall Cronbach's Alpha of 0.674, its internal consistency is somewhat uncertain. Given that there are only two items, it's not feasible to evaluate the Alpha-If-Item-Deleted statistic. However, the results indicate a commendable degree of internal consistency, as evidenced by the Corrected-Item-Total-Correlation values of 0.516 for both items. These values exceed the recommended threshold of 0.3.

Ruggedness, or RUG, is the final component of perceived city personality and consists of two items: RUG1 and RUG2. Cronbach's Alpha overall is 0.723, which denotes a high level of reliability. The Alpha-If-Item-Deleted statistic cannot be used to examine this data because there are only 2 items in the scale; however, all items should be included in the computation because they have Corrected-Item-Total-Correlation values over 0.3 (0.566 and 0.566).

The reliability of the variable "Attitude Towards City Brand" needs analysis. Results indicate that the overall reliability for Attitude Towards City Brand (ATD) consisting of items ATD1, ATD2, and ATD3 is 0.919. Evaluating the Alpha-If-Item-Deleted values (0.854, 0.893, and 0.899), it's advisable to keep all items in the scale. Their values are below the general Alpha value (0.919), so removing them won't enhance reliability. Furthermore, the scale shows strong internal consistency, as reflected by the Corrected-Item-Total-Correlation values. With values like 0.869, 0.834, and 0.824, they all surpass the recommended threshold of 0.3.

The last variable is Behavioural Intention (BI), it has an overall Cronbach's Alpha value that highlights a robust reliability at 0.837. The BI dimension is composed of 5 items: BI1 to BI5. Based on the Alpha-If-Item-Deleted statistics, removing BI2, BI3, BI4, and BI5 wouldn't elevate the total Alpha value of 0.837, as their respective values (0.763, 0.821, 0.795, and 0.788) are below this score. Only BI1 has an Alpha-If-Item-Deleted value (0.852) that marginally exceeds the average. Notably, all items possess Corrected-Item-Total-Correlation values exceeding the 0.3 benchmark (with values like 0.517, 0.779, 0.584, 0.693, and 697). Thus, there's no need to exclude any of these items from the analysis.

It can be concluded that upon evaluating the perceived city livability dimensions based on the London Samples, several notable insights emerge. The Stability Dimension (1SD) showcased commendable reliability with a Cronbach's Alpha of 0.809. The Healthcare Dimension and the Environment Dimension displayed strong internal consistency with Alphas of 0.723 and 0.797, respectively. The Culture and Social dimension recorded a high Alpha value of 0.870, while the Education Dimension achieved a remarkable 0.912. Infrastructure and Economic components also displayed consistent reliability with Alphas of 0.830 and 0.781, respectively. Diving into the perceived city personality, dimensions like Sincerity, Excitement, and Competence reported Alphas of 0.848, 0.927, and 0.867, solidifying their robust reliability. Sophisticate and Ruggedness, with limited items,

secured Alphas of 0.674 and 0.723. Additionally, the "Attitude Towards City Brand" metric and the Behavioural Intention component reflected strong internal consistency with Alphas of 0.919 and 0.837. In essence, each dimension and their respective items significantly contribute to understanding London's livability, attesting to their reliability and validity.

4.6 Conclusion

This chapter discussed the scale development of the perceived city livability construct used in this research. The perceived city livability (PCL) items are extracted from the previous literature reviews. The newly introduced measurement items are deemed comprehensive, effectively encompassing the definition of city livability which means "urban livability is a community that is safe, attractive, socially cohesive and inclusive, and environmentally sustainable; with affordable and diverse housing linked by convenient public transport, walking and cycling infrastructure to employment, education, public open space, local shops, health and community services, leisure and cultural opportunities" (Higgs et al., 2009). The EFA is introduced to test the PCL construct validity and purify the items of and it is found that every component is considered trustworthy and fulfilled the requirements. All initial construct items are tested with a pilot study: 200 samples in total, 100 people who live in Bangkok, and 100 people who live in London.

In addition, drawing from both Bangkok and London sample data, an extensive reliability assessment of various dimensions of perceived city livability and personality was conducted. Both cities' dimensions consistently showcased commendable reliability, emphasising the methodological robustness of the evaluation criteria. All evaluated items will be then imported into the questionnaire for the creation of the large-scale survey of 600 samples (300 samples in Bangkok and 300 samples in London) which will be elaborated in the next chapter. This will be the first time that a city livability measurement tool that covers all dimensions has been developed and will be tested in connection with the city personality, the attitude towards brand and behavioural intention of residents which has never been done before in previous studies.

Chapter 5 Research Methodology

5.1 Introduction

This chapter discusses the research design and the methodology of the study by being divided into three sections. Section 5.2 explains the research design and illustrates the philosophical positions taken in this research. After that, section 5.3 refers to the research planning, which elaborates the survey design and the population and sampling procedure, as well as data process and analysis. Section 5.4 illustrates the description of the respondents, and section 5.5 elaborates the research ethics that employs in this thesis. Finally section 5.6 provide an overview of the methodology followed in this thesis.

5.2 Research Design

The research design refers to the investigation's plans and procedures, which include everything from general assumptions to specific methods of data collection and analysis. The nature of the research topic or issue being addressed, the researcher's personal experiences, and the study's target audiences all play a role in selecting a research design (Cresswell, 2009, p.3). This study aims to answer the following research questions: 1) Is there any relationship between perceived city livability and perceived city personality? 2) Is there any impact of perceived city livability on attitude towards city brand? 3) Does perceived city personality affect attitude towards city brand? 4) Is there any association between perceived city livability and behavioural intention? 5) Does perceived city personality impact behavioural intention? 6) Is there any relationship between attitude towards city brand and behavioural intention? 7) How does perceived city livability relate to behavioural intention through the sequential mediation of perceived city personality and attitude towards the city brand? 8) How do city residents perceive their city livability? 9) What are city residents' perceptions of their city personality. Therefore, the research design for this study will be illustrated as follows:

5.2.1 Research Philosophies

Research Philosophy is the system of beliefs and assumptions about knowledge development (Saunders et al., 2012). According to Saunders, Lewis and Thornhill (2009),

the research philosophy in business and management studies can be classified into five main paradigms: Positivism, Critical Realism, Interpretivism, Postmodernism, and Pragmatism. Positivism focuses on observable and measurable facts and regularities. Social beings and organisations are real to positivists in the same sense that physical objects and natural phenomena are real (Saunders, Lewis and Thornhill, 2009). Whereas the critical realist believes in "what you see is what you get: what we experience through our senses portrays the world accurately" (Saunders, Lewis and Thornhill, 2009). They consider the reality of being external and independent but not accessible through observation and knowledge. In this sense, what we experience is empirical rather than actual things.

On the other hand, the interpretivist believes that humans are different from physical phenomena because they create meaning (Saunders, Lewis and Thornhill, 2009). Therefore, the main purpose of interpretivism is to develop new and richer understandings and interpretations of social worlds and contexts. Next, postmodernism emphasises the role of language and power relations. The postmodernist is open to the deconstruction of any form of data, texts, images, conversations, voices, and numbers. There is a comprehensive way of determining the "right" or "true" way to describe the world with this perspective.

Conversely, the "right" and "true" are collectively decided (Saunders, Lewis and Thornhill, 2009). These collective decisions are shaped by the power of relations that dominate particular contexts (Foucault Michel, 1995). Lastly, pragmatism believes that "reality" is the practical consequences of ideas. It focuses on problems, practices, and relevance. The pragmatist conducts research by starting with a problem and contributes practical solutions that inform future practices (Saunders, Lewis and Thornhill, 2009).

After considering the research philosophies mentioned earlier, this study adopted the positivism approach because of the research questions. Firstly, this research aims to identify the relationship between perceived city livability and attitude towards city brand. Secondly, the study seeks to examine the impact of perceived city personality on the attitude towards city brand. Besides, the researcher also intends to identify the association between attitude towards city branding and behavioural intention. In addition, this study aims to assess whether perceived city livability has a positive impact on perceived city personality. Furthermore, this research aims to investigate the association between

perceived city livability and behavioural intention. Finally, this research also tests the relationship between perceived city personality and behavioural intention. Upon reviewing the six primary research objectives, the researcher determined that positivism is suitable for the study. This choice aligns with the need to measure the relationships between the constructs outlined in the research questions, and it is clear that Positivism, emphasizing observable and measurable facts and regularities, provides a fitting approach for investigating these relationships (Saunders, Lewis and Thornhill, 2009). It proposes a quantitative method to find solutions and outcomes (Saunders, Lewis and Thornhill, 2009).

5.2.2 Research Approach

According to Creswell (2009), researchers may choose between qualitative and quantitative methods based on the specific requirements of their study, each offering distinct advantages and limitations. Qualitative methods involve a research process characterised by questions, procedures, and data collection within participants' settings, leading to an interpretation of the data's meaning (Creswell, 2009). Conversely, quantitative methods focus on testing objective theories by examining relationships among variables, which can be assessed and analysed using statistical procedures (Creswell, 2009).

Upon reviewing the literature on research design, this current study is positioned within the quantitative research paradigm for several compelling reasons. First, the study addresses research questions that involve multiple variables, necessitating measurement and the analysis of numeric data. This aligns well with a quantitative approach (Saunders et al., 2012). Specifically, a survey questionnaire has been employed to evaluate the perceptions of residents in Bangkok and London regarding their city's livability and personality. Additionally, the study measures residents' attitudes towards the city brand and their behavioural intentions.

The choice of a quantitative approach over qualitative or mixed methods is further justified by the need for generalisability and the ability to establish statistical relationships among variables. Quantitative research allows for the analysis of large sample sizes, enabling the identification of patterns and trends that can inform broader conclusions (Almalki, 2016). While qualitative methods provide depth and context, they may not

capture the broader population dynamics essential for this study's objectives (Pyo et al., 2023). Thus, the quantitative framework is most suitable for thouroughly addressing the research questions and ensuring robust, statistically valid findings.

5.3 Research Process

In this study, the research planning that explains research processes such as survey design, population selection, data collection, and data processing and analysis can be divided into three sections as follows:

Figure 5.1 Research Process
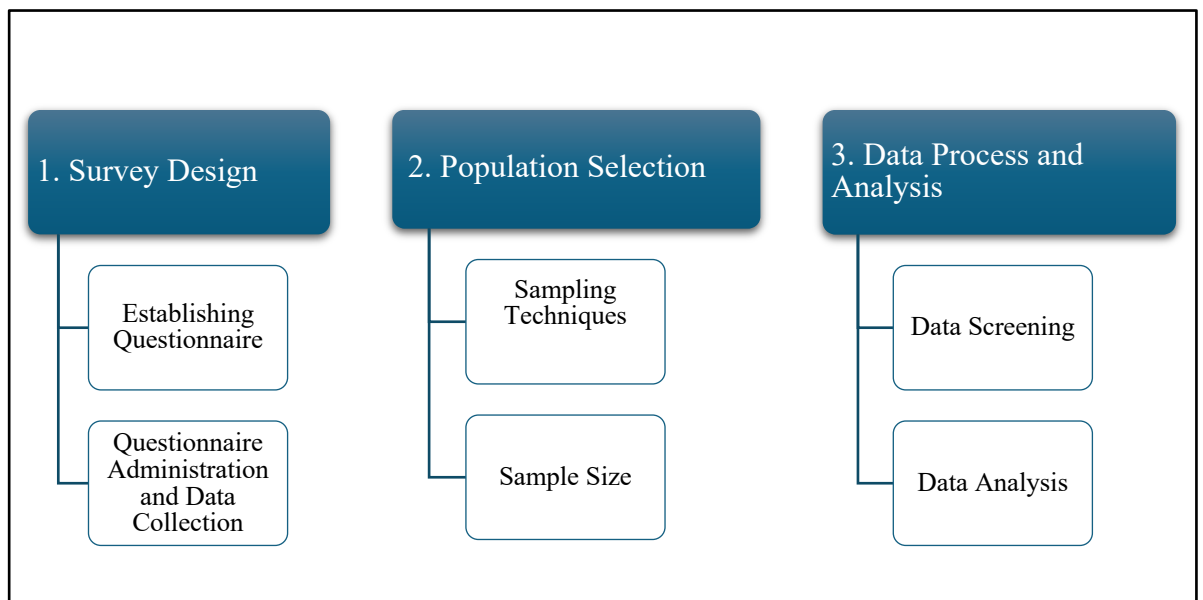
The figure 5.1 illustrates four stages of research process which consist of survey design, population selection, data process and analysis.

5.3.1 Survey Design

5.3.1.1 Establishing Questionnaire

The purpose of this stage is to create a well-written and easy-to-understand questionnaire. According to Hinkin (1998), format concerns such as "usage of negative wordings," "number of items inside a construct," and "justification of Likert scale" should be considered. The questionnaire consists of 6 sections (illustrated in appendix K). It starts

with general information where participants were told that they're part of a city livability study impacting city branding, ensuring their anonymity in the process. The following section gathers demographic data, inquiring about respondents' gender, age, income, education, and job status. Subsequent sections focus on residents' views on city livability. The survey uses a seven-point Likert scale, ranging from 1 (strongly disagree) to 7 (strongly agree), to evaluate all 38 items of city livability which have been developed from the scale development and pilot study in chapter 4. An example prompt is, "Please specify your level of agreement or disagreement with each statement.

The fourth section delves into residents' views on city personality. This section evaluates 5 primary variables using 15 questions. Responses are gauged on a seven-point Likert scale, spanning from 1 (strongly unlikely) to 7 (strongly likely). A sample prompt from this section is, "To what extent do you believe the following traits apply to Bangkok/London?" The questions in this section were developed from Aaker (1997)'s brand personality model in section 2.4.3, chapter 2.

In the fifth section, participants were queried about their sentiments regarding the city's brand. Their attitudes were gauged on a seven-point Likert scale, ranging from 1 (strongly disagree) to 7 (strongly agree). An example question might be, "How much do you agree or disagree with the statement 'I love Bangkok/London'?". All questions were created by following the literature review of attitude towards brand (Kotler et al., 2017), in section 2.4.4, chapter 2. The survey's final section probes participants' behavioural intentions, comprising five statements. Respondents marked their level of agreement or disagreement with statements like, "I will definitely live in Bangkok/London for as long as I can". All these questions were developed from Anselmsson, Johansson, and Persson, (2007), East et al. (2007) and Hong and Yang (2009)'s work (as mentioned in section 2.4.5, chapter 2)

According to the scale development and pilot study chapter (chapter 4), the study employed EFA to assess the construct validity and refine the items of the Perceived City Livability (PCL) measure, finding that each component met reliability criteria. A pilot study involving 200 participants from Bangkok and London ensured the initial construct items were rigorously tested. Furthermore, a comprehensive reliability assessment across various dimensions of perceived city livability and personality, using data from both cities, consistently demonstrated strong reliability, underscoring the methodological

robustness of the evaluation. Hence, the questionnaire is prepared for implementation in the subsequent phase to gather a larger sample from the population.

Moreover, there would be two language versions of the questionnaire – Thai and English (please see appendix K and L). As a result, the translation process is crucial to this study. The forward and backward translation process of the questionnaire, according to Brislin (1980), would be used to clarify the appropriated language for the target respondent (i.e., Thai city stakeholders). Therefore, the Thai version of questionnaire was provided to the samples in Bangkok who are Thai people.

In conclusion, the questionnaire is divided into six parts. The first section is general information, where respondents are assured of their privacy and are informed about the study's focus on city livability and its influence on city branding. Demographic information such as gender, age, income, education, and employment are collected in the second section. The following sections employ a seven-point Likert scale to assess citizens' opinions on 38 items related to city livability, fifteen factors related to city personality, and their feelings regarding the city brand. In the last part, participants' behavioural intentions are examined, and their views about living in the city for an extended period are investigated.

5.3.1.2 Questionnaire Administration and Data Collection

At this step, the research respondents in the selected data pool are handed an electronic questionnaire. To be noted, the unit of the research respondent would be an individual person. Furthermore, this study considers the survey service providers, namely Prolific (Prolific Research, 2023) for London samplers, and Fastwork (Fastwork, 2022) for Bangkok Samplers. The questionnaire's links will be forwarded to the possible respondents via the Prolific research and Fastwork platform, along with a covering letter (see appendix K). It took two months to acquire all the information. Potential respondents will then receive a notification reminder. Furthermore, they also received a confirmation message once they completed the survey. After that, the purification of data was carried out. In general, the purification process entails comparing the "first wave" and "the second wave. Then the T-Test analysis was used to test for non-response bias.

5.3.2 The Population and Selection

The method in which data is gathered and the size of the sample under investigation are crucial to the integrity of research and the validity that follows (Saunders et al., 2012). Any research study must include sampling, the process of choosing a subset of the population for analysis, as it shapes the overall quality and reliability of the findings. The sampling strategies and factors taken into account when deciding on the sample size for this investigation are explained in the sections that follow. The methods used ensure that the conclusions drawn from the study are thorough and applicable to the larger populations of Bangkok and London, the study's focal locations.

5.3.2.1 Sampling Techniques

The data in this study was collected by using a variety of sampling approaches. The sampling approach can be seen that one of the most significant considerations in almost every study is the sampling technique (Saunders et al., 2012). A population represents the universe of the study. In general, there are two ways of sampling techniques. Probability and non-probability approaches were seen (Henry, 1990). "Random sampling of units from the population at a certain stage in the sampling process" is what probability sampling entails (Krathwohl, 1997, p.163). Equal probability samples, according to Henry (1990), have the same probability of being included in the sample. Non-probability sampling, on the other hand, has no known chance of selection. According to Krathwohl (1997), non-probability sampling methods are procedures that avoid random sampling at any point of the process for the sake of convenience. Instead, the study's samples are chosen based on their availability.

Convenience sampling is one of the most common methods of non-probability sampling (Henry, 1990). According to Henry (1990, p.18), a convenience sample is a group of people who are readily available to participate in a study via random assignment. Furthermore, according to Krathwohl (1997), the convenience sampling technique, also known as the grab method, is the most widely utilised non-probability methodology and is used in various practical scenarios since it is convenient and easy and quick (Na, 2008). The convenience sampling technique can provide the population for the research according to the convenience of the researcher.

In this study, the convenience sampling technique was employed for questionnaire distribution. The sampling process involved segregating data collection into two distinct groups: inhabitants of Bangkok and inhabitants of London. Prior to the survey, screener questions were implemented to ensure that respondents' demographics aligned with the study's criteria, necessitating residence in either Bangkok or London and an age above 18. To recruit participants, the researcher utilized both Prolific and Fastwork companies. Prolific was chosen for London respondents due to its unavailability in Thailand (Prolific Research, 2023), while Fastwork, with data collection services in Thailand (Fastwork, 2022), catered to Bangkok respondents. Careful selection was undertaken to prevent sampling errors and maintain a balanced representation across demographics. The researcher remunerated Prolific online panel with 4.55 pounds per completed survey by London respondents and 15 Thai Baht per completed survey by Bangkok respondents. Notably, the exact compensation details for survey participants were not communicated by Prolific and Fastwork to their clients.

5.3.2.2 Sample Size

Increasing the sample size is regarded to help obtain estimations and develop confidence in the research findings (Henry, 1990). To find an adequate sample size for a random sample, general criteria are provided that when the sample size n is large enough (n >= 30), the sampling distribution of the sample mean x (over scored) is nearly normal for random samples drawn from a non-normal population (Lazari et al., 2002). Furthermore, according to Brase (2009, p.302), "statisticians believe that if n is 30 or bigger, the x distribution will appear to be normal, and the central limit theorem will apply after a great amount of theoretical as well as an empirical study." Based on these statements the sample size for this study is 600 people in total: 300 residents in Bangkok, as well as 300 residents in London. This would be large enough to produce effective findings.

5.3.3 Data processing and analysis

This section covers the preparation of data, addressing aspects such as handling missing values, conducting non-bias tests, and selecting methods for data analysis.

5.3.3.1 Data Screening

Before diving into data analysis, it's imperative to scrutinize the data set for potential inaccuracies. A primary concern involves the veracity of the data file. It's essential to cross-check the original data with the information input into the computerised file (Tabachnick and Fidell, 2013). This segment primarily delves into matters related to missing data, outliers, multicollinearity, and assumptions associated with multiple regression analysis.

a. Missing data

In real-world research scenarios, certain observational components might be absent, often because respondents choose not to answer specific survey questions (Johnson and Wichern, 1998). Missing data, a widespread challenge in data analysis, can significantly skew analytical results (Tabachnick and Fidell, 2013). Howell (2012) categorised missing data into three distinct types: missing completely at random (MCAR), missing at random (MAR), and missing not at random (MNAR). MCAR pertains to data where the absence pattern isn't influenced by any variable attributes observed within the dataset (Scheffer, 2002). Meanwhile, Mallinckrodt et al. (2003) noted that data is MAR when the missing elements rely on observed results but aren't determined by the unobserved outcomes. Lastly, MNAR represents instances where data absence hinges on the actual value of the missing data itself (Scheffer, 2002). There's an inherent risk of bias in parameter evaluations if cases with missing observations are omitted, especially when the missing data falls under MAR or MNAR categories (Nakagawa and Freckleton, 2008). Thus, it's crucial to pinpoint the missing data pattern, especially if it's MCAR. If data absences are randomly distributed across observations, the impact on the results' generalisability is comparatively milder.

b. Diagnosis the randomness of missing data

Hair et al. (2010) introduced two categories for evaluating missing data: "missing at random" (MAR) and "missing completely at random" (MCAR). They suggested that MCAR is adequately random to accommodate any method for addressing missing data. To determine if participants with missing values differed from those without, a Missing Value Analysis was conducted using the SPSS software. The MCAR test results revealed

that both of Bangkok and London samples received no missing value, hence the EM estimates were not computed. The reason why no data is missing, is that all respondents were not allowed to skip any questions in the questionnaire. The questionnaire in the Qualtrics survey platform used in this study sets the requirement that all respondents need to answer every question before submitting the form.

c. Outliers

Datasets typically contain certain observations that deviate from the standard variability pattern exhibited by the majority of the data. Such observations are termed outliers (Johnson and Wichern, 1998). Outliers can be detected univariately using SPSS. By contrasting a 5% trimmed mean with the average of each variable, it ensures that no particular or extreme scores significantly impact the variable (see appendix M1 and M2).

d. Multicollinearity

Multicollinearity pertains to situations where independent variables are closely interrelated (Pallant, 2010). When a data set is plagued by multicollinearity, it hinders the creation of a robust regression model. To spot multicollinearity, one can analyze the correlation matrix for the independent variables. Correlation values of 0.90 or more are typically seen as indicative of significant collinearity (Tabachnick and Fidell, 2013). To gauge multicollinearity among multiple variables, the most prevalent metrics are tolerance and the variance inflation factor (VIF) (Hair et al., 2010). A low tolerance value (below 0.10) hints at a strong multi-correlation of a given independent variable with others, signaling potential multicollinearity (Pallant, 2010). Conversely, a VIF value surpassing 10 is generally seen as a sign of noteworthy multicollinearity (Hair et al., 2010). In other words, multicollinearity statistics were employed to assess the multiple regression model's efficacy and ascertain whether two or more independent variables exhibit a strong correlation. The multicollinearity issue will be discovered if the tolerance is less than 0.10 or if the VIF is greater than 10.

When conducting a regression model in SPSS, both tolerance and VIF values are generated concurrently (illustrated in chapter 6). Table 6.11 in chapter 6 displays VIF values for the Bangkok research group, ranging from 1.511 to 4.868. Similarly, appendix p presents the VIF values for the London research group, which range between 1.630 and

4.555. Given that all variables meet the threshold criteria (VIF<5), there's no issue with multicollinearity.

e. Assumptions in Multiple Regression Analysis

Multiple regression is based on four assumptions: normality, linearity, homoscedasticity, and independence of error terms. These can be verified using the normal probability plot of regression standardized residuals and residual scatterplots (Pallant, 2010). A basic method to diagnose normality involves visually examining if the distribution resembles a normal distribution (Hair et al., 2010). In the SPSS program, a straight diagonal line is generated. If the distribution is normal, the plotted line should closely align with this diagonal and should ideally form a 45-degree angle (Rosenbaum and Valsiner, 2011). In the context of this study, the normal probability plots indicate no significant deviations from a normal distribution, as detailed in Appendix M1 and M2.

In the scatterplot, the residuals display an approximate rectangular distribution (refer to Appendix M1 and M2). Tabachnick and Fidell (2013) posit that when the scatterplot takes on this rectangular shape, it meets the assumptions of normality, linearity, and homoscedasticity. Based on this study, the normal probability plot of the regression standardized residual, along with the scatterplots, align with the assumptions across all regression models.

f. Non-response bias

Non-response bias occurs when the views of those who respond differ from the views of those who choose not to participate (Malhotra, 2010). This bias can compromise the credibility and value of the study's results and suggestions (Lindner et al., 2001) To identify this bias, Armstrong and Overton (1977) proposed three estimation techniques: comparison with established population values, subjective evaluations, and extrapolation. In this study, we utilised the extrapolation technique. This approach operates on the premise that those who respond later or need reminders to answer are representative of those who don't respond at all Essentially, it contrasts the views of early respondents with those of late respondents. Lindner et al. (2001) defined late respondents as those reacting to the final prompt, with a minimum group size of 30 for these late respondents.

The t-test is a popular statistical method for contrasting differences between groups. There are two types of t-tests. The independent-means t-test, as described by Field (2009, p.

325), is employed when "two experimental conditions exist, and participants are uniquely assigned to each condition." Meanwhile, the paired-sample t-test, as outlined by Pallant (2010) is used "to contrast the average scores of a single group at two distinct times." In this research, the independent-sample t-test is utilized to analyze the mean differences between the early and late response groups (Montaquila et al., 2013). We compared the initial thirty valid questionnaires, classified as early respondents, with the final thirty. Two-tailed t-tests were conducted on primary areas of focus, including construct and demographic variables.

The t-test's assumption is valid when the sampling distribution for both groups (early and late responders) is either normally distributed or approximately so. Furthermore, the outcomes of Levene's test for variance equality are not significant, indicating that both sample groups have the same score variance. The findings from the independent-samples t-test reveal that there are not any significant distinctions between these two samples. Consequently, non-response bias doesn't pose a concern for the survey data. As per the data presented in Table 5.1, no differences were detected at the 0.01 significance level.

Table 5.1 T-test for non-response bias

Bangkok Samples

Variables		F	Sig.	t
City Livability	Equal variances assumed	.651	.423	1.389
	Equal variances not assumed			1.389
City Personality	Equal variances assumed	1.032	.314	-1.281
	Equal variances not assumed			-1.281
Attitude	Equal variances assumed	.007	.936	-.668
	Equal variances not assumed			-.668
Behavioural Intention	Equal variances assumed	2.477	.121	2.198
	Equal variances not assumed			2.198

London Samples

Variables		F	Sig.	t
City Livability	Equal variances assumed	.563	.456	-.550
	Equal variances not assumed			-.550
City Personality	Equal variances assumed	1.661	.203	.478
	Equal variances not assumed			.478
Attitude	Equal variances assumed	.140	.710	.158

	Equal variances not assumed			.158
Behavioural Intention	Equal variances assumed	.000	1.000	.691
	Equal variances not assumed			.691

5.3.3.2 Data Analysis

a. T-Tests

SPSS is a well-known statistics programme that may be easily used for compiling and analysing survey data. The final survey analysis will be conduct by using SPSS 28.0 version. There are two distinct t-test methodologies used to assess differences between 1) two separate samples, and 2) a single sample across two varying conditions. The independent-sample t-test is the first technique, and it's used to identify non-response biases by assessing significant variations between samples that responded to a survey and those that did not. This t-test operates on the presumption that the variable follows a symmetrically bell-shaped distribution (Malhotra, 2010). It's also presupposed that the two samples showcase roughly equivalent variance regarding the dependent variable. Levene's test for variance equality can confirm this, determining if the two samples' score variations align (Pallant, 2010). The analysis regarding non-response bias, conducted using the independent t-test, is detailed in this chapter.

b. Exploratory Factor Analysis (EFA)

Factor analysis identifies the underlying relationships among variables in a study (Hair et al., 2010). This method typically pertains to EFA and aims to condense data (Pallant, 2010). Using the SPSS software, variables can be categorised into specific factors. Often employed in preliminary research stages, EFA informs on the number of items needed to depict a particular construct. The Exploratory Factor Analysis was used in this study, to purify the measurement items as illustrated in the section of scale development and pilot study (chapter 4).

EFA's main goals are data summarisation and reduction. For summarisation, variables are classified based on their inter-relationships into foundational dimensions. The method also condenses a collection of interconnected variables into a more concise set of factors (Field, 2009). When undertaking EFA, it's essential to have a sufficiently large sample

for reliable correlation estimations (Tabachnick and Fidell, 2013). Hair et al. (2010) advises a sample size of at least 100, aligning with Pallant (2010) and suggestion of a minimum of 150 cases, ensuring a ratio of at least five cases per variable. To validate the use of factor analysis, correlations should exceed 0.3 (Hair et al., 2010). Also, the data should fulfil linearity and outlier criteria when subjected to factor analysis (Pallant, 2010).

c. Confirmatory Factor Analysis (CFA)

According to Harrington (2009), CFA can be applied to a variety of tasks, including but not limited to the creation of new measurement, assessment of the psychometric characteristics of both new and current measures, and investigation of technique effects. A measure's construct validity and whether it is constant or unchanging over groups, populations, or time can also be examined using CFA. It's crucial to remember that various usage overlap rather than being totally separate from one another.

In EFA, the relationship between latent and observed variables isn't predefined. The number of latent variables is undetermined prior to the analysis, they typically influence all observed variables, measurement errors aren't correlated, and under-identification is frequent. Conversely, CFA demands a predefined model. The analyst predetermines the number of latent variables, establishes which latent variables influence observed ones, may set certain latent-to-observed effects to constants (e.g., zero), allows for correlated measurement errors, and can estimate or adjust the covariance of latent variables. Moreover, CFA necessitates parameter identification (Bollen, 1989).

A well-defined model is required by CFA. The observed variables or items (shown by squares) that correlate with the latent variables (represented by ovals) must be identified by researchers. These components and measurements come from the EFA. Furthermore, it is critical to identify the causal relationship between latent variables and items. Models can be formative or reflective, where the latent variable is made up of the items and the items reflect the latent variable. Measuring errors may occur from improperly defining this relationship (MacKenzie, 2003).

Reflective indicators typically match the criteria used in the factor analysis model. It is assumed that the items are samples taken from the latent construct's domain (Dillon and Mcdonald, 2001). In other words, for the reflective model, the latent construct exists

independent of the measures used. When examining the causal relationship between items and latent constructs, it can be seen that item measurements vary depending on the latent concept. This means the variation in the item measures does not cause variation in the construct. Additionally, when examining an item's features, reflective items typically have a similar theme and can be used interchangeably. Finally, adding or eliminating a component does not alter the construct's conceptual domain. (Coltman et al., 2008).

On the other hand, the latent variable is described as a linear combination of manifest items, formative indicators are consistent with the primary component's specification (Dillon and Mcdonald, 2001). In other words, the Formative indicators define the latent construct rather than having their meaning derived from the construct (Collier and Bienstock, 2009). Therefore, formative measures are not required to be positively correlated with each other. Theoretically, formative indicators of a latent construct can be completely uncorrelated or negatively linked with other elements Thorndike, R. M. (1995).

All produced items in the perceived city livability, perceived city personality, attitude towards city brand, and behavioural intention are all regarded as formative indicators, therefore, they will not be reduced. In other words, they cannot be substituted for one another, and each thing must have a unifying theme. As a result, changing the number of some elements may alter the primary construct's meaning because they form the meaning of constructs.

In conclusion, Harrington (2009) posits that CFA can serve diverse tasks such as creating new measures or examining a measure's construct validity across varying contexts. Unlike EFA, where relationships aren't predefined, CFA requires a well-specified model, determining in advance how observed and latent variables relate. A key distinction arises in the relationship between latent variables and items. In reflective models, items are seen as samples from the latent construct's domain, maintaining the idea that the latent construct remains unchanged regardless of measurement changes (Dillon & Mcdonald, 2001; Coltman et al., 2008). Conversely, in formative models, latent variables are influenced by the manifest items; they define the construct rather than derive meaning from it (Dillon and Mcdonald, 2001; Collier & Bienstock, 2009). For constructs in this study, only formative indicators are used. These items are viewed as indispensable, each bearing unique significance, suggesting that altering them could redefine the core construct.

d. The Structural Equation Modeling (SEM)

Structural Equation Modeling (SEM) will be used in this study to evaluate the causalities between the conceptual constructs. According to Byrne (1994), SEM is a research methodology that uses a confirmatory approach to analyse a structural theory. It is a method for "specifying, estimating, and assessing models of linear relationships among a collection of observable variables such as indicators, in terms of a generally smaller number of unobserved variables (i.e. manifest variables or conceptual constructs)" (Shah and Goldstein, 2006, P.149). The SEM can also apply confirmatory factor analysis to estimate latent constructs that cannot be directly observed (Fan et al., 2016).

SEM gives a more systematic and complete analysis to researchers than classic statistical techniques (such as linear regression, logistic regression, ANOVA, and MANOVA) (Gefen et al., 2000). In a linear regression model, for example, there is only one dependant variable at a time, which may restrict the researcher's observation. On the other hand, SEM differs from these classic statistical methods in that it simultaneously tests the correlations between many independent and dependent factors (Gerbing and Anderson, 1988). To put it another way, SEM allows researchers to look at numerous layers of linkages between exogenous and endogenous variables (i.e. dependent variables) simultaneously. SEM, like multiple regression, offers the unique capacity to examine a series of casualties in which a dependent variable can also act as an independent variable in subsequent relationships within the same analysis (Jöreskog et al., 2001). Therefore, the SEM is an excellent research tool for this study to achieve all main research questions by examining the influential factors (both observed and unobserved factors) for city livability and city branding.

All hypotheses of this study were analysed using multiple regression analysis. This method is a prevalent technique, applicable across various domains (Hair et al., 2010). Tabachnick and Fidell (2013) highlight that while the terms 'regression' and 'correlation' often overlap in use, 'regression' typically pertains to prediction, while 'correlation' denotes assessing the relationship between dependent (DV) and independent variables (IVs). Essentially, multiple regression builds upon correlation, enabling a more intricate exploration of variable interrelationships (Pallant, 2010). This statistical approach evaluates and quantifies the association between one DV and multiple IVs (Tabachnick and Fidell, 2013). As Hair et al. (2010) outline, the goal of multiple regression is to utilise

IVs—each adjusted by the regression process—to forecast a singular DV. They recommend employing multiple regression chiefly for two research concerns: 1) predicting the degree to which IVs can foresee the DV, and 2) elucidating the underlying causes of IV effects. This research aims to investigate the association between 1) perceived city livability (PCL) and perceive city personality (PCP), 2) perceived city livability (PCL) and attitude towards city brand (ATD), 3) perceived city personality (PCP) and attitude towards city brand (ATD), 4) perceived city livability (PCL) and behavioural intention (BI), 5) perceived city personality (PCP) and behavioural intention (BI), 6) attitude towards city brand (ATD) and behavioural intention (BI), and also examine 7) The indirect relationship between perceived city livability, perceived city personality, attitude towards city brand and behavioural intention as serial mediation.

The concept of multiple regression can be traced back to Pearson in 1908, as referenced by Hill and Lewicki (2006). According to Tabachnick and Fidell (2013), there are three primary forms of multiple regression. Firstly, standard multiple regression encompasses all IVs being integrated into the regression equation at once. This model evaluates the unique contribution each IV brings to the prediction of the DV, considering the collective predictive ability of all other IVs. Secondly, sequential multiple regression, also termed hierarchical regression, assesses the contribution of each IV upon its introduction to the equation. Typically, the sequence in which IVs are incorporated is predetermined by the researcher, grounded in logical or theoretical underpinnings. The final form is stepwise regression, where the sequence of IV inclusion is determined solely by statistical metrics. For this research, given the aim to analyse variable interrelationships and delve into multiple correlation inquiries, standard multiple regression is the chosen method.

While regression analysis may seem straightforward, Hair et al. (2010) pointed out that for multiple regression to be effectively applied, it must satisfy four critical assumptions: 1) normality, 2) linearity, 3) homoscedasticity, and 4) independence of error terms. To evaluate the aptness of a regression model, Hair and colleagues advocated for the utilization of residual plots plotted against the independent variables. These plots can spotlight potential breaches of the underlying assumptions in the overall relationship. Specifically, the normality diagnostic can be assessed using a histogram of residuals and a normal probability plot. In such plots, a straight diagonal line signifies a normal data distribution, and ideally, the plotted residuals should align closely with this diagonal. Meanwhile, Osbourne and Waters (2002) emphasized that multiple regression can

precisely infer the relationship between the dependent and independent variables, provided the relationships are linear. This linearity can be validated by observing scatter plots of the variables, as suggested by Hill and Lewicki (2006). A linear association between variables is typically evident when the residuals exhibit a near straight-line correlation with predicted scores of the dependent variable, as per Pallant (2010).

In multiple regression, it is presumed that variances are equal, a condition known as homoscedasticity. One can diagnose this assumption through a visual inspection of residual plots, as highlighted by Hair et al. (2010). When homoscedasticity is evident, the variance of the residuals surrounding the predicted scores of the dependent variable remains consistent across all such predicted scores, as articulated by (Pallant, 2010). Moreover, multiple regression operates on the premise that every predicted value stands independent, meaning it's unrelated to other predictions, as mentioned by Hair et al. (2010). Just as with the assumptions of normality, linearity, and homoscedasticity, the independence of errors can be verified via a residuals plot, as indicated by Tabachnick and Fidell (2013). This research will employ SmartPLS for the multiple regression analysis due to its renowned user-friendly interface, making it especially well-suited for researchers new to SEM and working with small sample sizes (Smart PLS, 2024). Notably, SmartPLS specializes in Partial Least Squares SEM (PLS-SEM), enhancing its efficacy in handling complex models and data that deviate from normal distributions. Its emphasis on bootstrapping for parameter estimation and computational efficiency further underscores its suitability for managing both limited sample sizes and intricate model structures (Hair et al., 2021).

Regression analysis primarily aims to examine the correlation between a dependent variable (DV) and one or more independent variables (IVs), aiming to gauge the strength of the relationship (Tabachnick and Fidell, 2013). While simple regression focuses on a singular independent variable, multiple regression delves into relationships with two or more IVs, as described by Hair et al. (2010). Tabachnick and Fidell (2013) further clarified that multiple regression can be seen as an advancement of bivariate regression, and when involving a single outcome, the regression equation is presented as:

$$Y = A + B_1 X_1 + B_2 X_2 + ... + B_k X_k$$

where Y is the predicted value on the DV, A is the intercept, the Xs represent the various IVs, and Bs are the regression coefficients assigned to each of the IVs.

With n independent observations on Y and the associated values of Xi (Johnson and Wichern, 2007), the complete model becomes:

$$Y_1 = A + B_1X_{11} + B_2X_{12} + ... + B_kX_{1k} \quad Y_2 = A + B_1X_{21} + B_2X_{22} + ... + B_kX_{2k} .$$

$$.$$

$$.$$

$$.$$

$$Y_n = A + B_1X_{n1} + B_2X_{n2} + ... + B_kX_{nk}$$

Every case in the sample uses consistent intercepts and coefficients to forecast the DV values. However, each observation yields a distinct Y value, stemming from the integration of that particular subject's X values into the equation (Tabachnick and Fidell, 2013). In this study, the multiple regression is implemented in section 6.3.1, chapter 6 to examine the correlation among perceived city personality, perceived city personality, attitude towards city brand, and behavioural intention.

5.4 Description of the respondents

The information of responses from each city were illustrated in table 5.1, showing gender, employment status, education, and annual income categories. To begin with gender, in Bangkok, women made up 64.0% (192 out of 300) of the responders, a noticeable majority. However, London had a more evenly distributed gender representation, with 49.3% of women and 48.3% of men (145 out of 300). In terms of employment, 208 out of 300 respondents in Bangkok, or 60.3%, were employed, compared to 204 out of 300 respondents in London, or 68.0%. Notable percentages of self-employment were also found in both cities: 14.7% in London (44 out of 300) and 13.0% in Bangkok (39 out of 300).

When it comes to education, the degree of education offered interesting insights. A bachelor's degree was the most prevalent educational credential in Bangkok, held by 44.7% of respondents (134 out of 300). This was almost the same in London, where 144 out of 300 people, or 48.0%, held a bachelor's degree. But a large percentage of respondents in Bangkok—34.7%, or 104 out of 300—said they had a master's degree; this compares to London, where the percentage was 22.3%, or 67 out of 300. Lastly, there was a clear difference in income between the two cities. 38.0% (114 out of 300) of the

respondents from Bangkok made between £10,000 and £24,999 per year. The income distribution in London was somewhat different, with 34.3% (103 out of 300) of the population earning between £50,000 and £100,000 annually.

Table 5.2 Demographic of the respondents

	Demographic	Bangkok respondents		London Respondents	
		N	%	N	%
Gender	Male	93	31.0	145	48.3
	Female	192	64.0	148	49.3
	Prefer not to say	10	3.3	1	0.3
	Other	5	1.7	6	2.0
	Total	**300**	**100**	**300**	**100**
Employment	Unemployed	27	9.0	34	11.3
	Employed	208	60.3	204	68.0
	Self-employed	39	13.0	44	14.7
	Other	26	8.7	18	6.0
	Total	**300**	**100**	**300**	**100**
Education	High School	41	13.7	60	20.0
	Bachelor's Degree	134	44.7	144	48.0
	Master's Degree	104	34.7	67	22.3
	PhD or Higher	17	5.7	13	4.3
	Prefer not to say	4	1.3	5	1.7
	Other	300	100	11	3.7
	Total			**300**	**100**
Annual Income	Less than £9,999	70	23.3	11	3.7
	£10,000 - £24,999	114	38.0	35	11.7
	£25,000 - £34,999	40	13.3	43	14.3
	£35,000 - £49,999	26	8.7	57	19.0
	£50,000 - £100,000	8	2.7	103	34.3
	More than £100,000	23	7.7	31	10.3
	Prefer not to say	19	6.3	20	6.7
	Total	**300**	**100**	**300**	**100**

Table 5.2 shows the demographic data of Bangkok and London samples across various categories: Gender, Employment Status, Education, and Annual Income

In conclusion, the demographic data from Bangkok and London reveals distinct patterns in gender distribution, employment status, educational attainment, and income brackets. Bangkok showcases a predominant female demographic and a higher percentage of respondents with a master's degree, whereas London presents a more balanced gender

representation and a notably larger portion of high-income earners. The employment rate in London is slightly higher than in Bangkok, and both cities show a comparable percentage of self-employed individuals. Overall, the data highlights the varied socio-economic and educational landscapes between the two diverse cities.

5.5 Research Ethics

In research, there is no single norm or notion of ethics. For example, issues of secrecy are especially important in sensitive research where the privacy of individuals is greatly valued. Other studies, such as assessing customer perceptions, where the issue of sensitivity is less essential, will not place as much emphasis on the issue of confidentiality; instead, collecting consents will be more crucial. Ethics are aimed to protect the rights of the researcher and the researched subjects, according to the Research Ethics Framework (REF) developed by the Economic and Social Research Council (ESRC) (ESRC, 2023).

Scholars have offered a variety of definitions of research ethics. According to Silverman (2010, p. 434), Ethics are "guideline or principles relating to good professional practice". It is also defined as

"the appropriateness of the researcher's behaviour in relation to the rights of those who become the subject of a research project, or who are affected by it" by Saunders et al. (2007, p.610).

It is evident that what matters in terms of ethics is the researcher's process for ensuring that particular rules of ethics are followed at all times during the study process.

Many educational institutions and scholars have established various codes of ethics, conduct, or ideals for researchers to follow. Easterby-Smith et al. (2015, p. 122), for example, list ten fundamental research ethics concepts. The first six are for the protection of informants and research subjects, while the final four are for the protection of the research community and the accuracy of research. The first six principles are 1) to ensure that participants are not harmed, 2) to respect their dignity, 3) to acquire their informed consent, 4) to preserve their privacy, 5) to ensure their secrecy, and 6) to protect the anonymity of organisations and individuals. The last four principles are 7) to avoid any

misleading conclusions, 8) to communicate about the research in a transparent and honest manner, 9) to declare any affiliations or funding bodies, and 10) to avoid deception.

When it comes to the University of York, there are four main ethical issues that the University considers: 1) gaining ethical permission from the University of York's ethics committee, 2) receiving informed consent from participants, 3) ensuring that interviews are conducted in secure locations, and 4) guaranteeing data confidentiality. The University of York follows to particular ethics approval procedures (University of York, 2024). The application contains information about the research context, methodologies used, time range, participants' characteristics, and many other crucial aspects of the study. This study adhered to the University of York's code of ethics, and the application form was submitted to the University of York's ethics committee on the 10th November 2021 and received their approval on 20th January 2022 (please see appendix N).

5.6 Conclusion

The methodological approach used in this thesis has been outlined in this chapter. It started by demonstrating the philosophical viewpoint that this research is based on. It has emphasised and justified the subjective dimension, positivism epistemology, and the inductive and deductive reasoning methods to theory construction. Moreover, this chapter has focused on the methods used in the field work, namely quantitative research method. For the sampling technique, the convenience sampling technique was selected to collect 600 samplings: 300 residents in Bangkok, and 300 residents in London. After that, all data were screened for the potential inaccuracies by testing the MCAR analysis, the outlier, the multicollinearity, the assumptions in multi regression analysis, and T-test for non-bias analysis. The results of all analysis have passed the data screening test; therefore, they are accurate enough for the further analysis. Lastly, this chapter also identified the research ethics process, and the approval related this research. The next chapter will be the finding from the multiple regression analysis from city resident of two cities.

Chapter 6 Research Findings

6.1 Introduction

The outcomes of the analysis of the survey data are thoroughly illustrated in this chapter. The first step is an explanation of the analytical approaches utilised to analyse the survey data. The internal consistency and reliability of the scales are evaluated using the coefficient Alpha (Cronbach's Alpha), which is used as a reliability test. The measurement model is then assessed the construct validity. The proposed hypotheses are tested using multiple regression analysis after validating and evaluating all measures. The association among perceived city livability, perceived city personality, attitude towards city brand, behavioural intention, and demographics as control variable are examined. In addition, the descriptive statistics of Bangkok and London city residents' perception towards city livability and city personality, as well as the correlation analysis Between city liveability dimensions and behavioural intention are also provided in this chapter.

As shown in Figure 2.1, which illustrates the relationships among the variables discussed earlier in Chapter 2, Table 6.1 presents the proposed hypotheses.

Table 6.1 Hypotheses of the study

Hypothesis 1	The relation between perceived city livability and perceived city personality.
H1a H1b	Perceived city livability of Bangkok residents has a positive impact on their perceived city personality. Perceived city livability of London residents has a positive impact on their perceived city personality.
Hypothesis 2	The relation between perceived city livability and attitude towards city brand.
H2a H2b	Perceived city livability of Bangkok residents has a positive impact on their attitude towards city brand. Perceived city livability of London residents has a positive impact on their attitude towards city brand.
Hypothesis 3	The relation between perceived city personality and attitude towards city brand.
H3a H3b	Perceived city personality of Bangkok residents has a positive impact on their attitude towards city brand. Perceived city personality of London residents has a positive impact on their attitude towards city brand.
Hypothesis 4	The relation between perceived city livability and behavioural intention.
H4a H4b	Perceived city livability of Bangkok residents has a positive impact on their behavioural intention. Perceived city livability of London residents has a positive impact on their behavioural intention.

Hypothesis 5	The relation between perceived city personality and behavioural intention.
H5a H5b	Perceived city personality of Bangkok residents has a positive impact on their behavioural intention. Perceived city personality of London residents has a positive impact on their behavioural intention.
Hypothesis 6	The relation between attitude towards city brand and behavioural intention.
H6a H6b	Attitude towards city brand of Bangkok residents has a positive impact on their behavioural intention. Attitude towards city brand of London residents has a positive impact on their behavioural intention.
Hypothesis 7	Serial mediation effect of perceived city personality and attitude towards the city brand on the relationship between perceived city livability and behavioural intention.
H7a	Perceived city personality and attitude towards city brand of Bangkok residents serially mediate the relationship between perceived city livability and behavioural intention
H7b	Perceived city personality and attitude towards city brand of London residents serially mediate the relationship between perceived city livability and behavioural intention

Table 6.1 presents the proposed hypotheses for this study, comprising 12 sub-hypotheses grouped under 6 main hypotheses. These hypotheses explore the associations between city livability and city branding, along with the influence of demographic factors on key dependent variables: perceived city personality, attitude towards the brand, and behavioral intention. The hypotheses are applied to two distinct sample groups: city residents in Bangkok (labeled 'a') and in London (labeled 'b').

6.2 Measurement model

Multiple regression analysis was used in this work to examine the proposed hypotheses. The measurement scales are cleaned up using statistical methods. The hypothesised relationships are then investigated. This part further cleans the survey instruments for usage with 300 replies from Bangkok residents in Thailand and 300 respondents from London residents in the United Kingdom during January 2022 to March 2022, after the instrument's reliability and validity testing with a sample of 100 responses from each city in the pilot study. Therefore, there are totally 600 samples in this study.

6.2.1 Reliability test

It is essential to ensure that results are obtained consistently before the variables are examined. The degree to which measurements are free from random error can be used to describe the reliability (Malhotra, 2009). In other words, the coefficient Alpha

(Cronbach's Alpha) should be used to measure the internal consistency of a set of items to examine the quality of the research instrument (Churchill, 1979). In general, the Cronbach's Alpha's value should be greater than 0.7 which normally indicates satisfactory internal-consistency reliability (Malhotra, 2009). Table 6.2 illustrates the reliability of each variable and its measurement items for Bangkok samples and Table 6.3 presents the reliability of each variable and its measurement items for London samples.

6.2.1.1 Reliability test for Bangkok samples

Table 6.2 Cronbach's Alpha values of the variables for Bangkok samples

Table 6.2 illustrates the reliability of perceived city livability, perceived city personality, attitude towards brand, and behavioural intention variables for Bangkok samples. It also provides the list of factors inside each variable and its overall Cronbach's Alpha value.

Construct	Cronbach's Alpha	Items	Alpha-If-Item-Deleted	Corrected-Item-Total-Correlation	Comments
Stability Dimension	0.924	1SD1 (safety)	0.781	0.610	All items should be retained.
		1SD2 (prevalence of violent crime)	0.780	0.829	
		1SD3 (threat of terror)	0.763	0.822	
		1SD4 (threat of military conflict)	0.786	0.782	
		1SD5 (threat of civil unrest)	0.758	0.837	
		1SD6 (political and social environment)	0.770	0.818	
Healthcare Dimension	0.781	1HC1 (availability of healthcare)	0.710	0.613	All items should be retained.
		1HC2 (quality of healthcare)	0.605	0.702	
		1HC3 (availability of drugs including vaccination)	0.768	0.559	
Environment Dimension	0.903	1EN1 (humidity/temperature rating)	0.903	0.633	All items should be retained.
		1EN2 (natural environment)	0.869	0.829	
		1EN3 (green infrastructure)	0.865	0.833	
		1EN4 (public open space)	0.877	0.780	
		1EN5 (level of air pollution)	0.888	0.750	
Culture and Social	0.794	1CS1 (sport availability)	0.752	0.624	All items should be retained.
		1CS2 (recreation)	0.745	0.667	
		1CS3 (food and other local goods)	0.830	0.013	
		1CS4 (social and religious restrictions)	0.798	0.318	
		1CS5 (cultural availability)	0.777	0.515	
		1CS6 (civic engagement)	0.750	0.630	
		1CS7 (life satisfaction)	0.749	0.627	
		1CS8 (work-life balance)	0.752	0.615	
Education Dimension	0.732	1ED1 (opportunity for education)	0.719	0.416	All items should be retained.
		1ED2 (availability of private education)	0.658	0.590	
		1ED3 (quality of private education)	0.665	0.552	
		1ED4 (availability of public education)	0.709	0.431	
		1ED5 (quality of public education)	0.679	0.515	
Infrastructure	0.909	1IN1 (quality of road network)	0.896	0.719	All items should be retained.
		1IN2 (quality of public transport)	0.884	0.824	
		1IN3 (quality of international links)	0.898	0.700	
		1IN4 (availability of good quality housing)	0.906	0.615	
		1IN5 (quality of energy provision)	0.900	0.679	
		1IN6 (quality of water provision)	0.893	0.748	
		1IN7 (solid waste management)	0.887	0.799	
Economic	0.867	1EC1 (job security)	0.857	0.648	All items should be retained.
		1EC2 (opportunity to earn a fair wage)	0.797	0.794	
		1EC3 (employment rate)	0.833	0.710	
		1EC4 (economic and social development)	0.828	0.722	
Sincerity	0.907	1SIN1 (down to earth)	0.882	0.786	All items should be retained.
		1SIN2 (honest)	0.855	0.858	
		1SIN3 (wholesome)	0.869	0.821	
		1SIN4 (cheerful)	0.909	0.703	
Excitement	0.829	1EXT1 (daring)	0.804	0.611	All items should be retained.
		1EXT2 (spirited)	0.750	0.731	
		1EXT3 (imaginative)	0.771	0.684	
		1EXT4 (up to date)	0.809	0.601	
Competence	0.823	1COM1 (reliable)	0.838	0.595	All items should be retained.
		1COM2 (intelligent)	0.668	0.770	
		1COM3 (successful)	0.756	0.681	

Construct	Cronbach's Alpha	Items	Alpha-If-Item-Deleted	Corrected-Item-Total-Correlation	Comments
Sophistication	0.659	1SOP1 (upper-class) 1SOP2 (charming)	Not applicable (only 2 items)	0.493 0.493	All items should be retained.
Ruggedness	0.746	1RUG1 (outdoorsy) 1RUG2 (tough)	Not applicable (only 2 items)	0.596 0.596	All items should be retained.
Attitude Towards City Brand	0.897	1ATD1 (I love Bangkok) 1ATD2 (I have a favourable opinion of Bangkok) 1ATD3 (Living in Bangkok is a good decision)	0.852 0.824 0.884	0.799 0.832 0.764	All items should be retained.
Behavioral Intention	0.797	1BI1 (I will definitely live in Bangkok as long as I can), 1BI2 (I will definitely recommend others to live in Bangkok) 1BI3 (I will recommend others to visit Bangkok) 1BI4 (I will recommend others to work in Bangkok), 1BI5 (I will recommend others to study in Bangkok)	0.761 0.726 0.775 0.749 0.777	0.573 0.673 0.527 0.610 0.520	All items should be retained.

According to the reliability outcome of Bangkok Samples, the overall Cronbach's Alpha (α) of the Perceived city livability in Stability dimension (1SD) construct 0.924. All stability dimension values are over 0.7 (a ≥ 0.7) which mean that all items in this construct are consistent and reliable. The Stability dimension comprises six items, denoted as 1SD1 through 1SD6. All of these items contribute to shaping the concept of stability. In terms of Correct-Item-Total-Correction, which reflects the correlations between individual items and the overall score, it is recommended that the appropriate value should exceed 0.3 (Pallant, 2010). For the Stability dimension construct of Perceived City Livability (1SD), positive item-total correlations are observed, ranging from 0.610 to 0.829, 0.822, 0.782, 0.837, and 0.818. This trend is promising and indicative of a strong association.

Secondly, the Healthcare dimension of perceived city livability (1HC) contains 3 items: 1HC1 indicates the availability of healthcare, 1HC2 refers to the quality of healthcare, and 1HC3 means the availability of drugs including vaccination in the city. The overall Alpha value is 0.781. This value indicates good reliability. The outcomes also present the values of Cronbach's Alpha if Item Deleted. These values are the overall Alpha if some item is excluded from the calculation. However, the values of Cronbach's Alpha-if-Item-Deleted (0.710, 0.605, and 0.768) are lower than the overall value (0.781). Therefore, removing a specific item would not increase reliability. When checking the Correct-Item-Total-Correction values, all items are higher than 0.3 (0.613, 0.702, 0.559). Hence, all items appropriately correlate with the overall scale.

The third dimension of perceived city livability is Environment (1EN), this dimension consists of 5 items which can combine to construct the full meaning of the city environment: 1EN1 (humidity/temperature rating), 1EN2 (natural environment), 1EN3

(green infrastructure), 1EN4 (public open space), and 1EN5 (level of air pollution). The overall Cronbach's Alpha is 0.903. This value demonstrates a high level of reliability. Additionally, the Alpha-if-Item-Deleted values suggest that deleting a particular item of the scale cannot increase the overall Cronbach's Alpha (0.903, 0.869, 0.865, 0.877, and 0.888). When considering the reliable scale, it is suggested by Hair et al. (2021) that all items should correlate with the total scale. The outcomes show that the Correct-Item-Total-Correction values of all items (0.633, 0.829, 0.833, 0.780, and 0.750) are higher than the recommended value 0.3.

The next perceive city livability dimension to consider is Culture and Social (1CS). This variable contains 8 items which are 1CS1 (sport availability), 1CS2 (recreation), 1CS3 (food and other local goods), 1CS4 (social and religious restrictions), 1CS5 (cultural availability), 1CS6 (civic engagement), 1CS7 (life satisfaction), and 1CS8 (work-life-balance). The overall reliability of the scale is 0.794 which considered to be consistent and reliable. When it comes to the Alpha-if-Item-Deleted values. It is suggested that removing 1CS1, 1CS2, 1CS5, 1CS6, 1CS7, and 1CS8 items of the scale cannot increase the overall Cronbach's Alpha value because each item gains lower value (0.752, 0.745, 0.770, 750, 749, and 0.752 respectively) than the overall value (0.783). Only 1CS3 and 1CS4 gain the Alpha-if-Item-Deleted values (0.830 and 0.798) higher than overall Alpha value (0.78). Besides, the output illustrates that the Corrected-Item-Total-Correlation values of 1CS1, 1CS2, 1CS4, 1CS5, 1CS6, 1CS7, and 1CS8 (0.624, 0.667, 0.318, 0.515, 0.630, 0.627, and 0.615 respectively) are greater than the recommended value 0.3. Only 1CS3 with 0.013 value is lower. However, the current overall Alpha value can be considered high enough to provide internal consistency. Moreover, each item in the dimension can be counted as a formative indicator that help to construct the meaning of the main variable. Therefore, they would not be eliminated the items.

The fifth dimension of perceived city livability is Education or 1ED which comprises of 5 items: 1ED1 (opportunity for education), 1ED2 (availability of private education), 1ED3 (quality of private education), 1ED4 (availability of public education) and 1ED5 (quality of public education). All items are important to construct the full meaning of education in terms of city livability aspect. The overall scale reliability is 0.732 which indicating satisfied reliability (a ≥ 0.7). Additionally, none of the items affect the overall reliability if they are eliminated based on the Alpha-if-Item-Deleted. This is because all items gained Alpha-if-Item-Deleted values (0.719, 0.658, 0.665, 0.709, and 0.679 respectively) lower than overall Cronbach's Alpha value which is 0.732. Looking at the

values of Corrected-Item-Total Correlation which are 0.416, 0.590, 0.552, 0.431, and 0.515, none of these values are less than 0.3. Therefore, there is no item that should be deleted from the scale.

The next perceived city livability dimension Is Infrastructure or 1IN. This variable consists of 7 items which are 1IN1 (quality of road network), 1IN2 (quality of public transport), 1IN3 (quality of international links), 1IN4 (availability of good quality housing), 1IN5 (quality of energy provision), 1IN6 (quality of water provision), and 1IN7 (solid waste management). Each item needs to be measured internal consistency separately to ensure the quality of research instrument (Churchill, 1979). The overall Cronbach's Alpha value is 0.909. Then the impact of eliminating each item from the scale was investigated. The results showed that all items should be retained in the scale as the values of the Alpha-If-Item-Deleted (0.896, 0.884, 0.898, 0.906, 0.900, 0.893, and 0.887) are lower than the total Alpha value (0.909). In addition, the values of Corrected-Item-Total-Correlation in this construct (0.719, 0.824, 0.700, 0.615, 0.679, 0.748, and 0.799) indicate that there is no item which should be removed from the scale.

The last dimension of the perceived city livability is Economic (1EC). This construct comprises of 4 items: 1EC1 (job security), 1EC2 (opportunity to earn a faire wage), 1EC3 (employment rate), and 1EC4 (economic and social development). The overall Cronbach's Alpha is 0.867 which could refer to satisfactory internal-consistency reliability. Besides, the values of Alpha-If-Item-Deleted (0.857, 0.797, 0.833, and 0.828) present that none of these items in this dimension should be deleted from the scale as the removing would not increase the degree of the reliability. In other words, all Alpha-If-Item-Deleted values in this construct are less than the overall Cronbach's Alpha (0.867). When considering the correlation, the scale also has a strong internal consistency correlation. This is because the Corrected-Item-Total-Correlation values (0.648, 0.794, 0.710, and 722) are greater than 0.3 as it is suggested.

The perceived city personality is also assessed the reliability by using the Cronbach's Alpha. Starting with the first dimension: Sincerity or SIN. There are 4 items in this construct: namely SIN1 that indicates down to earth, SIN2 that stands for honest, SIN3 which refers to wholesome, and SIN4 which means cheerful. The overall Cronbach's Alpha of this dimension is 0.907 that is considerably consistent and reliable. When looking at the Alpha-If-Item-Deleted statistics, it shows that removing SIN1, SIN2, and SIN3 (0.882, 0.855, and 0.869) does not affect the overall Alpha value except SIN4 with

0.909. However, the overall Alpha value is high enough (0.907) and all items are formative indicators that form the meaning of construct. In addition, all Corrected-Item-Total-Correlation values of this scale (0.786, 0.858, 0.821, and 0.703) are greater than 0.3. Therefore, there is no item that should be removed from the scale.

When it comes to the second dimension of perceived city personality variable: Excitement or EXT. This scale consists of 4 items: EXT1 (daring), EXT2 (spirited), EXT3 (imaginative), and EXT4 (up to date). The EXT scale achieves a high degree of reliability with 0.829 of Cronbach's Alpha. Besides, the Alpha-If-Item-Deleted values show that deleting an item would not affect the overall Alpha as all Alpha-If-Item-Deleted values (0.804, 0.750, 0.771, and 0.809) are lower than the overall value (0.829. Furthermore, the reliability testing result also indicates that the EXT scale is internally consistent with the Corrected-Item-Total-Correlation values: 0.611, 0.731, 0.684, and 0.601 that greater than the recommended value of 0.3. This outcome is considerably strong, and all items should be retained in the scale.

Next, it is also found that the overall Cronbach's Alpha of perceived city personality in competence dimension (COM) indicates a good degree of reliability (0.823). The COM scale consists of 3 items: COM1 that indicates reliable, COM2 that refers intelligent, and COM3 which means successful. Each of them must undergo individual assessments of internal consistency to ensure the creation of high-quality scales. When considering the Alpha-If-Item-Deleted statistics, removing COM2 and COM3 would not change the overall Alpha value as their values (0.668 and 0.756) are lower than the overall Alpha value (0.823). There is only COM1 receiving Alpha-If-Item-Deleted value (0.838) slightly higher than the overall value, however the current overall value is considerably high enough (0.823). Additionally, all data have Corrected-Item-Total-Correlation values over 0.3 (0.595, 0.770, and 0.681), which is encouraging. Therefore, it can be concluded that none of these items should be eliminated.

The fourth dimension of perceived city personality is Sophisticate (SOP) that contains 2 items: SOP1 that means upper class and SOP2 which refers charming. The overall Cronbach's Alpha value is 0.659 which can be identified as questionable internal consistency. It also cannot analyse the Alpha-If-Item-Deleted statistic as there are only two items which are not enough to analyse. However, the outcome shows that the scale has a good degree of the internal consistency based on the Corrected-Item-Total-

Correlation values (0.493 and 0.493). In other words, these values are higher than the suggested value (0.3) (Pallant, 2010).

The last dimension of perceived city personality is Ruggedness or RUG with 2 items inside this scale: RUG1 that refers to outdoorsy and RUG2 which means tough. The overall Cronbach's Alpha is 0.746 which indicates good degree of reliability. Even though this data cannot be analysed the Alpha-If-Item-Deleted statistic as there is not enough data; only 2 items in the scale, but all items should be retained in the calculation since they have Corrected-Item-Total-Correlation values above 0.3 (0.596 and 0.596).

Attitude Towards City Brand is another variable to be analysed the reliability. The output reveals that the overall reliability of the Attitude Towards City Brand (ATD) with 3 items: ATD1 indicating "I love Bangkok", ATD2 referring "I have a favourable opinion to Bangkok", and ATD3 indicating "Living in Bangkok is a good decision", is 0.897. When investigating the values of Alpha-If-Item-Deleted (0.852, 0.824, and 0.884), it is recommended that all items should be remain in the scale as their values are all lower than the overall Alpha value (0.897). The deletion will not improve the reliability. Moreover, the scale also has a good degree of internal consistency based on the Corrected-Item-Total-Correlation values. The outcomes of these values are 0.799, 0.832, and 0.764 that are greater than the suggested value of 0.3 (Pallant, 2010).

The last variable is Behavioural Intention (BI) that comprise 5 items in the scale: BI1 that refers to "I will definitely live in Bangkok as long as I can", BI2 that means to "I will definitely recommend other people to live in Bangkok", BI3 that indicates "I will definitely recommend other people to travel or visit Bangkok", BI4 that means "I will definitely recommend other people to work or do business in Bangkok", and BI5 which refers "I will definitely recommend other people to study in Bangkok". This dimension includes five items to ensure comprehensive coverage of behavioral intentions among city residents. The BI scale indicates a satisfied reliability degree at 0.797. These items should not be removed from the scale as they all have Alpha-If-Item-Deleted values (0.761, 0.726, 0.775, 0.749, and 0.777) lower than the overall Cronbach's Alpha value (0.797). Eliminating these values would not increase total Alpha value. Lastly, all items have the Corrected-Item-Total-Correction value above 0.3 (0.573, 0.673, 0.527, 0.610, and 0.520 respectively) which is considerably encouraging.

6.2.1.2 Reliability test for London samples

Table 6.3 Cronbach's Alpha values of the variables for London samples

Table 6.3 illustrates the reliability of perceived city livability, perceived city personality, attitude towards brand, and behavioural intention variables for London samples. It also provides the list of factors inside each variable and its overall Cronbach's Alpha value.

Construct	Cronbach's Alpha	Items	Alpha-If-Item-Deleted	Corrected-Item-Total-Correlation	Comments
Stability Dimension	0.804	2SD1 (safety),	0.781	0.526	All items should be retained.
		2SD2 (prevalence of violent crime)	0.780	0.531	
		2SD3 (threat of terror)	0.763	0.604	
		2SD4 (threat of military conflict)	0.786	0.504	
		2SD5 (threat of civil unrest)	0.758	0.623	
		2SD6 (political and social environment)	0.770	0.574	
Healthcare Dimension	0.779	2HC1 (availability of healthcare)	0.643	0.668	All items should be retained.
		2HC2 (quality of healthcare)	0.632	0.680	
		2HC3 (availability of drugs including vaccination)	0.783	0.561	
Environment Dimension	0.813	2EN1 (humidity/temperature rating)	0.817	0.449	All items should be retained.
		2EN2 (natural environment)	0.849	0.761	
		2EN3 (green infrastructure)	0.730	0.756	
		2EN4 (public open space)	0.725	0.719	
		2EN5 (level of air pollution)	0.742	0.387	
Culture and Social	0.873	2CS1 (sport availability)	0.851	0.693	All items should be retained.
		2CS2 (recreation)	0.845	0.754	
		2CS3 (food and other local goods)	0.854	0.681	
		2CS4 (social and religious restrictions)	0.859	0.616	
		2CS5 (cultural availability)	0.849	0.708	
		2CS6 (civic engagement)	0.857	0.636	
		2CS7 (life satisfaction)	0.869	0.547	
		2CS8 (work-life balance)	0.860	0.510	
Education Dimension	0.882	2ED1 (opportunity for education)	0.854	0.737	All items should be retained.
		2ED2 (availability of private education)	0.844	0.772	
		2ED3 (quality of private education)	0.848	0.752	
		2ED4 (availability of public education)	0.848	0.760	
		2ED5 (quality of public education)	0.889	0.660	
Infrastructure	0.868	2IN1 (quality of road network)	0.847	0.655	All items should be retained.
		2IN2 (quality of public transport)	0.849	0.638	
		2IN3 (quality of international links)	0.856	0.586	
		2IN4 (availability of good quality housing)	0.867	0.554	
		2IN5 (quality of energy provision)	0.841	0.700	
		2IN6 (quality of water provision)	0.842	0.692	
		2IN7 (solid waste management)	0.840	0.713	
Economic	0.846	2EC1 (job security)	0.801	0.689	All items should be retained.
		2EC2 (opportunity to earn a fair wage)	0.775	0.747	
		2EC3 (employment rate)	0.787	0.577	
		2EC4 (economic and social development)	0.847	0.727	
Sincerity	0.853	2SIN1 (down to earth)	0.836	0.645	All items should be retained.
		2SIN2 (honest)	0.792	0.744	
		2SIN3 (wholesome)	0.801	0.721	
		2SIN4 (cheerful)	0.821	0.672	
Excitement	0.925	2EXT1 (daring)	0.902	0.826	All items should be retained.
		2EXT2 (spirited)	0.894	0.850	
		2EXT3 (imaginative)	0.895	0.848	
		2EXT4 (up to date)	0.917	0.779	
Competence	0.879	2COM1 (reliable)	0.896	0.691	All items should be retained.
		2COM2 (intelligent)	0.776	0.709	
		2COM3 (successful)	0.811	0.673	
Sophistication	0.722	2SOP1 (upperclass)	Not applicable (only 2 items)	0.572	All items should be retained.
		2SOP2 (charming)		0.572	
Ruggedness	0.779	2RUG1 (outdoorsy)	Not applicable (only 2 items)	0.638	All items should be retained.
		2RUG2 (tough)		0.638	
Attitude Towards City Brand	0.926	2ATD1 (I love London)	0.880	0.864	All items should be retained.
		2ATD2 (I have a favorable opinion of London)	0.888	0.857	
		2ATD3 (Living in London is a good decision)	0.910	0.831	
Behavioral Intention	0.847	2BI1 (I will definitely live in London as long as I can),	0.858	0.528	All items should be retained.
		2BI2 (I will definitely recommend others to live in London)	0.781	0.777	
		2BI3 (I will recommend others to visit London)	0.819	0.653	
		2BI4 (I will recommend others to work in London),	0.806	0.702	
		2BI5 (I will recommend others to study in London)	0.814	0.663	

According to the reliability outcome of London Samples, the overall Cronbach's Alpha (α) of the Perceived city livability in Stability dimension (2SD) is 0.804. There are six items in this variable: 2SD1 (safety), 2SD2 (prevalence of violent crime), 2SD3 (threat of terror), 2SD4 (threat of military conflict), 2SD5 (threat of civil unrest), and 2SD6 (political and social environment). These items should be retained in the scale since the deletion of any item would lead to a lower overall Alpha value (Alpha-If-Item-Deleted statistics: 0.781, 0.780, 0.763, 0.786, 0.758, and 0.770). When examining the Corrected-Item-Total-Correlation values, the results of these values: 0.526, 0.531, 0.604, 0.504, 0.623, and 0.574, are greater than the recommendation value-cut-off value at 0.3. This result means the scale has internal consistency.

The second scale to be analysed Is Healthcare dimension (2HC) with 3 items inside: 2HC1 (availability of healthcare), 2HC2 (quality of healthcare), and 2HC3 (availability of drugs including vaccination in the city). All items considerably cover the healthcare dimension in terms of city livability. The overall Cronbach's Alpha value is 0.779 (a ≥ 0.7) which demonstrates satisfied degree of reliability. The values of Alpha-If-Item-Deleted are 0.643, 0.632, and 0.783. It means that removing 2HC1 and 2HC2 cannot improve the total reliability, only eliminating 2HC3 can increase Cronbach's Alpha value. However, the current overall value is considerably high enough (0.779) and all items in the scale are formative sub-variables that conform the meaning of the construct. Together with the Corrected-Item-Total-Correlation values: 0.668, 0.680, and 0.561, which are higher than the suggested level (0.3). Hence, there is no item should be removed from the scale as it has been already consistent and reliable.

Thirdly, the Cronbach's Alpha value of the construct 2EN or Environment dimension is 0.813 (a ≥ 0.7). This reflects a good degree of reliability. The scale consists of 5 items: namely 2EN1 (humidity/temperature rating), 2EN2 (natural environment), 2EN3 (green infrastructure), 2EN4 (public open space), and 2EN5 (level of air pollution). When investigating the Alpha-If-Item-Deleted values, it suggests that removing 2EN2, 2EN3, 2EN4 (0.730, 0.725, and 0.742) cannot improve the reliability level as these values are lower than the overall Alpha's value (0.813). There is only 2EN1 and 2EN5 (0.817 and 0.849) that can lead to the reliability improvement. However, it can be found that the Corrected-Item-Total-Correlation values of all items (0.449, 0.761, 0.756, 0.719, and 0.387) are higher than 0.3. These outcomes indicate that all items correlate well with the

overall scale. Therefore, all items should be remained in the construct as they are considerably consistent and reliable.

The next scale of perceived city livability is Culture and Social (2CS). It comprises 8 sub-scales inside: namely 2CS1 (sport availability), 2CS2 (recreation), 2CS3 (food and other local goods), 2CS4 (social and religious restrictions), 2CS5 (cultural availability), 2CS6 (civic engagement), 2CS7 (life satisfaction), and 2CS8 (work-life-balance). The overall Cronbach's Alpha value is 0.873, indicating good reliability. According to the Alpha-If-Item-Deleted analysis, deleting item 2CS1, 2CS2, 2CS3, 2CS4, 2CS5, 2CS6, and 2CS7 would not increase the overall Alpha value because they all have Alpha-If-Item-Deleted values (0.851, 0.845, 0.854, 0.859, 0.849, 0.857, and 0.869) lower than the total Alpha value (0.873). There is only 2CS8 item that gains 0.875 for the Alpha-If-Item-Deleted value which is slightly higher than the overall Alpha Value. When considering the Corrected-Item-Total-Correlation, the results reveal that all items gain values (0.693, 0.754, 0.681, 0.616, 0.708, 0.636, 0.547, and 0.510) higher than the recommendation value at 0.3. These results mean that there is no item should be deducted from the construct as they all have good level of internal consistent and reliability.

When investigating the Education dimension or 2ED. This construct contains 5 items which are 2ED1 (opportunity for education), 2ED2 (availability of private education), 2ED3 (quality of private education), 2ED4 (availability of public education), and 2ED5 (quality of public education). Every item holds significance in constructing a thorough understanding of education within the context of city livability. The Cronbach's Alpha value is 8.882 which is considered as high reliability. It is also found that the elimination of item 2ED1, 2ED2, 2ED3, 2ED4 (0.854, 0.844, 0.848, and 0.848) would decrease the degree of the scale reliability when analysing the values of Alpha-If-Item-Deleted. The exclusion of the 2ED5 item (0.889) from the main variable would lead to an increase in the overall Alpha value. When examining the Corrected-Item-Total-Correlation, it can be found that all data are strong internal consistency correlation, as each item gains a Corrected-Item-Total-Correlation value above 0.3 (0.737, 0.772, 0.752, 0.760, and 0.660). Therefore, it can be concluded that all items should be remained in the construct.

The overall Cronbach's Alpha of the construct 2IN or Infrastructure, consisting of 2IN1 (quality of road network), 2IN2 (quality of public transport), 2IN3 (quality of international links), 2IN4 (availability of good quality housing), 2IN5 (quality of energy

provision), 2IN6 (quality of water provision), and 2IN7 (solid waste management), is 0.868. This reflects good level of reliability. Furthermore, the values of Alpha-If-Item-Deleted of all items (0.847, 0.849, 0.856, 0.867, 0.841, 0.842, and 0.840) suggest that the elimination of any item in the calculation would not improve the reliability level. This is because all Alpha-If-Item-Deleted value of all items are lower than the overall Alpha value. Moreover, the values of the Corrected-Item-Total-Correlation reveal a satisfied level of correlation between each item that higher than suggested value of 0.3 (0.655, 0.638, 0.586, 0.554, 0.700, 0.692, and 0.713). Therefore, it can be concluded that no item should be deducted.

The construct 2EC or Economic comprises 4 items: 2EC1 (job security), 2EC2 (opportunity to earn a faire wage), 2EC3 (employment rate), and 2EC4 (economic and social development). The overall Cronbach's Alpha value is 0.846, indicating a strong reliability of the scale. The analysis indicates that eliminating items 2EC1, 2EC2, and 2EC4 would result in a reduction in the reliability level, as reflected in the Alpha-If-Item-Deleted values (0.801, 0.775, and 0.787). Only deleting 2EC3 item (0.847) would slightly increase the overall Alpha value. It is necessary to evaluate how well an item's score is internally consistent with composite scores from all other items. This evaluation can be found from the Corrected-Item-Total-Correlation values. According to the research outcomes, there is a strong internal consistency correlation, as each sub-variable contains a Corrected-Item-Total-Correlation value above 0.3 (0.689, 0.747, 0.577, and 0.727). Therefore, all items should be kept in the construct.

When it comes to the next variable, perceived city personality. The first dimension is Sincerity or 2SIN. This construct consists of 4 items which are 2SIN1 (down to earth), 2SIN2 (honest), 2SIN3 (wholesome), and 2SIN4 (cheerful) and the overall Cronbach's Alpha value of this scale is 0.853. This value indicates high level of reliability. When investigating the impact of removing each item from the scale, the results show that all items should be kept in the construct as the values of the Alpha-If-Item-Deleted of 2SIN scale are lower than the overall Alpha value (0.836, 0.792, 0.801, and 0.821). Moreover, the high Corrected-Item-Total-Correlation value of all items: 0.645, 0.744, 0.721, and 0.672, illustrates that no item should be removed from the scale.

The second scale of the perceived city personality is Excitement or 2EXT. This scale has an overall Cronbach's Alpha value of 0.925 which refers to good degree of reliability.

This scale consists of 4 items which are 2EXT1 (daring), 2EXT2 (spirited), 2EXT3 (imaginative), and 2EXT4 (up to date). The values of the Alpha-If-Item-Deleted reveal none of these items should be deleted from the scale since the removal would not increase the degree of reliability (0.902, 0.894, 0.895, and 0.917). Besides, the construct also gains a strong consistency correlation as the Corrected-Item-Total-Correlation values are higher than suggested value of 0.3 (0.826, 0.850, 0.848, and 0.779).

The Competence construct or 2COM is also assessed the reliability by using Cronbach's Alpha analysis. This scale comprises 3 items which are 2COM1 that indicates reliable, 2COM2 which means intelligent, and 2COM3 that refers to successful and it gains overall Cronbach's Alpha value of 0.879. This value indicates high level of reliability. When analysing the Alpha-If-Item-Deleted statistics, it is found that deleting item 2COM2 and 2COM3 (0.776 and 0.811) would not increase the total Alpha value, except item 2COM1 (0.896). However, when considering the Corrected-Item-Total-Correlation values, none of 2COM items should be eliminated as they all have values above 0.3 (0.691, 0.709, and 0.673). Therefore, it can be concluded that the scale has high level of internal consistency and reliability, and all items should be remained in the scale.

Next perceived city personality dimension is Sophistication or 2SOP. There are 2 items in this scale: 2SOP1 indicating upperclass, and 2SOP2 referring charming, as well as the overall Cronbach's Alpha Value is 0.722 which means that it has good degree of reliability. This construct cannot analyse the Alpha-If-Item-Deleted statistic as there are only two items which are not enough to analyse. However, the outcome shows that the scale has a good degree of the internal consistency based on the Corrected-Item-Total-Correlation values (0.572 and 0.572). In other words, these values are higher than the recommended value (0.3).

Similarly, the Ruggedness scale or 2RUG can also gain good level of reliability with 0.779 of Cronbach's Alpha value. This scale cannot be evaluated the Alpha-If-Item-Deleted value as there are only 2 items: 2RUG1 (outdoorsy) and 2RUG2 (tough). However, all items have high internal consistency (0.638 and 0.638), when analysing the Corrected-Item-Total-Correlation. Therefore, none of these items should be eliminated from the scale.

The next variable to investigate the reliability is Attitude towards city brand or 2ATD. There are 3 items inside this scale which are 2ATD1 (I love London), 2ATD2 (I have a favourable opinion to London) , and 2ATD3 (Living in London is a good decision), and their overall Cronbach's Alpha value is 0.926. This value indicates high reliability. These items should be retained in the calculation since the removal of any item would lead to a lower overall Alpha value (Alpha-If-Item-Deleted statistics: 0.880, 0.888, and 0.910). Additionally, all items have Corrected-Item-Total-Correlation values above 0.3 (0.864, 0.857, and 0.831), which is encouraging.

The last dimension to consider is Behavioural Intention or 2BI. This scale contains 5 items which are: 2BI1 (I will definitely live in London as long as I can), 2BI2 (I will definitely recommend other people to live in London), 2BI3 (I will definitely recommend other people to travel or visit London), 2BI4 (I will definitely recommend other people to work or do business in London), and 2BI5 (I will definitely recommend other people to study in London). Individual assessments of internal consistency for each item are necessary to guarantee the quality of the research instrument, as advocated by Churchill (1979). The Cronbach's Alpha value is 0.847 which indicates strong reliability. It can be found that the deletion of items 2BI2, 2BI3, 2BI4, and 2BI5 (0.781, 0.819, 0.806, and 0.814) would decrease the overall Alpha value, except 2BI1 with Alpha-If-Item-Deleted value of 0.858. However, this scale can gain a strong internal consistency since each item contains a Corrected-Item-Total-Correlation value higher than a suggested value of 0.3 (0.528, 0.777, 0.653, 0.702, and 0.663). Therefore, all items should be remained in the scale.

6.2.2 Construct validity

In this research, convergent validity, construct reliability, and discriminant validity were used to test the constructs, perceived city livability (PCL), perceived city personality (PCP), attitude towards city brand (ATD), and behavioural intention (BI). The test results are divided into 2 parts: Bangkok samples and London samples, and they are elaborated as follows:

6.2.3.1 Construct validity for Bangkok samples

a. Convergent validity and construct reliability

To estimate convergent validity, it is necessary to consider the average extracted variance (AVE) and the composite reliability (CR). In other words, the average extracted variance and the composite reliability coefficients are indicators of a measure's quality. The AVE is a metric for comparing the variance that a construct absorbs to the variance that results from measurement error. In general, The AVE measure specifically evaluates convergent validity (Shrestha, 2021). Secondly, the internal consistency of scale items is measured by composite reliability (CR). According to Fornell and Larcker (1981), CR is an indication of the shared variation among the observed variables used as an indicator of a latent concept. In the more advanced phase, the CR value must be higher than 0.7, whereas values between 0.6 and 0.7 are acceptable (Shrestha, 2021). Even though the AVE value should be 0.5 or greater to show a high level of convergent validity, some factor's AVE value between 0.4 – 0.5 is still acceptable if their composite reliability value (CR) is over 0.6 (Fornell and Larcker, 1981).

Table 6.4 Average Variance Extracted (AVE) and Composite Reliability (CR) for Bangkok samples.

	PCL	PCP	ATD	BI
AVE	0.433	0.447	0.829	0.543
CR	0.971	0.921	0.898	0.854

Table 6.4 presents the average variance extracted (AVE) and composite reliability (CR) values of 4 main constructs: perceived city livability (PCL), perceived city personality (PCP), attitude towards brand (ATD), and behavioural intention (BI), for Bangkok samples.

In Bangkok samples case, Attitude Towards City brand (ATD) and Behavioural Intention (BI) variables with AVE values of 0.829 and 0.543, can confirm convergent reliability (AVE ≥ 0.5). Together with their CR values of 0.898 and 0.854 which highly confirm internal consistency. However, the AVE of Perceived City Livability (PCL) and Perceived City Personality (PCP) are less than 0.5 (0.433 and 0.447) but if considering their composite reliability (CR), it is found that they gain 0.971 and 0.921 which are

higher than the suggested value of 0.6. Therefore, these 2 variables: PCL and PCP still have adequate convergent validity. It can be concluded that the convergent validity is satisfied for this measurement model.

b. Discriminant validity

Table 6.5 Comparing AVE of ATD, BI, PCL, and PCP constructs with R^2 for Bangkok samples

	ATD	BI	PCL	PCP
ATD	0.911			
BI	0.809	0.737		
PCL	0.756	0.726	0.658	
PCP	0.692	0.639	0.638	0.669

Table 6.5 illustrates the comparison of AVE values among the constructs: attitude towards brand (ATD), behavioural intention (BI), perceived city livability (PCL), and perceived city personality (PCP), for Bangkok samples.

According to Schwab, D.P. (2004), when results from measurements of different constructs do not converge, discriminant validity is assumed. As a result, it informs us if scores from a construct's measure are distinct from other constructs or not. Besides, discriminant validity can be demonstrated by comparing the AVE values for any two constructs to the square of their correlation estimates (Hair et al., 1999). The AVE values should be higher than the square correlation estimate. Table 6.5 illustrates that all the constructs passed the test.

6.2.3.2 Construct validity for London samples

a. Convergent validity and construct reliability

Table 6.6 Average Variance Extracted (AVE) and Composite Reliability (CR) for London samples

	PCL	PCP	ATD	BI
AVE	0.352	0.425	0.873	0.634
CR	0.954	0.916	0.929	0.860

Table 6.6 presents the average variance extracted (AVE) and composite reliability (CR) values of 4 main constructs: perceived city livability (PCL), perceived city personality (PCP), attitude towards brand (ATD), and behavioural intention (BI), for London samples.

As mentioned earlier, the AVE measure specifically evaluates convergent validity (Shrestha, 2021). When analysing the data receiving from London samples, it is found that the AVE values of Attitude Towards City Brand (ATD) and Behavioural Intention (BI) are 0.873 and 0.634, higher than the standard (AVE ≥ 0.5). The ATD and BI scales also gain 0.929 and 0.860 for composite reliability, which are greater than the recommended value at 0.7.

When it comes to the Perceived City Livability (PCL) and Perceived City Personality (PCP) of London residents, the AVE of these constructs are less than the standard of 0.5. They gain AVE 0.352 for PCL and 0.425 for PCP. However, when comparing to their composite reliability values (CR 0.954 and 0.916), which are much greater than the standard (CR ≥ 0.7), these scales still have adequate convergent validity (Fornell and Larcker, 1981). Therefore, it can be concluded that all 4 scales of the model: ATD, BI, PCL, and PCP are reliable, valid, and internally consistent.

b. **Discriminant validity**

Table 6.7 Comparing AVE of ATD, BI, PCL, and PCP constructs with R^2 for London samples

	ATD	BI	PCL	PCP
ATD	0.934			
BI	0.820	0.796		
PCL	0.584	0.560	0.593	
PCP	0.611	0.597	0.590	0.652

Table 6.7 illustrates the comparison of AVE values across the constructs: attitude towards brand (ATD), behavioural intention (BI), perceived city livability (PCL), and perceived city personality (PCP), for London samples.

According to Hair et al. (1999), comparing the AVE values of any two or more constructs to the square of their correlation estimates can show discriminant validity. The square

correlation estimate should not exceed the AVE values. Table 6.7 illustrates that all the constructs passed the test.

6.3 Testing hypotheses by using regression analysis

The proposed hypotheses were tested using multiple regression analysis. The process of hypothesis testing was divided into two parts. First, the analysis tested the relationships using the combined data from both samples (Bangkok and London) to examine the following: the relationship between perceived city livability (PCL) and perceived city personality (PCP); perceived city livability (PCL) and attitude towards the city brand (ATD); perceived city personality (PCP) and attitude towards the city brand (ATD); perceived city livability (PCL) and behavioural intention (BI); perceived city personality (PCP) and behavioural intention (BI); and, finally, the relationship between attitude towards the city brand (ATD) and behavioural intention (BI). In addition to testing these direct relationships, the sequential mediation effect of perceived city personality (PCP) and attitude towards the city brand (ATD) on the relationship between perceived city livability (PCL) and behavioural intention (BI) was also tested.

Following the initial combined analysis, the effect of demographic control variables (gender identity, age, annual income, and ethnicity) was tested on the same relationships: perceived city livability (PCL) and perceived city personality (PCP); perceived city livability (PCL) and attitude towards the city brand (ATD); perceived city personality (PCP) and attitude towards the city brand (ATD); perceived city livability (PCL) and behavioural intention (BI); perceived city personality (PCP) and behavioural intention (BI); and attitude towards the city brand (ATD) and behavioural intention (BI).

The data used in this analysis consisted of 600 samples: 300 respondents from Bangkok, Thailand, and 300 respondents from London, United Kingdom. Both datasets were first analysed together, and then the data were analysed separately for the Bangkok and London samples.

6.3.1 Correlation analysis

In this study, the correlation analysis was also employed to evaluate the degree and direction of the relationships between a) perceived city livability (PCL) and perceived city personality (PCP) b) perceived city livability (PCL) and attitude towards city brand (ATD) c) perceived city personality (PCP) and attitude towards city brand (ATD) d) perceived city livability (PCL) and behavioural intention (BI) e) perceived city personality (PCP) and behavioural intention (BI), and f) attitude towards city brand (ATD) and behavioural intention (BI). The correlation of all latent variables for Bangkok samples is illustrated in table 6.8. According to Cohen (1988, p. 79–81, cited in Pallant, 2010), a correlation coefficient value between 0.10 and 0.29 is considered to imply a weak relationship. Results between 0.30 and 0.49 are regarded to be of medium strength. If there is a strong correlation, the number should fall between 0.50 and 1.0, signifying a close connection. It is found in the results that PCL is positively correlated with PCP (0.752), PCL also has a strong relationship with ATD (0.812), PCP is strongly associated with ATD (0.718), there is a strong association between PCL and BI variable at correlation value 0.755, PCP is also highly related to BI (0.656), the relationship between ATD and BI can be signified a close connection (0.811). Hence, it can be concluded that, for Bangkok samples, all associations between variables are strongly correlated.

When it comes to the latent variable's correlation for London samples, it is presented in table 6.9 that PCL has a positive relationship with PCP at a correlation value of 0.632, PCL is also strongly associated with ATD at 0.721. Similarly, there is a strong connection between PCP and ATD at a correlation value of 0.652, and between PCL and BI at 0.677. Likewise, the positively moderated correlation is also found in the relationship between PCP and BI at 0.611. Lastly, the ATD variable is highly correlated to the BI variable at a correlation value of 0.826. Therefore, it can be found that, for London samples, all relationships between variables have the strong correlation.

Table 6.8 Latent variable's correlation for Bangkok samples

	Attitude Towards City Brand	Behavioural Intention	Perceived City Livability	Perceived City Personality
Attitude Towards City Brand	1.000	0.811	0.812	0.718
Behavioural Intention	0.811	1.000	0.755	0.656
Perceived City Livability	0.812	0.755	1.000	0.752
Perceived City Personality	0.718	0.656	0.752	1.000

Table 6.9 Latent variable's correlation for London samples

	Attitude Towards City Brand	Behavioural Intention	Perceived City Livability	Perceived City Personality
Attitude Towards City Brand	1.000	0.826	0.721	0.652
Behavioural Intention	0.826	1.000	0.677	0.611
Perceived City Livability	0.721	0.677	1.000	0.632
Perceived City Personality	0.652	0.611	0.632	1.000

6.3.2 The overall regression model and multicollinearity assessment

In last section, the correlation analysis both of Bangkok and London samples were carried out to evaluate the form and intensity of the relationship between the independent variables (Ivs) and the dependent variables (DVs). There were positive associations between Ivs and DVs. For this section, the proposed hypotheses were tested by using multiple regression analysis.

a. Multicollinearity

To evaluate the effectiveness of the multiple regression model and determine if two or more independent variables are strongly associated, multicollinearity statistics were used. If the tolerance is less than 0.2 or 0.1 or the VIF is more than 5 or 10, the multicollinearity problem will be found. In appendix O, the VIF values gathered from the Bangkok research population fall between 1.511 and 4.868. Likewise, also shows the VIF values of all items collected from the London research population. The VIF values fall between 1.630 and 4.555. Therefore, all variables achieve the cut-off criteria (VIF<5) and there is no multicollinearity problem (Pallant, 2010).

b. Multiple regression analysis

To determine how well the model fits the data, regression analysis frequently uses the R^2 and Q^2 measurements. The amount of variance in the dependent variable that is explained by the independent variables in the regression model is expressed statistically as R^2. R^2, thus, gives an indication of how well the regression model fits the data. According to Hair et al. (2021), Higher values of the R^2 imply a stronger explanatory power; the scale

runs from 0 to 1. R^2 values of 0.75, 0.50, and 0.25, respectively, can be generally regarded as significant, moderate, and weak

Q-square (Q^2), on the other hand, is a measure of predictive power that assesses how well the model can predict new data. It is calculated by comparing the predicted values from the model to the actual values in a test set of data. Q^2 value above 0 indicates that the model has predictive relevance, and value 0.02, 0.15, and 0.35 indicate weak, moderate, and strong degree of predictive relevance of each effect respectively (Hair et al., 2021)

When closely investigating R^2 and Q^2 from Bangkok samples data illustrated in table 6.10, it is found that the models explain 68.6% for ATD, 68.6% for BI, and 56.6% for PCP of the variances in attitude towards city brand ($R^2 = 0.686$), behavioural intention ($R^2 = 0.686$), and perceived city personality ($R^2 = 0.566$). These R^2 values are categorised as significant (Hair et al., 2021). Furthermore, the Q^2 values analysed from Bangkok data (0.538, 0.449, and 0.413) also reveal that the models have strongly predictive relevance on attitude towards city brand (ATD), behavioural intention (BI), and perceived city personality (PCP) respectively.

In a similar way to London samples, it is found in table 6.11 that the model could account for 58.4%, 70%, and 40% of the variances in attitude towards city brand ($R^2 = 0.584$), behavioural intention ($R^2 = 0.700$), and perceived city personality ($R^2 = 0.400$). These values can be considered as moderate explanatory power (Hair et al., 2021). When considering the Q^2, the models have a strong predictive relevance on attitude towards city brand (ATD) at 0.369. While the predictive relevance of the models on behavioural intention (BI) and perceived city personality (PCP) are moderate at values 0.314 and 0.232 respectively.

Table 6.10 R-square and Q-square overview for Bangkok samples

Dependent variables (endogenous)	R-square	Q-square predict
Attitude Towards City Brand (ATD)	0.686	0.538
Behavioural Intention (BI)	0.686	0.449
Perceived City Personality (PCP)	0.566	0.413

Table 6.11 R-square and Q-square overview for London samples

Dependent variables (endogenous)	R-square	Q-square predict
Attitude Towards City Brand (ATD)	0.584	0.369
Behavioural Intention (BI)	0.700	0.314
Perceived City Personality (PCP)	0.400	0.232

6.3.4 Hypotheses testing

There are 7 main hypotheses in these studies, developed from the conceptual framework. Each hypothesis is divided into two sub-hypotheses, a and b, to test two groups: Bangkok and London samples. Initially, the combined data from both groups will be tested to examine the overall relationships. Hypotheses 1 to 6 are designed to examine the relationship between two key variables. After testing these relationships in the combined sample, separate analyses for Bangkok and London are conducted. Following this, control variable testing is performed to assess the effect of demographic factors on the relationships. Hypothesis 7 has been developed to test the sequential mediation effect: perceived city livability positively influences behavioural intention through a sequential mediation effect of perceived city personality and attitude towards the city brand. The results are as follows:

Table 6.12 Structural model examination of combined Bangkok and London samples

Paths	Path Coefficients	Sample mean	Standard deviation	T statistics	P values
Attitude Towards City Brand -> Behavioural Intention	0.674	0.657	0.036	18.638	0.000
Perceived City Livability -> Attitude Towards City Brand	0.510	0.53	0.046	11.001	0.000
Perceived City Livability -> Behavioural Intention	0.124	0.143	0.039	3.212	0.001
Perceived City Livability -> Perceived City Personality	0.608	0.636	0.034	17.772	0.000
Perceived City Personality -> Attitude Towards City Brand	0.337	0.319	0.049	6.935	0.000
Perceived City Personality -> Behavioural Intention	0.082	0.082	0.039	2.132	0.033
Perceived City livability -> Perceived City Personality -> Attitude Towards City Brand -> Behavioural Intention	0.281	0.286	0.031	9.013	0.000

Table 6.13 Structural model examination of Bangkok samples (before control variables testing)

Paths	Path Coefficients	Sample mean	Standard deviation	T statistics	P values
Attitude Towards City Brand -> Behavioural Intention	0.560	0.495	0.069	8.108	0.000
Perceived City Livability -> Attitude Towards City Brand	0.625	0.666	0.082	7.628	0.000
Perceived City Livability -> Behavioural Intention	0.252	0.323	0.076	3.337	0.001
Perceived City Livability -> Perceived City Personality	0.752	0.78	0.032	23.227	0.000
Perceived City Personality -> Attitude Towards City Brand	0.248	0.215	0.091	2.735	0.006
Perceived City Personality -> Behavioural Intention	0.064	0.06	0.077	0.831	0.406
Perceived City livability -> Perceived City Personality -> Attitude Towards City Brand -> Behavioural Intention	0.362	0.371	0.044	8.230	0.000

Table 6.14 Structural model examination of London samples (before control variables testing)

Paths	Path Coefficients	Sample mean	Standard deviation	T statistics	P values
Attitude Towards City Brand -> Behavioural Intention	0.668	0.636	0.053	12.599	0.000
Perceived City Livability -> Attitude Towards City Brand	0.515	0.561	0.062	8.322	0.000
Perceived City Livability -> Behavioural Intention	0.141	0.18	0.051	2.745	0.006
Perceived City Livability -> Perceived City Personality	0.632	0.677	0.04	15.767	0.000
Perceived City Personality -> Attitude Towards City Brand	0.327	0.289	0.064	5.114	0.000
Perceived City Personality -> Behavioural Intention	0.086	0.082	0.051	1.697	0.090
Perceived City livability -> Perceived City Personality -> Attitude Towards City Brand -> Behavioural Intention	0.300	0.309	0.041	7.389	0.000

a. Hypothesis 1

H1a: Perceived city livability of Bangkok residents has a positive impact on their perceived city personality.

H1b: Perceived city livability of London residents has a positive impact on their perceived city personality.

The combined data analysis of both groups—Bangkok and London—indicates a significant positive relationship between perceived city livability (PCL) and perceived city personality (PCP) ($\beta = 0.608$, $p < 0.05$). Hypothesis 1a predicted that Bangkok residents' PCL is positively related to their PCP. As shown in Table 6.13, H1a was supported with a significant result ($\beta = 0.752$, $p < 0.05$). Similarly, Hypothesis 1b predicted that London residents' PCL has a positive impact on their PCP, and Table 6.14 confirms this relationship ($\beta = 0.632$, $p < 0.05$), thus supporting H1b.

b. Hypothesis 2

H2a: Perceived city livability of Bangkok residents has a positive impact on their attitude towards city brand.

H2b: Perceived city livability of London residents has a positive impact on their attitude towards city brand.

An analysis of the combined data from both Bangkok and London reveals a significant positive relationship between perceived city livability (PCL) and attitude towards the city brand (ATD) ($\beta = 0.510$, $p < 0.05$). Hypothesis 2a suggests that PCL has a significant effect on ATD for Bangkok residents, and Table 6.13 confirms this with a strong positive impact ($\beta = 0.625$, $p < 0.05$). Similarly, Hypothesis 2b proposes that PCL is positively associated with ATD among London residents, with the results in Table 6.14 supporting this relationship ($\beta = 0.515$, $p < 0.05$). Therefore, both H2a and H2b are validated by the data.

c. Hypothesis 3

H3a: Perceived city personality of Bangkok residents has a positive impact on their attitude towards city brand.

H3b: Perceived city personality of London residents has a positive impact on their attitude towards city brand.

The combined data analysis shows a significant positive relationship between perceived city personality (PCP) and attitude towards the city brand (ATD) ($\beta = 0.337$, $p < 0.05$). Hypothesis 3a posits that PCP has a significant impact on ATD for Bangkok residents. As shown in Table 6.13, this hypothesis is supported, with a positive effect ($\beta = 0.248$, $p < 0.05$). Similarly, Hypothesis 3b suggests that PCP is positively related to ATD among London residents. Table 6.14 confirms this relationship, showing a positive effect ($\beta = 0.327$, $p < 0.05$). Thus, both H3a and H3b are supported by the data.

d. Hypothesis 4

H4a: Perceived city livability of Bangkok residents has a positive impact on their behavioural intention.

H4b: Perceived city livability of London residents has a positive impact on their behavioural intention.

The combined data analysis in table 6.12 indicates a significant positive association between perceived city livability (PCL) and behavioral intention (BI) ($\beta = 0.124$, $p < 0.05$). Hypothesis 4a proposes that PCL among Bangkok residents is positively related to their BI, a relationship confirmed by Table 6.13 with a significant effect ($\beta = 0.252$, $p < 0.05$). Similarly, Hypothesis 4b posits a positive connection between PCL and BI for London residents, which is supported by the results in Table 6.14 ($\beta = 0.141$, $p < 0.05$). Thus, both H4a and H4b are supported by the findings.

e. Hypothesis 5

H5a: Perceived city personality of Bangkok residents has a positive impact on their behavioural intention.

H5b: Perceived city personality of London residents has a positive impact on their behavioural intention.

Although the combined data analysis reveals a significant relationship between perceived city personality (PCP) and behavioral intention (BI) ($\beta = 0.082$, $p < 0.05$), Hypothesis 5a, which anticipates a positive effect of PCP on BI among Bangkok residents, is not supported, as shown in Table 6.13 ($\beta = 0.064$, $p > 0.05$). Similarly, Hypothesis 5b, predicting a significant association between PCP and BI for London residents, is not validated, with Table 6.14 indicating no significant effect ($\beta = 0.086$, $p > 0.05$). Nevertheless, while the individual analyses fail to support H5a and H5b, the combined data presents a significant relationship, which will be explained in more detail in Chapter 7, the discussion chapter.

f. Hypothesis 6

H6a: Attitude towards city brand of Bangkok residents has a positive impact on their behavioural intention.

H6b: Attitude towards city brand of London residents has a positive impact on their behavioural intention.

The combined data analysis demonstrates a significant relationship between attitude towards the city brand (ATD) and behavioral intention (BI) ($\beta = 0.674$, $p < 0.05$). Hypothesis 6a posits that ATD among Bangkok residents is positively associated with their BI, a finding confirmed by the results in Table 6.13, which show a strong positive effect ($\beta = 0.560$, $p < 0.05$). Similarly, Hypothesis 6b suggests that ATD among London residents has a positive impact on their BI, a relationship supported by the data in Table 6.14 ($\beta = 0.668$, $p < 0.05$). Therefore, both H6a and H6b are well-supported, underscoring the significant influence of city brand attitudes on behavioral intention in both contexts.

g. Hypothesis 7

H7a: Perceived city personality and attitude towards city brand of Bangkok residents serially mediate the relationship between perceived city livability and behavioural intention

H7b: Perceived city personality and attitude towards city brand of London residents serially mediate the relationship between perceived city livability and behavioural intention

In the combined data analysis of the serial mediation effect of perceived city personality and attitude towards the city brand on the relationship between perceived city livability and behavioural intention among Bangkok and London residents, a significant indirect effect was found ($\beta = 0.281$, $p < 0.05$), supporting H7. Similarly, when analysing the Bangkok and London samples separately, the results show a significant indirect impact of perceived city personality and attitude towards the city brand on the relationship between perceived city livability and behavioural intention, with $\beta = 0.362$, $p < 0.05$ for Bangkok (supporting H7a), and $\beta = 0.300$, $p < 0.05$ for London (supporting H87b).

Table 6.15 Summary of the hypotheses.

Hypothesised relationships	Results		
	Total Samples	Bangkok Samples	London Samples
H1: Perceived city livability has a positive impact on their perceived city personality.	H1: Supported	H1a: Supported	H1b: Supported
H2: Perceived city livability has a positive impact on their attitude towards city brand.	H2: Supported	H2a: Supported	H2b: Supported
H3: Perceived city personality has a positive impact on their attitude towards city brand.	H3: Supported	H3a: Supported	H3b: Supported
H4: Perceived city livability has a positive impact on their behavioural intention.	H4: Supported	H4a: Supported	H4b: Supported
H5: Perceived city personality has a positive impact on their behavioural intention.	H5: Supported	H5a: Not Supported	H5b: Not Supported
H6: Attitude towards city brand has a positive impact on their behavioural intention.	H6: Supported	H6a: Supported	H6b: Supported

Hypothesised relationships	Results		
	Total Samples	Bangkok Samples	London Samples
H7: Serial mediation effect of perceived city personality and attitude towards the city brand on the relationship between perceived city livability and behavioural intention.	H7: Supported	H7a: Supported	H7b: Supported

Table 6.15 presents the outcomes of hypothesis testing for hypotheses 1 through 6, starting with the results for the total combined sample. This is followed by a comparison of the results between the individual samples from Bangkok and London (please see the diagrams of the results in appendix Q, appendix R, and appendix X).

Table 6.16 The demographics testing results (after control variables testing) of Bangkok samples

	Path Coefficients	Sample mean	Standard deviation	T statistics	P values
Age -> Attitude towards city brand	-0.020	-0.026	0.022	0.936	0.349
Age -> Bahavioural intention	-0.024	-0.026	0.030	0.820	0.413
Age -> Perceived city personality	-0.039	-0.028	0.034	1.173	0.241
Attitude towards city brand -> Bahavioural intention	0.563	0.496	0.069	8.108	0.000
Education -> Attitude towards city brand	0.019	0.012	0.028	0.698	0.485
Education -> Bahavioural intention	0.056	0.055	0.034	1.661	0.097
Education -> Perceived city personality	-0.015	-0.019	0.038	0.399	0.690
Employment status -> Attitude towards city brand	0.052	0.047	0.035	1.484	0.138
Employment status -> Bahavioural intention	-0.055	-0.052	0.037	1.484	0.138
Employment status -> Perceived city personality	-0.062	-0.057	0.046	1.340	0.180
Gender -> Attitude towards city brand	0.028	0.025	0.029	0.965	0.334
Gender -> Bahavioural intention	-0.012	-0.013	0.032	0.389	0.697
Gender -> Perceived city personality	-0.037	-0.034	0.042	0.888	0.374
Incomes -> Attitude towards city brand	0.009	0.004	0.036	0.238	0.812
Incomes -> Bahavioural intention	0.006	0.008	0.039	0.149	0.881
Incomes -> Perceived city personality	0.013	0.010	0.043	0.309	0.757
Perceived city livability -> Attitude towards city brand	0.634	0.669	0.085	7.485	0.000

	Path Coefficients	Sample mean	Standard deviation	T statistics	P values
Perceived city livability -> Bahavioural intention	0.248	0.316	0.080	3.112	0.002
Perceived city livability -> Perceived city personality	0.740	0.769	0.042	17.547	0.000
Perceived city personality -> Attitude towards city brand	0.255	0.222	0.090	2.814	0.005
Perceived city personality -> Bahavioural intention	0.052	0.052	0.082	0.625	0.532

Table 6.17 The demographics testing results (after control variables testing) of London samples

	Original sample	Sample mean	Standard deviation	T statistics	P values
Ages -> Attitude towards city brand	-0.036	-0.028	0.041	0.86	0.390
Ages -> Behavioural intention	-0.075	-0.074	0.031	2.462	0.014
Ages -> Perceived city personality	0.012	0.014	0.052	0.233	0.816
Attitude towards city brand -> Behavioural intention	0.671	0.640	0.054	12.517	0.000
Education -> Attitude towards city brand	-0.020	-0.014	0.036	0.561	0.575
Education -> Behavioural intention	-0.042	-0.043	0.048	0.866	0.386
Education -> Perceived city personality	-0.039	-0.029	0.041	0.952	0.341
Employement Status -> Attitude towards city brand	0.031	0.026	0.033	0.950	0.342
Employement Status -> Behavioural intention	0.003	0.002	0.027	0.109	0.913
Employement Status -> Perceived city personality	0.035	0.032	0.047	0.754	0.451
Gender -> Attitude towards city brand	0.096	0.089	0.034	2.843	0.004
Gender -> Behavioural intention	-0.069	-0.065	0.034	2.012	0.044
Gender -> Perceived city personality	0.008	0.010	0.056	0.141	0.888
Incomes -> Attitude towards city brand	0.088	0.078	0.037	2.359	0.018
Incomes -> Behavioural intention	0.059	0.058	0.033	1.785	0.074
Incomes -> Perceived city personality	-0.055	-0.058	0.049	1.109	0.268
Perceived city livability -> Attitude towards city brand	0.511	0.554	0.061	8.365	0.000
Perceived city livability -> Behavioural intention	0.120	0.159	0.052	2.310	0.021
Perceived city livability -> Perceived city personality	0.638	0.682	0.041	15.465	0.000
Perceived city personality -> Attitude towards city brand	0.329	0.295	0.062	5.299	0.000
Perceived city personality -> Behavioural intention	0.092	0.087	0.051	1.800	0.072

The analysis considered several factors—gender identity, age, income, education, and employment status—as control variables to assess their impact on perceived city personality, attitude towards city brand, and behavioral intention among Bangkok and London residents (please see in table 6.16 and table 6.17).

For Bangkok residents, gender identity did not significantly influence their perception of city personality (β = -0.037, $p > 0.05$), attitude towards the city brand (β = 0.028, $p > 0.05$), or behavioral intention (β = -0.012, $p > 0.05$). Similarly, age was not found to have a significant impact on perceived city personality (β = -0.039, $p > 0.05$), attitude towards the city brand (β = -0.020, $p > 0.05$), or behavioral intention (β = -0.024, $p > 0.05$). Annual income also showed no significant association with perceived city personality (β = 0.013, $p > 0.05$), attitude towards the city brand (β = 0.009, $p > 0.05$), or behavioral intention (β = 0.006, $p > 0.05$). Additionally, education did not significantly affect perceived city personality (β = -0.015, $p > 0.05$), attitude towards the city brand (β = 0.019, $p > 0.05$), or behavioral intention (β = 0.056, $p > 0.05$). Finally, employment status was not significantly related to perceived city personality (β = -0.062, $p > 0.05$), attitude towards the city brand (β = 0.052, $p > 0.05$), or behavioral intention (β = -0.055, $p > 0.05$).

For London residents, gender identity was not found to affect perceived city personality (β = -0.008, $p > 0.05$), but it was significantly associated with attitude towards the city brand (β = 0.096, $p < 0.05$) and behavioral intention (β = -0.069, $p < 0.05$). Age did not show any significant relationship with perceived city personality (β = 0.012, $p > 0.05$) or attitude towards the city brand (β = -0.036, $p > 0.05$), but it did significantly influence behavioral intention (β = -0.075, $p < 0.05$). Regarding annual income, there was no significant relationship with perceived city personality (β = -0.055, $p > 0.05$), although it was positively associated with both attitude towards the city brand (β = 0.088, $p < 0.05$) and behavioral intention (β = 0.059, $p > 0.05$). Education was not significantly related to perceived city personality (β = -0.039, $p > 0.05$), attitude towards the city brand (β = -0.020, $p > 0.05$), or behavioral intention (β = -0.042, $p > 0.05$). Finally, employment status did not significantly impact perceived city personality (β = 0.035, $p > 0.05$), attitude towards the city brand (β = 0.031, $p > 0.05$), or behavioral intention (β = 0.003, $p > 0.05$).

These findings indicate that, as control variables, gender identity, age, income, education, and employment status largely did not have a significant influence on the key outcomes being studied in both Bangkok and London populations.

6.4 Descriptive Statistics

Apart from the hypothesis testing results above, there are some additional results that have been figured out for the thesis. These results are useful for readers to comprehend more about Bangkok and London residents' perception towards their city livability and city brand personality, as well as their attitude towards city brand and behavioural intention. In the survey, all participants were instructed to assess their perception of city livability across seven different dimensions. Additionally, they were asked to provide ratings regarding their perception of the city's personality across five dimensions. Furthermore, the survey included an evaluation of their attitude toward the city brand and their behavioral intentions. The respondents used a seven-point Likert scale, ranging from 1 (indicating strong disagreement) to 7 (indicating strong agreement), to express their assessments. To provide a comprehensive analysis of the survey responses, descriptive statistics have been introduced to illustrate the mean scores and standard deviations for each of the items. This statistical approach offers a clear and quantitative representation of how respondents rated various aspects of city livability, city personality, attitude toward the city brand, and behavioral intentions.

6.4.1 Descriptive Statistics of Bangkok Samples

Table 6.18 Descriptive Statistics of Perceived City Livability of Bangkok Samples

Items	Minimum	Maximum	Mean	Std. Deviation
1SD1	1	7	4.88	1.638
1SD2	1	7	4.53	1.793
1SD3	1	7	4.47	1.606
1SD4	1	7	4.68	1.822
1SD5	1	7	4.66	1.789
1SD6	1	7	4.75	1.814
1HC1	1	7	5.08	1.407
1HC2	1	7	4.98	1.448
1HC3	1	7	5.42	1.168
1EN1	1	7	4.74	1.525
1EN2	1	7	4.46	1.580
1EN3	1	7	4.46	1.786
1EN4	1	7	4.83	1.782
1EN5	1	7	4.66	2.083

Items	Minimum	Maximum	Mean	Std. Deviation
1CS1	1	7	5.04	1.332
1CS2	1	7	4.92	1.345
1CS3	1	7	5.53	1.110
1CS4	1	7	5.42	1.280
1CS5	1	7	5.38	1.241
1CS6	1	7	5.06	1.381
1CS7	1	7	4.97	1.479
1CS8	1	7	5.02	1.698
1ED1	1	7	5.22	1.418
1ED2	1	7	5.62	1.072
1ED3	1	7	5.19	1.190
1ED4	2	7	5.45	1.248
1ED5	1	7	5.40	1.462
1IN1	1	7	4.57	1.719
1IN2	1	7	4.61	1.660
1IN3	1	7	4.64	1.569
1IN4	1	7	4.89	1.420
1IN5	1	7	4.76	1.586
1IN6	1	7	4.91	1.530
1IN7	1	7	4.74	1.865
1EC1	1	7	4.86	1.538
1EC2	1	7	4.71	1.628
1EC3	1	7	4.75	1.488
1EC4	1	7	4.96	1.580

Table 6.18 shows the perceived city livability of Bangkok samples with all items' mean and standard deviation.

Table 6.19 Descriptive Statistics of Average Perceived City Livability of Bangkok Samples

Dimensions	Minimum	Maximum	Mean	Std. Deviation
Security	1.00	7.00	4.6648	1.48094
Healthcare	1.00	7.00	5.1600	1.12609
Environment	1.00	7.00	4.6323	1.49096
Cultural and Social	2.25	7.00	5.1673	.87747
Education	2.20	7.00	5.3674	.89861
Infrastructure	1.00	7.00	4.7334	1.30322
Economic	1.00	7.00	4.8258	1.31877

Table 6.19 illustrates the average mean and standard deviation of Bangkok samples' perceived city livability.

Figure 6.1 The perception of Bangkok residents towards their city livability

Figure 6.1 illustrates the comparison in overall mean score for each perceived city livability dimension among Bangkok residents.

For Bangkok residents, it can be seen from the table 6.18, table 6.19 and figure 6.1 that the descriptive statistics for the security dimension shows the overall mean score of 4.6648 (SD = 1.48094). 1SD1 item has the highest mean value (4.88, SD = 1.638), indicating the statement that "I feel safe when I live in Bangkok". Next, the overall mean result of healthcare dimension is 5.1600 with the standard deviation of 1.12609. 1HC3 item gains the highest mean score (5.42, SD = 1.168), supporting the statement that "There is an availability of drugs including vaccination in the city that I am living in". The third dimension is environment. It can be found that the environment dimension gains average mean value of 4.6323 (SD = 1.49096). 1EN4 item obtains the highest mean score of this dimension (4.83, SD = 1.782), which refer to "The city provides enough public open space" statement. The following dimension is cultural and social, which has overall mean score of 5.1673 (SD = 0.87747). 1CS3 item has the highest mean value that is 5.53 with standard deviation of 1.110, indicating the statement that "There are choices of food and local goods in the city that I am living in. The fifth dimension is education, it shows the overall mean score of 5.3674 (SD =0.89861). 1ED2 item gains highest mean value

(5.62, SD = 1.072), indicating the statement that "There is an availability for private education in the city that I am living in". Furthermore, the infrastructure has overall mean value of 4.7334 with the standard deviation of 1.30322. 1IN6 item gains highest mean score of 4.91 (SD = 1.530) which can indicate to the statement of "There is high quality water provision in the city that I am living in". Lastly, the economic dimension obtains the average mean score of 4.8258 (SD =1.31877), and it can be seen that 1EC4 item has highest value of mean score (4.96, SD = 1.580). This item indicates the statement that "There is economic and social development in the city that I am living in".

In conclusion, the results shed light on how Bangkok residents perceive the city's livability. Healthcare and education are viewed quite positively, suggesting that the city provides high-quality healthcare and education opportunities. The cultural and social aspects also receive favorable perceptions, indicating a vibrant social scene in Bangkok. Respondents generally hold positive views about economic opportunities, while the city's infrastructure quality could see room for improvement. The perceived security is moderately positive, while environmental concerns are evident, with the lowest mean score in this dimension. These findings collectively provide insights into residents' perceptions of various aspects of livability in Bangkok.

Table 6.20 Descriptive Statistics of Perceived City Personality of Bangkok Samples

Items	Minimum	Maximum	Mean	Std. Deviation
1SIN1	1	7	4.84	1.487
1SIN2	1	7	5.01	1.463
1SIN3	1	7	4.90	1.377
1SIN4	1	7	5.34	1.337
1EXT1	1	7	5.27	1.072
1EXT2	1	7	5.51	1.085
1EXT3	1	7	5.36	1.123
1EXT4	1	7	5.62	1.096
1COM1	1	7	5.20	1.279
1COM2	1	7	5.47	1.224
1COM3	1	7	5.42	1.333
1SOP1	1	7	5.15	1.270
1SOP2	1	7	5.46	1.161
1RUG1	1	7	4.91	1.220
1RUG2	1	7	5.38	1.204

Table 6.20 shows the perceived city personality of Bangkok samples with all items' mean and standard deviation.

Table 6.21 Descriptive Statistics of Average Perceived City Personality of Bangkok Samples

Dimensions	Minimum	Maximum	Mean	Std. Deviation
Sincerity	1.00	7.00	5.0208	1.25285
Excitement	1.00	7.00	5.4389	.88555
Competence	1.00	7.00	5.3589	1.09918
Sophisticated	1.00	7.00	5.2983	1.06330
Ruggedness	1.00	7.00	5.1167	1.13092

Table 6.21 illustrates the average mean and standard deviation of Bangkok samples' perceived city personality.

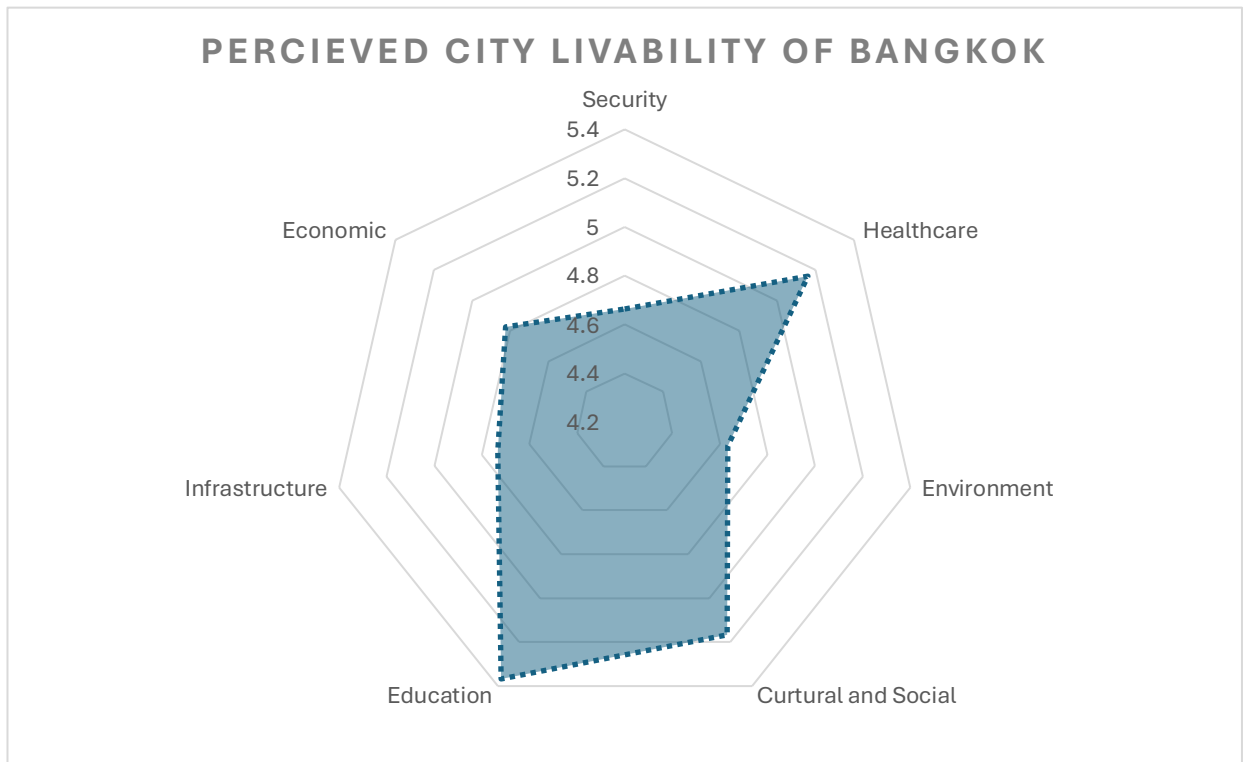**Figure 6.2 The perception of Bangkok residents towards their city personality**

Figure 6.2 illustrates the comparison in overall mean score for each perceived city personality dimension among Bangkok residents.

According to table 6.20, table 6.21, and figure 6.2, the descriptive statistics for sincerity dimension shows the overall mean score of 5.0208, and standard deviation of 1.25285.

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The highest mean score item in this dimension is 1SIN4 (5.34, SD = 1.337), indicating cheerful (cheerful, sentimental, and friendly) characteristic. The next dimension is excitement, which has mean value of 5.4389 (SD = 0.88555). 1EXT4 gain highest mean score in this dimension (5.62, SD = 1.096), referring up-to-date (up-to-date, independent, and contemporary) personality. The third aspect is competence, it contains average mean score of 5.3589 (SD = 1.09918). The highest mean score item is 1COM2 (5.47, SD = 1.224), it refers to Intelligent (intelligent, technical, and corporate) characteristic. The following personality aspect is sophisticated, it obtains overall mean value of 5.2983 and standard deviation of 1.06330. 1SOP2 item gains highest mean score (5.46, SD = 1.161), indicating charming (charming, feminine, and smooth) persona. The last city personality dimension is ruggedness, this aspect has average mean value of 5.1167, and gains standard value of 1.13092. 1RUG2 item has the highest mean score in this aspect (5.38, SD = 1.204) which means tough (tough and rugged) characteristic. In summary, the data reflects how Bangkok residents perceive the city's personality. Overall, the city is seen as sincere, exciting, competent, sophisticated, and moderately rugged. These perceptions offer valuable insights into the city's character and image as viewed by its residents.

Table 6.22 Descriptive Statistics of Attitude Towards Brands of Bangkok Samples

Items	Minimum	Maximum	Mean	Std. Deviation
1ATD1	1	7	5.28	1.266
1ATD2	1	7	5.41	1.250
1ATD3	1	7	5.46	1.362
Average ATD	1	7	5.3861	1.17792

Table 6.22 shows the attitude towards city brand of Bangkok samples with all items' mean score and standard deviation.

The descriptive statistics for attitude towards brand show the overall mean score of 5.385, with standard deviation of 1.17792 (see table 6.22). This result reveals a positive attitude towards brand among Bangkok residents. The 1ATD3 gains the highest mean value which indicate to the statement that "Living in Bangkok is a good decision". Followed by the 1ATD2 and 1ATD1 items with 5.41 (SD = 1.250) and 5.28 (SD = 1.266) respectively. 1ATD2 refers to the statement that "I have a favourable opinion to Bangkok" and 1ATD1 means "I love Bangkok".

Table 6.23 Descriptive Statistics of Behavioural Intention of Bangkok Samples

Items	Minimum	Maximum	Mean	Std. Deviation
1BI1	1	7	5.06	1.481
1BI2	1	7	4.91	1.436
1BI3	1	7	5.12	1.196
1BI4	1	7	5.01	1.304
1BI5	1	7	5.31	1.405
Average of BI	1	7	5.0818	1.01805

Table 6.23 presents the behavioural intention of Bangkok samples with all items' mean score and standard deviation.

According to table 6.23, the descriptive statistic for behavioural intention reveals the average mean score of 5.0818 with standard deviation value of 1.01805. This result indicates a positive behavioural intention among Bangkok residents. 1BI5 obtains the highest mean score of this construct, which is 5.31 (SD = 1.405). This item refers to the statement "I will definitely recommend other people to study in Bangkok". However, the lowest mean value item of this variable is 1BI2 (4.91, SD = 1.436), which indicate to the statement that "I will definitely recommend other people to live in Bangkok". Even though this item gains the lowest mean score, 4.91 is still considered as positive.

6.4.2 Descriptive Statistics of London Samples

Table 6.24 Descriptive Statistics of Perceived City Livability of London Samples

Items	Minimum	Maximum	Mean	Std. Deviation
2SD1	1	7	4.82	1.349
2SD2	1	7	2.93	1.484
2SD3	1	7	3.17	1.528
2SD4	1	7	5.45	1.468
2SD5	1	7	4.41	1.591
2SD6	1	7	4.18	1.511
2HC1	1	7	5.32	1.426
2HC2	1	7	4.85	1.465
2HC3	1	7	5.97	.943
2EN1	1	7	5.42	1.263
2EN2	1	7	4.83	1.368
2EN3	1	7	4.72	1.548

Items	Minimum	Maximum	Mean	Std. Deviation
2EN4	1	7	5.03	1.413
2EN5	1	7	3.13	1.663
2CS1	1	7	5.86	1.125
2CS2	1	7	5.94	1.082
2CS3	1	7	6.30	.973
2CS4	1	7	6.01	1.091
2CS5	1	7	6.08	1.129
2CS6	1	7	5.46	1.116
2CS7	1	7	5.18	1.392
2CS8	1	7	5.11	1.416
2ED1	1	7	6.08	1.000
2ED2	1	7	5.93	1.116
2ED3	2	7	5.73	1.206
2ED4	1	7	5.99	1.052
2ED5	1	7	5.28	1.317
2IN1	1	7	5.23	1.363
2IN2	1	7	5.63	1.293
2IN3	1	7	6.02	1.143
2IN4	1	7	4.22	1.737
2IN5	1	7	5.01	1.412
2IN6	1	7	5.22	1.391
2IN7	1	7	5.30	1.299
2EC1	1	7	4.98	1.340
2EC2	1	7	4.91	1.465
2EC3	1	7	5.16	1.265
2EC4	1	7	5.28	1.239

Table 6.24 shows the perceived city livability of London samples with all items' mean and standard deviation.

Table 6.25 Descriptive Statistics of Average Perceived City Livability of London Samples

Dimensions	Minimum	Maximum	Mean	Std. Deviation
Security	1.33	7.00	4.1611	1.06084
Healthcare	1.00	7.00	5.3811	1.08070
Environment	1.00	7.00	4.6273	1.10852
Cultural and Social	1.00	7.00	5.7429	.85271
Education	1.20	7.00	5.8027	.93708
Infrastructure	1.00	7.00	5.2333	1.03074
Economic	1.00	7.00	5.0833	1.09981

Table 6.25 illustrates the average mean and standard deviation of London samples' perceived city livability.

Figure 6.3 The perception of London residents towards their city livability

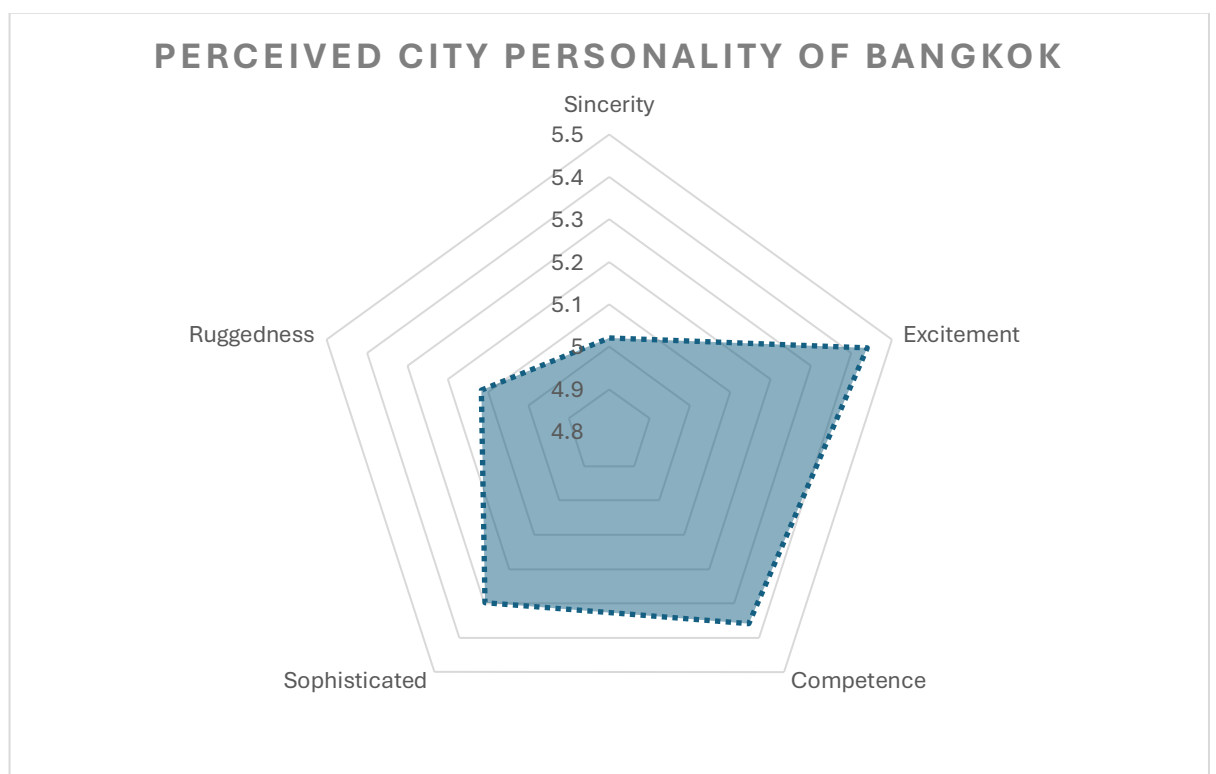Figure 6.3 illustrates the comparison in overall mean score for each perceived city livability dimension among London residents.

As illustrated in table 6.24, table 6.25, and figure 6.3, the descriptive statistics of perceived city livability among London residents show that the security dimension gains overall mean score of 4.1611 and standard deviation of 1.06084. 2SD4 item has highest mean score value in this aspect (5.45, SD =1.468), indicating to the statement that "There is no threat of military conflict in the city that I am living in". The second dimension is healthcare, it has positive mean score of 5.3811 (SD = 1.08070). 2HC3 item obtains mean score of 5.97 (SD = 0.943), which is the highest score in this dimension. This item means "There is an availability of drugs including vaccination in the city that I am living in". The following aspect is environment, it receives average mean score of 4.6273 (SD = 1.10852). 2EN1 item gains highest mean score of 5.42 with 1.263 standard deviation. This item indicates that "The humidity and temperature in the city that I am living in is suitable for living". The fourth dimension is cultural and social. It gains overall mean value of 5.7429 with 0.85271 standard deviation. 2CS3 item which indicates to statement

"There are choices of food and local goods in the city that I am living in", receives highest mean score (6.30, SD = 0.973). Next, the education dimension shows overall mean score of 5.8027 (SD = 0.93708). 2ED1 with mean score 6.08 and standard deviation of 1.000 is the highest mean value item in this dimension. This item means "There is an education opportunity in the city that I am living in". The following dimension is infrastructure. It reveals overall mean score of 5.2333, with the standard deviation of 1.03074. 2IN3 which refers "There is high quality international links in the city that I am living in" statement, gains the highest mean value in this dimension (6.02, SD = 1.143). The last aspect is economic. It gains average mean score of 5.0833, SD = 1.09981. 2EC4 is the highest mean score item (5.28, SD = 1.239), indicating the statement "There is economic and social development in the city that I am living in". In summary, the descriptive statistics of perceived city livability among London residents suggest positive perceptions across various dimensions. Residents feel secure, have access to healthcare, and appreciate cultural and social opportunities. The environment is considered suitable for living, and the city's infrastructure, including international links, is well-regarded. There is also a positive perception of economic and social development in London. These findings provide an in-depth overview of how London residents generally view their city's livability in terms of security, healthcare, environment, culture, education, infrastructure, and economic opportunities.

Table 6.26 Descriptive Statistics of Perceived City Personality of London Samples

Items	Minimum	Maximum	Mean	Std. Deviation
2SIN1	1	7	3.02	1.703
2SIN2	1	7	3.80	1.534
2SIN3	1	7	3.81	1.537
2SIN4	1	7	3.86	1.536
2EXT1	1	7	5.55	1.213
2EXT2	1	7	5.53	1.209
2EXT3	1	7	5.61	1.231
2EXT4	1	7	5.79	1.181
2COM1	1	7	4.99	1.182
2COM2	1	7	5.57	1.150
2COM3	1	7	5.62	1.225
2SOP1	1	7	5.16	1.205
2SOP2	1	7	4.70	1.401
2RUG1	1	7	3.95	1.500
2RUG2	1	7	4.33	1.500

Table 6.26 shows the perceived city personality of London samples with all items' mean and standard deviation.

Table 6.27 Descriptive Statistics of Average Perceived City Personality of London Samples

Dimensions	Minimum	Maximum	Mean	Std. Deviation
Sincerity	1.00	7.00	3.6242	1.31009
Excitement	1.00	7.00	3.6242	1.31009
Competence	1.00	7.00	5.3956	1.06907
Sophisticated	1.00	7.00	4.9317	1.15641
Ruggedness	1.00	7.00	4.1400	1.35703

Table 6.27 illustrates the average mean and standard deviation of London samples' perceived city personality.

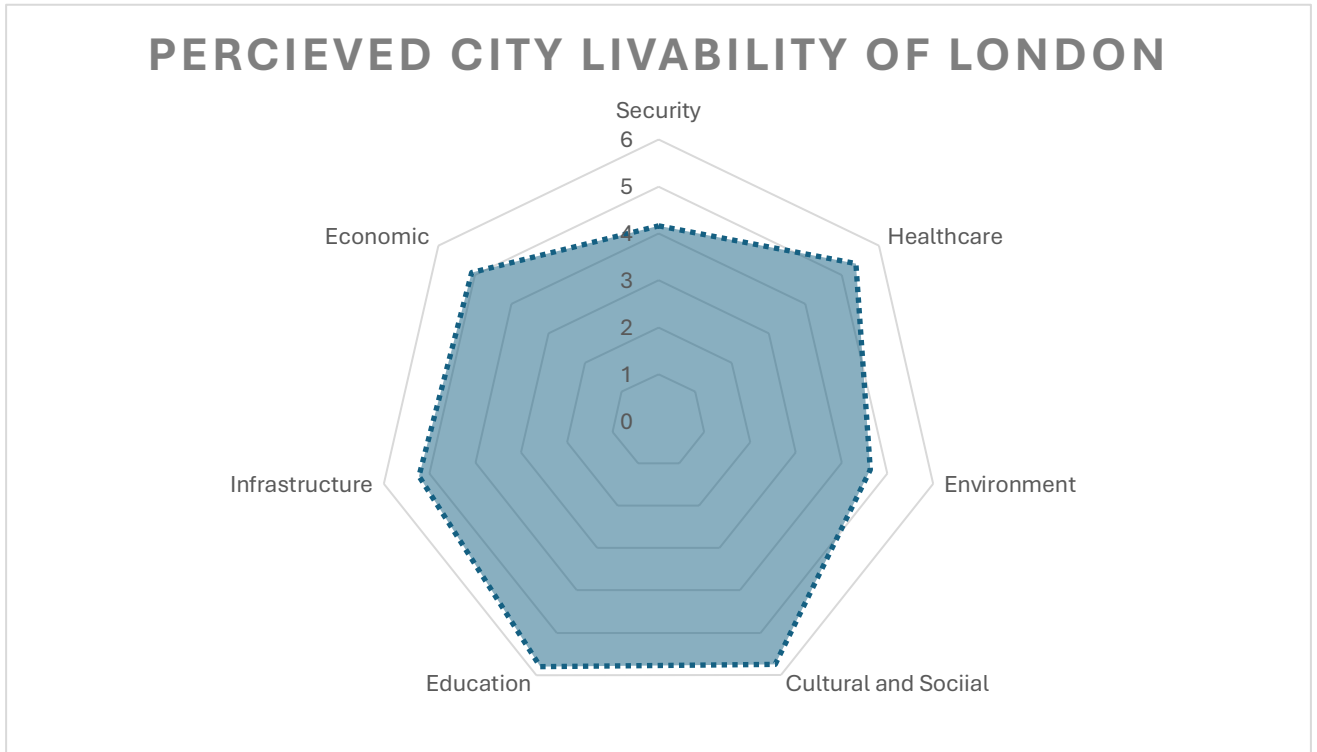**Figure 6.4 The perception of London residents towards their city personality**
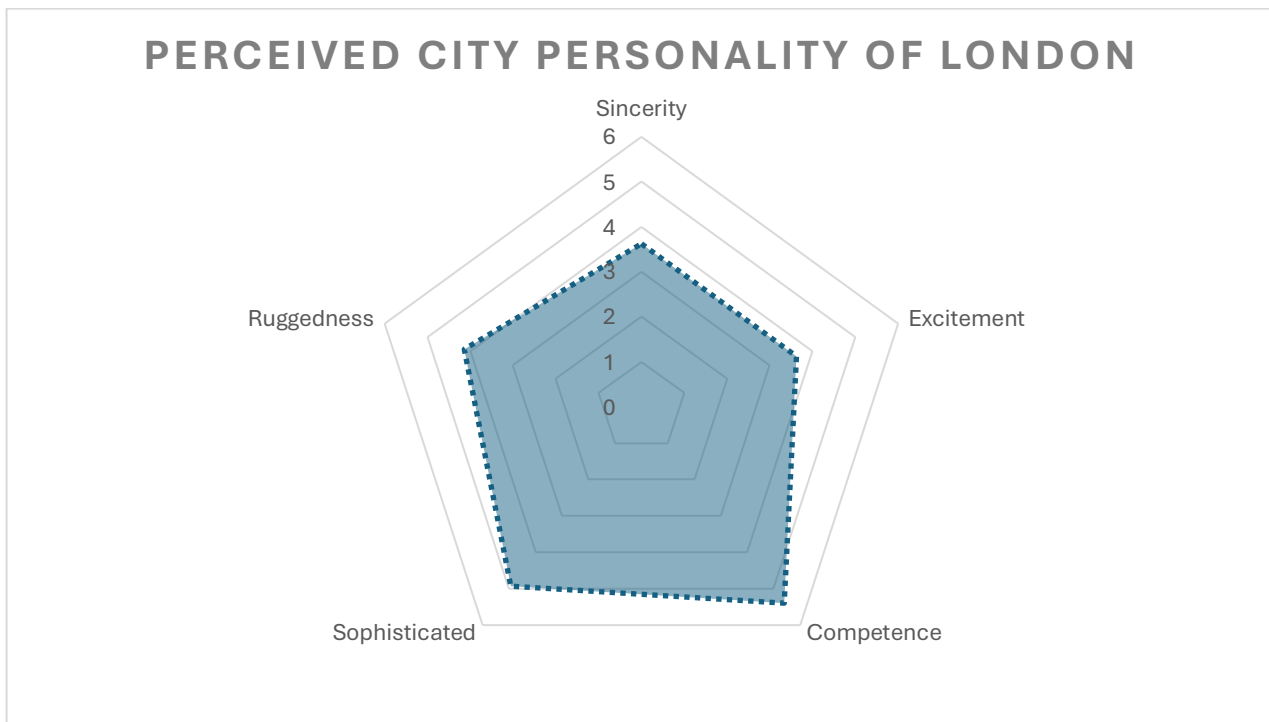
Figure 6.4 illustrates the comparison in overall mean score for each perceived city personality dimension among London residents.

According to table 6.26, table 6.27, and figure 6.4, the descriptive statistics of perceived city personality among London residents shows that the sincerity dimension receive overall mean score of 3.6242, and the standard deviation of 1.31009. 2SIN4 receives the highest mean value (3.86, SD = 1.536), indicating cheerful (cheerful, sentimental, and friendly) characteristic. The second dimension is excitement which obtain overall mean score of 3.6242 with standard deviation of 1.31009. 2EXT4 item has the highest mean score (5.79, SD = 1.181), referring up-to-date (up-to-date, independent, and contemporary) personality. Competence is the third aspect, it shows the average mean score of 5.3956, with the standard deviation of 1.06907. 2COM3 item receives the highest mean value in this dimension (5.62, SD = 1.225), the item indicate successful (successful, leader, and confident) characteristic. The following aspect is sophisticated. It obtains the overall mean value of 4.9317, and the standard deviation of 1.15641. The highest mean score item is 2SOP1 (5.16, SD = 1.205), which means upper class (upper class, glamorous, and good Looking) characteristic. The last dimension is ruggedness which receive the overall mean score of 4.1400, with the standard deviation of 1.35703. 2RUG2 gains the highest mean score in this dimension (4.33, SD = 1.5000), indicating the tough (tough and rugged). In summary, the data showcases how London residents perceive the city across different personality dimensions. Among these dimensions, the excitement, with its emphasis on being up-to-date and independent, stands out as the most prominently perceived trait. However, other dimensions such as sincerity (cheerful and friendly), competence (successful and confident), sophistication (upper-class and glamorous), and ruggedness (tough) also contribute to the multifaceted personality attributed to London by its residents. Each dimension offers a distinct perspective on the overall perception of the city's personality.

Table 6.28 Descriptive Statistics of Attitude Towards Brands of London Samples

Items	Minimum	Maximum	Mean	Std. Deviation
2ATD1	1	7	5.21	1.458
2ATD2	1	7	5.39	1.358
2ATD3	1	7	5.19	1.529
Average ATD	1	7	5.2622	1.35248

Table 6.28 shows the attitude towards city brand of London samples with all items' mean score and standard deviation.

The descriptive statistics for the attitude towards brand reveal average mean score of 5.2622, with the standard deviation of 1.35248 (see table 6.28). These results show a positive attitude towards brand among London residents. 1ATD2 is the highest mean score item (5.39, SD = 1.358), indicating to the statement that "I have a favourable opinion to London". Following by 2ATD1 item (5.21, SD = 1.458) and 2ATD3 item (5.19, SD = 1.529), which refer to the statement that "I love London" and "Living in London is a good decision" respectively.

Table 6.29 Descriptive Statistics of Behavioural Intention of London Samples

Dimensions	Minimum	Maximum	Mean	Std. Deviation
2BI1	1	7	4.49	1.853
2BI2	1	7	4.70	1.669
2BI3	1	7	5.76	1.374
2BI4	1	7	5.33	1.440
2BI5	1	7	5.13	1.542
Average BI	1	7	5.0813	1.24338

Table 6.29 presents the behavioural intention of London samples with all items' mean score and standard deviation.

According to table 6.29, the descriptive statistics for behavioural intention among London samples illustrate overall mean score of 5.0813, with standard deviation of 1.24338. The highest mean score item is 2BI3 (5.76, SD = 1.374) which indicates to the statement that "I will definitely recommend other people to travel or visit London". On the other hand, 2BI1 reveals the lowest mean score of 4.19, and 1.853 for the standard deviation. This item refers to "I will definitely live in Bangkok as long as I can".

6.5 Correlation Analysis Between City Liveability Dimensions and Behavioural Intention

This section presents the results of the correlation analysis conducted to explore the relationship between each dimension of city liveability and behavioural intention. City liveability is composed of several key factors, including stability, healthcare, environment, social and cultural aspects, education, infrastructure, and economic dimensions. Previous research has highlighted the importance of both objective factors

and subjective perceptions in shaping city liveability (Senlier et al., 2009). Building upon this foundation, this study seeks to determine how these individual dimensions influence the behavioural intentions of residents within the urban context.

A multiple regression analysis was applied using SEM to examine the relationships between the various liveability dimensions and behavioural intention. This method provides a comprehensive approach to understanding how each dimension, when considered together, contributes to behavioural intention. The core hypothesis (H4) posits that perceived city liveability has a positive impact on behavioural intention. While this hypothesis addresses the overall relationship between perceived liveability and behavioural outcomes, the application of SEM enables the identification of specific liveability dimensions that show statistically significant associations with behavioural intention.

The results indicate that certain dimensions of city liveability are statistically significant in their relationship with behavioural intention, while others do not demonstrate a significant effect. This suggests that the influence of liveability dimensions on residents' behavioural intentions may vary. These findings contribute to a deeper understanding of which aspects of city liveability are more closely aligned with behavioural outcomes and provide insights for further exploration.

Table 6.30 illustrated below provides a detailed examination of the SEM results, identifying which liveability dimensions—such as stability, healthcare, environment, social and cultural life, education, infrastructure, or economic conditions—demonstrate statistically significant correlations with behavioural intention.

Table 6.30 Correlation Between City Liveability Dimensions and Behavioural Intention

Paths	Path	Sample mean	Standard deviation	T statistics	P values
Culture and Social -> Behavioural Intention	0.000	0.280	0.063	4.415	0.000
Economic -> Behavioural Intention	0.013	0.172	0.058	3.001	0.003
Education -> Behavioural Intention	0.044	0.050	0.053	0.927	0.354
Environment -> Behavioural Intention	0.697	0.072	0.060	1.206	0.228

Paths	Path	Sample mean	Standard deviation	T statistics	P values
Healthcare -> Behavioural Intention	0.275	0.041	0.046	0.902	0.367
Infrastructure -> Behavioural Intention	0.950	-0.010	0.078	0.128	0.898
Stability -> Behavioural Intention	0.011	0.151	0.048	3.113	0.002

The analysis in table 6.30 shows that the culture and social dimension has a statistically significant positive relationship with behavioural intention. This indicates that as residents perceive improvements in the cultural and social environment, their behavioural intention is positively influenced ($\beta = 0.000$, $p < 0.05$). Similarly, the economic dimension also exhibits a statistically significant positive relationship with behavioural intention ($\beta = 0.013$, $p < 0.05$), suggesting that a favourable economic environment contributes to stronger behavioural intentions.

In contrast, the education dimension does not show a statistically significant relationship with behavioural intention ($\beta = 0.044$, $p > 0.05$), suggesting that education may not have a direct impact on residents' behavioural intentions in this context. The environment dimension likewise does not display a statistically significant relationship with behavioural intention ($\beta = 0.697$, $p > 0.05$), implying that perceptions of the environment may not significantly influence behavioural intention in this study.

Healthcare does not show a statistically significant relationship with behavioural intention either ($\beta = 0.275$, $p > 0.05$), indicating that perceptions of healthcare quality do not appear to have a direct effect on residents' behavioural intentions. Furthermore, infrastructure shows no significant correlation with behavioural intention ($\beta = 0.950$, $p > 0.05$), suggesting that perceptions of infrastructure quality are not strongly related to residents' behavioural intentions.

However, stability demonstrates a statistically significant positive correlation with behavioural intention ($\beta = 0.011$, $p < 0.05$)., indicating that residents who perceive greater stability in the city are more likely to exhibit stronger behavioural intentions. These results will also be further discussed in Section 7.2.4, "The Relationship Between Perceived City Livability and Behavioural Intention," in Chapter 7.

6.6 Conclusion

This chapter presents the data analysis and research results. First, a reliability test using Cronbach's Alpha was conducted to assess the internal consistency and reliability of each

scale, with all scales passing the test. Next, convergent validity was evaluated by analysing the average variance extracted (AVE) and composite reliability (CR) for each variable, confirming that the measurement model meets validity criteria. Multicollinearity statistics were then used to assess the effectiveness of the multiple regression model and determine if any independent variables were strongly associated. The results confirmed that all variables met the cut-off criteria (VIF < 5), indicating no multicollinearity issues. Following this, multiple regression analysis was applied to test the hypotheses outlined in Chapter 6. Hypotheses 1a, 1b, 2a, 2b, 3a, 3b, 4a, 4b, 6a, 6b, 7a and 7b were supported, while hypotheses 5a and 5b were not. In addition to the hypothesis testing, further results provide descriptive insights into how residents of Bangkok and London perceive their city's livability, brand personality, and their attitudes towards the city brand and behavioural intentions.

Lastly, a multiple regression analysis using SEM examined the impact of liveability dimensions on behavioural intention. Culture and social factors, economic conditions, and stability had significant effects, while education, environment, healthcare, and infrastructure did not, highlighting varying influences on residents' decisions and offering insights for further exploration. The next chapter is the discussion, where these findings will be further examined.

Chapter 7 Discussion

7.1 Introduction

This chapter presents the research findings, starting with a review of the research aims to reiterate the research rationale. The discussion (section 7.2) delves into the survey results, addressing 7 hypotheses that explore the associations between 1) perceived city livability and perceived city personality (section 7.2.1), 2) perceived city livability and attitude towards city brand (section 7.2.2), 3) perceived city personality and attitude towards city brand (section 7.2.3), 4) perceived city livability and behavioral intention (section 7.2.4), 5) perceived city personality and behavioral intention (section 7.2.5), and 6) attitude towards city brand and behavioral intention (section 7.2.6), and . The chapter concludes with a summary in the final section (section 7.3).7.2 Discussion of key research findings.

7.2 Discussion of key research findings

This research aims to explore how city livability shapes city branding, with a focus on seven key objectives: examining how perceived livability shapes perceived city personality; assessing how perceived livability affects attitudes towards the city; analysing the connection between perceived city personality and attitudes towards the brand; evaluating how attitudes towards the brand relate to behavioural intention; considering the direct effect of perceived livability on behavioural intention; and identifying how perceived city personality relates to behavioural intention. Additionally, this study investigates the serial mediation effect of perceived city personality and attitudes towards the city brand in the relationship between perceived city livability and behavioural intention.

To achieved research objectives, this research mainly employed the quantitative survey methodology. The quantitative method was conducted to 1) develop the city livability measurement scales (in chapter 4), and 2) investigate the impact of city livability on city branding.

The literature review (as per chapter 2) suggests that there are considerable amount of city livability and city branding measurement frameworks. These frameworks have been used both academically and managerially. However, this study goes further to measure

the relationship between the city livability and city branding as well as provides empirical evidence. This is because examining this relationship can not only expand our theoretical knowledge of city livability and city branding, but also can help in developing effective marketing strategies and positioning. In other words, it allows city branding practitioners to align promotional efforts with aspects that resonate with residents and potential newcomers to the city. Therefore, this research has attempted to investigate empirically the association between 1) perceived city livability and perceived city personality 2) perceived city livability and attitude towards city brand 3) perceived city personality and attitude towards city brand 4) perceived city livability and behavioural intention 5) perceived city personality and behavioural intention, 6) attitude towards city brand and behavioural intention, and 7) serial mediation effect of perceived city personality and attitudes towards the city brand in the relationship between perceived city livability and behavioural intention (see section 6.3.4, chapter 6). It can be concluded that the findings from the survey provide the empirically based measurement scale of perceived city livability, perceived city personality, attitude towards city brand, behavioural intention, and the effects of demographics on all variables as explained in the following sections.

7.2.1 The relationship between perceived city livability and perceived city personality

The hypothesis test (see section 6.3.4, chapter 6) indicates that hypothesis 1a and hypothesis 1b are supported (see Table 6.15, chapter 6). An analysis of the combined data from both Bangkok and London reveals a significant positive relationship between perceived city livability (PCL) and perceived city personality (PCP) ($\beta = 0.608$, $p < 0.05$). This combined result reinforces the individual findings for Bangkok and London, further solidifying the argument for a positive link between livability and city personality across different urban contexts. Specifically, hypothesis 1a, which is significantly supported, demonstrates that the perceived city livability of Bangkok residents has a positive impact on their perceived city personality ($\beta = 0.752$, $p < 0.01$). Likewise, hypothesis 1b illustrates that London residents' perceived city livability has a significant impact on their perceived city personality ($\beta = 0.632$, $p < 0.01$).

Although studies on the relationship between perceived city livability and perceived city personality are limited, the results of this research extend the work of Senlier et al. (2009) and Aaker (1997) by demonstrating the impact of perceived city livability on perceived city personality. The significant relationships observed in both contexts—Bangkok and

London, as well as in the combined data—can be explained by borrowing the concept of place branding from marketing, given the similar functions of city brand image and perceptions of a city. Kaplan et al. (2010) suggest that brand image refers to the meaning consumers associate with a product, based on their experiences, impressions, and perceptions of the functional, emotional, and symbolic benefits of the brand. Similarly, Senlier et al. (2009) posit that city livability is directly linked to people's feelings, perceptions, and subjective values. They also state that "it is not the objective quality of infrastructure but how people perceive it that matters."

Thus, both brand image and perceived city livability share intangible elements such as experiences, perceptions, feelings, and emotions, which are strongly related to brand personality (Biel, 1997). Aaker (1997) argues that personality traits are associated with the brand in a direct way, through the people linked to the brand, and in an indirect way, through product-related attributes such as the brand name, symbol, or logo. In the same vein, since the perceived livability of a city is determined by individuals based on their subjective perspectives, this perception is significantly intertwined with the city's personality.

In conclusion, the study supports hypotheses 1a and 1b, revealing a positive impact of perceived city livability on perceived city personality for residents in both Bangkok and London, as well as in the combined analysis of both cities. While the existing literature has not deeply explored this relationship, our research extends theoretical frameworks by demonstrating the significant influence of perceived city livability on city personality. Borrowing from the brand image concept, the study provides a lens to understand this relationship, emphasising the subjective nature shared by both perceived city livability and brand image. This highlights the interconnectedness between individuals' perceptions of a city's livability and its personality traits, mirroring the ways people associate traits with a brand or city.

7.2.2 The relationship between perceived city livability and attitude towards city brand

The test of hypothesis 2a highlights a positive relationship between perceived city liveability and attitude towards the city brand among Bangkok residents ($\beta = 0.625$, $p < 0.01$). Similarly, hypothesis 2b testing suggests that the perceived city liveability of

London residents is positively associated with their attitude towards the city brand (β = 0.515, p < 0.01). Both hypothesis 2a and hypothesis 2b are statistically supported (see Table 6.15, chapter 6). These results are discussed below.

An analysis of the combined data from both Bangkok and London reveals a significant positive relationship between perceived city liveability (PCL) and attitude towards the city brand (ATD) (β = 0.510, p < 0.05). Whilst this combined result reinforces the individual findings, it also suggests a broader generalisation across both urban contexts, demonstrating the critical role of perceived liveability in shaping attitudes towards a city's brand.

As mentioned in the literature review (chapter 2), attitude towards a brand is characterised as "a sustained, singular evaluative judgement of the brand that potentially drives behaviour" (Surendra et al., 2004). Essentially, these attitudes signify the degree to which a brand is liked or disliked and mirror the depth of a consumer's positive or negative perspective on it (De Pelsmacker et al., 2017). Mitchell and Olson (1981) further describe brand attitude as an individual's holistic assessment of a brand, representing the overall appreciation perceived by consumers. This attitude is fundamentally shaped by a consumer's personal perceptions of the brand. Importantly, these attitudes are considered reliable indicators of how consumers are likely to behave in relation to brands, as emphasised by Shimp (2009). These previous studies consistently highlight the strong relationship between people's perceptions and attitudes towards brands, and this current study confirms that residents' attitudes towards their city's brand are significantly influenced by how liveable they perceive their city to be.

The combined data analysis adds further weight to the argument that prioritising liveability is essential for building a favourable and strong city brand. By analysing both Bangkok and London together, it becomes evident that this relationship holds true across different cultural and geographical contexts, reflecting a universal pattern in how liveability affects brand attitudes.

Higgs et al. (2019) offer a comprehensive definition of city liveability as a community that integrates safety, attractiveness, social cohesion, inclusivity, and environmental sustainability. This includes affordable and diverse housing connected by convenient public transport, walking, and cycling infrastructure to key amenities such as

employment, education, public spaces, local shops, health and community services, as well as leisure and cultural opportunities. In essence, city liveability encapsulates the quality of life, standard of living, and general well-being of its residents (Okulicz-Kozaryn, 2013). The findings of this study confirm Senlier et al. (2009)'s research that perceived liveability, reflecting residents' sense of well-being and quality of life, plays a pivotal role in shaping attitudes towards a city's brand. Senlier et al. assert that quality of life is closely linked to the perceptions and feelings of the population.

Moreover, this research also supports Merrilees et al. (2008)'s work, which states that the associations between various city elements—such as city facilities, environment, and cultural activities—can be interpreted clearly as brand associations. These city elements, in turn, contribute to more positive brand attitudes. The combined analysis of the Bangkok and London data reinforces the idea that these associations between city liveability and brand attitudes are consistent across different urban environments.

In summary, the study confirms that residents' attitudes towards the city brand are significantly shaped by their perceptions of the city's liveability. The combined data analysis provides stronger evidence that this relationship is not limited to one specific context but is a broader phenomenon. The findings align with Higgs et al.'s (2019) comprehensive definition of liveability and support Senlier et al. (2009)'s assertion that perceived liveability plays a central role in shaping attitudes towards a city's brand. Additionally, the research aligns with Merrilees et al. (2008), indicating that various city elements contribute to brand associations, fostering more positive brand attitudes. Ultimately, prioritising liveability is crucial not only for residents' well-being but also for building a strong and favourable city brand across diverse contexts.

7.2.3 The relationship between perceived city personality and attitude towards city brand

This research hypothesised that perceived city personality has a positive impact on attitude towards the city brand among Bangkok and London residents ($\beta = 0.248$, $p < 0.01$, and $\beta = 0.327$, $p < 0.01$). The results of hypothesis 3a and hypothesis 3b statistically support this proposition (see Table 6.15, chapter 6). The combined data analysis shows a significant positive relationship between perceived city personality (PCP) and attitude

towards the city brand (ATD) ($\beta = 0.337$, $p < 0.05$), further reinforcing the significance of this relationship across both urban contexts. These survey results are discussed below. As highlighted in the literature review (chapter 2, section 2.3.5), Kaplan et al. (2010) define city brand personality as "the set of human characteristics associated with the city brand," drawing on Aaker (1997)'s brand personality concept and definition. Kavaratzis and Ashworth (2005) argue that places can be treated as brandable entities if their characteristics set them apart. Additionally, cities, akin to other brands, exhibit unique personalities that connect with both residents and visitors (Priporas, Stylos, and Kamenidou, 2020).

Regarding the impact of city brand personality on attitudes towards the city brand, the results from the survey show that residents' attitudes towards the city brand are significantly affected by the perceived city personality. This finding is further strengthened by the combined data analysis, which highlights the broader applicability of this relationship. These results support Freling and Forbes (2005)'s work, which suggests that the personality of a city significantly moulds perceptions and attitudes. Similarly, the outcomes also confirm Keller (2003)'s statement that brand personality is an expression of people's feelings about a brand, influenced by their perceptions of what the brand represents, its actions, and its marketing approach. Additionally, there is evidence suggesting that humans tend to attribute positive traits to products through anthropomorphism, which boosts their sense of comfort and familiarity while reducing perceived risks associated with usage (Haigood and Traci L., 1999).

In conclusion, city brand personality, as defined by Kaplan et al. (2010), refers to the human characteristics associated with the city brand and builds on Aaker (1997)'s concept. This study provides evidence to support the association between perceived city personality and attitude towards the city brand, as found in the extant literature. Kavaratzis and Ashworth (2005) argue that places can be considered brandable entities when their distinctive characteristics set them apart, and cities, like other brands, possess unique personalities that resonate with both residents and visitors (Priporas, Stylos, and Kamenidou, 2020). The survey results in this study reveal a significant impact of perceived city personality on residents' attitudes towards the city brand, aligning with Freling and Forbes (2005), who assert that city personality strongly influences perceptions and attitudes. This finding also supports Keller (2003)'s statement that brand personality reflects people's feelings, influenced by perceptions of the brand's actions and

marketing. Moreover, evidence suggests that, akin to products, positive traits are attributed to cities through anthropomorphism, enhancing comfort and familiarity while reducing perceived risks (Haigood and Traci L., 1999).

7.2.4 The relationship between perceived city livability and behavioural intention

The hypothesis test reveals that hypotheses 4a and 4b are supported (see Table 6.15, Chapter 6). The result for hypothesis 4a demonstrates that Bangkok residents' perceived city livability has a significant impact on their behavioural intention ($\beta = 0.252$, $p < 0.01$). Similarly, hypothesis 4b indicates a positive association between perceived city livability and behavioural intention among London residents ($\beta = 0.141$, $p < 0.01$). Additionally, the combined data analysis in Table 6.12 shows a significant positive association between perceived city livability (PCL) and behavioural intention (BI) ($\beta = 0.124$, $p < 0.05$), reinforcing the broader applicability of these findings across different urban contexts.

Moreover, the analysis in Table 6.30 reveals further insights into the specific dimensions of livability that influence behavioural intention. The culture and social dimension shows a statistically significant positive relationship with behavioural intention, indicating that as residents perceive improvements in cultural and social environments, their behavioural intention is positively influenced. Likewise, the economic dimension demonstrates a significant positive relationship with behavioural intention, suggesting that favourable economic conditions contribute to stronger behavioural intentions.

In contrast, the analysis shows that the education dimension does not have a statistically significant relationship with behavioural intention, implying that education may not directly impact residents' decisions in this context. Similarly, the environment dimension does not show a significant correlation with behavioural intention, indicating that perceptions of environmental quality may not strongly influence residents' behavioural choices. Additionally, healthcare and infrastructure also show no significant correlation with behavioural intention, suggesting that residents' perceptions of healthcare quality and infrastructure do not play a significant role in shaping their intentions.

However, the stability dimension is found to have a statistically significant positive relationship with behavioural intention. This indicates that residents who perceive greater

stability in their city are more likely to have stronger behavioural intentions, further confirming the importance of stability in shaping urban living preferences.

The research outcomes underscore that residents' decisions to stay in or leave a city are closely linked to how livable they perceive their environment to be. Livability includes a wide range of factors, such as adequate facilities, safety, employment opportunities, housing quality, cultural and recreational activities, environmental sustainability, access to healthcare and social services, and inclusivity. This finding is consistent with Palagi's (2020) research, which highlights the role of objective livability factors in influencing decisions to remain in or relocate from a city. Although much of the research on city livability has focused on livability indices and their effects on resident satisfaction, Okulicz-Kozaryn and Valente (2019) emphasise the need to understand the connection between livability and subjective values, such as satisfaction, in explaining residents' decisions to stay or leave.

The current study supports this perspective by confirming a significant relationship between perceived city livability and behavioural intention, a connection that has not been extensively explored. The analysis of specific liveability dimensions provides additional insights, revealing that cultural, social, economic, and stability factors significantly influence residents' behavioural intentions, while education, healthcare, environment, and infrastructure do not show the same level of impact.

In summary, this research highlights the substantial influence of perceived city livability on residents' decisions, particularly in relation to cultural, social, economic, and stability factors. These findings align with Palagi's (2020) emphasis on the importance of objective livability factors, while also expanding on Okulicz-Kozaryn and Valente's (2019) argument that subjective perceptions play a critical role in urban living preferences. This study contributes valuable insights into the relationship between perceived livability and behavioural intention, an area that has received limited attention in previous research. By exploring the interplay between subjective perceptions, livability dimensions, and residents' decisions, this research provides a deeper understanding of the dynamics shaping urban living preferences.

7.2.5 The relationship between perceived city personality and behavioural intention

When it comes to the association between perceived city personality and behavioural intention, it is found that hypothesis 5a and hypothesis 5b are not statistically supported (see Table 6.15, chapter 6). These results indicate that the perceived city personality of Bangkok residents and London residents does not positively influence behavioural intention ($\beta = 0.064$, $p > 0.01$, and $\beta = 0.086$, $p > 0.01$). Although the combined data analysis reveals a significant relationship between perceived city personality (PCP) and behavioural intention (BI) ($\beta = 0.082$, $p < 0.05$), the individual analyses fail to support H5a and H5b. This difference in significance can be explained by several statistical and structural factors.

Firstly, sample size effects play a critical role. When analysing the data separately with 300 samples per group, the statistical power to detect significant effects is lower. A larger sample size, such as the 600 combined samples, increases the ability to detect smaller effects. With a larger sample, the power of the analysis is greater, leading to more stable estimates of relationships between variables, reducing variability and noise that may obscure significant relationships in smaller groups (Whitley and Ball, 2002).

Secondly, variance differences between the groups can impact the results. The relationship between perceived city personality and behavioural intention may behave differently in Bangkok versus London, as each group could exhibit different variances or dynamics in how these variables interact. When the two groups are combined, the averaging out of these differences may reveal a relationship that wasn't apparent when analysed individually. Combining datasets has a smoothing effect, reducing extreme variations that might exist in one group or the other, thus making the overall trend more visible (Hummel, Edelmann and Kopp-Schneider, 2017).

Another key factor is model fit and complexity. When the SEM is run separately for the two groups, it may be influenced by specific characteristics unique to each group, such as cultural differences or city-specific factors. These group-specific dynamics might obscure the relationship between perceived city personality and behavioural intention. In contrast, when the data is combined, the SEM model may fit the overall dataset differently, revealing a clearer and more significant relationship across the entire sample (Kline and Klammer, 2001).

Additionally, p-value sensitivity is a consideration. The p-value is sensitive to sample size, and with larger datasets, it becomes easier to detect smaller effects that might not reach significance with fewer data points (Deng, Yang and Marcoulides, 2018). A small shift in the data when using 600 samples versus 300 samples can turn a relationship from non-significant to significant, as seen with the p-value of 0.033 in the combined analysis.

Lastly, latent variable measurement issues could also contribute to the differing results. When the Bangkok and London samples are analysed separately, there may be differences in how respondents perceive and interpret concepts like "perceived city personality." These differences in perception could weaken the relationship between PCP and BI when analysed individually. However, when the two groups are combined, these differing perceptions may cancel each other out, allowing for a stronger and more significant relationship to emerge (Wilkerson and Olson, 1997).

Regarding previous literature on city brand personality and consumer behaviour, there is support for the idea that cities with a well-defined brand personality can notably attract urban consumers, encompassing both residents and visitors (Ahmad and Bolong, 2013). Additionally, a city characterised by a clear brand personality can shape the preferences and engagement levels of city stakeholders (Selby, 2004). Consequently, it is noticeable that a strongly established brand personality plays a crucial role in the decision-making process and the eventual brand choices made by consumers (Kaplan et al., 2010).

Despite confirmation of the association between city brand personality and behavioural intention in some studies, the results of the current study show the opposite conclusion. This research reveals that perceived city personality does not affect behavioural intention among people living in Bangkok and London. One possible explanation could be that people frequently prioritise practical factors such as job opportunities, cost of living, and access to facilities when deciding where to live. This could explain why perceived city personality may not have a significant impact on decision-making. While city personality can influence the decision-making process, for many people who live in capital cities—Bangkok and London being examples—city personality may not be the most crucial aspect to consider. These results were unexpected but offer new insights into the city brand personality and consumer behaviour concepts.

In conclusion, while the literature suggests that cities with a well-defined brand personality can attract urban consumers, including residents and visitors, and shape preferences and engagement (Ahmad and Bolong, 2013; Selby, 2004; Kaplan et al., 2010), this study reveals a contrary finding. Perceived city personality does not significantly impact the behavioural intentions of residents in Bangkok and London. Practical factors like job opportunities and cost of living may take precedence in decision-making, suggesting that, for individuals in capital cities like Bangkok and London, perceived city personality might not be a decisive factor. These unexpected results provide new insights into the relationship between city brand personality and consumer behaviour, indicating that they are not significantly associated in the context of capital cities.

7.2.6 The relationship between attitude towards city brand and behavioural intention

The result of hypothesis 6a reveals that attitude towards the city brand among Bangkok residents is positively related to their behavioural intention ($\beta = 0.560$, $p < 0.01$). Similarly, hypothesis 6b testing also indicates that the attitude towards the city brand among London residents has a positive impact on their behavioural intention ($\beta = 0.668$, $p < 0.01$). Both hypothesis 6a and hypothesis 6b are supported (see Table 6.15, chapter 6), and the results are discussed below.

Additionally, the combined data analysis demonstrates a significant relationship between attitude towards the city brand (ATD) and behavioural intention (BI) ($\beta = 0.674$, $p < 0.05$), further reinforcing the strong association between these two variables across both contexts. The combined data not only confirms the positive links found in the individual analyses for Bangkok and London, but it also shows a broader, more generalised trend of how favourable attitudes towards a city's brand significantly influence residents' intentions to engage with or stay in that city.

The research results show the significant relationship between attitude towards the city brand and behavioural intention. This means that people are more likely to be drawn to a city and consider it as a potential home if they have a favourable attitude towards the city's brand. A positive attitude towards a city's brand fosters a sense of attachment, pride, and belonging. These findings confirm Fishbein and Ajzen's (1975) work, which suggests

that attitudes significantly influence behaviour through behavioural intentions, emphasising the crucial role that attitude plays in driving behaviour.

In the context of city branding, the research supports Zenker and Rütter's (2014) study, which suggests that a positive attitude towards a place brand, along with overall satisfaction with the place, decreases the likelihood of residents moving away. This research also provides empirical support for the idea that attitude towards a brand drives the behaviour of the place's customers (Zenker, 2011). The correlation between a positive brand attitude and positive behaviour aligns with the notion that places aim to change negative associations into positive ones, as it is believed that this will lead to favourable outcomes among the target group (Gertner and Kotler, 2004).

The study's results support hypotheses 6a and 6b, revealing a positive link between residents' attitudes towards the city brand and their behavioural intentions in both Bangkok and London. The combined data analysis further strengthens these findings by showing a consistent, significant relationship across both cities. This implies that a favourable attitude towards a city's brand increases the likelihood of residents considering it as a potential home, fostering attachment and pride. These findings align with Fishbein and Ajzen's (1975) theory on the influence of attitudes on behavioural intentions.

In the context of city branding, the research reinforces Zenker and Rütter's (2014) findings, indicating that a positive attitude towards a city's brand reduces the likelihood of residents moving away. The study also supports the idea that a positive brand attitude influences a place's customer behaviour, emphasising the importance of transforming negative associations into positive ones to encourage positive outcomes (Zenker, 2011; Gertner & Kotler, 2004).

7.2.7 The serial mediation effect of perceived city personality and attitude towards the city brand on the relationship between perceived city livability and behavioural intention.

This section explores the serial mediation effect of perceived city personality and attitude towards the city brand in the relationship between perceived city livability and behavioural intention, addressing Hypothesis 7 (H7). The analysis sought to determine whether perceived city personality and attitude towards the city brand, as sequential mediators, influence how perceived city livability translates into residents' intentions to

engage with or remain in their city. The analysis was conducted on combined data from Bangkok and London and then separately for each city.

The findings indicate a significant indirect effect of perceived city livability on behavioural intention, mediated by perceived city personality and attitude towards the city brand. Specifically, the combined data analysis reveals a notable indirect effect ($\beta = 0.281$, $p < 0.05$), thus supporting H7. This suggests that across both Bangkok and London, perceived livability affects behavioural intentions through an intermediary process that starts with city personality perceptions and culminates in residents' attitudes towards the city brand.

When analysed separately, Bangkok residents showed a higher serial mediation effect ($\beta = 0.362$, $p < 0.05$), supporting Hypothesis 7a (H7a). This indicates that for Bangkok residents, strong perceived livability fosters a distinctive city personality, which positively influences attitudes towards the city brand, thereby shaping their behavioural intentions. Similarly, the analysis of the London sample demonstrated a significant mediation effect ($\beta = 0.300$, $p < 0.05$), supporting Hypothesis 7b (H7b). These findings suggest a comparable pathway in London, where residents' perceived livability contributes to positive behavioural intentions via its impact on city personality and brand attitudes.

These results align with existing literature that emphasises the role of place personality in shaping residents' emotional attachment and perceptions (Kaplan et al., 2010). The process by which a city's personality enhances brand attitudes, subsequently influencing behavioural intention, highlights the significance of intangible aspects of city branding. These findings suggest that fostering a distinct city personality and cultivating positive brand attitudes could strengthen the behavioural commitment of residents. This outcome is particularly relevant for city branding practitioners, as it underscores the value of strategically enhancing perceived city livability to support a robust city identity that resonates emotionally with residents, potentially contributing to higher retention and engagement.

In conclusion, this study confirms that perceived city personality and attitude towards the city brand act as significant mediators in the relationship between city livability and behavioural intention across different cultural and urban contexts. The consistent findings between Bangkok and London highlight that, while each city's unique characteristics

shape the specifics of this mediation pathway, the underlying process remains influential in fostering resident loyalty and behavioural intentions through enhanced livability perceptions.

7.3 Conclusion

This study examines the findings presented in Chapter 6, assessing their significance and relevance to existing research on city livability and city branding. The objectives include exploring the effects of perceived livability on city personality, attitudes towards the city and brand, and behavioural intentions, encompassing both direct and indirect impacts. The research makes substantial theoretical and practical contributions by empirically linking concepts of city livability and city branding. Survey findings not only add to the existing literature but also shed light on the associations among perceived livability, city personality, attitudes towards the city brand, and behavioural intentions. Overall, this research deepens our understanding of city branding, providing both theoretical insights and practical applications that can guide city management strategies and refine city branding frameworks.

Chapter 8 Conclusion

8.1 Introduction

This chapter offers an overview of the study, presenting a summary of the work conducted in each chapter (refer to section 8.2 for detailed insights). Its primary objective is to enhance the reader's understanding of the overall context and significance of the findings. Section 8.3 delves into the theoretical implications of the research (section 8.3.1), providing not only conceptual insights but also practical applications for business and city policy (section 8.3.2). Finally, section 8.4 outlines the study's limitations, offering valuable perspectives to guide future research in the fields of city livability and city branding.

8.2 Overview of the thesis

The study initially offered an overview, covering the research background, identified issues, and gaps in the current literature. It began by examining the history and significance of the livability concept in light of urbanisation and population growth (OECD, 2017; Higgs et al., 2019). Emphasising the importance of city livability for competitive advantage and city branding (Kashef, 2016), the study expanded on city branding concepts and highlighted an increasing demand for research in this area. It identified a notable research gap due to the absence of marketing or branding-focused studies among leading city livability papers. Additionally, the literature pointed to a need for an adaptable, comprehensive city livability framework (Paul and Sen, 2017) that could be applied across different contexts. The study also addressed challenges in data collection, particularly the tendency to rely on expatriate professionals rather than long-term city residents (Okulicz-Kozaryn, 2013), who are considered a key sample for more in-depth insights (Merrilees et al., 2008).

Building on these gaps, the study outlined the research objectives and formulated guiding research questions. The main aims identified include the examination of both direct and indirect relationship between perceived city livability, city personality, attitude towards the brand, and subsequent behavioral intentions. It called for the development of a new

framework for analysing city livability, drawing on the perspectives of city stakeholders in London and Bangkok.

Subsequently, an in-depth examination of the existing literature on city livability and city branding theory was undertaken, with a focus on illuminating prevailing gaps within the existing body of knowledge. Underlining the importance of merging city livability and city branding concepts, the study examined and discussed the potential impact on advancing knowledge in both domains. For instance, applying Aaker (1997)'s brand personality framework in the context of city branding or devising novel brand antecedents that integrate city livability and marketing concepts, can contribute theoretically to the fields of city livability (Senlier et al., 2009) and city branding (Aaker, 1997) by extending the city livability concept which increasingly has also become an exercise of city branding.

A new holistic conceptual framework is introduced, and 7 hypotheses were formulated. These included detailing the relationships between perceived city livability and perceived city personality (H1), perceived city livability and attitude towards the city brand (H2), perceived city personality and attitude towards the city brand (H3), perceived city livability and behavioral intention (H4), perceived city personality and behavioral intention (H5), as well as attitude towards the brand and behavioral intention (H6). Additionally, the research also examines serial mediation effect of perceived city personality and attitude towards the city brand on the relationship between perceived city livability and behavioural intention (H7)

Bibliometric analysis (Literature review part 2) examined the development of city livability and city branding fields of studies. Based on the gaps identified in the literature on urban livability and city branding, particularly the issue of dispersed research, bibliometric methodologies helped to comprehend the extent and evolution of studies on city livability. It answered 2 questions: Which journals and disciplines have the most impact on a research stream?; and What are the dynamics of the conceptual structure of a field? The bibliometrics methods were applied to: citation analysis, and co-word analysis. All data was derived from the Web of Science database and RStudio software was used to perform the analysis. The results revealed that the evolution of city livability studies aligns with global agendas, emphasising health and urban challenges. "Cities: The

International Journal of Urban Policy and Planning" emerged as the most cited, reflecting its broad scope and detailed coverage. The conceptual structure reveals 5 primary themes, with "City" being the largest. Within the city branding field, a surge in publications from 2015 to 2023 reflects a growing interest on the topic. 3 main themes were identified: "City," "Impact," and "Health." As emphasised in the literature review "Healthcare" emerged as a pivotal aspect of city livability. This thematic emphasis strengthens the correlation between city branding and the overall livability of a city. Examining production and citations, the United States appeared as leading country for scientific production, while China, especially through the City University of Hong Kong, showed potential for future prominence of research. Overall, the analysis offers insights into dynamic trends, thematic shifts, and contributions to the city livability and city branding fields.

Scale development used in this study (in chapter 4) was developed through a pilot study. The developed scale included the perceived city livability construct. The perceived city livability (PCL) items were derived from extant literature reviews, with newly introduced measurement items considered comprehensive in capturing the essence of city livability. There were 7 city livability dimensions, namely 1) Stability, 2) Healthcare, 3) Environment 4) Social and Culture 5) Education, 6) Infrastructure, 7) Economic. To assess the construct validity of PCL, EFA was employed. The EFA and the reliability tests were essential tools in the research methodology, offering insights into construct validity, aiding in scale development, ensuring measurement reliability, and contributing to the overall rigor of the research process.

An initial pilot study was carried out involving 200 participants; 100 from Bangkok and 100 from London-tests all construct items, establishing their reliability. Drawing from sample data in both cities, a robust reliability assessment of perceived city livability, perceived city personality, attitude towards brand, and behavioural intention dimensions was conducted, highlighting the methodological strength of the evaluation criteria. The assessed items were then incorporated into a questionnaire for a large-scale survey involving 600 samples (300 each from Bangkok and London), carried out in the second year of research. This marked a pioneering effort in developing a city livability measurement tool covering all city livability dimensions, unprecedented in previous studies. The tool then was tested in connection with city personality, attitude towards

brand, and residents' behavioral intentions, adding a novel dimension to the research landscape in the findings chapter.

The main research focused, once again on city stakeholders in two chosen cities, London and Bangkok, selected due to a combination of shared similarities and distinctive differences. Commonalities include the adoption of the urban livability approach by administrators in both cities at the level of city visions. Additionally, the size of the two capital cities is comparable, with a population of 9,425,622 for London and 10,722,825 for Bangkok (World City Population, 2021). However, notable differences arise when considering the economic classifications of these cities. As per the World Bank Country Classifications, the United Kingdom is categorized as a lower-middle-income country, while Thailand falls under the classification of a low-income economy country (World Bank Country and Lending Groups, 2021). Economic factors are crucial components of livability (Cramer-Greenbaum, 2020), and this distinction adds a layer of complexity to the comparative analysis. Moreover, the geographic and cultural variations between London and Bangkok, situated on different continents, contribute to the richness of the study. Residents in these cities embody diverse cultures, and these differences are integral to testing the validity of the developed measurement framework.

The methodology used in this thesis relied on a positivist approach and inductive and deductive reasoning. The focus was on quantitative research method, with rigorous data screening, including MCAR analysis to address missing data, outlier detection to ensure that there are no particular or extreme scores significantly impact the variables, multicollinearity checks that concern to situations where independent variables were closely interrelated, and T-tests checking for non-response bias. All analyses passed the screening, ensuring accuracy. The methodology also addressed research ethics following the University of York regulations.

The data analysis and research findings incorporated a reliability assessment utilising Cronbach's Alpha, which serves to evaluate the internal consistency of each scale employed. All scales successfully passed the reliability test. Prior to delving into the variables, it is imperative to guarantee consistent results, a step essential for assessing the quality of the research instrument (Churchill, 1979). Convergent validity was then assessed using the average extracted variance (AVE) and composite reliability (CR) for each variable, confirming satisfaction with the measurement model. Subsequently,

multicollinearity statistics were employed to ensure the effectiveness of the multiple regression model, revealing no strong associations or problems. Multiple regression analysis tested the hypotheses previously formulated. The results revealed positive impacts between various factors: Firstly, this study establishes a significant relationship between perceived city livability and perceived personality. The former comprises seven key dimensions of city livability, while the latter consists of 15 traits of city personality derived from Aaker's brand personality framework. This finding extends beyond Senlier et al.'s (2009) exploration, which focused on the impact of city livability on emotions and feelings, by demonstrating the notable effect of perceived city livability on city brand personality. This insight holds practical value for city policymakers, particularly for city positioning strategies. The study also broadens Aaker's (1997) branding concept, traditionally applied to product attributes, by illustrating its application in city branding. It highlights the dynamic relationship between individuals' perceptions of a city's livability and its personality traits, such as sincerity, excitement, competence, sophistication, and ruggedness, akin to how traits are attributed to a city.

Secondly, the significant impact of perceived city livability (Zanella, Camanho and Dias, 2014; Lowe et al., 2015; The Economist Intelligence Unit, 2015; The OECD's Better Life Index, 2011; The American Association for Retired Persons, 2015; Mercer Quality of Living, 2009; The Urban Livability Index for low-to-middle-income countries, 2019) on attitudes towards city brands (Kotler et al., 2017) supports Senlier et al.'s (2009) assertion that livability is central in shaping brand attitudes. Additionally, the findings support Merrilees et al. (2008), who propose that city elements such as facilities, environment, and cultural activities foster positive brand associations. This indicates that prioritising livability—through factors like stability, healthcare, environment, culture and social dimension, education, infrastructure, and economy—can not only enhance residents' well-being but also strengthen city branding.

Furthermore, the research confirms a positive relationship between perceived city personality and attitudes towards city brands (Kotler et al., 2017), aligning with Freling and Forbes (2005) and Keller (2003), who argue that a city's personality significantly influences perceptions and attitudes. However, the study unexpectedly found that city personality does not significantly impact behavioural intention in either Bangkok or London. Although a combined analysis of both cities suggested a slight link, individual city results showed no meaningful effect. This challenges the notion that a strong city

brand personality directly influences residents' behavioural intentions (Ahmad & Bolong, 2013; Kaplan et al., 2010). Lastly, this study introduces the serial mediation effect of perceived city personality and attitude towards the city brand on the relationship between perceived city livability and behavioural intention. The analysis showed that city livability indirectly affects behavioural intentions via city personality and brand attitudes in both Bangkok and London.

When it comes to the influence of demographics as control variables on perceptions of city personality and attitudes towards city brands, this analysis presents mixed effects. While prior studies suggest that factors like education may enhance city perceptions (Anton & Lawrence, 2014) and demographics can shape brand personality (Phau & Lau, 2000), this study finds no significant impact of these control variables on perceived city personality in either Bangkok or London, aligning with the variability observed in previous research (Hidalgo & Hernández, 2001).

Gender shows inconsistent effects, influencing brand attitudes in London but not in Bangkok, echoing the literature's mixed findings on gender's role in place attachment and attitudes (Hidalgo & Hernández, 2001; Lee & Hwang, 2011). Age similarly has no significant effect on brand attitudes in either city, potentially due to shared urban challenges and diverse cultural composition in these capitals (Addie, 2019). Income positively affects brand attitudes in London, where higher living costs may heighten income's relevance to brand perception, contrasting with Bangkok's lower-cost context. Additionally, education and employment status show no significant influence on attitudes or behavioural intentions in either city, challenging prior findings that associate education with stronger place identity (Anton & Lawrence, 2014) and employment with affective commitment (Payne & Webber, 2006).

These findings offer valuable insights for city branding, highlighting the complexity and inconsistency of demographic impacts, even as control variables, on urban perceptions. They suggest that city planners and policymakers should consider nuanced demographic factors when developing strategies to enhance resident satisfaction, attract tourism, and support economic growth. This study advances understanding of city branding by emphasising the variable role of demographics in shaping urban brand perceptions, with theoretical and practical implications discussed in the following section.

8.3 Theoretical and Practical Implications

This study aims to provide both academic and practical contributions, both policy oriented and business oriented. Therefore, the following theoretical underpinnings, and practical implications have been identified and are proposed.

8.3.1 Theoretical Implications

This thesis makes substantial theoretical contributions by introducing an original city livability framework that incorporates additional dimensions to assess residents' perceptions of urban livability. This framework provides a holistic approach aligned with Higgs et al.'s (2019) concept of urban livability, encompassing safety, social cohesion, inclusivity, environmental sustainability, and connectivity. By integrating new dimensions, this study enhances the livability literature, offering a nuanced understanding of how varied aspects of city life influence perceptions. It also demonstrates how these perceptions shape both the city's personality and brand, moving beyond prior frameworks to present a broader perspective on urban livability.

A significant contribution of this research is the application and expansion of Aaker's (1997) brand personality framework to the realm of city branding. The thesis argues that cities, like consumer goods and services, can embody distinct characteristics, contributing to a city's perceived personality. By adapting Aaker's framework to cities, the research offers insights into how perceived livability influences city personality, as observed in the cases of Bangkok and London. This new approach provides a fresh perspective on Aaker's work, showing its applicability to urban environments.

Further, the study establishes a new model for city branding, integrating livability and personality frameworks to reveal the complex relationships among perceived livability, city personality, residents' brand attitudes, and behavioural intentions. The findings suggest that higher perceived livability enhances perceptions of a city's personality, which in turn strengthens positive attitudes towards the brand, ultimately encouraging resident loyalty. This underlines the importance of prioritising livability to enhance city branding and appeal.

Unexpectedly, the research finds that the connection between city brand personality and residents' behavioural intentions is weaker than anticipated in capital cities like Bangkok and London. Although a combined analysis of both cities showed a slight connection, no significant effect was found when analysing each city separately. This discrepancy may be due to differences in sample composition and cultural variations between the cities, which may obscure the relationship when examined individually (Whitley & Ball, 2002; Hummel et al., 2017; Kline & Klammer, 2001). These findings challenge the notion that a well-defined city brand personality directly impacts residents' behavioural intentions (Ahmad & Bolong, 2013; Kaplan et al., 2010), suggesting instead that practical factors—such as job opportunities, cost of living, and available amenities—are more influential in residents' decisions to stay in or recommend a city. This provides fresh insights into city branding dynamics, indicating that, in highly urbanised environments like Bangkok and London, practical factors often outweigh personality-driven perceptions.

Additionally, this study also contributes by identifying the mediating roles of city personality and brand attitude in the relationship between city livability and behavioural intention. Findings suggest that livability influences behavioural intentions through a sequential process, where perceptions of livability shape the city's personality, which then impacts brand attitudes, ultimately affecting residents' engagement and retention. This is evident in both Bangkok and London, where livability fosters a unique city personality that strengthens positive brand attitudes, encouraging resident loyalty. These results resonate with the literature on place personality and emotional attachment (Kaplan et al., 2010), reinforcing the essential though intangible role of city personality in cultivating resident engagement.

Regarding demographic influences, this study explores how control variables such as education, income, and employment status impact perceptions of city brands. Contrary to some prior studies, the findings indicate that demographics do not significantly shape perceptions of city personality in either Bangkok or London, although income appears to correlate with brand attitudes in London. This nuanced perspective deepens the understanding of how demographic factors interact with city branding, suggesting that these influences may vary significantly across urban contexts.

Additionally, the research highlights differences in perceived livability between Bangkok and London, offering insights into city branding strategies. The variations in residents'

perceptions across these cities suggest that urban environments shape attitudes and behaviours in distinct ways, providing a basis for city planners and policymakers to craft branding strategies that align with the unique livability perceptions of each city's residents.

In conclusion, this thesis makes substantial contributions to both city livability and branding research. It introduces a new livability framework, applies Aaker's brand personality model to cities, and reveals the interplay between livability and city branding. The study challenges conventional theories, particularly regarding the assumed impact of brand personality on behavioural intentions and offers fresh perspectives on city branding that contribute to theoretical knowledge in city brand and urban studies.

8.3.2 Practical Implications

In terms of practical implications, the concept of city livability has been introduced to be a solution for handling the rapid urbanisation and environmental problems (OECD, 2017; Higgs et al., 2019), as well as it can be used to increase competitive advantages for the city to attract their targets to the city (Kashef, 2016). Therefore, the city livability framework is essential for city practitioners in the level of policy maker or business sectors to measure and manage issues such as rapid urbanisation and city resident's well-being in order to attract potential residents to live or to work in the city. Implementation of such strategies is important at managerial and policy-making levels.

This thesis carries two significant practical implications for city practitioners such as city administrator or city marketing team and businessess. Firstly, it offers valuable insights into the perceptions of city livability and city personality among residents in Bangkok and London (illustrated in section 6.4 in chapter 6). These insights can aid city managers in assessing current city livability, pinpointing areas requiring improvement. For instance, the findings highlight that both Bangkok and London need enhancement in security and environmental aspects. Awareness of these specific dimensions can guide city governors in devising strategies for improvement. Additionally, comprehending how residents perceive the city's characteristics proves valuable for policymaking and city branding campaigns related to the city's positioning. This comprehension can aid both city government officials and business leaders in choosing a fitting city brand identity linked to aspects of city livability such as security, environment, social and cultural dimensions,

among others. This alignment with people's perceptions, particularly the city brand image, is vital for attracting talent or potential employees to the city. Ensuring this alignment is critical for the success of the city brand campaign.

Secondly, this research introduces a comprehensive city livability framework designed to assess livability in all dimensions, aligning with the definition proposed by Higgs et al. (2019). This framework encompasses all major dimensions of livability, providing a more holistic approach compared to previous frameworks that often lack certain dimensions. For instance, Higgs et al. (2019)'s urban livability framework does not consider stability and healthcare indices, and the American Association of Retired Persons (2015)'s framework does not include security and economic indices. All livability factors were extracted from previous literature reviews and combined to become a holistic framework. The scales within this framework have undergone construction and testing through EFA and reliability testing (refer to section 4.5.1 and 4.5.2). The framework also used to measure two different cities in different parts of the world (London and Bangkok) in this study. The comparative and international dimension helps guarantee more precision and effectiveness of this measurement tool. Moreover, this framework has the potential to be universally applied to assess livability in diverse cities worldwide without the need for additional adjustments.

8.4 Limitations of the Study

While this research aims to fill gaps in the literature on city livability and city branding, as well as to provide both theoretical and practical implications, several limitations suggest avenues for further research.

Firstly, future studies could extend beyond Bangkok and London, exploring diverse locations across continents such as Asia, Europe, Australia, the US, or the Middle East. Cities in China, for example, offer compelling characteristics and political regimes that could yield new insights. Broadening the geographical scope will enhance the robustness and applicability of the findings.

Secondly, since this research was conducted from 2019 to 2023, a period marked by the COVID-19 pandemic, the findings reflect this specific timeframe. People's perceptions of livability and city personality may evolve over time, making it advisable to update the

framework in future studies. For instance, developments such as pandemics, environmental issues, financial crises, or political unrest in the next 5 to 10 years could significantly impact perceptions of city livability. Periodic reviews will ensure that the framework remains accurate and relevant, capturing insights that align with subsequent contexts.

Thirdly, the study could benefit from including a broader range of participants beyond city residents. While Okulicz-Kozaryn (2013) emphasises the importance of residents as key stakeholders, future research might also explore the perspectives of other city stakeholders, such as tourists and business investors. Including diverse participants could enhance the well-rounded perspective in future studies.

Moreover, this study introduces a novel concept of city branding antecedents—factors that precede and influence consumer behaviour within the marketing context (Kanibir et al., 2014)—by integrating the city livability construct (including seven dimensions: Stability, Healthcare, Environment, Culture and Social, Education, Infrastructure, and Economic) with city branding constructs (perceived city personality, attitudes towards the city brand, and behavioural intentions). This concept holds potential for further exploration by incorporating marketing communication strategies, such as advertising and public relations. Future research could investigate how perceived city livability influences these marketing activities and how, in turn, they affect attitudes towards the brand and decision-making processes.

Finally, as noted in section 1.3 of chapter 1, city livability studies typically intersect with urban planning, sustainability, urban forestry, and landscape management. Investigating how city livability concepts can integrate with other disciplines—such as tourism management, sustainable business practices, or collaborations with NGOs addressing specific livability challenges—could provide valuable insights. This interdisciplinary approach may foster innovative solutions to enhance various dimensions of city livability, leading to well-rounded strategies that address economic, social, environmental, and cultural issues in today's world.

Appendices

Appendix A: Corresponding author's country in city livability studies
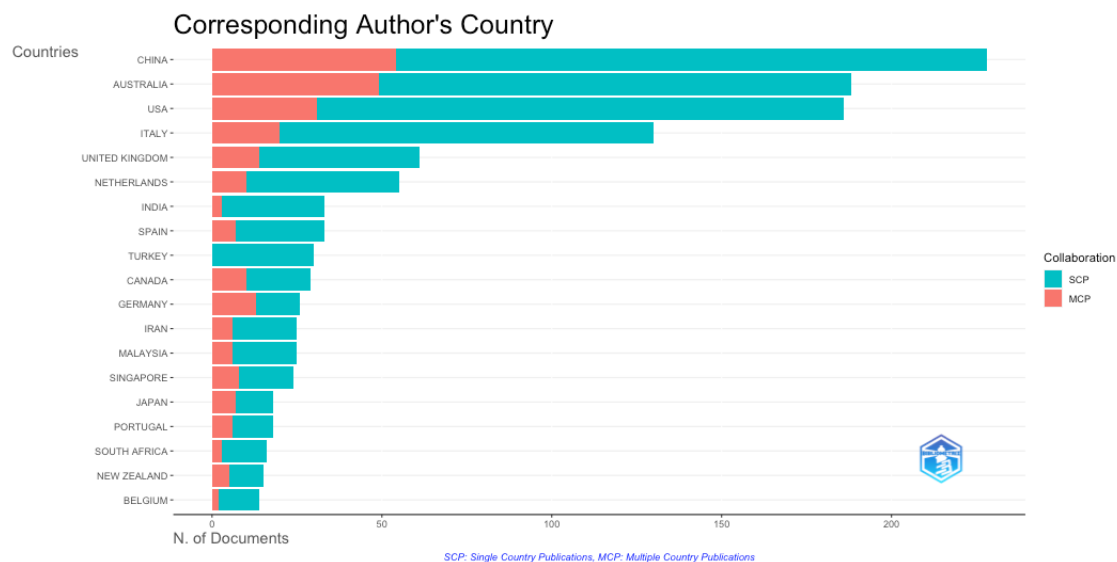
Appendix B: Corresponding author's country in city livability studies

Country	Articles	SCP	MCP	Freq	MCP_Ratio
CHINA	228	174	54	0.158	0.237
AUSTRALIA	188	139	49	0.13	0.261
USA	186	155	31	0.129	0.167
ITALY	130	110	20	0.09	0.154
UNITED KINGDOM	61	47	14	0.042	0.23
GERMANY	26	13	13	0.018	0.5
NETHERLANDS	55	45	10	0.038	0.182
CANADA	29	19	10	0.02	0.345
SINGAPORE	24	16	8	0.017	0.333
SPAIN	33	26	7	0.023	0.212

Appendix C: Corresponding author's country in city branding studies

Corresponding Author's Country

SCP: Single Country Publications, MCP: Multiple Country Publications
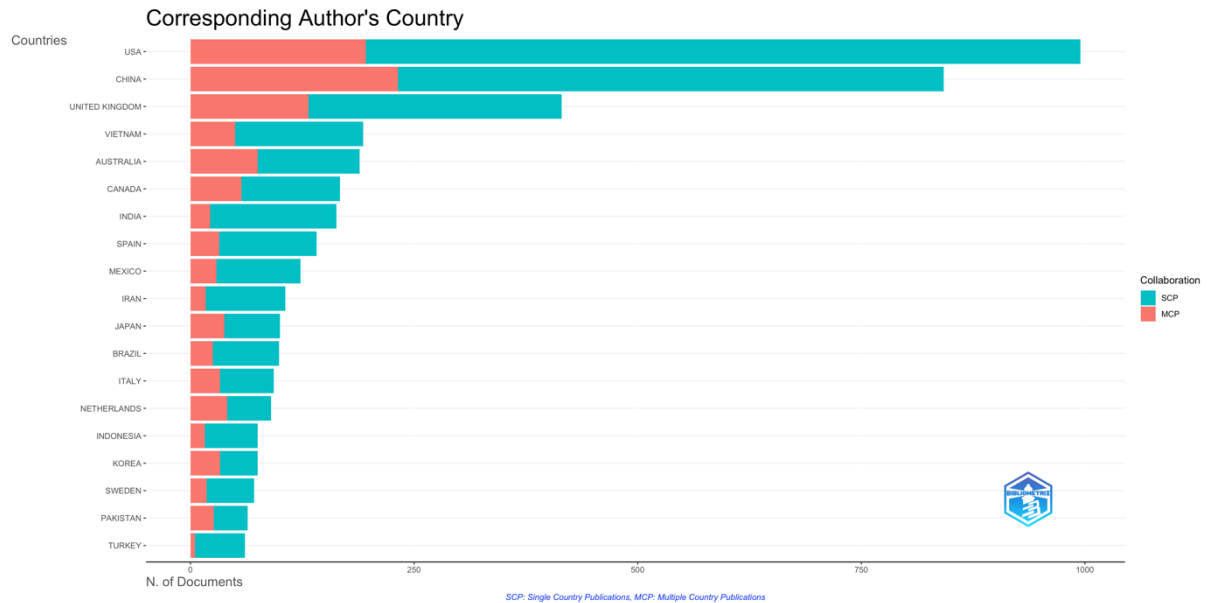
Appendix D: Corresponding author's country in city branding studies

Country	Articles	SCP	MCP	Freq	MCP_Ratio
CHINA	842	610	232	0.162	0.276
USA	995	799	196	0.191	0.197
UNITED KINGDOM	415	283	132	0.08	0.318
AUSTRALIA	189	114	75	0.036	0.397
CANADA	167	110	57	0.032	0.341
VIETNAM	193	143	50	0.037	0.259
NETHERLANDS	90	49	41	0.017	0.456
JAPAN	100	62	38	0.019	0.38
ITALY	93	60	33	0.018	0.355
KOREA	75	42	33	0.014	0.44

Appendix E: Communalities of Perceived City Livability of Bangkok Samples

Communalities		
	Initial	Extraction
SD1	.582	.422
SD2	.708	.575
SD3	.761	.701

SD4	.624	.654
SD5	.652	.421
SD6	.668	.555
HC1	.791	.747
HC2	.817	.691
HC3	.723	.591
EN1	.653	.477
EN2	.752	.772
EN3	.790	.781
EN4	.745	.631
EN5	.591	.414
CS1	.753	.695
CS2	.645	.576
CS3	.614	.463
CS4	.570	.391
CS5	.672	.682
CS6	.710	.480
CS7	.759	.655
CS8	.731	.631
ED1	.773	.589
ED2	.782	.698
ED3	.825	.824
ED4	.713	.641
ED5	.711	.539
IN1	.724	.593
IN2	.811	.736
IN3	.739	.613
IN4	.762	.652
IN5	.804	.749
IN6	.819	.670
IN7	.815	.720
EC1	.649	.515
EC2	.752	.606
EC3	.840	.635
EC4	.810	.596
Extraction Method: Principal Axis Factoring.		

Appendix E illustrates the communality value that should exceed 0.4 (extraction). The principal component analysis conducted on Bangkok samples revealed that all communalities in this study exceeded the 0.4 threshold. Considering these key indicators, factor analysis was deemed appropriate for all 38 items.

Appendix F Total Variance Explained of Perceived City Livability of Bangkok Samples

	Total Variance Explained								
	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
Factor	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	12.450	32.763	32.763	12.091	31.818	31.818	6.352	16.715	16.715
2	3.866	10.173	42.936	3.484	9.169	40.987	3.950	10.395	27.110
3	2.374	6.249	49.184	1.978	5.205	46.192	2.744	7.221	34.331
4	2.105	5.540	54.724	1.755	4.618	50.810	2.612	6.874	41.205
5	1.761	4.633	59.357	1.366	3.595	54.405	2.222	5.846	47.051
6	1.422	3.742	63.099	1.032	2.716	57.121	2.082	5.480	52.531
7	1.270	3.342	66.441	.910	2.394	59.515	1.901	5.004	57.534
8	1.163	3.062	69.503	.767	2.019	61.533	1.520	3.999	61.533
9	.982	2.585	72.088						
10	.949	2.497	74.585						
11	.829	2.182	76.768						
12	.771	2.029	78.797						
13	.729	1.919	80.715						
14	.701	1.844	82.559						
15	.644	1.695	84.254						
16	.563	1.482	85.737						
17	.553	1.454	87.191						
18	.522	1.374	88.565						
19	.496	1.305	89.869						
20	.414	1.089	90.958						
21	.393	1.035	91.993						
22	.336	.883	92.876						
23	.332	.874	93.750						
24	.294	.773	94.523						
25	.266	.699	95.223						
26	.246	.646	95.869						
27	.214	.564	96.433						
28	.196	.516	96.949						
29	.190	.500	97.448						
30	.155	.408	97.857						
31	.149	.392	98.249						
32	.131	.346	98.595						
33	.116	.306	98.901						
34	.113	.297	99.197						
35	.091	.239	99.436						

36	.078	.204	99.640						
37	.077	.201	99.842						
38	.060	.158	100.000						
Extraction Method: Principal Axis Factoring.									

Appendix F shows the variance explained by the initial solution. It can be seen that only 8 factors have eigenvalues higher than 1. Likewise, they account for 69.5% of the variability in the original variables. This recommends 8 latent factors that are mainly associated with city livability.

Appendix G: Rotated Factor Matrix of Perceived City Livability for Bangkok Samples

Rotated Component Matrix[a]								
	Component							
	1	2	3	4	5	6	7	8
EC3	.753							
IN2	.737							
EC2	.707							
EC4	.684							
IN3	.670							
IN6	.666							
EC1	.661							
IN1	.654							
IN7	.635							
IN4	.597							
IN5	.586							
ED1								
EN3		.841						
EN2		.839						
EN4		.682						
CS8		.662						
EN1		.603						
CS2			.808					
CS1			.762					
CS6			.580					
CS7								
EN5								
ED2				.765				
ED4				.748				
ED3				.699				
ED5				.673				
HC1					.685			

	1	2	3	4	5	6	7	8
HC3					.647			
HC2					.631			
CS3						.744		
CS5						.734		
CS4						.666		
SD4							.841	
SD5							.673	
SD6		.503					.530	
SD2								.736
SD3								.703
SD1								.514
Extraction Method: Principal Component Analysis.								
Rotation Method: Varimax with Kaiser Normalization.								
a. Rotation converged in 10 iterations.								

Appendix G shows the rotated factor loadings for Bangkok samplers that illustrate the weighting of all 38 city livability variables for 8 factors and the correlation between those variables and all of 8 factors.

Appendix H: Communalities of Perceived City Livability of London Samples

Communalities		
	Initial	Extraction
SD1	1.000	.732
SD2	1.000	.818
SD3	1.000	.708
SD4	1.000	.790
SD5	1.000	.741
SD6	1.000	.641
HC1	1.000	.680
HC2	1.000	.644
HC3	1.000	.642
EN1	1.000	.672
EN2	1.000	.802
EN3	1.000	.786
EN4	1.000	.818
EN5	1.000	.671
CS1	1.000	.665
CS2	1.000	.805
CS3	1.000	.765
CS4	1.000	.600

CS5	1.000	.753
CS6	1.000	.598
CS7	1.000	.693
CS8	1.000	.663
ED1	1.000	.781
ED2	1.000	.821
ED3	1.000	.720
ED4	1.000	.826
ED5	1.000	.761
IN1	1.000	.674
IN2	1.000	.606
IN3	1.000	.600
IN4	1.000	.640
IN5	1.000	.598
IN6	1.000	.703
IN7	1.000	.688
EC1	1.000	.693
EC2	1.000	.685
EC3	1.000	.648
EC4	1.000	.795
Extraction Method: Principal Component Analysis.		

Appendix H illustrates the communality value that should exceed 0.4 (extraction). The principal component analysis conducted on London samples revealed that all communalities in this study exceeded the 0.4 threshold. Considering these key indicators, factor analysis was deemed appropriate for all 38 items.

Appendix I: Total Variance Explained of Perceived City Livability of London Samples

Total Variance Explained									
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	12.930	34.025	34.025	12.930	34.025	34.025	8.058	21.206	21.206
2	4.536	11.938	45.963	4.536	11.938	45.963	3.431	9.028	30.234
3	2.081	5.477	51.440	2.081	5.477	51.440	3.078	8.099	38.333
4	1.827	4.807	56.247	1.827	4.807	56.247	2.866	7.542	45.875
5	1.482	3.901	60.148	1.482	3.901	60.148	2.590	6.815	52.690
6	1.449	3.814	63.962	1.449	3.814	63.962	2.549	6.707	59.397

7	1.385	3.645	67.607	1.385	3.645	67.607	2.236	5.884	65.281
8	1.235	3.250	70.857	1.235	3.250	70.857	2.119	5.576	70.857
9	.989	2.602	73.459						
10	.873	2.298	75.757						
11	.797	2.097	77.854						
12	.712	1.873	79.727						
13	.684	1.801	81.528						
14	.619	1.628	83.156						
15	.592	1.559	84.715						
16	.534	1.405	86.120						
17	.518	1.364	87.484						
18	.480	1.264	88.748						
19	.446	1.174	89.922						
20	.415	1.093	91.016						
21	.368	.969	91.985						
22	.358	.941	92.926						
23	.310	.817	93.743						
24	.279	.733	94.476						
25	.261	.686	95.162						
26	.243	.640	95.802						
27	.213	.560	96.362						
28	.206	.542	96.904						
29	.195	.514	97.419						
30	.177	.467	97.885						
31	.151	.396	98.281						
32	.133	.350	98.631						
33	.126	.331	98.962						
34	.113	.296	99.259						
35	.098	.258	99.516						
36	.078	.205	99.721						
37	.060	.158	99.879						
38	.046	.121	100.000						

Extraction Method: Principal Component Analysis.

Appendix I illustrates the variance explained by the initial solution. It can be seen that only 8 factors have eigenvalues higher than 1. Likewise, they account for 70.8% of the variability in the original variables. This recommends 8 latent factors that are mainly associated with city livability.

Appendix J: Rotated Factor Matrix of Perceived City Livability for London Samples

	Component							
	1	2	3	4	5	6	7	8
ED2	.827							
CS5	.809							
CS2	.802							
ED4	.791							
ED1	.783							
ED3	.753							
CS3	.737							
CS1	.716							
CS4	.707							
IN3	.693							
CS6	.629							
ED5	.569							
IN6		.716						
IN7		.661						
IN5		.633						
IN1		.632						
IN4								
CS7			.687					
CS8			.635					
IN2								
HC1				.748				
HC2				.636				
EN1				.629				
HC3				.555				
EC2					.728			
EC4					.687			
EC1					.637			
EC3								
EN5						.731		
EN3						.682		
SD3						.588		
EN4						.579		
EN2						.552		
SD2							.807	
SD1							.642	
SD5								.718
SD4								.707
SD6								

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 23 iterations.

Appendix J shows the rotated factor loadings for London samplers that reveal the weighting of all 38 city livability variables for 8 factors and the correlation between those variables and all of 8 factors.

Apendix K: Questionnaire Survey (English Version)

The study of city livability and its impact on city branding

We would like to invite you to take part in the following research project. This study should take you around 20 minutes to complete. Before agreeing to take part, please read the information sheet below carefully and let us know if anything is unclear or if you would like any further information.

Who is organising this study?

This research is organised and conducted by Wissawas Thongteerapharb as a part of his PhD in Management Studies at the University of York Management School in the United Kingdom.

What is the purpose of the study?

The study is designed to survey residents' perception towards their city livability and its impact on their behavioural intention.

Why have I been invited to take part?

You have been invited to take part because you are a city inhabitant in London, United Kingdom or in Bangkok, Thailand. Furthermore, you are also a member of the Prolific research panel.

Do I have to take part?

No. Participation is optional. If you change your mind at any point during the study, you will be able to cancel your participation while completing the questionnaire without having to provide a reason.

On what basis will you process my data?

Data will be processed under the General Data Protection Regulation (GDPR). The University must identify a legal basis for processing personal data such as demographic information and, where appropriate, an additional condition for processing special category data.

In line with our charter which states that we advance learning and knowledge by teaching and research, the University processes personal data for research purposes under Article 6 (1) (e) of the GDPR:

Processing is necessary for the performance of a task carried out in the public interest.

Special category data is processed under Article 9 (2) (j):

Processing is necessary for archiving purposes in the public interest, or scientific and historical research purposes or statistical purposes.

Research will only be undertaken where ethical approval has been obtained, where there is a clear public interest and where appropriate safeguards have been put in place to protect data.

In line with ethical expectations and to comply with common law duty of confidentiality, we will seek your consent to participate where appropriate. This consent will not, however, be our legal basis for processing your data under the GDPR.

How will you use my data?

Data will be processed for the purposes outlined in this notice.

Will you share my data with 3rd parties?

No. Data will be accessible to the researcher at York only.

How will you keep my data secure?

The University will put in place the appropriate technical and organisational measures to protect your personal data and/or special category data. For the purposes of this project, we will keep all data on the secure and password protected University of York network

which is in accordance with the Research Council UK Common Principles on Data Management. Data will be securely stored and backed up through the University's cloud storage system (Google drive), which guarantees compliance with UK and EU data protection legislation.

Information will be treated confidentiality and shared on a need-to-know basis only. The University is committed to the principle of data protection by design and will, by default, collect the minimum amount of data necessary for the project. In addition, we will anonymise or pseudonymise data wherever possible.

Will you transfer my data internationally?

No. Data will be held within the European Economic Area in full compliance with data protection legislation.

Will I be identified in any research outputs?

All data will be completely anonymous.

How long will you keep my data?

The research data will be stored in the researcher's personal computer files which are password-protected and encrypted for up to four years after the completion of the thesis and the end of the research project. All secure files will be backed up in the University of York Google Drive.

What rights do I have in relation to my data?

The data received from participants will be anonymised by setting up anonymous responses and anonymous link features. Therefore, the information collected cannot be withdrawn once they are completed. The data will also be used in the project analysis. However, a copy of the study's results will be available for you if you wish to access it by emailing the researcher's email address provided in this information sheet.

Questions or concerns

If you have any questions about this participant information sheet or concerns about how your data is being processed, please contact Wissawas Thongteerapharb at wt701@york.ac.uk in the first instance. If you are still dissatisfied, please contact the University's Acting Data Protection Officer at dataprotection@york.ac.uk.

Right to complain

If you are unhappy with the way in which the University has handled your personal data, you have a right to complain to the Information Commissioner's Office. For information on reporting a concern, contact the Information Commissioner's Office at www.ico.org.uk/concerns.

Questionnaire Survey

Thank you for agreeing to participate in this research study conducted by Wissawas Thongteerapharb, a third year PhD student at York Management School, The University of York, UK. This is a study of the residents' perception and attitude towards city livability and city branding. Please respond to all questions honestly and to the best of your ability. Your answers will be anonymous. The data will be used for academic purposes only.

Do you consent to proceed with completing this survey and allowing the collection of the mentioned information?

    ◯ I consent, begin the study (1)

    ◯ I do not consent, I do not wish to participate (2)

Part 1: The questions in this part are about general information of participants.

Please tick ✓ one of the following:

Do you live in Bangkok?
- o   Yes
- o   No (End of survey. Thank you very much for your time)

Have you lived in another city before moving to Bangkok)?
- o   Yes
- o   No

If yes, what is the city type of where you lived before?
- o   City class 1 (Densely populated area with greater than or equal to 500,000 inhabitants)
- o   City class 2 (Densely populated area with 100,000 – 499,999 inhabitants)

- City class 3 (Densely populated area with 50,000 – 99,999 inhabitants)
- Town class 1 (Intermediate density area with 20,000 – 49,999 inhabitants)
- Town class 2 (Intermediate density area with 10,000 – 19,999 inhabitants)
- Town class 3 (Intermediate density area with 5,000 – 9,999 inhabitants)
- Village class 1 (Thinly populated area with 2,000 – 4,999 inhabitants)
- Village class 2 (Thinly populated area with 1,000 – 1,999 inhabitants)
- Village class 3 (Thinly populated area with 500 – 999 inhabitants)

When did you move into Bangkok?

……………………..(MM/YYYY)

What gender do you identify with?

- Male
- Female
- Prefer not to say
- Other………………

Which year were you born in?

……………………….(YYYY)

What is your current employment status?

- Unemployed
- Employed
- Self-employed
- Other………………...

What is your education level?

- High School
- Bachelor's Degree
- Master's Degree
- PhD or Higher
- Prefer not to say.
- Other_____

What is your annual household income?

- Less than £9,999
- £10,000 - £24,999
- £25,000 - £34,999
- £35,000 - £49,999
- £50,000 - £100,000

o   More than £100,000

o   Prefer not to say.

Part 2 : The questions in this part are about perception of residents towards their city livability. (City Image)

Please indicate the degree of your agreement/disagreement with each of the following statements (1 = strongly disagree, 4 = neutral, and 7 = strongly agree)

	1 Strongly Disagree	2 Disagree	3 Somewhat Disagree	4 Neutral	5 Somewhat Agree	6 Agree	7 Strongly Agree
1 Stability							
1.1 I feel safe when I live in Bangkok.							
1.2 There is no prevalent crime in the city that I am living in.							
1.3 There is no threat of terror in the city that I am living in.							
1.4 There is no threat of military conflict in the city that I am living in.							
1.5 There is no threat of civil unrest/conflict in the city that I am living in.							
1.6 The political and social environment are good in the city that I am living in							
2. Healthcare							
2.1 There is an availability to healthcare in the city that I am living in.							
2.2 There is a high quality of healthcare in the city that I am living in.							
2.3 There is an availability of drugs including vaccination in the city that I am living in.							
3. Environment							
3.1 The humidity and temperature in the city that I am living in is suitable for living.							
3.2 The natural environment in the city that I am living in is in good condition.							
3.3 The city provides enough green infrastructure.							
3.4 The city provides enough public open space							
3.5 The level of air pollution is low in the city that I am living in.							
4. Social and Culture							
4.1 There are sport activities in the city that I am living in.							
4.2 There are some recreational services in the city that I am living in.							
4.3 There are choices of food and local goods in the city that I am living in.							
4.4 I don't have any problem with the social and religious restrictions in the city that I am living.							
4.5 There are cultural activities in the city that I am living in.							
4.6 There is civic engagement in the city that I am living in.							
4.7 I am satisfied with my life in the city I am living in.							

4.8 This city can provide work-life-balance to people.							
5. Education							
5.1 There is an education opportunity in the city that I am living in.							
5.2 There is an availability for private education in the city that I am living in.							
5.3 There is high quality private education in the city that I am living in.							
5.4 There is an availability for public education in the city that I am living in.							
5.5 There is high quality public education in the city that I am living in.							
6. Infrastructure							
6.1 There is high quality road networks in the city that I am living in.							
6.2 There is high quality public transport in the city that I am living in.							
6.3 There is high quality international links in the city that I am living in.							
6.4 There is an availability of good quality housing in the city that I am living in.							
6.5 There is high quality energy provision in the city that I am living in.							
6.6 There is high quality water provision in the city that I am living in.							
6.7 There is a good solid waste management in the city that I am living in.							
7. Economic							
7.1 There is job security in the city that I am living in.							
7.2 There is opportunity to earn a fair wage in the city that I am living in.							
7.3 There is a high employment rate in the city that I am living in.							
7.4 There is economic and social development in the city that I am living in.							

Part 3: The questions in this part are about the city personality.

Please indicate how much of the following characteristics do you think Bangkok is? (1 = strongly unlikely, 4 = neutral, and 7 = strongly likely)

Personality traits	1 Strongly Unlikely	2 Unlikely	3 Somewhat Unlikely	4 Neutral	5 Somewhat Likely	6 Likely	7 Strongly Likely
1 Sincerity							
1.1 Down to earth (Down-to-earth, Family oriented, and Small town)							
1.2 Honest (Honest, Sincere, and Real)							
1.3 Wholesome (Wholesome and Original)							
1.4 Cheerful (Cheerful, Sentimental, and Friendly)							
2 Excitement							
2.1 Daring (Daring, Trendy, and Exciting)							
2.2 Spirited (Spirited, Cool, and Young)							
2.3 Imaginative (Imaginative and Unique)							
2.4 Up-to-date (Up-to-date, Independent, and Contemporary)							
3. Competence							

3.1 Reliable (Reliable, Hardworking, and Secure)							
3.2 Intelligent (Intelligent, Technical, and Corporate)							
3.3 Successful (Successful, Leader, and Confident)							
4. Sophistication							
4.1 Upper Class (Upper class, Glamorous, and Good Looking)							
4.2 Charming (Charming, Feminine, and Smooth)							
5. Ruggedness							
5.1 Outdoorsy (Outdoorsy, Masculine, and Western)							
5.2 Tough (Tough and Rugged)							

Part 4: The questions in this part are about attitude towards the city.

Please indicate the degree of your disagreement/agreement with each of the following statements (1 = strongly disagree, 4 = neutral, and 7 = strongly agree)

	1 Strongly Disagree	2 Disagree	3 Somewhat Disagree	4 Neutral	5 Somewhat Agree	6 Agree	7 Strongly Agree
1. I love Bangkok.							
2. I have a favorable opinion to Bangkok.							
3. Living in Bangkok is a good decision.							

Part 5: The questions in this part are about behavioural intention.

Please indicate the degree of your disagreement/agreement with each of the following statements (1 = strongly disagree, 4 = neutral, and 7 = strongly agree)

	1 Strongly Disagree	2 Disagree	3 Somewhat Disagree	4 Neutral	5 Somewhat Agree	6 Agree	7 Strongly Agree
1. I will definitely live in Bangkok as long as I can.							
2. I will definitely recommend other people to live in Bangkok.							
3. I will definitely recommend other people to travel or visit Bangkok.							
4. I will definitely recommend other people to work or do business in Bangkok.							
5. I will definitely recommend other people to study in Bangkok.							

Thank you very much for spending time filling in this survey.

Apendix L: Questionnaire Survey (Thai Version)

เอกสารชี้แจงผู้เข้าร่วมวิจัย

ท่านได้รับเชิญให้เข้าร่วมในโครงการวิจัย ซึ่งการเข้าร่วมโครงการวิจัยนี้จะใช้เวลาประมาณ 20 นาที ก่อนที่ท่านจะตัดสินใจเข้าร่วม
โครงการวิจัยดังกล่าว ขอให้ท่านอ่านเอกสารฉบับนี้อย่างถี่ถ้วน เพื่อให้ท่านได้ทราบถึงเหตุผลและรายละเอียดของการศึกษาวิจัยในครั้ง
นี้ และหากท่านมีข้อสงสัยใด ๆ ท่านสามารถสอบถามไปยังผู้วิจัยได้

เกี่ยวกับผู้วิจัย
โครงการวิจัยนี้ถูกออกแบบและดำเนินการ โดยนายวิสวัส ทองธีรภาพ นักศึกษาปริญญาดุษฎีบัณฑิตสาขาการจัดการศึกษา ณ University
of York Management School สหราชอาณาจักร

จุดประสงค์ของโครงการวิจัย
โครงการวิจัยนี้มีวัตถุประสงค์เพื่อที่จะสำรวจทัศนคติความน่าอยู่ของเมืองจากมุมมองของผู้อยู่อาศัย ซึ่งประกอบไปด้วย 7 มิติด้วยกัน
ได้แก่ ความมั่นคง (stability) บริการสุขภาพ (healthcare) วัฒนธรรม(culture) สิ่งแวดล้อม (environment) การศึกษา (education)
สาธารณูปโภค (infrastructure) และเศรษฐกิจ (economy) และปัจจัยที่มีผลต่อความน่าอยู่ของเมืองอีกด้วย นอกจากนี้งานวิจัยดังกล่าวมุ่ง
ที่จะเข้าใจถึงบุคลิกภาพของเมือง (city personality) ทัศนคติของผู้ที่มีส่วนได้ส่วนเสียที่มีต่อเมือง (stakeholder's attitude) ที่ส่งผลต่อ
เจตนาแสดงพฤติกรรม (behavioural intention) เป็นต้น

เหตุใดที่ท่านได้รับเชิญมาเข้าร่วม
ท่านได้รับเชิญเข้าร่วมในโครงการวิจัยเนื่องจากท่านเป็นผู้มีส่วนได้ส่วนเสียของเมือง ไม่ว่าท่านจะเป็นผู้อยู่อาศัยหรือคนชาติอาศัยใน
กรุงลอนดอน สหราชอาณาจักร หรือกรุงเทพฯ ประเทศไทย นอกจากนี้ท่านยังเป็นสมาชิกของคณะทำงาน Qualtrics

ท่านจำเป็นต้องเข้าร่วมวิจัยหรือไม่
ไม่ การเข้าร่วมโครงการวิจัยเป็นไปด้วยความสมัครใจ หากท่านตัดสินใจที่จะเข้าร่วม ท่านจะได้รับชี้แจงโครงการวิจัยและขอความ
ร่วมมือท่านให้กรอกข้อมูลเกี่ยวกับผู้เข้าร่วม หากท่านเปลี่ยนใจยกเลิกการเข้าร่วมโครงการ ไม่ว่าจะอยู่ในขั้นตอนใด ๆ ของการเข้าร่วม
ท่านสามารถแจ้งให้ผู้วิจัยทราบโดยทันทีโดยไม่ต้องชี้แจงเหตุผล

ผู้วิจัยจะประมวลผลข้อมูลของท่านอย่างไร
ข้อมูลจะถูกประมวลผลตาม the General Data Protection Regulation (GDPR) มหาวิทยาลัยจะชี้แจงฐานกฎหมายในการประมลผล
ข้อมูลส่วนตัวและเงื่อนไขในการประมวลผลข้อมูลเฉพาะอย่าง

เพื่อให้เป็นไปตามกฎบัตรที่สะท้อนเจตนารมย์ในการใช้สอนและการวิจัยเพื่อพัฒนาการเรียนและความรู้ มหาวิทยาลัยจักประมวลผล
ข้อมูลส่วนตัวเพื่อวัตถุประสงค์ในการวิจัยตามข้อที่ 6 (1) (e) ตาม the General Data Protection Regulation (GDPR)

ข้อมูลจำเป็นต้องมีการจัดการเพื่อเป็นสาธารณะประโยชน์

ข้อมูลประเภทเฉพาะจะถูกประมวลผลตามกฎข้อที่ 9 (2) j.
ข้อมูลจะถูกประมวลผลเพื่อเป็นประโยชน์ต่อสาธารณะ รวมไปถึงประโยชน์ทางด้านการวิจัยทางด้านวิทยาศาสตร์ ประวัติศาสตร์ และ
ทางด้านสถิติ เป็นต้น
ผู้วิจัยจะดำเนินการประมวลผลวิจัยได้ก็ต่อเมื่อได้รับการรับรองทางด้านจริยธรรมแล้ว ทั้งนี้โครงการงานวิจัยนี้จะเป็นไปเพื่อประโยชน์
ต่อสาธารณะ และใช้มาตรการที่เหมาะสมที่จะปกป้องข้อมูลของผู้เข้าร่วมวิจัย

และเพื่อให้เป็นไปตามจริยธรรมและระบบกฎหมายการรักษาข้อมูลส่วนบุคคลของสหราชอาณาจักร ผู้วิจัยจะต้องขอความยินยอมจาก
ท่านในการเข้าร่วมวิจัย อย่างไรก็ดีการให้ความยินยอมของท่านเป็นจะไม่เป็นการให้ความยินยอมตามกฎหมายในการประมวลผลข้อมูล
ตาม the General Data Protection Regulation (GDPR)

ข้อมูลของท่านจะถูกใช้อย่างไร
ข้อมูลของท่านจะประมวลผลสอดคล้องตามวัตถุประสงค์ที่ประกาศไว้ในเอกสารชี้แจงผู้เข้าร่วมวิจัยฉบับนี้

การเปิดเผยข้อมูลไปยังบุคคลที่สาม
ทางผู้วิจัยจะไม่เปิดเผยข้อมูลของท่านไปยังบุคคลที่ 3 ข้อมูลจะเข้าถึงได้เฉพาะผู้วิจัยที่มหาวิทยาลัยยอร์คเท่านั้น

ทางผู้วิจัยมีวิธีการดูแลรักษาข้อมูลอย่างไร
ทางมหาวิทยาลัยมีมาตรการทางด้านสารสนเทศเพื่อปกป้องข้อมูลส่วนตัวของท่านตลอดจนข้อมูลเฉพาะประเภทที่ได้เก็บใน
โครงการวิจัยนี้ ทางผู้วิจัยจะเก็บข้อมูลไว้อย่างปลอดภัยในระบบเน็ตเวิร์คของมหาวิทยาลัยยอร์คและเข้าถึงได้ด้วยรหัสผ่านซึ่งเป็นไป
ตามหลักการทั่วไปของสภาวิจัยแห่งสหราชอาณาจักร (Research Council UK) ว่าด้วยหลักการทั่วไปเกี่ยวกับการจัดการข้อมูล ข้อมูลจะ
ถูกเก็บไว้อย่างปลอดภัยและมีการสำรองไว้ในระบบคลาวด์เก็บข้อมูลของมหาวิทยาลัยยอร์ค (กูเกิล ไดรฟ์) ซึ่งเป็นไปตามกฎหมาย
ของสหราชอาณาจักรและสหภาพยุโรปว่าด้วยการปกป้องข้อมูล

ข้อมูลจะถูกเก็บไว้อย่างเป็นความลับและจะถูกเผยแพร่ตามความจำเป็นเท่านั้น ทั้งนี้มหาวิทยาลัยมีความตั้งใจที่จะปฏิบัติตามหลักการ
ปกป้องข้อมูล โดยมีมาตรฐานที่จะการเก็บข้อมูลให้น้อยที่สุดเท่าที่เป็นสำหรับโครงการวิจัย นอกจากนี้ ในสถานการณ์ที่เป็นไปได้
ทางผู้วิจัยจะจะไม่การระบุชื่อผู้ให้ข้อมูลหรือทำข้อมูลแฝงเพื่อไม่ให้ระบุตัวตนของผู้ให้ข้อมูลหากเป็นไปได้

ทางผู้วิจัยจะทำการถ่ายโอนข้อมูลของท่านข้ามประเทศหรือไม่
ไม่ ข้อมูลจะคงอยู่ในเขตเศรษฐกิจยุโรปตามกฎหมายว่าด้วยการปกป้องข้อมูล

ชื่อของท่านจะถูกระบุในผลงานวิจัยหรือไม่?
ข้อมูลที่ได้จากการวิจัยจะไม่มีการระบุชื่อของผู้ให้ข้อมูล

ระยะเวลาที่ผู้วิจัยเก็บข้อมูลของท่าน
ข้อมูลของท่านจะถูกเก็บไว้ไม่เกิน 4 ปีหลังจากที่ผู้วิจัยสำเร็จการศึกษาปริญญาเอก โดยจะถูกเก็บในคอมพิวเตอร์ส่วนตัวของผู้วิจัยที่ใช้
การเข้ารหัสในการปกป้องข้อมูลโดยจะเข้าถึงได้โดยรหัสผ่านเท่านั้น นอกจากนี้ผู้วิจัยจะสำรองไฟล์ข้อมูลที่ระบบกูเกิลไดรฟ์ของ
มหาวิทยาลัยยอร์ค

สิทธิของผู้วิจัยในข้อมูลของท่าน
ข้อมูลที่ได้รับจากผู้เข้าร่วมวิจัยจะถูกบันทึกไว้ในลักษณะของข้อมูลนิรนาม กล่าวคือผู้วิจัยสร้างระบบการเก็บข้อมูลโดยที่ไม่มีการระบุ
ตัวตนของผู้ให้ข้อมูล และจะไม่มีการสร้างลิงค์ที่เชื่อมต่อตัวตนของผู้ให้ข้อมูลได้ ด้วยเหตุดังกล่าว ผู้วิจัยจึงไม่สามารถนำข้อมูลของท่าน
ออกจากระบบได้เมื่อมีการดำเนินการเก็บข้อมูลแล้ว อย่างไรก็ดี ท่านสามารถขอดูผลการวิจัยได้ โดยการส่งอีเมลไปยังผู้วิจัยตามที่อยู่
อีเมล์ตามเอกสารชี้แจงผู้เข้าร่วมวิจัยฉบับนี้

คำถามและข้อสงสัย
หากท่านมีข้อสงสัยประการใดเกี่ยวกับเอกสารชี้แจงผู้เข้าร่วมวิจัยฉบับนี้ หรือเกี่ยวกับการประมวลผลข้อมูลที่ผู้วิจัยได้รับจากท่าน โปรด
ติดต่อไปยังผู้วิจัย นายวิสวัส ทองธีรภาพ ทางอีเมลล์ wt701@york.ac.uk ทั้งนี้หากผู้วิจัยไม่สามารถชี้แจงข้อสงสัยให้ท่านทราบได้ โปรด
ติดต่อเจ้าหน้าที่คุ้มครองข้อมูลส่วนบุคคลของมหาวิทยาลัยยอร์ค (University's Data Protection Officer) ที่ dataprotection@york.ac.uk
เพื่อขอคำชี้แจง

สิทธิในการร้องเรียน

หากท่านไม่พอใจในวิธีที่มหาวิทยาลัยจัดการข้อมูลของท่าน ท่านสามารถส่งคำร้องเรียนไปยังสำนักงานคณะกรรมาธิการด้านข้อมูลข่าวสาร (Information Commissioner's Office) ทางเว็บไซต์ www.ico.org.uk/concerns.

<p align="center">แบบสอบถาม</p>

ผู้วิจัย นายวิสวัส ทองธีรภาพ นักศึกษาปริญญาเอกชั้นปีที่ 3 ที่มหาวิทยาลัยยอร์ค ขอขอบคุณที่ท่านเข้าร่วมโครงการวิจัยโครงการนี้ ซึ่งเป็นโครงการที่ศึกษามุมมองและทัศนคติของผู้อาศัยต่อความน่าอยู่ (livability) และภาพลักษณ์ของเมือง(City Branding) ขอความกรุณาท่านตอบคำถามต่อไปนี้ด้วยความเป็นจริงที่สุดตามความสามารถของท่าน โดยคำตอบของท่านจะถูกเก็บในรูปแบบของข้อมูลนิรนามโดยที่ข้อมูลของท่านจะถูกใช้เพื่อจุดประสงค์ทางวิชาการเท่านั้น

ท่านยืนยันที่จะตอบแบบสอบถามต่อไปนี้และยินยอมให้มีการเก็บข้อมูลโดยผู้วิจัยหรือไม่

⦾ (1) ยินยอมให้มีการเก็บข้อมูล ผู้วิจัยสามารถดำเนินการเก็บข้อมูลได้เลย

⦾ (2) ไม่ยินยอมให้มีการเก็บข้อมูล ข้าพเจ้าไม่ตกลงที่จะเข้าร่วมโครงการวิจัย

<u>**ส่วนที่ 1: ข้อมูลทั่วไปของผู้เข้าร่วมวิจัย**</u>

โปรดทำเครื่องหมาย✓ เพื่อตอบคำถามต่อไปนี้

ท่านพำนักอยู่ที่กรุงเทพมหานครหรือไม่
- o ใช่
- o ไม่ใช่ (จบการทำแบบสอบถาม ขอบคุณที่ท่านสละเวลาเข้าร่วมโครงการวิจัย)

ท่านเคยอาศัยที่เมืองอื่นก่อนเข้ามาพำนักที่กรุงเทพมหานครหรือไม่
- o ใช่
- o ไม่ใช่

ใช่ เมืองที่ท่านอาศัยก่อนเข้ามาพำนักที่กรุงเทพมหานครเป็นเมืองประเภทไหน
- o จังหวัดขนาดใหญ่ประเภทที่ 1 (มีประชากรหนาแน่น ตั้งแต่ 500,000 คนขึ้นไป)
- o จังหวัดขนาดใหญ่ประเภทที่ 2 (มีประชากรหนาแน่น ตั้งแต่ 100,000 จนถึง 499,999 คน)
- o จังหวัดขนาดใหญ่ประเภทที่ 3 (มีประชากรหนาแน่น ตั้งแต่ 50,000 จนถึง 99,999 คน)
- o จังหวัดขนาดกลางประเภทที่ 1 (มีประชากรหนาแน่นปานกลาง โดยมีประชากรตั้งแต่ 20,000 จนถึง 49,999 คน)
     จังหวัดขนาดกลางประเภทที่ 2 (มีประชากรหนาแน่นปานกลาง ตั้งแต่ 10,000 จนถึง19,999 คน)
     จังหวัดขนาดกลางประเภทที่ 3 (มีประชากรหนาแน่นปานกลาง ตั้งแต่ 5,000 – 9,999 คน)
- o จังหวัดขนาดเล็กประเภทที่ 1 (มีประชากรเบาบาง ตั้งแต่ 2000-4999 คน)
- o จังหวัดขนาดเล็กประเภทที่ 2 (มีประชากรเบาบาง ตั้งแต่ 1,000 – 1,999 คน)
- o จังหวัดขนาดเล็กประเภทที่ 3 (มีประชากรเบาบาง ตั้งแต่ 500-999 คน)

ท่านเข้ามาพำนักอยู่ที่กรุงเทพตั้งแต่เมื่อไหร่

..........................(เดือน/ปี)

โปรดระบุเพศของท่าน

- ○ หญิง
- ○ ชาย
- ○ ไม่ต้องการระบุ
- ○ อื่นๆ ....

ท่านเกิดปี พ.ศ. อะไร

..........................(ปี)

สถานภาพการทำงานของท่าน

- ○ ว่างงาน
- ○ เป็นลูกจ้าง
- ○ อาชีพอิสระ
- ○ อื่นๆ ....

วุฒิการศึกษาสูงสุดของท่าน

- ○ มัธยมศึกษา
- ○ ปริญญาตรี
- ○ ปริญญาโท
- ○ ปริญญาเอกหรือสูงกว่า
- ○ ไม่ต้องการระบุ
- ○ อื่นๆ _____

รายได้ต่อปีของครัวเรือนของท่าน

- ○ น้อยกว่า £9,999 ต่อปี
- ○ £10,000 - £24,999 ต่อปี
- ○ £30,000 - £34,999 ต่อปี
- ○ £35,000 - £49,999 ต่อปี
- ○ £50,000 - £100,000 ต่อปี
- ○ มากกว่า £100,000 ต่อปี
- ○ ไม่ต้องการระบุ

ส่วนที่ 2: มุมมองของผู้อาศัยที่มีต่อความน่าอยู่ของเมือง (ภาพลักษณ์ของเมือง)

ท่านเห็นด้วยกับข้อความต่อไปนี้มากน้อยเพียงใด โปรดระบุลำดับความคิดเห็นจาก 1 ไป 5
(1=ไม่เห็นด้วยอย่างยิ่ง 4=ไม่แน่ใจ 7=เห็นด้วยอย่างยิ่ง)

	1 ไม่เห็นด้วย อย่างยิ่ง	2 ไม่เห็นด้วย	3 ค่อนข้างไม่เห็น ด้วย	4 ไม่แน่ใจ	5 ค่อนข้างเห็น ด้วย	6 เห็นด้วย	7 เห็นด้วย อย่างยิ่ง
1 ความมั่นคง							
1.1 ฉันรู้สึกปลอดภัยที่ได้อยู่ในกรุงเทพ							
1.2 ในเมืองที่ฉันอาศัยอยู่ไม่มีการก่ออาชญากรรม น่ากลัวขึ้น							

1.3 ในเมืองที่ฉันอาศัยอยู่ไม่มีภัยคุกคาม							
1.4 ในเมืองของฉันไม่มีความขัดแย้งทางทหาร							
1.5 ในเมืองที่ฉันอาศัยอยู่ไม่มีเหตุการณ์ความไม่สงบเกิดขึ้น							
1.6 เมืองที่ฉันอาศัยอยู่มีสภาพแวดล้อมทางการเมืองและสังคมดี							
2. บริการสาธารณสุข							
2.1 ฉันสามารถเข้าถึงบริการสุขภาพได้ในเมืองที่ฉันที่ฉันอาศัยอยู่							
2.2 ในเมืองที่ฉันอาศัยอยู่มีบริการสุขภาพที่คุณภาพดีเยี่ยม							
2.3 ในเมืองที่ฉันอาศัยอยู่มียารักษาโรคและวัคซีน							
3. สิ่งแวดล้อม							
3.1 เมืองที่ฉันอาศัยอยู่มีอุณหภูมิและความชื้นที่เหมาะสมสำหรับการอยู่อาศัย							
3.2 ในเมืองที่ฉันอาศัยอยู่มีสิ่งแวดล้อมทางธรรมชาติที่มีสภาพดี							
3.3 ในเมืองที่ฉันอาศัยอยู่สาธารณูปโภคสีเขียวที่เพียงพอ							
3.4 ในเมืองที่ฉันอาศัยอยู่มีพื้นที่สาธารณะเปิดโล่ง							
3.5 ในเมืองที่ฉันอาศัยอยู่มีมลภาวะทางอากาศต่ำ							
4. สังคมและวัฒนธรรม							
4.1 ในเมืองที่ฉันอาศัยอยู่มีกิจกรรมทางกีฬา							
4.2 ในเมืองที่ฉันอาศัยอยู่มีบริการกิจกรรมสันทนาการ							
4.3 ในเมืองที่ฉันอาศัยอยู่มีอาหารและสินค้าที่หลากหลาย							
4.4 ฉันไม่มีปัญหาเกี่ยวกับข้อจำกัดทางด้านสังคมและความเชื่อทางศาสนาในเมืองที่ฉันอาศัยอยู่							
4.5 ในเมืองที่ฉันอาศัยอยู่มีกิจกรรมทางด้านวัฒนธรรม							
4.6 คนในเมืองมีส่วนร่วมในเมืองที่ฉันอาศัยอยู่							
4.7 ฉันพอใจกับชีวิตในเมืองที่ฉันอาศัยอยู่							
4.8 ในเมืองที่ฉันอาศัยอยู่ผู้คนสามารถปรับสมดุลระหว่างการงานและการใช้ชีวิตได้							
4. การศึกษา							
4.1 ในเมืองที่ฉันอาศัยอยู่มีโอกาสทางการศึกษา							
4.2 ในเมืองที่ฉันอาศัยอยู่มีสถาบันการศึกษาเอกชน							
4.3 ในเมืองที่ฉันอาศัยมีสถาบันการศึกษาเอกชนคุณภาพสูง							
4.4 ในเมืองที่ฉันอาศัยอยู่มีสถาบันการศึกษาของรัฐ							
4.5 ในเมืองที่ฉันอาศัยอยู่มีสถาบันการศึกษาของรัฐที่มีคุณภาพสูง							
5. สาธารณูปโภค							
5.1 ในเมืองที่ฉันอาศัยอยู่มีโครงข่ายถนนที่มีคุณภาพสูง							
5.2 ในเมืองที่ฉันอาศัยอยู่มีระบบขนส่งสาธารณะที่มีคุณภาพสูง							

	1	2	3	4	5	6	7
5.3 ในเมืองที่ฉันอาศัยอยู่มีช่องทางเชื่อมต่อระหว่างประเทศที่มีคุณภาพสูง							
5.4 ในเมืองของฉันอาศัยอยู่มีที่พักอาศัยคุณภาพสูง							
5.5 ในเมืองที่ฉันอาศัยอยู่มีทรัพยากรพลังงานคุณภาพสูง							
5.6 ในเมืองที่ฉันอาศัยอยู่มีทรัพยากรน้ำที่มีคุณภาพสูง							
5.7 ในเมืองที่ฉันอาศัยอยู่มีระบบการกำจัดกากของเสียที่มีประสิทธิภาพ							
6. เศรษฐกิจ							
6.1 ในเมืองที่ฉันอาศัยอยู่มีความมั่นคงทางอาชีพ							
6.2 ในเมืองที่ฉันอาศัยอยู่มีระบบค่าตอบแทนที่เป็นธรรม							
6.3 ในเมืองที่ฉันอาศัยอยู่มีอัตราการจ้างงานที่สูง							
6.4 ในเมืองที่ฉันอาศัยอยู่มีการพัฒนาของเศรษฐกิจและสังคม							

ส่วนที่ 3: คำถามเกี่ยวกับบุคลิกภาพของเมือง

ท่านมีความเห็นว่ากรุงเทพมีแสดงบุคลิกภาพต่อไปนี้มากน้อยเพียงไร โดยเรียงลำดับจาก 1= น้อยที่สุด 4=ปานกลางและ 7=มากที่สุด

บุคลิกภาพของเมือง	1 น้อยที่สุด	2 น้อย	3 ค่อนข้างน้อย	4 ปานกลาง	5 ค่อนข้างมาก	6 มาก	7 มากที่สุด
1 ความมั่นคง							
1.1 ความติดดิน (ความติดดิน ความใกล้ชิดครอบครัว และเมืองขนาดเล็ก)							
1.2 ความซื่อสัตย์ (ความซื่อสัตย์ ความจริงใจ และความสมจริง)							
1.3 การมีสุขภาพดีทั้งกายและใจ (สุขภาพดีทั้งกายและใจ และการเป็นตัวของตัวเอง)							
1.4 ความร่าเริง (ร่าเริง อ่อนไหว และเป็นมิตร)							
2. ความน่าตื่นเต้น							
2.1 กล้า (กล้า ล้ำสมัย และน่าตื่นเต้น)							
2.2 มีชีวิตชีวา (มีชีวิตชีวา น่าดึงดูดใจ มีความเป็นคนรุ่นใหม่)							
2.3 มีจินตนาการ (จินตนาการและมีเอกลักษณ์เฉพาะตัว							
2.4 มีความทันสมัย เป็นตัวของตนเอง และร่วมสมัย)							
3. การแข่งขัน							
3.1 มีความน่าเชื่อถือ (น่าเชื่อถือ ทำงานหนัก และปลอดภัย)							
3.2 มีความเฉลียวฉลาด (เฉลียวฉลาด มีการนำเทคโนโลยีมาใช้ มีความเป็นองค์กร)							
3.3 ประสบความสำเร็จ (ประสบความสำเร็จ มีความเป็นผู้นำ และมั่นใจ)							
4. ความหรูหราแพรวพราว							
4.1 มีความชนชั้นสูง (ชนชั้นสูง หรูหรา และดูดี)							
4.2 มีเสน่ห์ (มีเสน่ห์ มีความเป็นผู้หญิง และราบเรียบ)							

5. ความทนทาน							
5.1 ชีวิตนอกบ้าน (สนุกกับชีวิตนอกบ้าน มีความเป็นเพศชาย และมีความเป็นตะวันตก)							
5.2 ความแข็งแกร่ง (แข่งแกร่ง และ ทนทาน)							

ส่วนที่ 4: คำถามต่อไปนี้เกี่ยวกับทัศนคติเกี่ยวกับเมือง

ท่านเห็นด้วยกับข้อความต่อไปนี้มากน้อยเพียงใด (1=ไม่เห็นด้วยเป็นอย่างยิ่ง 4=ปานกลาง 7=เห็นด้วยเป็นอย่างยิ่ง)

	1 ไม่เห็นด้วยอย่างยิ่ง	2 ไม่เห็นด้วย	3 ค่อนข้างไม่เห็นด้วย	4 ไม่แน่ใจ	5 ค่อนข้างเห็นด้วย	6 เห็นด้วย	7 เห็นด้วยเป็นอย่างยิ่ง
1. ฉันรักกรุงเทพ							
2. ฉันมีทัศนคติที่ดีกับกรุงเทพ							
3. ฉันตัดสินใจถูกที่มาอยู่กรุงเทพ							

ส่วนที่ 5: คำถามเกี่ยวกับเจตนาพฤติกรรม

ท่านเห็นด้วยกับข้อความต่อไปนี้มากน้อยเพียงใด (1= ไม่เห็นด้วยเป็นอย่างยิ่ง 4=ไม่แน่ใจ 7=เห็นด้วยเป็นอย่างยิ่ง)

	1 ไม่เห็นด้วยเป็นอย่างยิ่ง	2 ไม่เห็นด้วย	3 ค่อนข้างไม่เห็นด้วย	4 ไม่แน่ใจ	5 ค่อนข้างเห็นด้วย	6 เห็นด้วย	7 เห็นด้วยอย่างยิ่ง
1.ฉันจะอยู่ที่กรุงเทพให้นานที่สุดเท่าที่เป็นไปได้							
2.ฉันจะแนะนำกรุงเทพให้คนอื่น ๆ มาอาศัยอยู่เท่าที่เป็นไปได้							
3.ฉันจะแนะนำกรุงเทพให้คนอื่น ๆ มาท่องเที่ยวหรือมาเยี่ยม							
4.ฉันจะแนะนำกรุงเทพให้คนอื่น ๆ มาลงทุนทำธุรกิจ							
5.ฉันจะแนะนำกรุงเทพให้คนอื่น ๆ มาศึกษาต่อ							

ขอบคุณท่านที่สละเวลาตอบแบบสอบถาม

Apendix M: Normal probability plot of the regression standarised residual and the scatterplotes

Appendix M1 Bangkok Samples

a. **Dependent Variable: Attitude towards city brand**

Descriptives			Statistic	Std. Error
Attitude	Mean		5.3861	.06801
	95% Confidence Interval for Mean	Lower Bound	5.2523	
		Upper Bound	5.5199	
	5% Trimmed Mean		5.4710	
	Median		5.6667	
	Variance		1.387	
	Std. Deviation		1.17792	
	Minimum		1.00	
	Maximum		7.00	
	Range		6.00	
	Interquartile Range		1.33	
	Skewness		-1.163	.141
	Kurtosis		1.680	.281
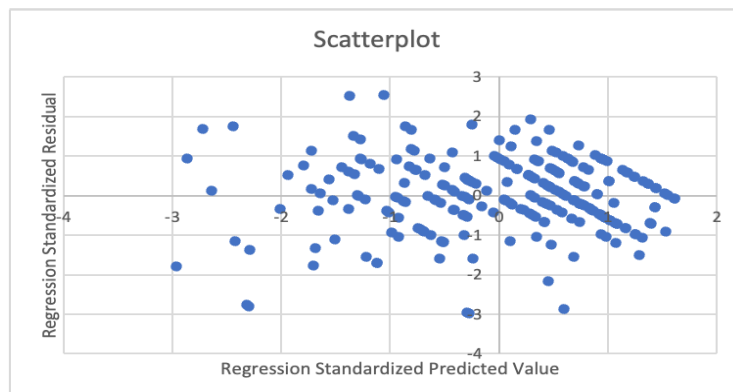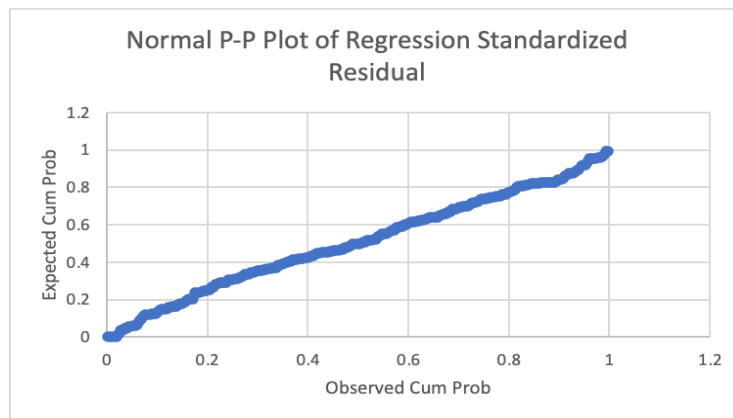
Normal P-P Plot of Regression Standardized Residual

Scatterplot

b. Dependent Variable: Behavioural Intention

Descriptives			Statistic	Std. Error
BehaviouralIntention	Mean		5.0818	.05878
	95% Confidence Interval for Mean	Lower Bound	4.9662	
		Upper Bound	5.1975	
	5% Trimmed Mean		5.1539	
	Median		5.2000	
	Variance		1.036	
	Std. Deviation		1.01805	
	Minimum		1.00	
	Maximum		7.00	
	Range		6.00	
	Interquartile Range		1.20	
	Skewness		-1.295	.141
	Kurtosis		2.679	.281

Normal P-P Plot of Regression Standardized Residual

Scatterplot
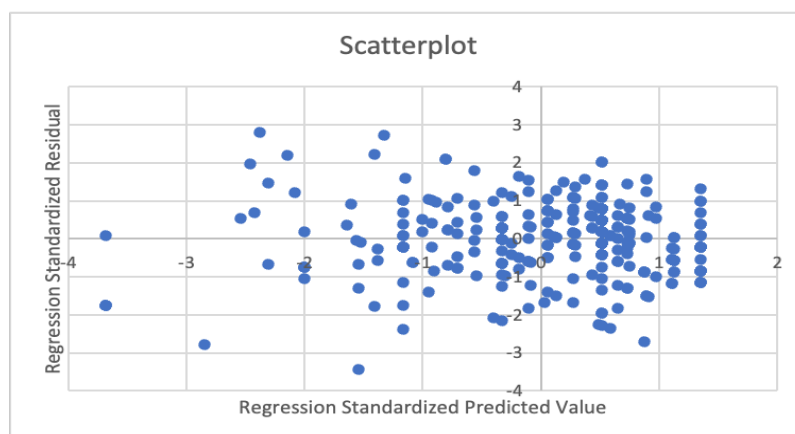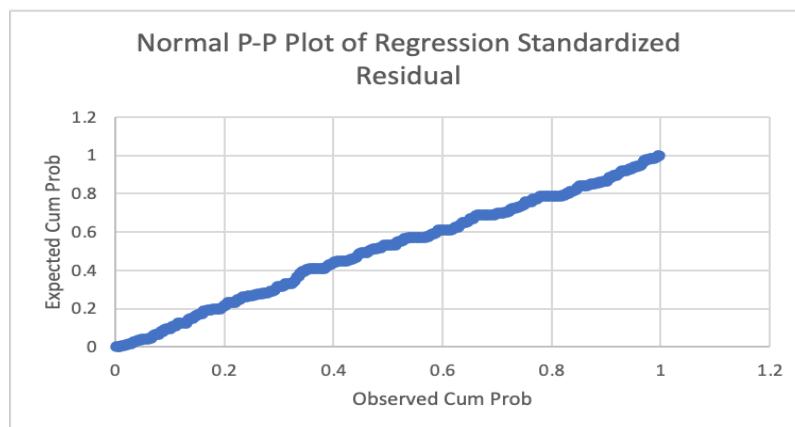
c. Dependent Variable: City Personality

Descriptives			Statistic	Std. Error
City Personality	Mean		5.2541	.04820
	95% Confidence Interval for Mean	Lower Bound	5.1592	
		Upper Bound	5.3490	
	5% Trimmed Mean		5.2962	
	Median		5.3333	
	Variance		.697	
	Std. Deviation		.83492	
	Minimum		1.13	
	Maximum		7.00	
	Range		5.87	
	Interquartile Range		1.13	
	Skewness		-1.037	.141
	Kurtosis		2.759	.281

Normal P-P Plot of Regression Standardized Residual

Scatterplot
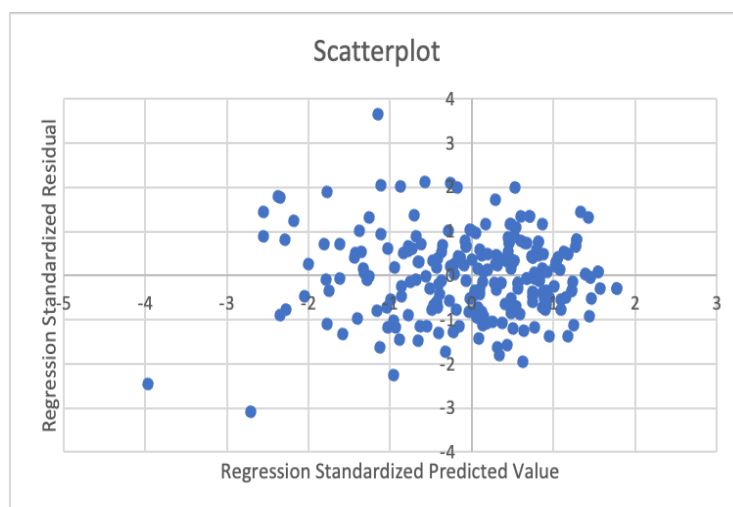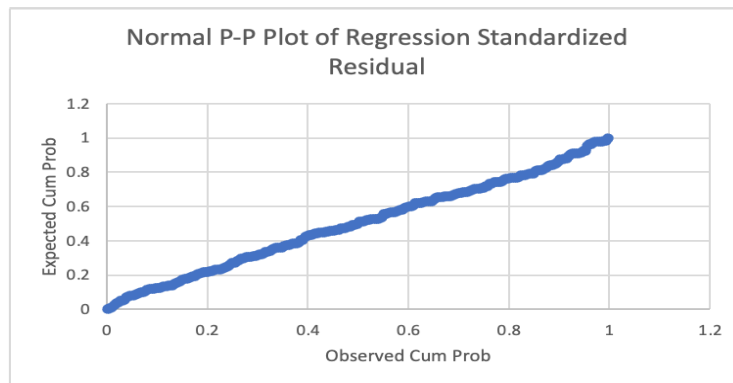
Appendix M2: London Samples

a. Dependent Variable: Attitude towards city brand

Descriptives			Statistic	Std. Error
Attitude	Mean		5.2622	.07809
	95% Confidence Interval for Mean	Lower Bound	5.1086	
		Upper Bound	5.4159	
	5% Trimmed Mean		5.3580	
	Median		5.6667	
	Variance		1.829	
	Std. Deviation		1.35248	
	Minimum		1.00	
	Maximum		7.00	
	Range		6.00	
	Interquartile Range		1.67	
	Skewness		-.958	.141
	Kurtosis		.641	.281
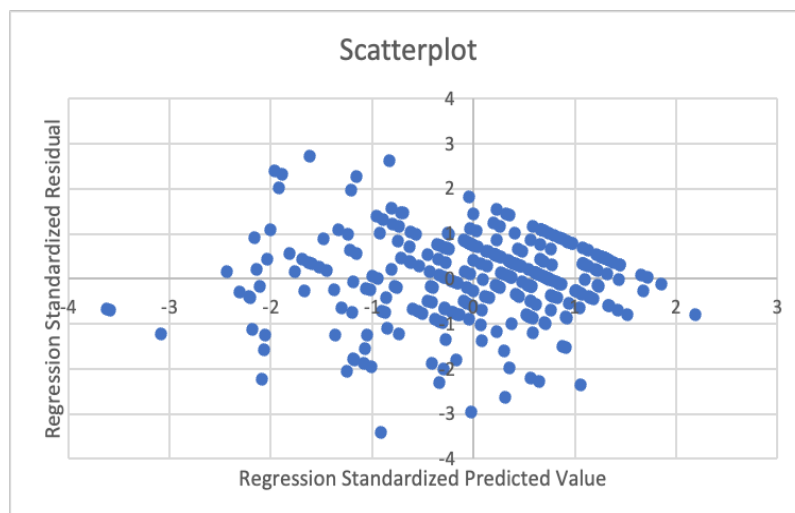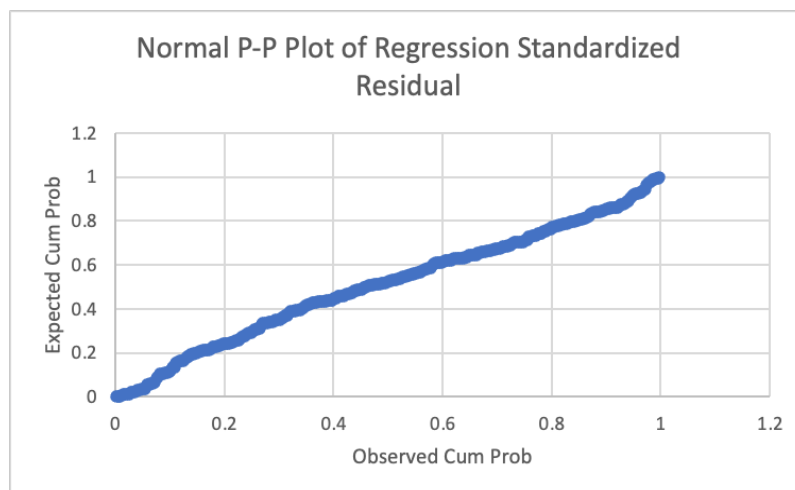
Normal P-P Plot of Regression Standardized Residual

Scatterplot

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b. Dependent Variable: Behavioural Intention

Descriptives			Statistic	Std. Error
BehaviouralIntention	Mean		5.0813	.07179
	95% Confidence Interval for Mean	Lower Bound	4.9401	
		Upper Bound	5.2226	
	5% Trimmed Mean		5.1496	
	Median		5.3000	
	Variance		1.546	
	Std. Deviation		1.24338	
	Minimum		1.00	
	Maximum		7.00	
	Range		6.00	
	Interquartile Range		1.60	
	Skewness		-.804	.141
	Kurtosis		.813	.281

Normal P-P Plot of Regression Standardized Residual

Scatterplot

c. **Dependent Variable: City Personality**

			Statistic	Std. Error
Descriptives				
CityPersonality	Mean		4.7540	.04915
	95% Confidence Interval for Mean	Lower Bound	4.6573	
		Upper Bound	4.8507	
	5% Trimmed Mean		4.7928	
	Median		4.8000	
	Variance		.725	
	Std. Deviation		.85138	
	Minimum		1.00	
	Maximum		7.00	
	Range		6.00	
	Interquartile Range		1.07	
	Skewness		-.891	.141
	Kurtosis		2.478	.281

Normal P-P Plot of Regression Standardized Residual

Scatterplot

Appendix N: ELMPS

THE UNIVERSITY *of York*
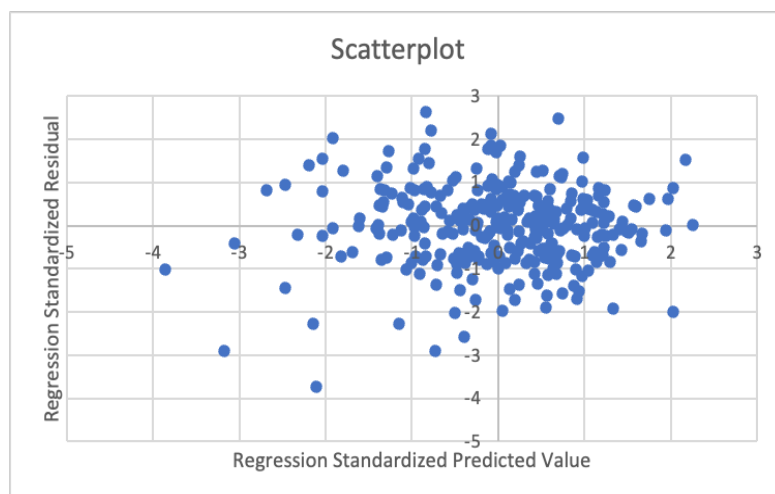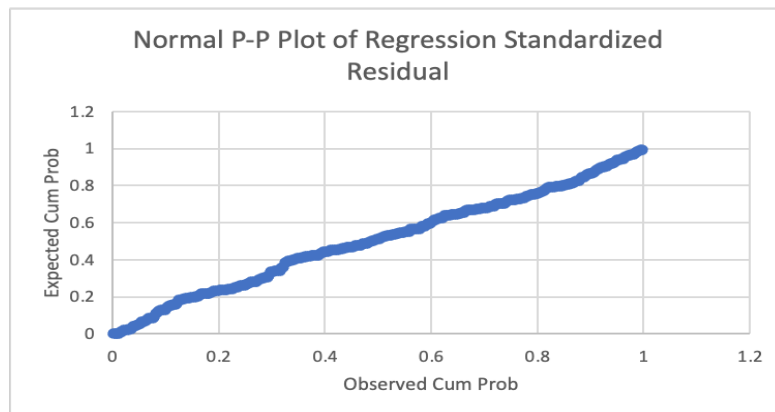
ELMPS Ethics Committee Application Form
(Version: 18 October 2021)

This form is for all staff and PhD candidates in the five departments (Economics, Law, Management, Politics and Sociology), and two research centres (Centre for Human Rights and the Centre for Women's Studies). Please note: Masters and UG research is dealt with at department level

Your ELMPS application is intended to ensure that your research will be compliant with the University codes of practice, ethical guidelines on research integrity and the General Data Protection Regulation (in line with University Data Management Policy) as well as any relevant professional guidelines for your discipline (e.g. the Statement of Ethical Practice for the British Sociological Association) or funding organisation (e.g. ESRC Framework for Research Ethics). Useful links in this regard include:

https://www.york.ac.uk/staff/research/governance/policies/ethics-code/
https://www.york.ac.uk/staff/research/governance/policies/research-code/
http://www.esrc.ac.uk/about-esrc/information/framework-for-research-ethics/
http://www.britsoc.co.uk/about/equality/statement-of-ethical-practice.aspx
http://www.york.ac.uk/about/departments/support-and-admin/information-directorate/information-policy/index/research-data-management-policy/

Please ensure, prior to your submission of this form, that you have consulted the University's guidance on data protection and the General Data Protection Regulation, available at:
http://www.york.ac.uk/recordsmanagement/dp/

Internet research may involve new and unfamiliar ethics questions and dilemmas. A good place to start is the Association of Internet Researchers 2002 Guidelines and the BPS 'Conducting Research on the Internet: Guidelines for ethics practice in psychological research online (2007)'.

Note: If you are collecting data from NHS patients or staff, or Social Service users or staff, you will need to apply for approval through the Integrated Research Application System (IRAS) at https://www.myresearchproject.org.uk/Signin.aspx, in which case you do not apply to ELMPS. When your IRAS application has been approved you should email a copy of your completed IRAS form to ELMPS with their approval for our records. Masters and Undergraduate student applications for approval through IRAS should be pre-reviewed by the relevant department level ethics committees.

Completed ELMPS application forms should be submitted by the advertised deadline (see ELMPS webpage). Applications will not be accepted after the deadline unless the Chair agrees that there are exceptional circumstances. Exceptional circumstances are for example, that the timing of your application is beyond your control and that funding will be lost if you do not get approval before the next ELMPS committee meeting.

Email one signed <u>electronic</u> copy (including attachments e.g. consent form and participant information sheet) combined into ONE pdf file (email to: elmps-ethics-group@york.ac.uk). We no longer require a signed hard copy. Initial decisions will normally be made and communicated to you within two weeks of the Committee meeting.

SECTION 1: ABOUT YOU

1a.   Please provide the following details about the principal investigator at YORK

Name of Applicant:	*Wissawas Thongteerapharb
E-mail address:	*wt701@york.ac.uk
Telephone:	*+447719590037
Staff/Student Status:	PhD Student
Dept/Centre or Unit:	The York Management School
Head of Department:	Prof Mark Freeman
HoD E-mail address:	Mark.freeman@york.ac.uk
Head of Research: (if applicable)	
HoR E-mail address: (if applicable)	
If you are a student please provide details about your supervisor(s)	*Professor Teresa Da Silva Lopes (Teresa.lopes@york.ac.uk) Dr Fabien Pecot (f.pecot@tbs-education.es)

1b.   Any other applicants (for collaborative research projects) Expand as necessary

Name of Applicant:	-
e-mail address:	-
Telephone:	-
Staff/Student Status:	-
Dept/Centre or Unit:	-
Head of Department:	-
HoD e-mail address:	-
Head of Research: (if applicable)	-
HoR e-mail address: (if applicable)	-

SECTION 2: ABOUT THE PROJECT

2.1 Details of Project

Title of Project:	The city stakeholders' perception towards city Livability and city Branding
Date of Submission to ELMPS:	10th November 2021
Project Start Date:	30th September 2019
Duration:	3 years

Funded Yes/No:	No
Funding Source:	-
External Ethics Board Jurisdictions (if any):	None

2.2 Aims and objectives of the research

Please outline the aims of your project and key research questions. Show briefly how existing research has informed the research proposal and explain what your research adds and how it addresses an area of importance (N.B. Max 300 words).

Firstly, this study aims to examine the factors for city livability and develop a new framework to analyse how people perceive their city livability. This is because, during recent years, population growth and urbanization are continually increasing and have become more severe issues highlighted by the United Nations (UNDP, 2020). To respond to the increasing population, rapid urbanisation, and natural disaster concerns raised by the United Nations, creating "Livable Cities" has become a solution for multiple levels of government across the world, and it is suggested to take urgent action (OECD, 2017; Higgs et al., 2019). However, the city livability measurement frameworks and rankings are still incomprehensive and lack efficiency. The previous research shows that the livability indices have been still debated among researchers and they have extracted different measures to identify the dimensions (Paul and Sen, 2017). In addition, there is an approach which is the most impactful to cities across the world in terms of enhancing city's competitive advantage to boost their economies (Kashef, 2016). This approach is about urban livability in popular press and global ranking in the connection with the rising environmental concerns and the growing competition among cities in global stage. Furthermore, (Kashef, 2016) suggests that cities are branded by rankings (Kashef, 2016).

According to the Web of Science database (2022), publishing research on livable cities has been increasing yearly. Remarkably, there is more than four times the amount of research from 2014. However, the most relevant sources of publications are from sustainability, cities, urban foresting & urban greening, landscape & urban planning journals, etc. In other words, when considering the top 20 relevant sources of city livability papers, there is no publishing research in any marketing or branding journals.

In conclusion, although it has been proposed that the idea of livability could help cities deal with the rapid rise of urbanisation, make themselves more appealing, and use competitive advantages, the livability frameworks are still problematic (Paul and Sen, 2017) In addition, there is a dearth of study introducing the city livability notion to the marketing concept aside from Kashef's work, which claimed that cities are branded by livability rankings (Kashef, 2016). Notably, research has yet to be conducted on how livability affects city branding. This study will expand the scope of the city branding area, which has yet to cover the city's livability. In other words, this might strengthen the city branding field of study. Therefore, these serve as the study's research motivations.

The research samples are the city stakeholders in two selected cities, London and Bangkok because these cities share similarities and differences. For the similarities, the administrators of both towns have engaged with the urban livability approach by implementing in the level of city visions, as well as the sizes of two capital cities are similar; which are 9,425,622 for London and 10,722,825 for Bangkok (World City Population, 2021). On the other hand, when looking at the differences, it can be seen that these two cities are in a different type of country classification by income. According to the World Bank Country Classifications, the United Kingdom is classified as a lower-middle-income country, while Thailand is defined as a low-income economy country (World Bank Country and Lending Groups, 2021). The economy is considered because it is one of the main livability factors (Cramer-Greenbaum, 2020). Furthermore, according to the fact that both London and Bangkok are located on different continents and people who live in these cities also have different cultures. Therefore, their geographic and cultural differences can also be taken as the key factors to test the validity of the developed measurement framework.

With these finding issues, three research questions have been developed:
1) Does perceived livability have a significant impact on attitude towards city brand?
2) Does perceived city personality have significant impact on attitude towards city brand?
3) Does attitude towards brand has a significant impact on behavioural intention?
4) Does perceived livability has a significant impact on perceived city personality?
5) Does perceived livability has a significant impact on behavioural intention?

6) Does perceived city personality has a significant impact on behavioural intention?

References

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Paul, A. and Sen, J. (2020) 'A critical review of liveability approaches and their dimensions', Geoforum. Elsevier, 117(May), pp. 90–92. doi: 10.1016/j.geoforum.2020.09.008.

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UNDP. 2021. Sustainable Development Goals | United Nations Development Programme. [online] Available at: <https://www.undp.org/sustainable-development-goals> [Accessed 8 November 2021].

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Worldpopulationreview.com. 2022. World City Populations 2021. [online] Available at: <https://worldpopulationreview.com/world-cities> [Accessed 30 October 2021].

2.3 Methods of Data Collection

Provide a brief summary of the method(s) of the research making clear what it will involve for participants (e.g. interviews, observation, questionnaires). If you (or your research assistants) are meeting face-to-face with research participants, specify where you will be meeting them (and you will need to address how any risks associated with this will be managed in Section 2.10)

The research respondents in the selected data pool are handed an electronic questionnaire. To be noted, the unit of the research respondent would be an individual person. This study considers the survey service provider, namely Qualtrics because the University of York has a site license allowing all students to use it. The questionnaire has been created by using the standard format of Qualtrics which allows adding the University logo. After that, the questionnaire's links will be forwarded to the possible respondents via email, along with a covering letter and a consent form on the first page of the questionnaire. It would take two months to acquire all the information staring from January 2022 to the end of February 2022. All

potential respondents will then receive an email after a week to remind them about the survey. The questionnaire will be sent 20 percent more than the require amount, in case there are some people do not answer the questionnaire. Lastly, all data received from the participants will be anonymised by setting up the anonymous responses and anonymous link features.

2.4 Sampling and Recruitment of participants

How many participants will take part in the research? How will they be identified – describe your sampling method? How will they be invited to take part in the study – describe your recruitment method? If research participants are to receive any payments, reimbursement of expenses or any other incentives or benefits for taking part in the research please give details, indicating what and how much they will receive and the basis on which this was decided.

The population of this study consists of inhabitants in London, the United Kingdom and in Bangkok, Thailand, then carried out on each group separately. The sample size for this study is 600 people in total: 300 city citizens in Bangkok, as well as 300 city citizens in London. There will be the screener questions in the beginning of the survey to ensure that respondent's demographics meet the study's requirement. I will use Prolific research company for the recruitments. The company will recruit the participants from their research panels. The respondents will be selected carefully to avoid sampling error and to have an appropriate balance across age, gender, background, etc. I will pay Prolific online panel 4.55 pounds for each respondent to complete the survey. However Prolific doesn't notify their clients how much money they actually pay survey respondents.

Prolific is a commercial provider of online research panels. Researchers can create a study and upload their survey form to Prolific. The researcher estimate the time, set a reward per hour and add participant criteria, which normally call pre-screening. If the participant in the research panel match the criteria, the study will be displayed on their studies page. Once the participant complete the study, and submit it. The researcher will review the submission and approve it, then pay the reward. In some cases, researchers may reject submissions.

2.5 'Vulnerable' Participants
Please indicate whether any research participants will be from the following groups; if so, please explain the justification for their inclusion. In most cases, researchers working with vulnerable people will need to be registered with ISA (www.isa.homeoffice.gov.uk) which has links with the DBS (formerly the CRB). The DBS offers organisations a means to check the background of researchers to ensure that they do not have a history that would make them unsuitable for work involving children and vulnerable adults.
NB: If you are collecting data from NHS patients or staff, or Social Service users or staff, you will need to apply for approval through the Integrated Research Application System (IRAS).

Children under 18	N/A
Those with learning disability	N/A
Those who are severely ill or have a terminal illness	N/A
Those in emergency situations	N/A
Those with mental illness (particularly if detained under Mental Health Legislation)	N/A
People with dementia	N/A
Prisoners	N/A
Young offenders	N/A
Adults who are unable to consent for themselves	N/A
Those who could be considered to have a particularly dependent relationship with the investigator or gatekeeper, e.g. those in care homes	N/A
Other vulnerable groups (please specify) – discuss the issues this raises	N/A

If yes to any of the above, do you have Disclosure and Barring Service Clearance?

Yes/No
Describe the procedures you are using to gain (a) consent and/or (b) proxy consent if applicable

> -

2.6. 'Sensitive' topics

During your study, will anyone discuss sensitive, embarrassing or upsetting topics (e.g. sexual activity, drug use) or issues likely to disclose information requiring further action (e.g. criminal activity)? If so, please give details of the procedures in place to deal with these issues, including any support/advice (e.g. helpline numbers) to be offered to participants. Consider, too, the risks this may pose to the researcher. Note that where applicable, consent procedures should make it clear that if something potentially or actually illegal is discovered in the course of a project, it may need to be disclosed to the proper authorities.

> In my surveys, I focus on how city stakeholders perceive city livability and the impact on city branding. These subjects are commonly surveyed in UK (Maheshwari, Vandewalle and Bamber, 2011) and in Thailand (Alderton et al., 2019a). The research participants are healthy, competent adults (aged 18 and older) who willingly participate in the survey and are not disproportionately rewarded for their efforts. They are not vulnerable. There are no physiological influences, and this is not a medical study. There is no risk of addiction, psychological harm, mental or physical injury, and data privacy violations.
>
> References
> income country? Contextualising liveability for Bangkok, Thailand', Globalization and Health, 15(1), pp. 1–13. doi: 10.1186/s12992-019-0484-8.
> Maheshwari, V., Vandewalle, I. and Bamber, D. (2011) 'Place branding's role in sustainable development', Journal of Place Management and Development, 4(2), pp. 198–213. doi: 10.1108/17538331111153188.

2.7 Covert research

If the research involves covert data gathering or deception of any kind, please explain and justify the deception. Specify what procedures (if any) will be used to debrief participants after the data have been collected.

> There is no covert data collection or deception in this study. All participants' replies to specific survey questions will be used to gather data.

2.8 Informed Consent

> Please attach (1) the privacy notice/project information sheet to be given to all participants and (2) the informed consent form. In line with the University's Code of Practice on Research Integrity, participants and/or their representatives should be provided with details of a first point of contact through which any concerns can be raised: this should be your Head of Department (or if you are a Head then the Pro-Vice-Chancellor for Research).

> i. If you are not seeking informed consent
> It is usually the case that informed consent is required for research with human participants. If you do NOT intend to seek informed consent please explain carefully why you believe this is not necessary for your project. You should explain this with reference to the research ethics guidelines for your discipline and cite other recent published research using your methodological approach or ethics discussions about this to support your case.
>
> All participants will be given information about anonymity, confidentiality, storage and data use, and will have constant access to it. Participants will receive a research description prior to the start of the survey, which will inform them about the nature of the study and the topic to be covered (disclaimer). Those who agree to take part in the survey will be directed to the survey webpage containing the researcher's name and contact information. With the survey web design, participants can skip questions that they do not want to answer. In accordance with European Parliament Directive 95/46/EC, participants have right to decline to participate while completing the questionnaire. All responses will be kept confidential.
>
> For the information of research:
> The participants will read the attached information sheet prior to be asked their consent.

For the consent:
Participants will read the attached consent form prior to start the survey.

ii. Please confirm you have included the privacy notice/project information sheet to be given to all participants with your submission to ELMPS.   If these have not been attached, please explain why this is the case.

A separate sheet with project information is not possible in the web survey format.
Before answering the project's questionnaire, participants will read a disclaimer (see above 2.8.i). The study is low-risk, and the disclaimer would have been enough to alert participants to any potential ethical issues.

iii. Please confirm you have included all the relevant informed consent forms. If these have not been attached, please explain why this is the case.

A separate sheet as a consent form is not possible in the web survey format. In the form of a web survey, participants will be asked to provide their consent (see above 2.8.i). Due to the nature of the study, signed informed consent cannot be obtained. The disclaimer warns participants about any potential ethical issues.

iv. Are the results to be given as feedback or disseminated to your participants (if yes please specify when, in what form, and by what means). If no, why not?

No. The survey tool has no means to disseminate the results to each participant individually.

2.9 Anonymity

In most instances the Committee expects that anonymity will be guaranteed to research participant. If anonymity cannot be guaranteed, then you must provide a rationale for this and make this explicitly clear in the information sheet to participants that they are consenting on that basis. Please set out below how you intend to ensure anonymity. If anonymity is not guaranteed) then this also has implications that you must address in Section 3 below.

Note: if you are using a transcriber or translator, you must have a signed confidentiality agreement with them.

The data received from Qualtrics will be anonymous by using two primary features: anonymous responses and anonymous links. These two features will be applied to protect respondents' IP address or location data. Enabling these features will ensure that IP addresses and location data are not connected to the participants' responses.

2.10 Anticipated Risks or Ethical Problems

Please outline any anticipated risks or ethical problems that may adversely affect any of the participants, the researchers and/or the university, and the steps that will be taken to address them. (Note: all research involving human participants can have adverse effects.) Please also refer to the University's Health, Safety and Welfare Policy Statement and associated Management Procedures, as well as to any ethical guidelines you have consulted. Where relevant, risk assessments should be carried out not only in relation to the researchers themselves, but also for those participating in the project or affected by its conduct, and in relation to any impact on the environment. Researchers should ensure that appropriate insurance is in place, liaising with the University's Insurance Officer as necessary (via standard departmental procedures where these exist).

Risks to participants (e.g. emotional distress, financial disclosure, physical harm, transfer of personal data, sensitive organisational information…)

This is an anonymous web survey. There are no risk to participants.

Risks to researchers (e.g. personal safety, physical harm, emotional distress, risk of accusation of harm/impropriety, conflict of interest…)

There are no anticipated risks to researchers as they will not have direct contact with participants.

University/institutional risks (e.g. adverse publicity, financial loss, data protection…)

This research does not involve institutional risks.

Financial conflicts of interest (e.g. perceived or actual with respect to direct payments, research funding, indirect sponsorship, board or organisational memberships, past associations, future potential benefits, other…)

   N/A

2.11 Research outside the UK

If you are planning research overseas, you should also take account of the ethical standards and processes of the country/countries in question as well as those of the University. If the research is being conducted outside the UK please specify any local guidelines (e.g. from local professional associations/learned societies/universities) that exist and whether these involve any ethical stipulations beyond those usual in the UK. Also specify whether there are any specific ethical issues raised by the local context in which you are conducting research, for example, particular cultural sensitivities or vulnerabilities of participants.

Part of my research will be conducted in Thailand, there will be 300 participants who are living in Bangkok. However, my research does not contain any sensitive issues that involve any particular cultural sensitivities or vulnerability of participants. I am Thai citizen and I have done a pilot study in forms of interviews at the Bangkok Metropolitan Administration (the local government of Bangkok). I ensure that my research topics which are about city livability and branding are commonly conducted in Thailand. Moreover, I will not collect any data from any associations that involve any ethical stipulations beyond those usual in the UK (Ethical and legal issues - Library, University of York, 2021). All participants will have right to decline to participate and from the study at any time while completing the questionnaire, as well as all responses will be kept confidential.

Reference

York.ac.uk. 2021. Ethical and legal issues - Library, University of York. [online] Available at: <https://www.york.ac.uk/library/info-for-researchers/data/ethical-legal/> [Accessed 9 November 2021].

SECTION 3: General Data Protection Regulation

3.1 DATA PROTECTION

All personal data (e.g. names, contact details) must be collected and used in accordance with the UK General Data Protection Regulation (UK GDPR) 2018, the UK Data Protection Act (DPA) 2018, the University's Data Protection Policy and the University's research data management (RDM) Policy.

Personal data which have undergone pseudonymisation (e.g. replacing names or other identifiers which are easily attributed to individuals with a code) will still remain personal data and within the scope of the UK data protection law (particularly while the code can be tied back to the individual).

Before completing this section, please ensure that you have read the University's data protection and research data management guidance.

Does your project involve personal data as defined by the UK GDPR?
Yes ☐ No
If you answered No, go to [next section].

Data categories and subjects
What types of personal data will you be processing? Tick all that apply. ● Personal data ● Special category personal data ☐ ● Criminal offence or conviction data ☐ ● Data of children (under 18s) or of otherwise vulnerable individuals (e.g. elderly individuals or individuals with certain disabilities) ☐ ● Pseudonymised data (e.g. an NHS Digital dataset) ☐ ● Anonymised data where there is a risk of re-identification ☐

Describe the nature of the personal or special category data you will be collecting or using (e.g. opinions, contact details, financial information, health data, information on beliefs)?	Gender, age, employment status, income, and educational level
If the data is from NHS Digital, a registry (e.g. Eurostat) or organisation, give the identifiers for the datasets and/or reference the sharing agreements.	-

Data protection by design and default

Will you be collecting the minimum amount of personal data necessary for the specified research purpose e.g. gathering anonymised data at source if person-identifiable information is not needed and ensuring all data to be captured can be justified?	Yes ☐ No

Will you use the data only for the purposes of this research project? If you plan to use the data for additional purposes, will you bring this to the attention of the research participants at point of data collection or, where this is not possible, the University's Data Protection Officer?	Yes ☐ No
Will you anonymise personal data wherever and as soon as possible: either at point of data capture, collation, analysis or output?	Yes ☐ No
Will you use pseudonymised data wherever possible in cases where information cannot be anonymised e.g. will you separate research participant contact details from the data to be analysed and/or remove identifiers e.g. specific date of birth and replace with age within a date range?	Yes ☐ No
Confirm you will issue research participants with a GDPR compliant participant information sheet/privacy notice at the point of data collection if you are gathering personal data?	Yes ☐ No
Will the research cause substantial damage or substantial distress to research participants?	No – not likely ☐ Yes – likely
Will you process personal data to take 'measures or decisions' about particular individuals? [An exception can apply in the case of (NHS REC) approved medical research].	No ☐ Yes
Where you are working collaboratively, will you document data flows between the various research partners (e.g. in a basic data flow diagram) and retain a copy of this document with your ethics application?	Yes ☐ No
Where you are working collaboratively, will you ensure the Research and Knowledge Exchange Contracts Team are consulted before any data is gathered or shared to ensure appropriate contracts and/or data sharing arrangements are in place?	Yes ☐ No
Where you are looking to engage third party services such as a transcription service, will you ensure the Research and Knowledge Exchange Contracts Team are consulted before any data is gathered or shared to ensure appropriate contracts and/or data sharing arrangements are in place?	Yes ☐ No
Where you are working collaboratively, will you ensure data transfers to the collaborators are undertaken in accordance with IT guidance?	Yes ☐ No
Will data subjects be identifiable in the final research output / data publication(s)? E.g. Publication of direct quotations from respondents, publication of data that might allow the identification of individuals.	☐ Yes No
Where you have answered 'no' to any of the questions above or 'yes' to the questions around causing substantial damage or distress or using data to take 'measures or decisions', please confirm that you have consulted the University's Data Protection Officer and obtained any necessary approval.	Yes

3.2 Data Security

How will the data be collected and stored electronically?	The data produced by the online survey will be quantitative. The data will be collected in Qualtrics database. All data will be exported in EXCEL format and stored on my home personal computer with password protection, as well as backed up on the University of York's Google Drive with password protection.
Please detail who will have control of, and act as custodian(s) for, data generated by the study.	Only I will have control of data generated by the study; I will be the custodian of the data.
Will you use University approved software?	Yes ☐ No (if no, please provide further details and consult IT Services before proceeding)
Will you use University approved file storage (Google Drive, University networked storage, research computing)?	Yes ☐ No (if no, please provide further details)
Will you store personal or confidential data on laptop(s) with appropriate device encryption?	Yes ☐ No (if no, please provide further details)
If capturing audio, will you use an encrypted device for recording (e.g. an Apple iOS device or encrypted voice recorder)?	Yes ☐ No (if no, please provide further details)
Where data is held on an encrypted portable device (e.g. laptop, tablet) will you back it up to a University approved service as soon as possible and perform periodic checks to ensure data is being backed up appropriately?	Yes ☐ No ☐ N/A
Will you ensure confidential information is encrypted before it is transmitted/shared digitally?	Yes ☐ No
Please detail what other protections will be used for digital data (e.g. access/edit permissions, procedural safeguards re downloads/making copies, remote access via VDS/VPN, 2 factor authentication)?	My research data will be stored in my home personal computer files, password-protected and encrypted until up to four years after the completion of my thesis and end of my project. My secure files will be backed up in the University of York Google Drive and only I can access and download/ re-download it.

Confirm you have reviewed the user commitments under the [Policy for the safe](#) [use of University information on devices](#). Detail anything in the user commitments that will pose a challenge in carrying out your proposed research.	Yes ☐ No I will strictly follow the University policy for safe use of University information on devices. For example, I will encrypt, manage and configure my device to ensure that University restricted, and confidential information is kept secure. Also, I will not allow non-members of the University including my friends and family to use the device.
How will hard copy/analogue data (e.g. in paper form) be collected, sent and stored?	I do not use hard copy (paper form) in my survey.
Will you ensure that personal data or confidential data held on paper are stored in a lockable filing cabinet or container, and/or a locked room in secure premises?	☐ Yes N/A (will not create/hold paper copies personal or confidential data) ☐ No (if no, please provide further details)
How will devices be physically protected (e.g. in transit, when not in use or left unattended)?	I will keep my device safe by password protection.
Will you ensure the device(s), accounts, or storage area(s) used to store data are not accessible to any unauthorised parties?	Yes ☐ No
Set out any other measures or procedures for maintaining the confidentiality of information about the participant and information that the participant shares (e.g. other methods of anonymisation).	All data received from the participants will be anonymised by setting up the anonymous responses and anonymous link features.

3.3 Data Retention

How long will you keep personal data after the project, in what form and for what reason? https://www.york.ac.uk/library/info-for-researchers/data/sharing/ [Data retention may be set by University policy, a data sharing agreement/data provider, be based on professional guidelines, or be approved by a York ethics committee. If the data is not going to be destroyed within a set time-scale please include a justification for this. The University's Research Data Management (RDM) policy applies to research undertaken by postgraduate research students and research staff only. This recommends retaining important data for a period of 10 years. Taught postgraduates should retain such data until their degree is awarded].	My research data will be stored in my home personal computer files, password-protected and encrypted until up to four years after the completion of my thesis and end of my project. My secure files will be backed up in the University of York Google Drive
When will the research data be destroyed, by whom, and how? https://www.york.ac.uk/library/info-for-researchers/data/sharing/#tab-2	Four years after the completion of my thesis, my research data will be destroyed by myself. All of research data will be deleted from my home personal

	computer files as well as from the University of York Google Drive.
Will any personal or special category data (i.e. data that is not truly and irrevocably anonymised) be deposited in an archive or external repository? https://www.york.ac.uk/library/info-for-researchers/data/sharing/#tab-4	☐ Yes No ☐ N/A
Where personal data are to be transferred to an archive or repository, please confirm that your information sheet or privacy notice will: (i) cover the archiving and reuse of any personal data and participant agreement to this, (ii) explain to participants the benefits of any data sharing, (iii) indicate where possible whether research data will be deposited in a named, recognised repository (e.g. Archaeology Data Service, UK Data Service, York's institutional repository, etc.)	☐ Yes No ☐ N/A
Where you have special category personal data or criminal data, will it be destroyed in line with an agreed retention policy (set by the University, the data provider, or approved by this ethics committee)?	☐Yes No
Where will results that include/may include personal data be reported and disseminated (e.g. reference data output, research publication)?	The results will be reported as the data output in chapter 4: analysis of data in my doctoral thesis.

3.4. DPIA Screening Questions (Data Protection Impact Assessment)

A DPIA should be undertaken for data processing likely to be high risk under the GDPR. The Regulation does not define 'high risk', but the Information Commissioner's Office has produced a checklist for determining when assessments should be undertaken. This is available on the ELMPS website DIPA Screening Questions (MS Word 📄, 15kb).
Please consult the University of York's guidance on DPIAs prior to completing the declaration below. This is available at: https://www.york.ac.uk/records-management/dp/dataprivacyimpactassessments/
It is your responsibility to ensure that a DPIA is undertaken if it is required for your research project. Please tick ONE appropriate statement below:

Declaration	Agreement
I have completed the DPIA screening questionnaire and consider that a DPIA is not required as the data collected is not 'high risk.'	☒
I have completed the DPIA screening questionnaire and consider that a DPIA is required as the data collected is likely to be 'high risk.' I have submitted the completed assessment to the University of York's Data Protection Officer for review and am awaiting a decision on approval.	☐
I have completed the DPIA screening questionnaire and consider that a DPIA is required as the data collected is likely to be 'high risk.' The completed assessment is attached to this application and has been approved by the University of York's Data Protection Officer.	☐

SECTION 4: SIGNED UNDERTAKING

In submitting this application, I hereby confirm that I undertake to ensure that the above-named research project will meet the University's Code of Practice on Research Integrity https://www.york.ac.uk/staff/research/governance/policies/research-code/.

…………………………………… (Signed Lead Researcher/Principal Investigator)

……………13/01/22……….. (Date)

PhD Supervisors (for all PhD applications)…I confirm I have carefully read and approved this application

(Electronic signature required)

……………………………………..

…………………………………. (Date)

Submission Checklist for Applicants

One signed <u>electronic</u> copy (including attachments) in one pdf file to: elmps-ethics-group@york.ac.uk

    ELMPS Application form

    Consent form for participants

    GDPR compliant participant information sheet

    ELMPS Compliance form

  Initial

Appendix O: Collinearity statistics (VIF) of Bangkok samples

Items	VIF
1ATD1	2.892
1ATD2	3.208
1ATD3	2.411
1COM1	1.999
1COM2	3.078
1COM3	2.657
1CS1	2.406
1CS2	2.541

Items	VIF
1CS3	1.595
1CS4	1.511
1CS5	1.803
1CS6	2.183
1CS7	2.093
1CS8	3.462
1BI1	2.387
1BI2	2.696
1BI3	1.531
1BI4	1.897
1BI5	1.572
1EC1	3.113
1EC2	4.237
1EC3	2.800
1EC4	3.003
1ED1	2.356
1ED2	1.894
1ED3	2.132
1ED4	1.695
1ED5	1.922
1EN1	2.588
1EN2	4.472
1EN3	4.180
1EN4	3.232
1EN5	3.354
1EXT1	1.998
1EXT2	2.592
1EXT3	2.289
1EXT4	2.191
1HC1	2.215
1HC2	2.743
1HC3	1.787
1IN1	3.249
1IN2	4.251
1IN3	2.549
1IN4	2.260
1IN5	2.677
1IN6	2.888
1IN7	4.868
1RUG1	1.913
1RUG2	2.009
1SD2	4.035
1SD3	3.568

Items	VIF
1SD4	3.204
1SD5	4.412
1SD6	4.407
1SIN1	3.138
1SIN2	4.219
1SIN3	3.356
1SIN4	2.389
1SOP1	1.808
1SOP2	2.060
1SD1	2.387

Appendix P: Collinearity statistics (VIF) of London samples

Items	VIF
2ATD1	3.135
2ATD2	4.555
2ATD3	3.209
2COM1	2.180
2COM2	3.059
2COM3	2.081
2CS1	2.879
2CS2	2.289
2CS3	2.825
2CS4	3.332
2CS5	1.944
2CS6	2.882
2CS7	3.098
2CS8	4.187
2BI1	3.559
2BI2	3.531
2BI3	2.207
2BI4	2.137
2BI5	3.272
2EC1	4.089
2EC2	3.959
2EC3	1.744
2EC4	2.356
2ED1	2.422
2ED2	2.560
2ED3	2.284
2ED4	2.692
2ED5	2.846

| Items	VIF
2EN1	2.323
2EN2	2.718
2EN3	2.633
2EN4	2.562
2EN5	2.376
2EXT1	2.426
2EXT2	2.195
2EXT3	2.482
2EXT4	2.195
2HC1	4.026
2HC2	3.865
2HC3	3.237
2IN1	2.290
2IN2	3.869
2IN3	3.565
2IN4	1.630
2IN5	2.617
2IN6	1.875
2IN7	2.423
2RUG1	1.957
2RUG2	3.570
2SD2	4.481
2SD3	4.303
2SD4	3.147
2SD5	2.171
2SD6	1.922
2SIN1	2.059
2SIN2	2.505
2SIN3	2.342
2SIN4	2.014
2SOP1	1.959
2SOP2	2.053
2SD1	2.185

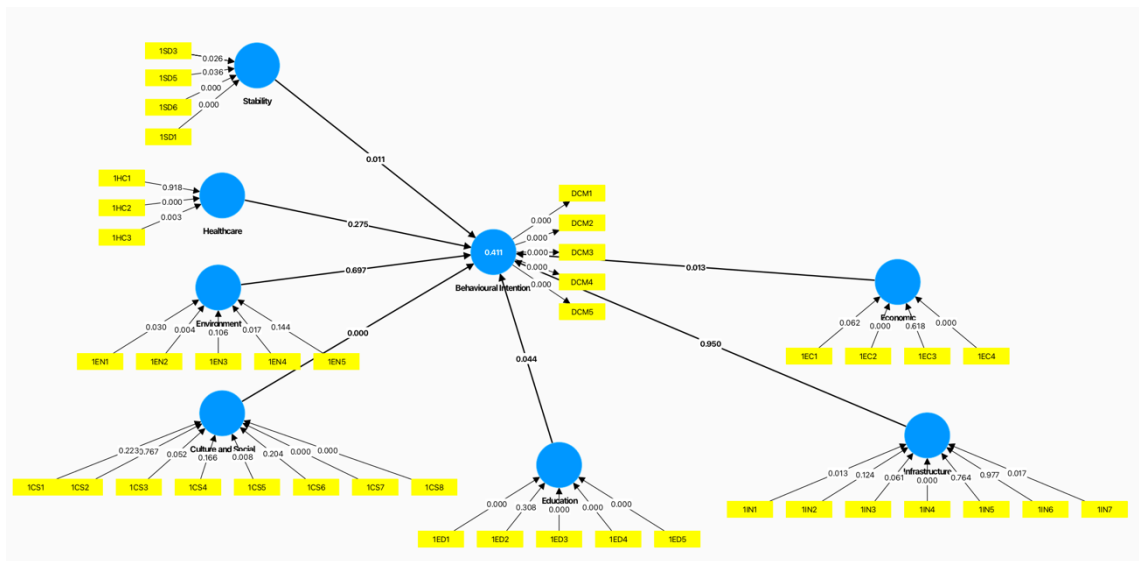# Appendix Q: Structural model examination of combined Samples
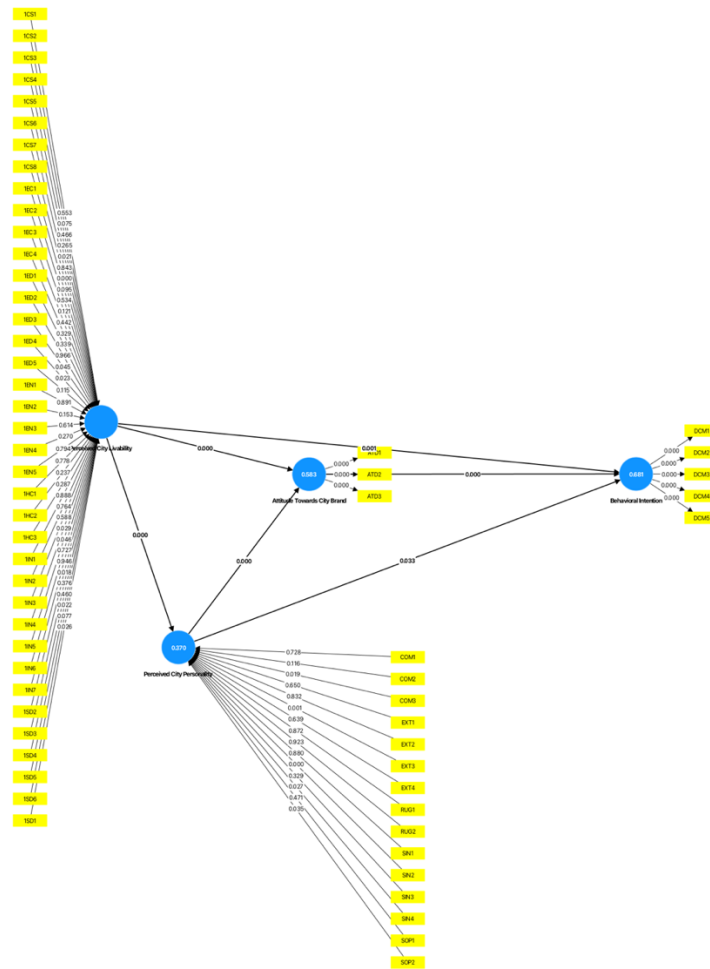
Appendix R: Structural model examination of Bangkok Samples
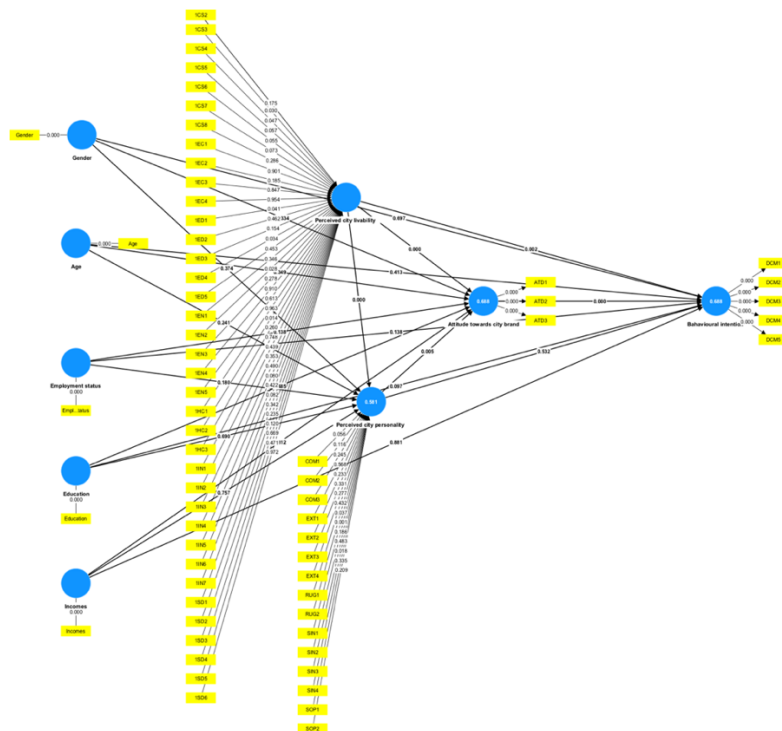
Appendix X: Structural model examination of London Samples
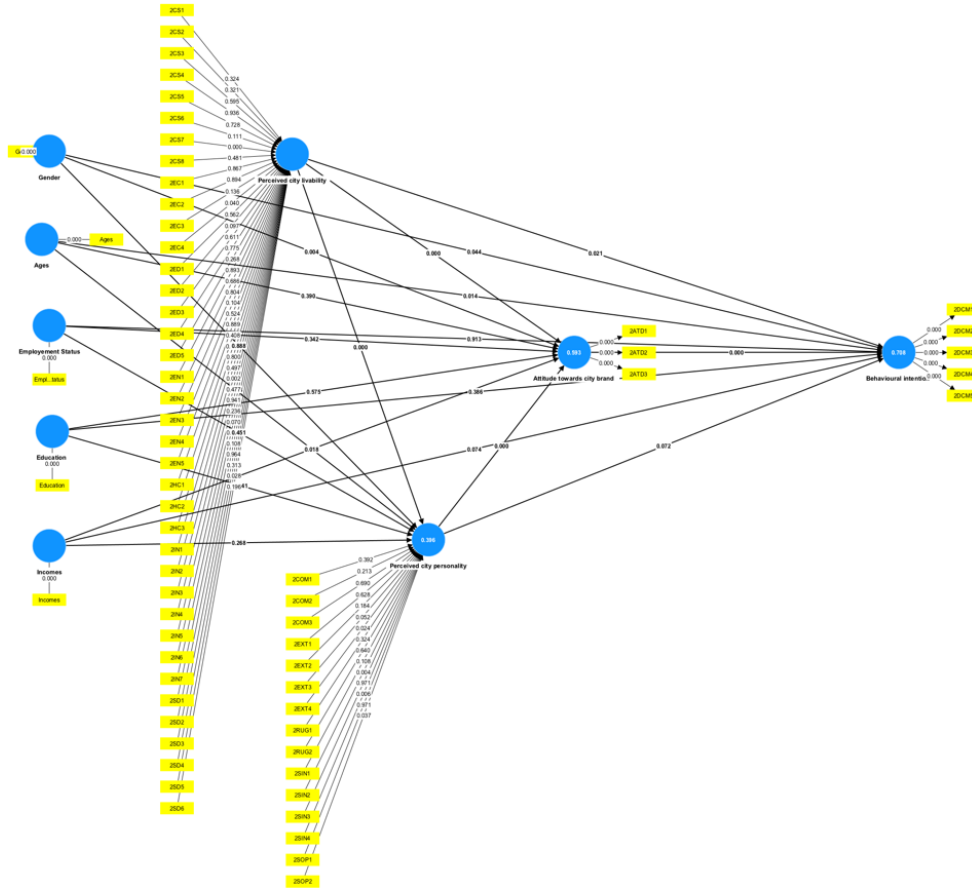
Appendix T: Correlation analysis between perceived city livability and behavioural intention

Abbreviations

AARP	American Association of Retired Persons
ACBI	Anholt's GMI City Brands Index
AMA	American Marketing Association
ANOVA	Analysis of Variance
ATD	Attitude Towards City Brand
AVE	Average extracted variance
BCE	Before the Common Era
BI	Behavioural Intention
BMA	Bangkok Metropolitan Administration
CBIs	Consumer behavioral intentions
CFA	Confirmatory Factor Analysis
CI	Composite Indicators
COM	Competence dimension
COVID-19	Corona virus disease 2019
CR	Composite reliability
CS	Culture and Social
DEA	Data Envelopment Analysis
DPA	Data Protection Act
DPIAs	Data Protection Impact Assessments
DV	Dependent Variable
EC	Economic
ED	Education
EFA	Exploratory factor analysis
EIU	Economist Intelligence Unit
ELMPS	Economics, Law, Management, Politics and Sociology
EM	Estimated Marginal
EN	Environment
ESRC	Economic and Social Research Council
EXT	Excitement
GDPR	General Data Protection Regulation
GPCI	Global Power City Index
HC	Healthcare

IN	Infrastructure
IVs	Independent variables
KMO	Kaiser-Meyer-Olkin Measure of Sampling Adequacy
MANOVA	Multivariate analysis of variance
MAR	Missing at random
MCAR	Missing completely at random
MCP	Multiple country publications
MNAR	Missing not at random
NGOs	Non-governmental organizations
NHS	National Health Service
OECD	Organisation for Economic Co-operation and Development
PCA	Principal Component Analysis
PCL	Perceived City Livability
PCP	Perceived city personality
PHD	Doctor of Philosophy
PSC	Partnership for Sustainable Communities
Q^2	Q-square
R^2	R-square
RDM	Research data management
REC	Research Ethics Committees
REF	Research Ethics Framework
RMIT University	Royal Melbourne Institute of Technology
RUG	Ruggedness
SARS	Severe acute respiratory syndrome
SCP	Single country publications
SD	Sub-dimensions: stability
SD	Standard Deviation
SDGs	Sustainable Development Goals
SEM	Structural Equation Modeling
SIN	Sincerity
SOP	Sophisticate
SPSS	Statistical Product and Service Solutions
UK	United Kingdom

UK GDPR	UK General Data Protection Regulation
UN	United Nations
UNGCC	United Nations General Condition of Contract
UNGCCP	United Nations Global Compact Cities Program
UNDP	United Nations Development Programme
USA	United states of America
VIF	Variance inflation factor
WOS	Web of Science

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