

HOUSING CHOICES OF MYANMAR MIGRANTS WORKING IN THE CENTRAL BUSINESS
DISTRICT OF BANGKOK



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ทางเลือกที่อยู่อาศัยของแรงงานต่างชาติสัญชาติเมียนมาร์ที่ทำงานในเขตธุรกิจกลางของ
กรุงเทพมหานคร



วิทยานิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปริญญาวิทยาศาสตรมหาบัณฑิต
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แรงงานข้ามชาติมีบทบาทที่สำคัญในการพัฒนาเศรษฐกิจของประเทศ ความเข้าใจเรื่องที่อยู่อาศัยจึงเป็นสิ่งสำคัญ เนื่องจากที่อยู่อาศัยเป็นพื้นฐานของความต้องการของมนุษย์และเป็นปัจจัยที่ส่งผลต่อความเป็นอยู่ ทั้งในระดับปัจเจกและระดับสังคม งานวิจัยหลายงานได้ศึกษาปัจจัยที่ส่งผลต่อการเลือกที่อยู่อาศัยของแรงงานข้ามชาติ แต่ยังมีงานวิจัยจำนวนไม่มากที่ศึกษาการกระจายตัวเชิงพื้นที่ของที่อยู่อาศัยและการเลือกที่อยู่อาศัยของแรงงานข้ามชาติในประเทศไทย งานวิจัยนี้มุ่งเติมช่องว่างทางวรรณกรรมโดยศึกษาตำแหน่งของที่อยู่อาศัยและปัจจัยที่เกี่ยวข้องกับการเลือกที่อยู่อาศัยของแรงงานข้ามชาติชาวเมียนมาร์ที่ทำงานอยู่ในย่านธุรกิจศูนย์กลางของ กรุงเทพมหานคร

เทคนิคการวิเคราะห์เชิงพื้นที่ได้ถูกใช้ในการศึกษาการกระจายตัวของที่อยู่อาศัยและงานภายในย่านธุรกิจศูนย์กลางเมือง จากนั้นการทดสอบตารางไขว้ (cross-tabulation) และการทดสอบไคสแควร์ (Chi-square) ได้ถูกใช้ในการศึกษาการเลือกที่อยู่อาศัยและปัจจัยที่เกี่ยวข้อง งานวิจัยพบว่า แรงงานข้ามชาติชาวเมียนมาร์มีแนวโน้มที่จะอาศัยอยู่ใกล้กับที่ทำงาน ซึ่งแสดงให้เห็นว่าตำแหน่งที่ตั้งมีบทบาทสำคัญต่อการเลือกที่อยู่อาศัยของพวกเขา นอกจากนี้คุณลักษณะเชิงสังคม เช่น อายุ สถานะ สถานภาพการสมรส การศึกษา อาชีพ และปัจจัยทางเศรษฐกิจอื่น ๆ ยังส่งผลต่อการเลือกที่อยู่อาศัยอย่างมีนัยสำคัญทางสถิติ

นอกจากนี้งานวิจัยยังได้ให้ข้อเสนอแนะเกี่ยวกับยุทธศาสตร์เมืองในการให้ความสำคัญกับความมั่นคงด้านที่อยู่อาศัยแก่แรงงานข้ามชาติชาวเมียนมาร์ที่ทำงานในย่านธุรกิจศูนย์กลางของกรุงเทพมหานคร ผลของงานวิจัยยังสร้างความเข้าใจเกี่ยวกับพลวัตของการอยู่อาศัยและความพึงพอใจของแรงงานข้ามชาติที่ทำงานในเมือง ผู้กำหนดนโยบายและผู้มีส่วนเกี่ยวข้องสามารถใช้ผลการศึกษานี้ในการพัฒนานโยบายและแผนที่เกี่ยวข้องในการสร้างเสริมคุณภาพชีวิตและสภาพความเป็นอยู่ของแรงงานข้ามชาติที่ทำงานในเมือง

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Urban migrant workers play a vital role in the economic growth of a country. As housing is a fundamental human need that greatly impacts individual and societal well-being, it is crucial to ensure the welfare of urban migrant workers. While several studies have explored the factors that influence urban migrants' housing choices, limited attention has been paid to the spatial distribution of housing and housing choices among urban migrant workers in Thailand. This study aims to fill this gap by examining the housing locations and determinants of housing choices among Myanmar migrants working in the Central Business District (CBD) of Bangkok. This study used spatial analysis to identify the distribution of housing and jobs in the CBD as well as Cross-tabulation and Chi-Square tests to explore the housing choices and the determinants of housing choices. The findings of this study revealed that Myanmar migrant workers tend to reside close to their workplaces. Additionally, social characteristics such as age, living status, marital status, education, occupation, and economic characteristics like rent and monthly income have associations with their housing choices. Finally, this study recommends urban strategies based on the findings of this study that addresses housing-related challenges of Myanmar migrants working in the CBD of Bangkok.

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Chapter 1

Introduction

1.1 Myanmar Migrant Workers in Thailand

The economy of Thailand is largely related to foreign migrant workers. In Thailand, the scarcity of lower-skilled workers in the labor market was filled by foreign migrant workers. Over ten percent of Thailand's total labor force comes from migrant workers (Smith et al., 2019). Therefore, migrant workers play an important role in Thailand's economy. According to OECD and ILO (2017), migrant workers were responsible for 4.3 – 6.6 percent of Thailand's Gross Domestic Product (GDP) in 2010. Statistics have proven that there are numbers of significant numbers of migrants working in Thailand.

The International Labour Organization (2023) stated that 48% of the total migrant population in Thailand is from Myanmar, 34% is from Cambodia, 18% is from the Lao People's Democratic Republic (PDR), and 0.001% is from Vietnam. According to the Department of Population (2014), there were 1,418,472 migrants from Myanmar currently living in Thailand. Of this total, there were 812,798 males and 605,674 females, making up about 70% of Burma's population living outside of the country. Therefore, it can be inferred that the majority of the migrant workforce was contributed by Myanmar migrant workers.

According to Chantavanich and Vungsiriphisal (2012), migration across the border from Myanmar to Thailand has occurred for centuries but has substantially increased in recent decades. Many migrants from rural areas with limited economic opportunities migrate to Thailand in search of improved wages and working conditions. The majority of these migrants work in low-skilled occupations such as agriculture, construction, and housework. Several factors motivate Myanmar immigrants to pursue employment in Thailand. Myanmar's political instability and conflict is a major factor. For instance, the outbreak of political unrest in Myanmar in 1988 caused a rapid increase in the emigration of Burmese and other ethnic groups to Thailand.

Thailand, in contrast, has experienced significant economic development over the past several decades and has become a center for manufacturing and tourism. This has created a demand for low-skilled labor, which Myanmar migrants can fulfill in large numbers. Other pull factors include the availability of social services such as healthcare and education in Thailand, as well as the ability to send family-supporting remittances back home (Chantavanich & Vungsiriphal, 2012).

Despite these pull factors, migration across borders can be dangerous for migrants, who may be exploited or abused by employers or traffickers. The Office of the United Nations High Commissioner for Human Rights (2011) declared that migrants in Thailand fall under four categories of legal status. They are -

Migrant workers who enter the country through legal channels with a passport and visa - These individuals have entered Thailand using proper legal documentation, such as a valid passport and the appropriate visa. They have followed the legal procedures for entering the country and are authorized to work during their stay.

Migrant workers who entered Thailand illegally but subsequently registered with a work permit and entered the Nationality Verification (NV) process - This category includes individuals who initially entered Thailand illegally, without proper documentation or authorization, but have managed to regularize their status. They may have registered with a work permit, which allows them to work legally, and have begun the Nationality Verification process. The NV process aims to verify and document the nationality of migrants to establish their legal status.

Migrant workers who entered the country illegally and registered under the annual work permit registration but have not entered the NV process - These individuals entered Thailand without proper documentation or authorization and registered under the annual work permit registration. However, they have not yet entered the Nationality Verification process, so their nationality and legal status may not have been fully established.

Migrant workers and their dependents who entered the country illegally, have not registered, or who have fallen out of the system and whose status is therefore considered as an "illegal alien" - This category refers to individuals who entered Thailand illegally without proper documentation or authorization and have not taken any steps to regularize their status. They have not registered themselves or their dependents and may have fallen out of the system, meaning they are not recognized by Thai authorities and are considered "illegal aliens" under Thai law.

International Labour Organization (2023) stated that among the documented workers in Thailand, 48% are from Myanmar. It is observed that 85% or the majority of National Verification (NV) cards are held by Myanmar migrant workers. However, some Myanmar migrants still do not have legal status.

1.2 Housing Choices of Myanmar Migrants Workers

According to Datta (2012), housing is universally recognized as a fundamental human right in various international agreements. It is considered an essential aspect of economic, social, and cultural rights as outlined in the Universal Declaration of Human Rights. Numerous nation-states also classify housing as a necessity and include it within the rights to life. However, when it comes to migrant workers, they often face exclusion from conventional housing allocation or encounter difficulties accessing formal housing arrangements (Datta, 2012; Sivam, 2003). Migrant workers often find themselves residing in slums and informal settlements, where they face the lack of essential amenities such as water, sanitation, and electricity, as well as limited access to social services like hospitals and schools. These areas are characterized by inadequate infrastructure and substandard living conditions (Datta, 2012).

Some studies have been conducted about the housing choices of migrant workers in developing countries. However, little attention has been paid to the housing choices of migrant workers in Bangkok, Thailand. Therefore, this study focuses on exploring the spatial distributions of housing, housing choices, and the

determinants of the housing choices of Myanmar migrant workers, who are the largest population of migrant workers in Bangkok.

1.3 Research Objectives

There are two objectives of this research.

1. To explore the housing locations of Myanmar migrants working in the CBD of Bangkok.
2. To explore the determinants of the housing choices of Myanmar migrants working in the central business district of Bangkok.
3. To provide an urban strategy that addresses housing-related challenges of Myanmar migrants working in the Central Business District of Bangkok.

1.4 Research Questions

There are two research questions in this research.

1. What are the housing locations of Myanmar migrants working in the central business district of Bangkok?
2. What are the determinants of the housing choices of Myanmar migrants working in the central business district of Bangkok?

1.5 Study Area and Scope of the Study

This study is limited to recruiting low-income Myanmar migrants who work in labor-intensive job sectors in the central business district of Bangkok. This study aims to explore the housing choices of Myanmar migrant workers in labor-intensive industries such as construction, domestic, retail, hotels, and restaurants. The research area is selected based on the job location of migrant workers, such as hotels, retail, and restaurants. This research focuses on the Central Business Districts of Bangkok (CBD), which is shown in the map in Figure 1.

Study Area: Bangkok Central Business District (CBD)

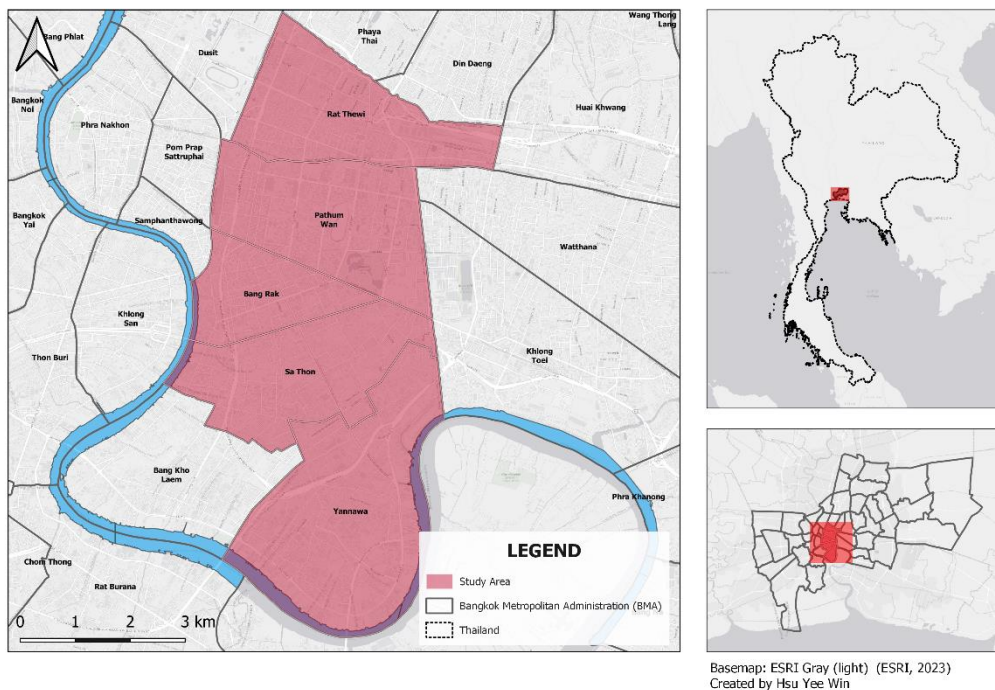


Figure 1 Study Area

1.6 Organizations of the Study

This section explains the organization of the study and the structures of each chapter in this study. This study has six chapters.

Chapter (1) is the introduction of this study, and it consists of the background and rationale of the study, objectives, research questions, hypotheses, scope of the study, and the organization of the study.

Chapter (2) consists of the literature reviews about the housing choices of migrant workers both in Thailand and in various countries and concludes with the conceptual framework of this study.

Chapter (3) describes data collection and data collection guides, the detailed explanations of analytical methods, variables, and delimitations of the study.

Chapter (4) mainly explains the data collected from the survey. A detailed explanation of the data collection method, survey design, and spatial and statistical

data on the housing choices of Myanmar migrants working in the CBD of Bangkok has been discussed.

Chapter (5) presents the results, which are divided into two components. The first part is the results of the spatial analysis, which answers the housing locations of migrant workers working in the CBD of Bangkok. The second part of this chapter is the statistical analysis results which are the housing choices and the determinants of the housing choices of Myanmar migrants working in the CBD of Bangkok.

Chapter (6) discusses the summary of the findings, discussions, conclusions, and recommendations for future studies.



Chapter 2

Literature Review

2.1 Migrants and Migrations

The International Organization for Migration (2019) claimed that Migrants are- “An umbrella term, not defined under international law, reflecting the common understanding of a person who moves away from his or her place of usual residence, whether within a country or across an international border, temporarily or permanently, and for a variety of reasons” (p. 132).

According to Datta (2012), two distinct types of migration are commonly observed. The first is rural-urban migration, which is prevalent in countries with lower levels of development. This type of migration occurs when landless farmers from rural areas relocate to urban centers for improved economic opportunities. They are motivated to enhance their livelihoods and seek better prospects in urban settings. The second type is urban-rural migration, often observed among middle-class populations. Individuals move from congested city centers to satellite towns or countryside areas in this case. This migration pattern is driven by the aspiration to escape the pollution and overcrowding of urban areas, seeking a cleaner and more serene living environment.

Migration is the result of the decision of an individual to move from one place to another for several reasons, especially in search of a better life (The International Organization for Migration & The Asian Research Center for Migration, 2015). There are many various types of migration, each of which involves a unique spatial process and is carried out by a distinct social grouping; consequently, the migrants' housing requirements and preferences are highly variable.

2.2 Migrations in Thailand

Migration is crucial to the socioeconomic development of Thailand. In Thailand, there are three primary migration types: inbound, outbound, and internal. The movement of immigrants into Thailand is referred to as inbound migration. As of

November 2018, Thailand was home to approximately 4.9 million non-Thais, including 3.9 million migrant workers from Cambodia, the Lao People's Democratic Republic, Myanmar, and Vietnam. More than 10% of Thailand's 38.7 million labour force are migrant workers. Outbound migration refers to Thais leaving the country for employment or other reasons. Thousands of Thai workers each year migrate to Asia, Europe, and the Middle East for employment. Internal migration refers to the movement of people within Thailand from one region or location to another. The majority of these migrations are influenced by seasonality, disparities in income and opportunities between regions in Thailand, and income disparities between regions. Significant rural-to-urban migrations within the country exist as people seek better employment opportunities and living conditions in urban areas (Smith et al., 2019).

In Thailand, inbound migration is an essential phenomenon among all types of migration. The population of non-Thais increased from an estimated 3.7 million in 2014 to an estimated 4.9 million in 2018. A growing economy, a low unemployment rate, and demographic patterns such as an ageing population and a declining birth rate are significant drivers of labour migration demand. The reliance on migrant labourers, particularly those from CLMV (Cambodia, Lao People's Democratic Republic, Myanmar, and Vietnam), who make up the majority of the migrant population, is likely to persist (Smith et al., 2019).

According to the findings of UNESCO, UNDP, IOM, and UN-Habitat (2017), 34.7% of total migrants went to Thailand for occupational reasons, 33.2% moved to follow or re-join family, 17.5% moved to change their location, and 6.4% moved for educational reasons. Therefore, it can be inferred that employment is the primary motivation for most migrants to move to Thailand. Most international migrants in Thailand come from countries that are geographically close to it, most notably Myanmar, Cambodia, and Laos. A significant number of these migrants are employed in positions requiring a low level of expertise, including jobs in the service industry, agriculture, and construction.

Thailand has established several different policies and initiatives to manage international migration better. These measures include signing bilateral agreements

with its bordering countries and establishing a registration system for migrant workers. With Memorandums of Understanding (MOUs), the Thai government has sought to increase migrant worker employment. The number of migrant workers entering Thailand under these agreements has been on the rise for a number of years, with almost three times as many migrants using the MOU process in 2017 compared to just four years earlier. However, international migration in Thailand is still fraught with numerous obstacles, such as the exploitation and mistreatment of migrant labourers, human trafficking, and discrimination (Smith et al., 2019).

2.3 Housing and Housing Choices

Hage (1997) defines "home" can be understood through four fundamental elements: security, a sense of familiarity, community, and the potential for opportunities. Ruonavaara (2018) stated that housing is a tangible entity, an object that can be constructed and demolished, manufactured and consumed, perceived and encountered, and bought and sold. Furthermore, numerous international agreements recognize housing as a fundamental human right. It is categorized under the Economic, Social, and Cultural Rights outlined in the Universal Declaration of Human Rights. Moreover, housing is considered an essential requirement, often included in the right to life by many nation-states (Datta, 2012).

Housing choices refer to the decisions individuals or households make regarding selecting a place to live. These choices are influenced by various factors, such as personal preferences, needs, and available alternatives. The authors point out that housing choices are dynamic and constantly evolving, reflecting the shifting preferences and behaviors of individuals within a society (Zinas & Jusan, 2012).

Moreover, Brown and King (2005) also stated that True choice entails selecting a preferred option from a range of unique possibilities. Housing choices differ according to family size, income, career, health, aspirations, community, or school demands. A household may wish to maximize pleasure by planning for future home options that will consider anticipated changes in circumstances (Roskey, 2012).

According to Mulder (1996), housing choices refer to the decisions people make when selecting a dwelling to live in. Housing choice is a crucial aspect of residential mobility, as it is often a primary reason for people to move within a country. The availability of suitable housing plays a significant role in the decision to move, and the author stated that housing is essential for migration, as it is often required for accepting a job or pursuing higher education.

The impact of housing choice on urban planning is noteworthy. Creating high-quality neighborhoods that offer diverse housing options, aiming to enhance housing affordability and cater to the requirements of various households, holds immense importance in urban settings. Collaboration among urban designers, planners, and developers becomes crucial in establishing inclusive and sustainable communities. Understanding the decision-making process and trade-offs made by households concerning location, dwelling types, and sizes can guide these stakeholders. Factors like proximity to amenities and services, transportation accessibility, and the availability of different housing types must be considered. By providing a range of housing choices, urban planning and development can contribute to the development of vibrant and livable cities that meet the diverse needs and preferences of residents.

2.4 Housing in Thailand

There is a wide variety of housing available in Thailand, ranging from houses to contemporary apartments in high-rise buildings. Tanhiphat (1983) elaborated on the housing supply in Thailand. The housing supply in Thailand is comprised of numerous subcomponents that meet the population's varied housing needs. Figure 2 provides a graphical representation of the various housing types available in Bangkok and classifies them according to the income range of their intended population.

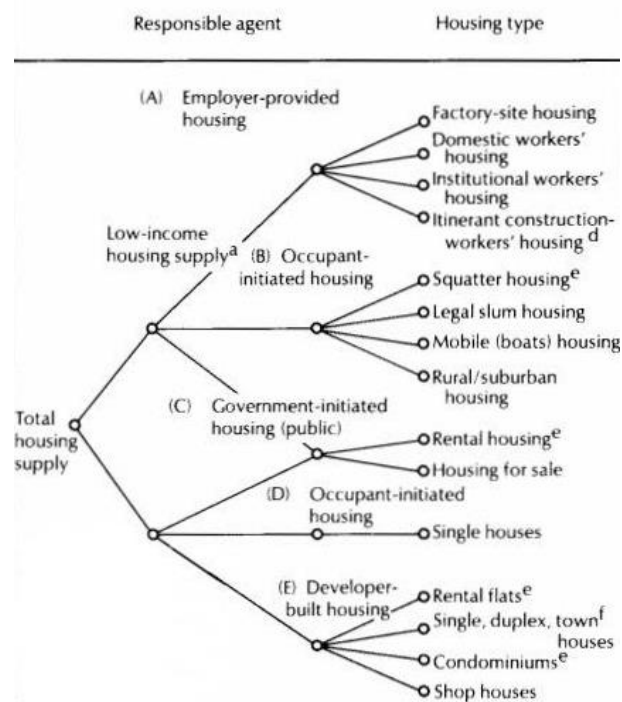


Figure 2 Housing Supply in Thailand (Tanphiphat, 1983)

Figure 2 illustrates the origin of housing supplies in Bangkok. The author categorized them according to the economic range of the client groups. The total housing supply of Bangkok was categorized into low-income housing supply and middle/housing supply.

According to Tanphiphat (1983), the Low-income housing supply can be categorized into three groups: employer-provided housing, occupant-initiated housing, and government-initiated housing.

Employer-provided housing - This group includes housing options employers provide to their employees. It encompasses various housing types, such as factory-site housing, housing for domestic workers, housing for institutional workers, and housing for itinerant construction workers. The demand for itinerant construction workers' housing is typically low in smaller cities due to the short commuting distances involved.

Occupant-initiated housing- This category comprises housing initiatives initiated by the occupants themselves. It encompasses different types of housing, including squatter housing (informal settlements), legal slum housing, mobile housing (such as boats), and rural/suburban housing. These housing options are typically initiated and developed by the residents themselves.

Government-initiated housing - The government takes the lead in providing this type of housing. It consists of two main types: rental housing and public housing. Rental housing is usually not in demand or available in secondary cities. Public housing initiatives aim to provide affordable housing options for low-income individuals and families. The National Statistical Office of Thailand (2000) classified four housing types in Thailand. They are detached houses, townhouses, apartments or flats, condominiums, and row houses.

There are two main groups in middle- and high-income housing supply: occupant-initiated housing and developer-built housing.

Occupant-initiated housing - The category primarily consists of single houses, where individuals or families take the initiative to construct their own homes based on their preferences and requirements. On the other hand, developer-built housing encompasses four distinct categories:

Rental flats - These are residential units constructed by developers and offered for rent to tenants.

Single duplex - This category includes duplex units, two separate residential units within the same building.

Townhouses - Townhouses are typically available in larger cities with a population of 80,000 or more. They are multi-level, attached homes with shared walls and individual ownership.

Condominiums - Condominiums are multi-unit residential buildings with individually owned units. They often provide shared amenities and services for the residents.

It's worth noting that shophouses, typically commercial spaces on the ground floor and residential spaces on the upper floors, are also included in the developer-built housing category. Figure 2 illustrates the different categories within the middle- and high-income housing supply, highlighting the variety of options available to occupants and the role of developers in constructing and providing housing solutions.

Additionally, Japan International Cooperation Agency (2013) has categorized housing in Thailand into three categories based on population and household censuses in 2000 and 2010. Housing types in Thailand were categorized into detached houses, townhouses/rowhouse (since shophouse is classified as townhouse/rowhouse), and condominium/apartment.

Moreover, Kusakabe et al. (2019) discovered five common housing types in Pathum Thani, Bangkok, Thailand. They are dormitories, rooms in shophouses, townhouses, houses constructed on rented land, and rental rooms in divided houses.

Dormitory - The dormitory is a multi-story building in which Myanmar citizens reside. It has a high level of security and requires legal documentation from at least one of the residents. There are superior amenities, such as air conditioning, and higher rents on the lower floors, where Thais reside. There can be between 2000 and 3000 Baht and 1.65 persons living there (Kusakabe et al., 2019).

Rooms in shophouses and rental rooms - Rooms in shophouses/rental rooms are convenient for migrants to commute to work. Even though the houses are ancient, overcrowded, and poorly built, some migrants prefer to reside there because of the proximity. There is no documented requirement for renting, and there is no security facility. Townhouses cost between 800 and 2400 baht and can accommodate 1.38 people. They are two-story attached homes typically found in housing estates. They have multiple chambers as well as a kitchen. Only for Thais, although some individuals with Thai names reside there. One legal document is required for

residency. Approximately 8.5 people can reside there. The rent and utility costs are 6,000 baht and 1,500 baht per month, respectively (Kusakabe et al., 2019).

Townhouses - Townhouses are typically developed in housing estates and range in price from 800 to 2400 baht. They have two stories and can accommodate up to 1.38 persons. They have a kitchen in addition to a few bedrooms. Only for Thais, however, some foreigners with Thai names have been known to settle there. One piece of official documentation is required to prove residency. There is room for 8.5 people to reside there. The rent is 6000 baht per month, and the utility cost is 1500 baht per month (Kusakabe et al., 2019).

Houses built on rented property - Houses that are built on rented property are owned by Thai individuals. Migrants hired the room and built a house out of materials that were readily accessible. It costs 650 baht per month for the land, and there can be 4.66 persons living there. There are no Burmese people residing there; only Cambodians and Laotians live there. There is no requirement to present a legal document (Kusakabe et al., 2019).

Rental rooms in divided houses - People from the northeast used to dwell in rented rooms in divided houses, but nowadays, migrant workers rent the space. The rent is 1,000 to 1,200 Baht per month, and the electricity costs 500 Baht. Around 2.4 persons can reside in these rooms without a need for legal documentation (Kusakabe et al., 2019).

Summary of Housing Types in Thailand

To summarize the housing types in Thailand, there are some similarities and differences between housing types, according to different authors. According to previous literature presented, the most common types of housing in Bangkok can be summarized into apartments/condominiums, detached houses, shophouses/rowhouses, and townhouses, as described in Figures 3, 4, 5, and 6.

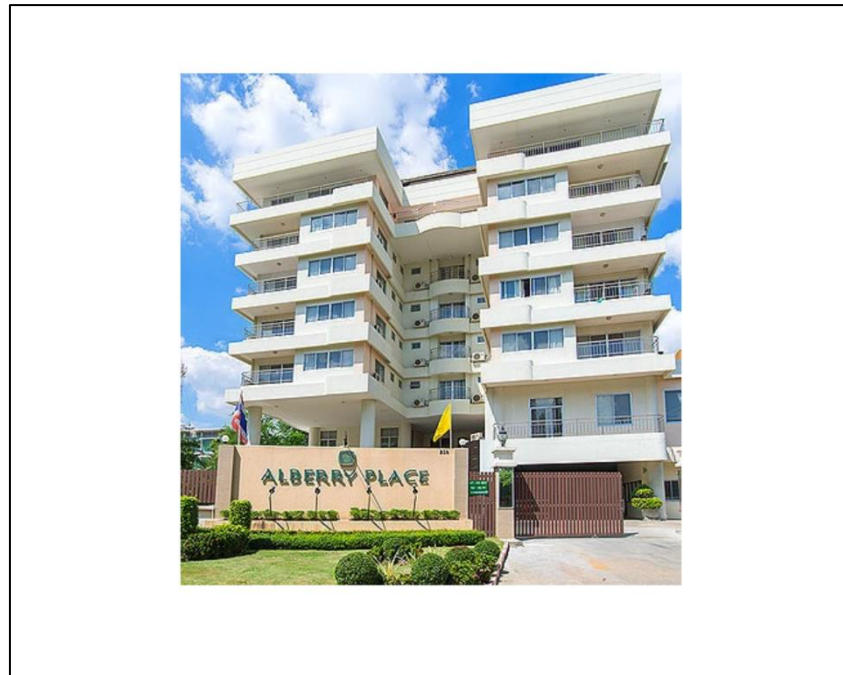


Figure 3 Apartments or Condominiums (RentHub, 2023)



Figure 4 Detached House (Bangkok Post, 2020)



Figure 5 Townhouses

Source: Author

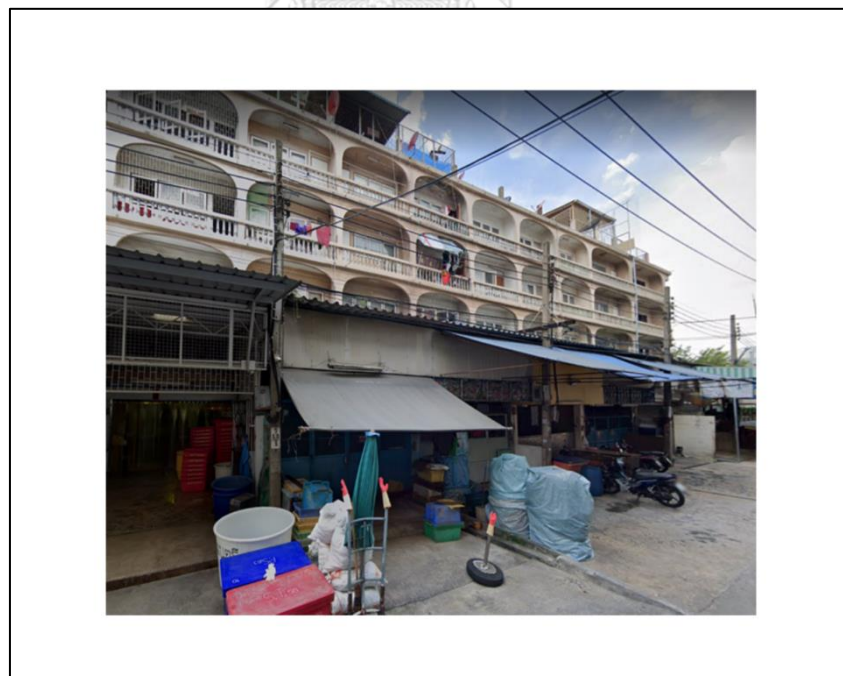


Figure 6 Shophouses/ Rowhouses (Google, 2020b)

2.5 Spatial Distribution of Housing and Jobs

The housing and employment patterns of a city have an impact on its economic sustainability. The spatial distribution of jobs and housing is a significant determinant in shaping a city's social, economic, and environmental sustainability. Housing quality tends to be better in areas with greater job accessibility, and rents are consequently higher (Nakamura & Avner, 2021). Moreover, the rent of housing in a city is affected by the location of jobs and the cost of transportation, and it is generally accepted that the rent gradient is steeper in locations that are more easily accessible (Alonso, 1964; Guastella & Pareglio, 2014; Thünen, 2009). Because of this, housing rents tend to be higher in the central business district (CBD), which has a high accessibility to jobs compared to other parts of the city.

According to the bid-rent theory stated above, there is a trade-off between housing rent prices and job opportunities in the city. As the cost of land and transportation decreases, the accessibility to jobs increases, leading to higher housing rental prices. This creates a dilemma for workers, who may face difficulties in finding affordable housing close to their jobs. The workers may choose to live in lower-quality housing close to their jobs or higher-quality housing farther away, depending on their priorities and available options.

For the workers who live in inner-city informal settlements, where the rent is comparatively lower than the formal housing since the closeness to job possibilities is more important to them than more ideal living conditions. These households may have the possibility to be exposed to environmental and health concerns because of overcrowding and limited access to essential amenities.

On the other hand, the workers who choose to live far from the CBD will have to travel long distances to get to work as better job opportunities are agglomerated in the CBD. This can increase traffic congestion, pollution, and carbon emissions. Moreover, it is expected that when houses and employment opportunities are in different places, it can make some neighborhoods more socially and economically different from others. People who live in areas with limited

employment opportunities may find it hard to escape poverty (Marx et al., 2013), while those who live in areas with high-paying jobs may be able to get a better education and health care and have a higher standard of living. Additionally, if there is a mismatch between where workers live and where jobs are located, it can make it more difficult for businesses to attract and retain employees. This can have a negative impact on the local economy.

Therefore, there are tradeoffs that workers have to deal with when choosing their housing locations according to the shape of the city, the clustering patterns of employment, the function of housing markets, and transport networks.

2.6 Literature Reviews on Housing Choices of Migrant Workers

Housings of migrant workers can vary greatly depending on the legal and social context of the country they are in. This can include purpose-built residential properties, such as apartments or houses, as well as rooms in sub-divided properties or self-built houses on rented land. Other forms of migrant housing can include temporary structures on or separate from the work site, dormitories, encampments on farms or plantations, and even areas within the employer's home. In addition, migrants may also live in areas within partially built constructions or in sub-divided shipping containers, cabins, or bunks in fishing, cargo, or cruise ships. These forms of housing may not always provide adequate living conditions or meet legal housing standards and can pose risks to the health and safety of migrant workers. (Kusakabe et al., 2019; Napier-Moore & Sheill, 2016; Office of the High Commissioner for Human Rights, 2014).

In certain instances, these accommodations may represent informal settlements in which the inhabitants do not have formal ownership or a lease agreement for the land and/or dwellings they occupy, such as informal rental housing, housing that does not comply with current planning and building regulations and squatting. These areas may not have access to essential utilities and infrastructure (United Nations, 2018). Furthermore, migrant workers may be homeless (United Nations Human Rights Council, 2015).

Sheill (2022) stated that the housing types accessible to migrant workers are influenced by migration status, documentation, labor sector, job mobility, nationality, language, gender, family status, and xenophobia/discrimination. These factors collectively impact the housing options available to migrant workers, as they may face varying levels of access, eligibility, and suitability for different types of accommodations based on these considerations. Recognizing and addressing these factors is essential to ensure equitable and inclusive housing opportunities for migrant workers.

2.6.1 Determinants of the Housing Choices of Urban Migrant Workers.

The housing choices of migrant workers have some differences and similarities among developing countries. Migrants make their housing choice based on social, economic, and social network and neighborhood and mobility characteristics.

2.6.1.1 Social Characteristics

Previous studies have proved that migrant workers choose their housing based on social characteristics. Social characteristics include age, education, marital status, presence of dependent in the household, housing types, and house ownership. According to Gan, Zou, Chang, Li, and Zillante (2016), the housing choice of migrant workers has been found to be positively affected by age, education, housing types, and housing ownership in Chongqing, China. Moreover, Kusakabe et al. (2019) found that one of the things that married people migrating to a new country need to think about is how they would build a home and care for their children in the destination country. Because a significant amount of accommodation, especially dormitories and rooms in shophouses, is designed for single workers, it can be challenging for people with families to locate a property that is suited for them. Some migrants who have children have been subjected to criticism from their neighbors that they make too much noise. Some parents choose to send their children back to the nation from where they came. Although they are more expensive than other options, some families choose to live together in rented land or townhouses rather than in dorms. Additionally, Seo and Kwon (2017) have proved

that housing ownership and housing types have a significant impact on the housing choices of migrant workers in Ho Chi Minh City, Vietnam.

2.6.1.2 Economic Characteristics

The most common and major element that has an impact on the housing choices of migratory workers, according to previous studies, is economic characteristics. Economic characteristics mostly contain rent, monthly income, monthly household income, and remittances.

According to the findings of Gan et al. (2016) and Tong et al. (2020), rent is the most influential factor determining migrants' housing choices in China. However, in Thailand, one of the determining elements in the housing decisions of migrant workers is whether they have made investments in their home countries. The monthly cost of rent is one of the most important considerations made by migrant workers when making housing decisions. Some of the migrant workers attempt to cut costs associated with housing while also investing money they send back to their home countries (Kusakabe et al., 2019). Similarly, Tao, Hui, Wong, and Chang (2015) revealed that remittances and income influence the housing choices of migrant workers. Moreover, Seo and Kwon (2017) have discovered that household income also has an impact on the housing choices of urban migrant workers.

2.6.1.3 Social Network and Neighborhood Characteristics

Tong et al. (2020) found that migrants' housing choices are influenced by social networks and neighborhood characteristics. The author stated that migrants who choose to settle in urban villages often find it simpler to make new friends, adopt new social norms and lifestyles, and form new, trustworthy relationships than in more isolated neighborhoods. Similarly, the Javanese migrants tend to choose housing that is close to their workplaces and family members (Theresia et al., 2019). According to Kusakabe et al. (2018), living close to family members and social networks are prominent concerns mentioned by migrant workers in the process of choosing a home in Talad Thai, Pathum Thani, Bangkok, Thailand. One of the most essential factors for migrant workers when deciding where to reside is their

connection and relationship with other people, particularly with family and relatives. Migrant workers like to live somewhere that gives them a sense of belonging.

Seo & Kwon (2017) found out that the commuting environment has associations with the housing choices of urban migrant workers. The increasing population, rising numbers of cars and motorcycles, and limited public transport services are the key pain points for commuting in Ho Chi Min City, Vietnam. Seo and Kwon (2017) revealed that it is crucial to choose a house in a neighborhood that has public transportation availability, main road accessibility, and workplace proximity.

There are both documented and undocumented migrants working in Thailand. Finding to live in a neighborhood that is away from police interrogations is one of the most challenging issues for undocumented migrant workers in Thailand. One of the greatest threats migrants face is being apprehended by authorities for questioning. Therefore, living in a place that does not have frequent police interrogation is a factor that migrants consider when choosing their housing (Kusakabe et al., 2018).

2.6.1.4 Mobility Characteristics

Previous research has shown that individuals' housing choices may also be highly influenced by their plans to work in other cities, change the history of their residents, and return to their hometowns. Tao et al. (2015) stated that migrant workers who have been in the same area longer might have more money, more extensive social networks, and easier access to financial and mental support than those who have just arrived. According to the findings of Tao et al. (2015), the migrant worker's plans to work in other cities, their resident's change history, and plans to work in other cities significantly impact their housing choices in Shenzhen, China.

2.7 Reviews of Methodologies

In reviewing the methods for exploring the housing choices of migrants, some studies have conducted qualitative analyses, and some studies have conducted quantitative analyses. It is found that there are two most common methods in

qualitative studies, which are the mean end chain and the interviews. The interview aims to find out what the houses really want. Mean-end-chain is used to find the links between spatial characteristics, their effects, and their values. The process starts with figuring out the spatial features of the house and asking why they are there to find out what they mean and, finally, what values the person who lives there holds. The key informant interview method is used in some studies to explore the housing types and housing choices of migrant workers in the study area.

There are four most common qualitative methodologies in studying the housing choices of urban migrant workers. They are factor analysis, multinomial logistic regression, multiple regression, and chi-square methods. Factor analysis determines the key components of housing adequacy affecting housing choice. Multinomial logistic regression is used when housing choice is a categorical variable, and the predictor factors are either continuous or categorical. Since the housing decisions and the predictor variables are categorical variables, the chi-square test can also be used to examine the relationship between two categorical variables. Multilinear regression analysis determines the relationship between housing choices and independent variables such as rents.

In summarizing the methodologies, some studies have conducted qualitative analyses, and some studies have conducted quantitative analyses. For example, in the case of Jakarta, in studying the housing preferences and strategies of Javanese migrants in Jakarta, the qualitative method with an interview, direct observation, and mean-end method are used to trace spatial attributes (Theresia et al., 2019). In the Talad Thai case, in exploring the housing choices of migrant workers, qualitative analysis is used. Key informant interview with 55 migrant workers (Lao, Cambodian, and Myanmar who live around Talad Thai) has been carried out (Kusakabe et al., 2018). Multinomial logistic regression analysis and cross-tabulation analysis have also been chosen to explore the housing choices of migrant workers (Tao et al., 2015). Multiple linear regression analysis has been used in most of the articles to find out the housing choices of migrant workers from a social capital perspective (Tong et al., 2020). The chi-square test of independence is conducted to look for significant

correlations between the existing dwelling type and other resident-related parameters in Ho Chi Min City, Vietnam. The summary of methodologies that are used to study the housing choices of urban migrant workers has shown in Figure 7.

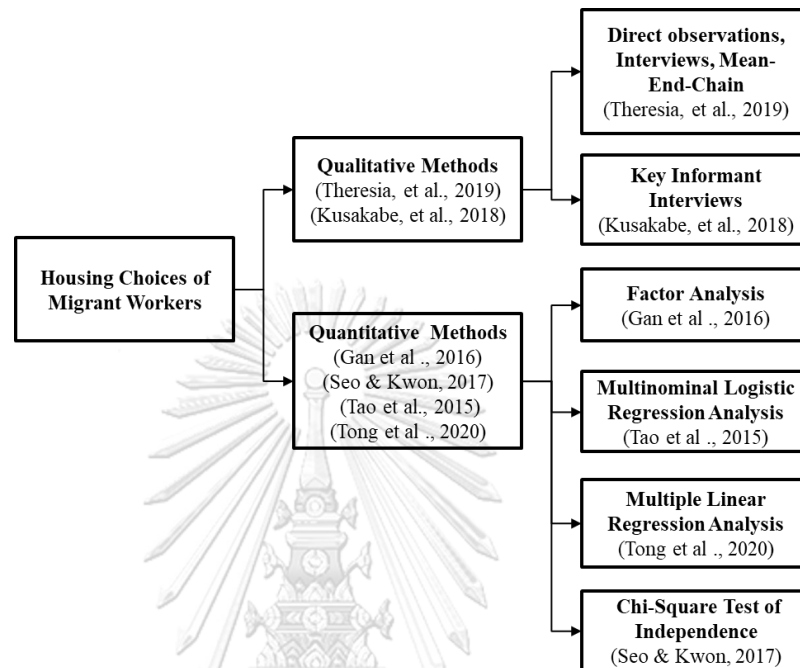


Figure 7 Methods for Studying Housing Choices of Urban Migrant Workers

Therefore, it can be concluded that both the qualitative analysis and quantitative analysis in exploring the housing choices and determinants of housing choices. Qualitative analysis has been carried out in exploring the housing choices of urban migrant workers in specific study areas with small sample sizes, and quantitative analysis has been utilized in nationwide studies with large sample sizes.

2.7 Summary of Literature Reviews and Conceptual Framework

According to the literature reviews of the housing choices of urban migrant workers, it is found that there are some similarities and differences among countries. In China, migrant workers choose houses based on social, economic, mobility, and social networks. Mobility characteristics such as plans to work in other cities, resident change history, and plans to go home are also influencing factors for the housing choices of urban migrants. It is found that Hukou is also one of the influencing

factors in the housing choices of Chinese migrant workers. However, in Thailand, it is found that there are both documented and undocumented migrant workers in the labor market. The migrant workers from Thailand want a place that is away from police interrogations, and they tend to live close to their workplace and social network. Therefore, apart from social and economic characteristics, social network and neighborhood characteristics are one of their concerns in their housing choices. In Jakarta, the Javanese migrant workers have the same housing choices criteria as the Chinese migrant workers. The Javanese migrant workers want to live close to family members with spacious rooms. Therefore, it can be regarded that migrant workers from Jakarta choose their homes based on their location, social network, and social characteristics. In Vietnam, the migrants choose their housing based on household income, housing types and ownership, and commuting environments. Therefore, it can regard that migrant worker from Vietnam chooses their housing based on social, economic, and neighborhood characteristics. After summarizing the key findings in the literature, the conceptual framework for the housing choices of migrant workers has developed, as shown in Figure 8,

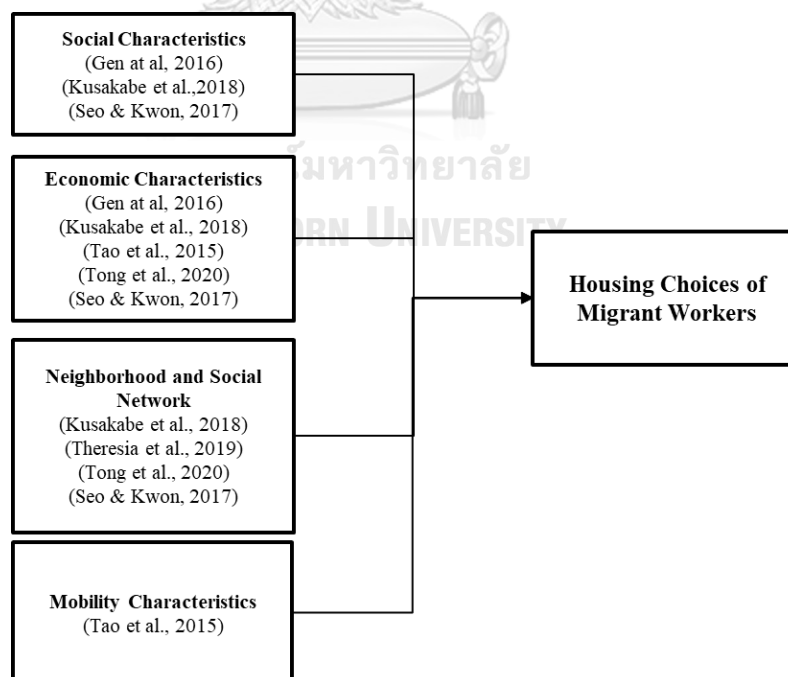


Figure 8 Conceptual Framework of the Study

Chapter 3

Methodology

3.1 Research Methodology

This chapter describes the research methodology which is used to investigate the determinants of the housing choices of Myanmar migrants working in the CBD of Bangkok. This study employs quantitative approaches, as illustrated in Figure., using questionnaires and surveys derived from literature reviews and subsequently utilizing the primary data from the questionnaire surveys. The data are analyzed by two analytical methods, which are spatial analysis and statistical analysis.

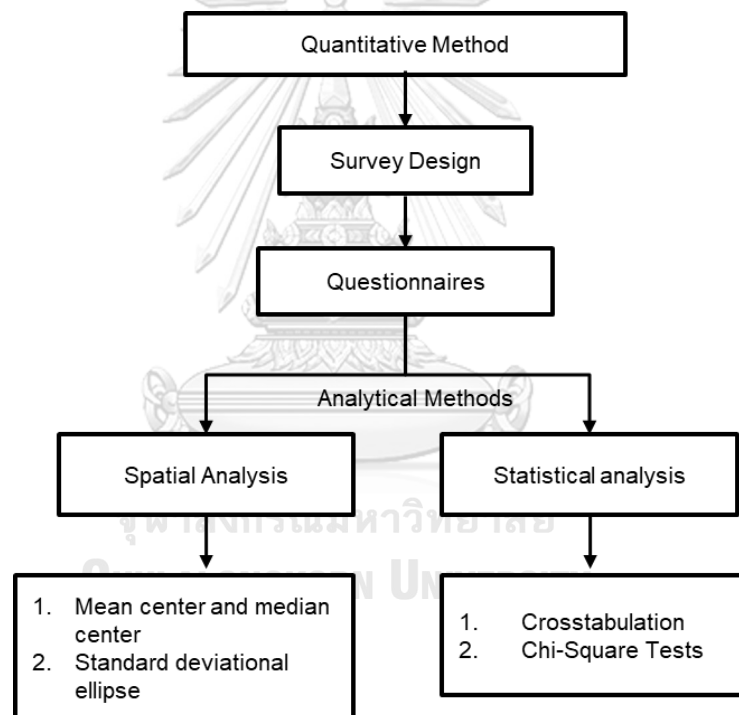


Figure 9 Methodological Framework of the Study

The research has been carried out through the following procedures. Firstly, the housing choices of migrant workers were conceptualized, followed by reviewing the different studies in various countries with a large population of the housing choices of both or either international or internal migrant workers. Secondly, the researcher identified the factors affecting the housing choices of migrant workers and captured the methodology of different studies about the housing choices of migrant

workers. Thirdly, the study area was selected, which is the Central Business District (CBD) of Bangkok, to conduct the field research to gather primary data through questionnaires. About sixty-four (64) Myanmar migrant workers were recruited to participate voluntarily in the data collection process. They were recruited by purposive sampling method, snowball sampling method, and convenience sampling methods. Moreover, the survey data were analyzed through statistical analysis and spatial analysis. Fourthly, a statistical analysis was carried out to investigate the factors affecting the housing choices of Myanmar migrant workers in Bangkok. Descriptive analyses (cross-tabulations, chi-square test of independence) were used to find out the factor affecting the housing choices of Myanmar migrant workers. Finally, spatial analysis was employed to find out the distribution of the job and housing of Myanmar migrant workers in Bangkok. By detecting the point locations, the spatial distribution of the housing and job, the distance from job to home, and the mean center of the housing location were calculated.

3.2 Data Collection and Data Collection Guide

3.2.1 Data Collection

Field research was conducted by using questionnaires that are derived from literature reviews and survey questions designed in the online Google survey template. In the meantime, the online Google form turned out to be a barrier for participants with a low ability to utilize digital technology and difficulty understanding the questions due to language. This is because there are seven minor ethnic groups, and they have different languages and dialects. Some of the migrant workers who were asked to fill out the form belong to these minor ethnic groups. Therefore, the researcher assisted them in filling out the form and helped them understand the questions clearly when needed.

Study Area

This study is limited to recruiting Myanmar migrants working in labor-intensive job sectors in the central business district of Bangkok. This study aims to explore the housing choices of Myanmar migrant workers in different industries such as

construction, domestic, retail, and restaurants. Therefore, the research area was selected based on the job location of migrant workers, such as retail and restaurants. This research focused on the Central Business Districts of Bangkok (CBD). In terms of administrative boundaries, the study area includes Pathum Wan District, Rat Thewi District, Sa Thon District, Bang Rak District, and Yannawa District.

Units of analysis

Myanmar migrant workers from labor-intensive job sectors in Bangkok have been considered as the unit of analysis for this study. This study recruited Myanmar migrants currently working in Bangkok's CBD.

Sampling Design

In this study, primary data were collected via questionnaires. There are both documented and undocumented Myanmar migrant laborer in Thailand, and there is no precise data on them. Therefore, the number of migrant workers in Myanmar remained unknown.

Following the Central Limit Theorem, a minimum sample size of 30 is anticipated for this investigation. This study increased the sample size to 64 for a more accurate population representation. Finally, 64 Myanmar migrant workers from Bangkok's labor-intensive industries were recruited for this investigation between October and November 2022.

Survey Form (Google Survey Form)

The survey form includes three parts. The first part detects the housing locations of Myanmar migrant workers. Part 2 investigates their housing choices and housing preferences, and Part 3 explores the determinants of the housing choices of Myanmar migrant workers.

The questionnaire part one investigates the housing and job locations of Myanmar migrant workers. They are open-end questions, and the respondents were asked to pin their housing and job location in the Google map; they were assisted by the researcher to paste pinned location link to the designated Google form.

Questionnaire part two investigated their housing choices and housing preferences. There are two types of questionnaires in survey part 2: a close-end question for housing choices and an open-end question for their housing preference.

Questionnaire part three included 26 questions about the determinants of housing choices categorized by social, economic, neighborhood, and social network and mobility characteristics. Apart from questions about age and percentage of remittance back to home, the rest of the 24 questions are close end questions. The detailed explanations and survey design can be observed in section 3.2.3.

Sampling method

This study employed a purposive sampling method as a unit of analysis of this study is Myanmar migrants working in the CBD of Bangkok. Therefore, the respondents were recruited purposively for this study. Moreover, the researcher collected the data in migrants' job locations such as markets and shopping centers, and the respondents helped to recruit more respondents by recommending their colleagues and friends to participate in the survey. Consequently, this study also employs the snowball sampling method.

3.2.2 Data Collection Guide

As presented in Table 2, there are three main parts in the survey design of this study. Part 1: Housing and job locations help to detect the house locations of Myanmar migrant workers in Bangkok by filling out the point locations (google map link to detect the latitude and longitude of the points) to the questionnaire survey. Part 2: Housing choices and housing preferences Identify the housing choices of Myanmar migrant workers in the CBD of Bangkok by questionnaire. It also helps to recognize the housing preference of migrant workers. Part 3: Determinants of housing choices investigated the factor affecting the housing choices of Myanmar migrant workers using a questionnaire survey.

Table 1 Data Collection Guide

Parts	Descriptions	Objectives	Methods
Part 1	Housing and Job Locations	To detect housing and job locations of Myanmar migrants working in the CBD of Bangkok.	Questionnaire
Part 2	Housing Choices and Housing Preferences	To identify the housing choices of Myanmar migrants working in the CBD of Bangkok. To recognize the housing preference of Myanmar migrant workers	Questionnaire
Part 3	Determinants of Housing Choices	To investigate the factors affecting the housing choices of Myanmar migrants working in the CBD of Bangkok.	Questionnaire

3.3 Analytical Methods

The spatial analysis (Distance Matrix and Mean Center and Standard Deviation Ellipse) was used to determine the housing and job locations and distributions of Myanmar migrant workers working in the CBD of Bangkok. Cross-tabulation was used to identify the housing choices, and the chi-square test determined the determinants of the housing choices of Myanmar migrant workers.

Table 2 Analytical Methods

Descriptions	Data Source	Analysis
Housing and Job Locations	Survey Section 1	Spatial analysis Distance Matrix Mean Center and Standard Deviation Ellipse
Housing Choices	Survey Section 2	Statistical Analysis Cross tabulation
Determinants of Housing Choices	Survey Section 3	Statistical Analysis Chi-Square test

Analytical Tools

QGIS version 3.16.9 and Crimestat version 3.2.0 were used to analyze the spatial data. QGIS was used to calculate the distance between housing job locations and produce the map, which provides information about the job and house distribution in the CBD of Bangkok. Crimestat was used to compute the mean center, median center, and standard deviation ellipse of job and housing locations of Myanmar migrants working in the CBD of Bangkok. IBM SPSS statistic version 22 was used to perform the statistical analysis, which included cross-tabulation and chi-square test of independence.

3.3.1 Spatial Analysis

Spatial analysis was employed to detect the housing and job locations, the distance between housing and jobs, and the spatial distribution of the housing in jobs, which includes mean center, median center, and standard deviation ellipse of

Myanmar migrants working in the CBD of Bangkok. The spatial data were analyzed in QGIS. The point layer of housings and jobs was derived from the survey data. The respondents were asked to fill in the Google pinned location link of their job and housing locations. By following the link, the latitude and longitude coordinates of the specific locations are attained. The researcher later projected to Coordinate the Reference system (CRS) and perform spatial analysis.

In QGIS software, the distance matrix analysis tool was utilized to determine the distances that existed between the respondents' places of employment and their houses. During this step of the process, the point layers that include the locations of the jobs and houses were put into QGIS. After that, the option to generate a distance matrix was chosen from the Vector menu under Analysis Tools. The Distance Matrix dialog was set up so that the input point layer would be considered the locations of the houses, while the target point layer would be considered the locations of the jobs. The evaluation tool determined the distances between each house location and each job location, which resulted in a total of 4096 distances being determined. However, the purpose of this analysis is to calculate the distance between houses and jobs of each respondent. Therefore, the only 64 distances that were taken into consideration were those that corresponded to the exact employment and dwelling locations of each respondent. The distances are in meters, and the researcher later converted them into kilometers. After the calculation of the distance between jobs and houses of each respondent, descriptive statistics were performed to investigate the distribution of the data, mean, median, and mode of the distance between jobs and houses.

By using Crimestat, the mean center, medium center, and standard deviational ellipse of housing and job locations were computed to detect the housing and job distributions of Myanmar migrants working in the CBD of Bangkok.

3.3.2 Statistical Analysis

This study employed the cross-tabulation and chi-square test to find out the housing choices and the determinants of the housing choices of Myanmar migrants working in the CBD of Bangkok.

To find out the housing choices of Myanmar migrant workers, cross-tabulation has mainly been utilized. Firstly, the data have been summarized in a table with the options for one variable listed as rows and the options for the other variable listed as columns. Crosstabulation involves tabulating two variables simultaneously and counting individuals' frequency and/or percentage in each subcategory. The observed and expected frequencies of each variable can be obtained by running a cross-tabulation test. The observed values represent the sample's actual counts. The expected values indicate each cell's value if there were no associations between the two variables. The housing choices of Myanmar migrant workers can be identified from observed frequency and percentage. The expected frequency was calculated to perform the chi-square test. The chi-square statistic compares observed and expected values. This test statistic determines whether the difference between observed and expected values is statistically significant. Since the questionnaire primarily contains nominal and categorical variables, the chi-square test of independence has been mainly employed to identify significant associations between housing choices and the explanatory variables, which are assumed to be the determinants of housing choices. When nominal variables are present, the chi-square test of independence (the Pearson chi-square test or simply the chi-square) is one of the most compelling statistics for testing hypotheses. In contrast to most statistics, the chi-square (2) provides information about the statistical significance of observed differences and the categories responsible for any observed differences (McHugh, 2013).

For the test to be valid, the expected frequency count for each cell in the table must be at least five, and no more than 20% of the cross tables can fall below this threshold (Seo & Kwon, 2017). In this study, some of the categories of the

variables were not able to meet that condition; therefore, they were re-categorized for statistical validity.

3.4 Variables

The variables investigating the factors affecting the housing choices of Myanmar migrant workers are discussed in this session. There are five housing categories in this study. They are housing choices, social characteristics, economic characteristics, social network and neighborhood characteristics, and mobility characteristics.

3.4.1 Dependent Variables

Rowhouses, shophouses, townhouses, apartments (or) condominiums, and detached houses are the most common types of dwellings in Bangkok. The dependent variables of this study are proposed to be apartments/condominiums, townhouses, rowhouses/shophouses, and detached houses, which are described in Table 4.

Categories	Variables in Detail	References
Housing Choices	Apartments/Condominiums	(Japan International Cooperation Agency, 2013; National Statistical Office of Thailand, 2000; Tanphiphat, 1983)
	Townhouses	
	Rowhouses/Shophouses	
	Detached Houses	

Table 3 Dependent Variables

3.4.2 Independent Variables

Social characteristics, economic characteristics, social network and neighborhood characteristics, and mobility characteristics are selected as the predictor or the explanatory variables.

Social characteristics

Age, gender, marital status, education, occupation, number of household members, living status, number of people working in the household, presence of dependent in family, number of dependents in the household, Thai language proficiency, migrant status in Thailand, length of stay in Thailand has categorized into social characteristics as described in Table 5.

Table 4 Independent Variables – Social Characteristics

Categories	Variables in Detail	References
Social Characteristics	Age	(Seo & Kwon, 2017; Tao et al., 2015; Tong et al. 2020)
	Gender	(Seo & Kwon, 2017; Tao et al., 2015; Tong et al. 2020)
	Marital status	(Tao et al., 2015; Tong et al. 2020)
	Education	(Tao et al., 2015)
	Occupation	(Seo & Kwon, 2017; Tao et al., 2015)
	Number of household members	
	Living status	
	Number of people working in the household	
	Presence of dependent in the family	
	Number of dependents in the family	
	Thai language proficiency	
	Migrant Status	
	Length of stay	(Tao et al., 2015)

According to Tong et al. 2020 and Tao et al. (2015), the age of the household head was selected as a variable since their study is about urban-rural migration, the workers migrated by the whole family. Therefore, the age of the household head was one of the influencing factors in choosing the housing for the family in their study. However, in Bangkok, the migration pattern appears to be different. The majority of

migrant workers from Myanmar migrate to Thailand solely for working purposes; therefore, they tend to migrate individually or with their partners or send their children back to Myanmar. For that reason, this study focuses on the migrant status and the age of individual respondents. However, some households might have household dependents, such as parents and children of migrant workers living in the same household. Therefore, the number of people working in the household, the presence of a dependent, and the number of dependents in the household were also selected as explanatory variables in this study.

It is assumed that a migrant worker who has a family may choose housing according to their household size. Living status and the number of household members are also important variables to consider in housing choices. Some of the migrants tend to live together with friends, colleagues, or family in the same household. Thus, living status and household size are assumed to be the determinants of housing choices.

Migrant workers may need education for some of the jobs in the service industry, for example, cashier or waiter/waitress. Housing choices of migrant workers may differ based on their occupation and education. Therefore, education and occupation have been chosen to be a variable that may affect the housing choices of migrant workers.

It is assumed that staying and renting in a housing need to communicate with locals in the Thai language. Moreover, the length of stay in Thailand is believed to directly correlate with proficiency in Thai. Additionally, it is considered that legal status plays a significant role in the renting of a home for legal matters. Thus, Thai language proficiency, migrant status in Thailand, and length of stay in Thailand were also chosen as independent variables which affect the housing choices of the migrant workers in Bangkok.

Economic Characteristics

According to the literature review, rent, household income, monthly income, rent payment method, and remittances are assumed as economic characteristics in this study, as shown in Table 6.

Table 5 Independent Variables - Economic Characteristics

Categories	Variables in Detail	References
Economic Characteristics	Rent	(Kusakabe et al., 2018; Tao et al., 2015; Tong et al. 2020)
	Household income	(Tong et al. 2020)
	Monthly income	(Seo & Kwon, 2017)
	Rent payment method	
	Remittances	(Tong et al. 2020; Tao et al., 2015; Kusakabe et al., 2018)

Rent (Kusakabe et al., 2018; Tao et al., 2015; Tong et al., 2020), household income (Tong et al., 2020), monthly income, rent payment method, and remittances back to the home country are categorized as the economic characteristics that are assumed to influence the housing choices of migrant workers in this study. Rent is assumed to affect housing choices as well as household income. In Bangkok, some of the migrant workers live together with friends or their partners; therefore, it is assumed that migrant workers choose their housing not only based on the rent but also based on household income. The rent payment method is also one of the variables which are needed to be considered. Some of the migrant workers live with their bosses or in dwellings that are owned or provided by their employers. In some cases, they live with someone so that they do not need to think about the rent. For those reasons, how they pay the rent (rent payment method) is considered to be one of the explanatory variables in this study. Migrant workers tend to send the remittance back home. Remittance is one of the variables that is assumed to influence housing choices.

Social network and neighborhood characteristics

Social network and neighborhood characteristics are also influencing factors in housing choices, according to literature reviews.

Table 6 Independent Variables - Social Network and Neighborhood

Characteristics

Categories	Variables in Detail	References
Social Network and Neighborhood Characteristics	Social Network (Living near family or friends)	(Kusakabe et al., 2019; Tao et al., 2015; Theresia et al., 2019)
	Living far from police interrogation areas	(Kusakabe et al., 2019)
	Public Transport Accessibility (Living near public transport)	(Seo & Kwon, 2017)

Social network and neighborhood characteristics are also influencing factors in housing choices, according to literature reviews. In the context of Thailand, there are both documented and undocumented workers in the labor industry. Therefore, migrant workers are also assumed to live the neighborhoods where there are no police interrogations, and they tend to live close to their family and friends. Therefore, the social network and neighborhoods that do not have police interrogations are selected to be the predictor variables. It is assumed that migrant workers choose to live in a neighborhood that is accessible to public transport so that they can commute to their jobs easily. Therefore, the closeness of public transport is selected to be one of the predictor variables for migrant housing choices.

Mobility Characteristics

Mobility characteristics are thought to be related to migratory workers' housing preferences. Migrant workers often have strong attachments to their home countries, which could have a big impact on where they choose to live (Tao et al., 2015; Kusakabe et al., 2018). Additionally, their findings demonstrated that migrant workers' housing choices are significantly impacted by residential mobility plans.

Table 7 Independent Variables - Mobility Characteristics

Categories	Variables in Detail	References
Mobility Characteristics	Plans to work in other cities	(Tao et al., 2015)
	Residence change history	(Tao et al., 2015)
	Plans for going back (home country/ city)	(Tao et al., 2015; Kusakabe et al., 2018)

Therefore, plans to work in other cities, residents' change history and plans for going back to their home country are assumed as the predictor variables.

3.5 Delimitations of the Study

This study is limited to recruiting about 64 low-income Myanmar migrants who work in labor-intensive job sectors in the central business district of Bangkok. This study primarily focuses on the administrative districts of Yannawa, Bangrak, Pathum Wan, Rat Thewi, and Sa Thon. This study aims to explore the housing choices and the determinants of housing choices of Myanmar migrant workers in different industries such as construction, domestic, retail, hotels, and restaurants. The research area is selected based on the job location of migrant workers, such as hotels, retail, and restaurants. Regarding the data collection method, this study is designed to use google forms. When it became apparent that the online Google form presented a challenge for participants who lacked the skills necessary to make effective use of digital technologies and struggled to comprehend the inquiries, The researcher guided them through the process of filling out the form and explained the questions to them whenever they needed help understanding them. Purposive sampling and snowball sampling methods are employed in this study.

Chapter 4

Data

This chapter discussed the data collected from the questionnaire survey. There are three main parts in this chapter. The first part of this chapter explains the data collection method, and the second and third parts present statistical and spatial data. The statistical data included the housing choices, housing preferences, and the determinants of housing choices; the social, economic, social network, and neighborhood and mobility characteristics of Myanmar migrant workers. The spatial data represents Myanmar migrant workers' jobs and house locations by the administrative boundaries of Bangkok.

4.1 Data Collection Method

The unit of analysis is Myanmar migrant workers who are working in the CBD of Bangkok. Purposive sampling and convenient sampling are used to target this group. To collect the data, potential participants are identified through their workplaces.

In this study, street vendors are also one of the types of occupation variables. In Bangkok, there are different types of street vendors. For example, the workers sell things by moving around the city by walking or by using their vehicles which can be motorized or non-motorized. The other types of street vendors are that the worker sells their products on street markets. The researcher collects the data from the street market. Therefore, the location of street vendors can be identified as the exact location of the place where they sell things in the street market.

This study mainly employed a questionnaire survey, and the questionnaires and variables are derived from previous studies. There are three main parts to the survey design. The survey design includes questions that gather information. It includes a social, economic, social network, and neighborhood characteristics about the respondents, their housing and job locations, and their housing choices.

The survey questionnaires are bilingual. The survey was conducted on weekdays and weekends from the last week of October to November 2022 in the CBD of Bangkok. A preliminary survey was conducted in September 2020 to assess whether respondents could comprehend the questions and modify them correspondingly.

It is important to consider ethical considerations when collecting data from human participants, such as obtaining informed consent, ensuring confidentiality and security of participant data, and ensuring that participants understand the purpose of the study and how their data will be used. Therefore, these procedures were also followed both before and throughout the participant survey.

The participants were first provided with an overview of the study's background, objectives, and instructions. Making sure that the researcher informed the participants that the study was entirely for educational purposes and that the information was kept in strict confidence. Participants in the survey had the right to decline to answer any questions that would make them feel uneasy or uncomfortable. Participants in the survey had the option to quit asking questions if the researcher or the questions made them uncomfortable.

4.1.1 Structure of Questionnaires

Table 8 Structure of Questionnaires

Part	Objectives	Types of Variables	Number of Questions	Types of Questionnaires	Measurements
1	To detect the housing and job locations of migrant workers	Dependent Variables	2	Open End	
2	To investigate the housing choices and housing preferences of migrants working in the CBD of Bangkok	Dependent Variables	2	Multiple Choice Open-end	Nominal
3	To explore the determinants of housing choices of Myanmar migrant workers	Independent Variables	26	Multiple Choice Open-end	Nominal Ordinal Ratio Interval

Table 8 discusses the structure of the questionnaires in the survey. The explanations of the purpose of each question and its contributions to the research questions of this study. There are three parts to survey design, as discussed in the data collection guide, and the survey design is questionnaire type.

The purpose of the first part of the survey was to gather the dependent variables of the study, which are housing and job locations. There will be two open-end questions.

The purpose of the survey second part is to investigate dependent variables: the housing choices and housing preferences of migrants working in the CBD of Bangkok. There are two questions in part two. A multiple-choice question to

investigate the housing choices of Myanmar migrant workers and an open question to explore the housing preferences of the respondents and nominal measurements have been employed.

The purpose of questionnaire part three is to explore the determinants of housing choices of Myanmar migrant workers. The variables and questions were adapted from previous studies, and the detailed explanations of the variables are described in section (3.4). The questions in survey part three are categorized based on four characteristics: social, economic, social network, and neighborhood and mobility.

Social characteristic questions are to gather information about gender, marital status, education, occupation, number of household members, living status, number of people working in the household, presence of dependent in the family, number of dependents in the household, Thai language proficiency, migrant status in Thailand, length of stay in Thailand. There is a total of thirteen questions in this section. Questions about age, number of household members, number of people working in the household, and number of dependents in the household are open-ended questions, and the rest are multiple-choice questions.

There is a total of six questions on economic characteristics; five of them are close-ended questions about rent payment method, monthly income, monthly household income, rent, and remittance. The last question is open-ended, and it is about the percentage of the remittance that they send back to their home country.

There are three multiple-choice questions in social network and neighborhood characteristics. The questions include the investigations of whether their housing is located near their family, public transport, and the area where frequent police interrogations took place or not.

The mobility characteristic part has three questions, and all of them are multiple choices questions. The questions help to capture their mobility plans. The questions are about their plans to work in other cities, residents' change history, and their plans to go to their home country. The survey design in the English language is

shown below, and the survey design in the Myanmar language is shown in Appendix A. Moreover, this study was able to investigate the travel mode choices from houses to jobs of Myanmar migrant workers as additional information.

Social characteristics such as occupation and legal status are measured with a nominal scale. Education, income, and Thai Language proficiency are measured on an ordinal scale. The number of dependent, number of people in the household is measured on a ratio scale. Age, household size, and remittance percentages are measured in the Interval scale. The survey questionnaire is provided in two languages; English and Myanmar, which can be seen in Appendix A and B.

4.2 Statistical Data

This section mainly discusses four parts: housing choices, housing preferences, and the determinants of the housing choices of Myanmar migrants working in the CBD of Bangkok. The first section discusses the housing types that migrant workers choose to live in Bangkok. The next section discusses their housing preferences. Moreover, the third section discusses the determinants of Myanmar migrants working in the CBD of Bangkok. Finally, the descriptive statistic of the mode of transport from houses to jobs is discussed at the end of the section. The data for each characteristic from the survey questionnaires are described as follows.

Housing Choices

Table 9 represents the housing choices of Myanmar migrants working in the CBD of Bangkok. It is observed that more than half (62.5%) of the migrants choose to live in apartments or condominiums, and 35.9 % of respondents choose to live in rowhouses/shophouses. Only 1.6 % choose to live in detached houses.

Table 9 Housing Choices

Housing Choices			
Variables in Detail	Categories	Frequencies	Percentages (%)
Housing choices	Apartments/Condominiums	40	62.5%
	Detached Houses	1	1.6%
	Rowhouses/Shophouses	23	35.9%

Housing Preferences

Table 10 illustrates the housing preferences of Myanmar migrants working in the CBD of Bangkok. Single detached houses have the largest number of observations (48.4%) for housing preferences among Myanmar migrant workers. It is observed that 40.6% of the respondents prefer to live in condominiums, and 10.9% prefer apartments.

Table 10 Housing Preferences

Housing Preferences			
Variables in Detail	Categories	Frequencies	Percentages (%)
Housing Preferences	Condominiums	26	40.6%
	Apartments	7	10.9 %
	Single detached houses	31	48.4%

Determinants of Housing Choices

This section discusses the observed data on the determinants of housing choices which are social characteristics, economic characteristics, social network and neighborhood characteristics, and mobility characteristics.

Social Characteristics

There are thirteen variables in social characteristics – age, gender, marital status, education, occupation, living status, number of household members, number of people working in the household, presence of dependent in the household, number of dependents in the household, Thai language proficiency, migrant status in Thailand, length of stay in Thailand. This section outlines the results of thirteen variables of social characteristics. There are two types of data in social characteristics: categorical data and numerical data. The categorical data such as gender, marital status, education, occupation, living status, Thai language proficiency, migrant status, and length of stay in Thailand are presented in Table 13. Numerical data such as age, number of household members, number of people working in the household, and number of dependents in the household and their distribution are presented in descriptive statistics.

Table 11 Social Characteristics

Variables in Detail	Categories	Frequencies	Percentages (%)
Gender	Male	36	56.3%
	Female	28	43.8%
Marital status	Single	40	62.5%
	Married	19	29.7%
	Separated	5	7.8%
Education	Primary School	9	14.1%
	Middle School	12	18.8%
	Highschool	18	28.1%
	College Education Higher	33	39%
Occupation	Construction Worker	1	1.6%
	Worker at Retail	17	26.6%
	Workers in Food and Beverage Industry	28	43.8%
	Workers in Hotel Industry	8	12.5%
	Street Vendor	10	15.6%
Living status	Alone	11	17.2%
	With friends	28	43.8%
	With family	24	37.5%
	With Employer	1	1.6%
Thai language proficiency	Low	25	39.1%
	Medium	24	37.5%
	High	15	23.4%
Migrant Status	Living and working illegally	3	4.7%
	Living and working legally with a passport and visa	33	51.6%
	Living and working legally with Nationality Verification Card (NV)	28	43.8%
Length of stay in Thailand	Less than 1 year	21	32.8%
	Between 1 to 5 years	18	28.1%
	Between 5 to 10 years	5	7.8%
	More Than 10 years	20	31.3%

The data presented in Table 11 describes the social characteristics of 64 Myanmar migrant workers currently working in Bangkok's central business district. The data has been classified according to a number of variables, including gender, marital status, education, occupation, living status, Thai language proficiency, migrant status, and duration of stay in Thailand. The gender breakdown of the sample is 56.3 percent male and 43.8 percent female. It is revealed that 62.5 percent of workers are single, 29.7 percent are married, and 7.8 percent are separated. Their educational backgrounds range from primary school (14.1%) to college or higher (39%). The majority of migrant workers (43.8%) are working in the food and beverage industry, followed by retail (26.6%), street vending (15.6%), hotel (12.6%), and construction (1.6%). The living status of the respondents varies, with 43.8% living with friends, 37.5% living with family, and 17.5% living alone. Moreover, 1.6% of migrant workers reported living with their employer. Workers' proficiency in the Thai language ranges from low (39.1%) to moderate (37.5%) to high (23.4%). In addition, 51.6% of the respondents reported living and working legally with a passport and visa, while 43.8% had a Nationality Verification Card, and 4.7% reported living illegally. The duration of workers' stays in Thailand ranges from less than one year (32.8%) to more than ten years (31.3%).

Age, number of household members, number of people working in the household, and number of dependents in the household of Myanmar migrant workers are described as numerical data. The descriptive statistics of the numerical data are described as follows.

Age

The researcher was able to draw a number of inferences about the age distribution of Myanmar migrants who are working in the Central Business District of Bangkok based on the descriptive information that has been provided in Table 12.

Table 12 Descriptive Statistics of Age

Descriptive Statistics of Age	
Mean	30.4375
Median	29
Mode	28
Standard Deviation	7.94
Kurtosis	1.96
Skewness	1.22
Range	40
Minimum	15
Maximum	55
Total Count	64

The mean age of 30.44 suggests that the average age of the Myanmar migrants in the sample is around 30 years old. The median age of 29 indicates that half of the sample falls below this age while the other half is above it. The mode of 28 suggests that the most common age in the sample is 28. The standard deviation of 7.94 indicates that there is a significant amount of variability in the ages of the Myanmar migrants, as some are as young as 15 while others are as old as 55. The range of 40 also emphasizes the large spread of the ages.

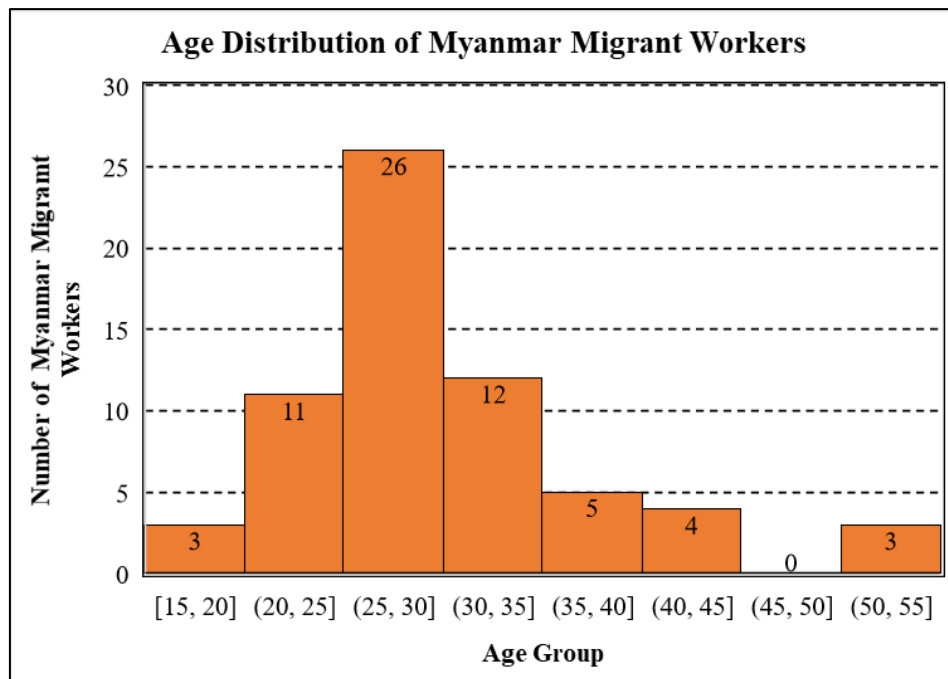


Figure 10 Age Distributions of Myanmar Migrant Workers

The kurtosis value of 1.96 indicates that the distribution of the ages is leptokurtic, which means that the distribution is more peaked than a normal distribution, as shown in Figure 10. The skewness value of 1.22 indicates that the distribution is positively skewed, meaning that there are more values to the right of the mean. Overall, the descriptive statistics suggest that the ages of the Myanmar migrants in the CBD of Bangkok are concentrated around the late 20s and early 30s, with a significant amount of variability and a tendency towards being more peaked and positively skewed.

Number of People Living in the Household

Based on the provided descriptive statistics in Table 13, this study was able to make some inferences about the number of people living in the households of Myanmar migrant workers in the CBD of Bangkok.

Table 13 Descriptive Statistics of Number of people living in the Household

Descriptive Statistics of Number of People Living in the Household	
Mean	3.41
Median	3
Mode	2
Standard Deviation	2.28
Kurtosis	1.36
Skewness	1.28
Range	9
Minimum	1
Maximum	10
Total Count	64

The mean number of people living in a household is 3.41, which suggests that the average household consists of a little over three people. The median number of people is 3, which means that half of the households have fewer than three people, and the other half have more. The mode of 2 indicates that the most common number of people in a household is 2, which could suggest that many of the migrant workers are living with just one other person. The standard deviation of 2.28 indicates that there is a considerable amount of variability in the number of people living in the households, with some households having as few as one person and others having as many as ten. The range of 9 also emphasizes the widespread number of people.

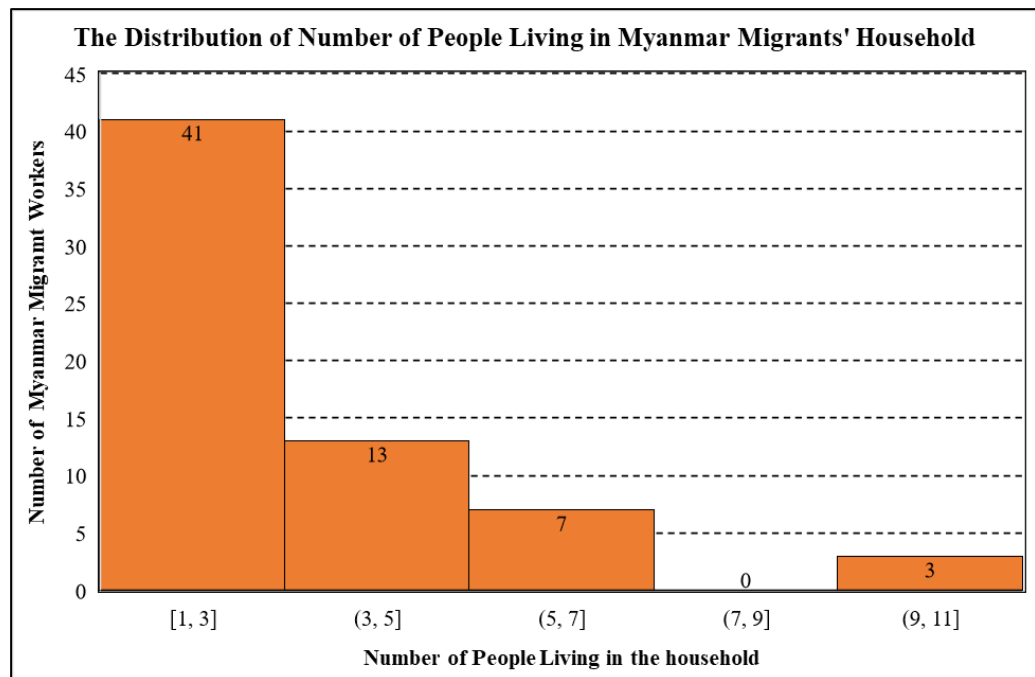


Figure 11 The Distribution of the Number of People Living in the Household

The kurtosis value of 1.36 indicates that the distribution of the number of people is leptokurtic, which means that the distribution is more peaked than a normal distribution, as shown in Figure 11. The skewness value of 1.28 indicates that the distribution is positively skewed, meaning that there are more households with higher numbers of people. Overall, the descriptive statistics suggest that the households of Myanmar migrant workers in the CBD of Bangkok are typically composed of around three people, with a significant amount of variability and a tendency towards being more peaked and positively skewed.

Number of People Working in the Household

According to the descriptive statistics provided in Table 14, this study was able to make inferences about the number of people working in the households of Myanmar migrant workers in the CBD of Bangkok.

Table 14 Descriptive Statistics of Number of People Working in the Household

Descriptive Statistics of Number of People Working in the Household	
Mean	2.86
Median	2
Mode	2
Standard Deviation	2.06
Kurtosis	4.80
Skewness	2.02
Range	9
Minimum	1
Maximum	10
Total Count	64

The mean number of people working in a household is 2.86, which suggests that, on average, almost three people in each household are working. The median number of people is 2, which means that half of the households have fewer than two people working, and the other half have more. The mode of 2 indicates that the most common number of people working in a household is 2, which could suggest that many households have two income earners, likely the primary worker and their spouse. The standard deviation of 2.06 indicates that there is a considerable amount of variability in the number of people working in the households, with some households having just one person working and others having as many as ten. The range of 9 also emphasizes the widespread number of people working in the household.

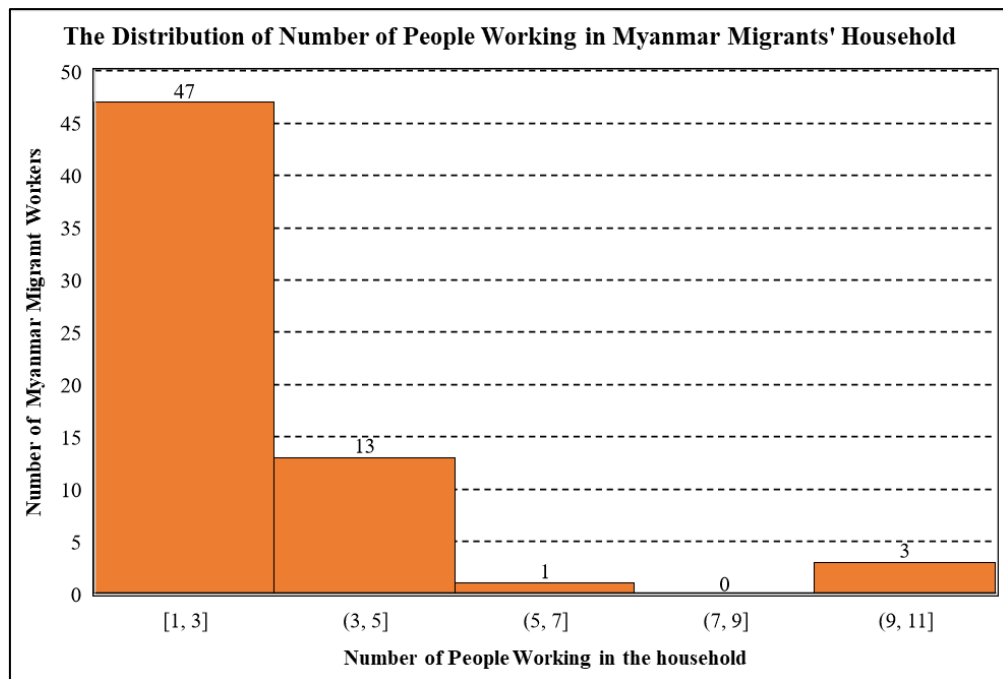


Figure 12 The Distributions of the Number of People Working in the Household

The kurtosis value of 4.80 indicates that the distribution of the number of people working is highly leptokurtic, which means that the distribution is much more peaked than a normal distribution, as shown in Figure 12. The skewness value of 2.02 indicates that the distribution is highly positively skewed, meaning that there are many households with low numbers of workers and a small number of households with a high number of workers. Overall, the descriptive statistics suggest that the households of Myanmar migrant workers in the CBD of Bangkok have an average of almost three working members, with considerable variability and a highly leptokurtic and positively skewed distribution.

Number of dependents in the Household

According to a Google survey, the majority (78.1%) of migrant workers do not have a dependent in the household. Based on the descriptive statistics provided in Table 15, this study was able to make inferences about the number of dependents in the households of Myanmar migrant workers in the CBD of Bangkok.

Table 15 Descriptive Statistics of Number of Dependents in the Household

Descriptive Statistics of Number of Dependents in the Household	
Mean	0.42
Median	0
Mode	0
Standard Deviation	0.97
Kurtosis	6.00
Skewness	2.58
Range	4
Minimum	0
Maximum	4
Total Count	64

The mean number of dependents in a household is 0.42, which suggests that, on average, most households have fewer than one dependent. The median number of dependents is 0, which means that half of the households have no dependents, and the other half have at least one. The mode of 0 indicates that the most common number of dependents in a household is 0, which could suggest that many of the migrant workers do not have any dependents living with them in Bangkok. The standard deviation of 0.97 indicates that there is a considerable amount of variability in the number of dependents in the households, with some households having no dependents and others having as many as four. The range of 4 also emphasizes the wide spread of the number of dependents.

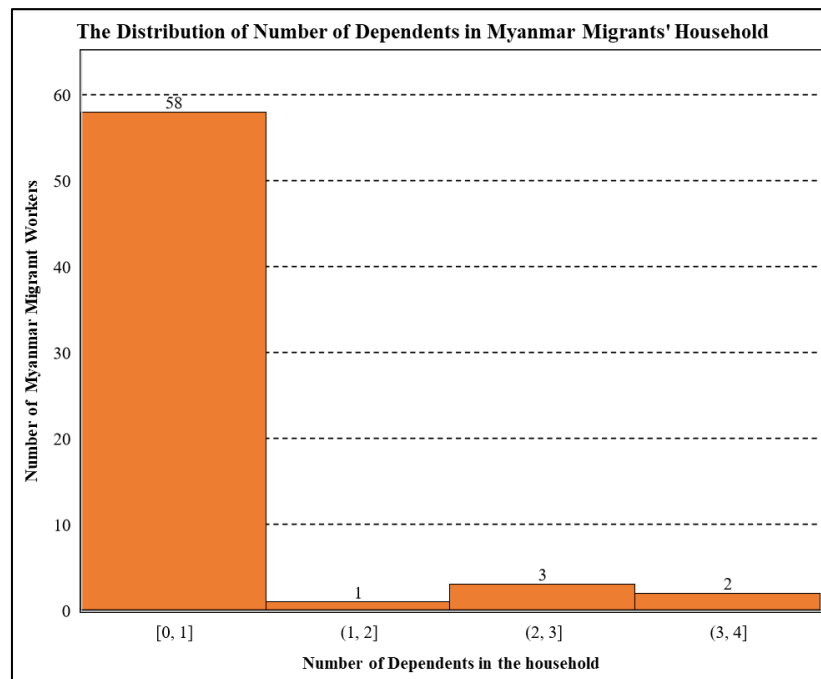


Figure 13 The Distributions Number of Dependents in the Household

The kurtosis value of 6.00 indicates that the distribution of the number of dependents is highly leptokurtic, which means that the distribution is much more peaked than a normal distribution, as shown in Figure 13. The skewness value of 2.58 indicates that the distribution is highly positively skewed, meaning that there are many households with no dependents and a small number of households with a high number of dependents. Overall, the descriptive statistics suggest that the households of Myanmar migrant workers in the CBD of Bangkok have an average of fewer than one dependent, with considerable variability and a highly leptokurtic and positively skewed distribution.

Economic Characteristics

This section discusses the economic characteristics data. There are five variables in economic characteristics which are rent, monthly household income, monthly income, rent payment method, and remittance. The descriptive statistics of the remittance percentage of Myanmar migrant workers were discussed at the end of the section.

Table 16 Economic Characteristics

Variables in detail	Categories	Frequencies	Percentages (%)
Rent payment method	Paid alone	12	18.8%
	Shared with family and friends	32	50%
	Paid by the employer	17	26.6%
	Paid by someone who lives together	3	4.7%
Rent Fees	No rent fee	19	29.7%
	Less than 2000 Baht	1	1.6%
	Between 2001 Baht to 5000 Baht	28	43.8%
	5001 Baht and Above	3	4.7%
Monthly income	Less than 10000 Baht	14	21.9%
	Between 10001 and 25000 Baht	46	71.9%
	25001 Baht and above	4	6.3%
Monthly household income	Less than 10000 Baht	2	3.1%
	Between 10001 and 25000 Baht	26	40.6%
	25001 Baht and above	36	56.3%
Sending remittance back home	Yes	52	81.3%
	No	12	18.8%

The data in Table 16 describe the economic characteristics of Myanmar migrant workers in Bangkok's central business district (CBD). The rent payment methods of the respondents vary, with 18.8% paying alone, 50% sharing with family and friends, 26.6% being paid by the employer, and 4.7% by a roommate. Nearly

30% of the employees reported paying no rent, while 43.8% paid between 2,001 and 5,000 per month. In terms of monthly income, 21.9% of laborers earned less than 10,000 Baht, 71.9% earned between 10,001 and 25,000 Baht, and 6.3% earned greater than 25,000 Baht. The majority of workers (56.3%) had a household income of at least 25001 Baht per month, while only 3.1% had a household income of less than 10000 Baht per month. It is observed that 81.3% of the employees sent money home, while only 18.8% did not send their remittances to their country.

Remittance Percentage

Based on the descriptive statistics provided in Table 17, the study was able to make inferences about the distribution of remittance percentages among Myanmar migrant workers.

Table 17 Descriptive Statistics of Remittance Percentage

Descriptive Statistic of Remittance Percentage	
Mean	33.05%
Median	30.00%
Mode	50.00%
Standard Deviation	0.27
Kurtosis	-0.92
Skewness	0.38
Range	90.00%
Minimum	0.00%
Maximum	90.00%
Total Count	64.00

The mean remittance percentage of 33.05% suggests that, on average, the Myanmar migrant workers in the sample are sending about one-third of their income back to their home country. The median remittance percentage of 30.00% indicates that half of the sample is sending less than 30% of their income while the other half is sending more. The mode of 50.00% suggests that the most common remittance

percentage in the sample is 50%, which could indicate that many of the Myanmar migrant workers are sending exactly half of their income back home. The standard deviation of 0.27 indicates that there is not much variability in the remittance percentages among the sample, as most of the percentages are clustered around the mean. The range of 90.00% and the maximum and minimum values indicate that there is a wide spread of remittance percentages in the sample, with some workers sending nothing back home and others sending almost all their income.

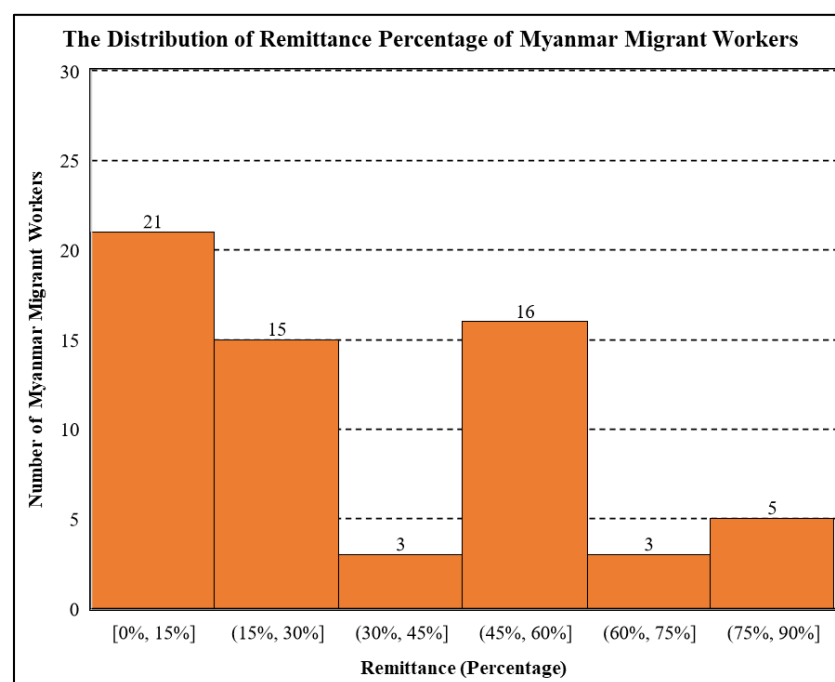


Figure 14 Remittance Percentage Distributions of Myanmar Migrant Workers

The negative kurtosis value of -0.92 indicates that the distribution is platykurtic, which means that the distribution is flatter and more spread out than a normal distribution, as shown in Figure 14. The positive skewness value of 0.38 suggests that there are more values to the right of the mean, indicating that some workers are sending a larger percentage of their income back home than others. Overall, the descriptive statistics suggest that the remittance percentages among Myanmar migrant workers in the CBD of Bangkok are concentrated around 30-33%,

with some variability and a tendency towards being more platykurtic and positively skewed.

Social Network and Neighborhood Characteristics

This section discussed the social network and neighborhood characteristics data which includes the investigation of the migrant workers, whether they live near the area which has frequent police interrogations, their social network, and the closeness to public transport.

Table 18 Social Network and Neighborhood Characteristics

Variables in Detail	Categories	Frequencies	Percentages (%)
Living far from the police interrogation area	Yes	46	71.9%
	No	18	28.1%
Living near family or friends	Yes	51	79.7%
	No	13	20.3%
Living near public transport	Yes	51	79.7%
	No	13	20.3%

According to the data provided in Table 18, Myanmar migrants working in Bangkok's central business district exhibit distinct social network and neighborhood characteristics. The fact that most of the respondents (71.9%) live far from the police interrogation area suggests a certain level of fear and insecurity among them. However, most respondents (79.7%) indicated that they reside close to family or friends, indicating that they have established support networks within their community. In addition, a similar proportion (79.7%) reported residing near public transportation, which may indicate that these migrants rely on public transportation to commute to work or access necessities.

Mobility Characteristics

This section discusses the results of the mobility characteristics of Myanmar migrant workers in Bangkok. There are three main parts to mobility characteristics, including their plans to move to other cities, resident change history, and their plans to go home.

Table 19 Mobility Characteristics

Variables in detail	Categories	Frequencies	Percentages (%)
Plans to work in other cities	Yes	16	25.00%
	No	48	75.00%
Resident change history	Yes	37	57.80%
	No	27	42.20%
Plans to go home	Yes	29	54.70%
	No	35	45.30%

The provided data in Table 19 sheds light on the mobility characteristics of Myanmar migrants working in the central business district of Bangkok. The majority of the respondents (75%) reported having no plans to work in other cities, indicating that they are relatively settled in Bangkok. However, a significant minority (25%) reported plans to work in other cities, which suggests that some migrants may have a more transient lifestyle. In terms of resident change history, 57.8% of the respondents reported having changed their place of residence in the past, which suggests a certain level of mobility among this population. Additionally, slightly more than half of the respondents (54.7%) reported plans to go back home, which suggests that some migrants may have a temporary or seasonal work arrangement in Bangkok. Overall, these findings highlight the diverse mobility patterns among Myanmar migrants working in the CBD of Bangkok.

4.2.1 Housing Conditions of Myanmar Migrant Workers

This section discussed the housing conditions of Myanmar migrant workers currently living. The housing types and conditions are described according to rent, and which is categorized into 3 groups; (1) Free housing provided by employers, (2) Housing with monthly rent less than 5000 Baht, (3) Housing with monthly 5000 Baht, and above.

(1) Free housing provided by employers.

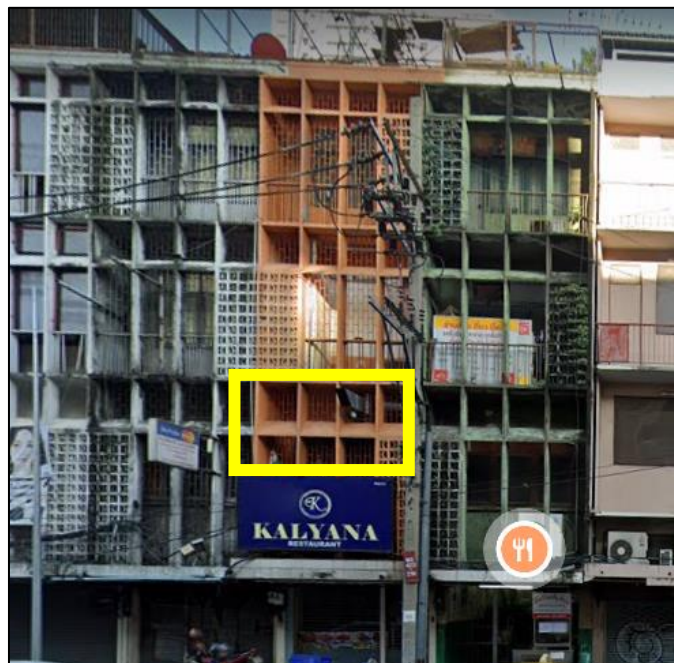


Figure 15 Free Housing Provided by Employers

Picture - (Google, 2020a)

A quarter of the respondents are living rent-free. They are living in groups (more than 3 people) in the housing that their employer provided. This type of housing can be a valuable benefit for workers, as it can help them to save money and to feel more connected to their community. The shophouse illustrated in Figure 15 is one of the housings provided by employers. Myanmar migrants working in that restaurant are provided with a free place to live on the upper floor of the Burmese restaurant, which is highlighted in Figure 15.

(2) Housings with a monthly rent of less than 5000 Baht



Figure 16 Apartment with a Monthly Rent of Less than 5000 Baht

Picture - Google (2018)

The apartment illustrated in Figure 16 is the housing that Myanmar migrant workers are living in and is located on Rechapraroad Road, and the rent is less than 5000 Baht.

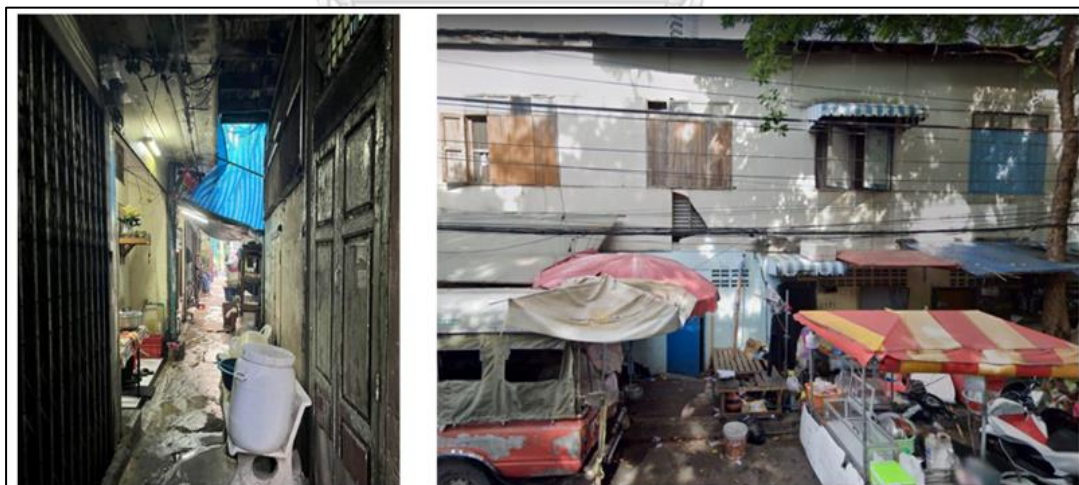


Figure 17 Rowhouses with Monthly Rent less than 5000 Baht

Picture: Author

The rowhouses, presented in Figure 17, cost less than 5000 Baht a month. It is located in Soi Charoen 67 in the Sathorn area. There is more than one migrant worker living in that rowhouses.

(3) Housings with a monthly rent of 5000 Baht and above.



Figure 18 Apartment with a Monthly Rent of 5000 Baht and above

Picture- (Google, 2016)

The apartment illustrated in Figure 18 is located in Soi Petchaburi 43, Myanmar migrant workers, mostly from the food industry, live and have to spend more than 5000 Baht for the monthly rent.



Figure 19 Shophouses with Monthly Rent 5000 Baht and above

Picture - Google (2020b)

The shophouses illustrated in Figure 19 are located in Soi Charoen Krung 58. Myanmar migrant workers spend more than 5000 Baht a month to rent the shophouses described above.

4.3 Spatial Data

This section discusses the spatial data of Myanmar migrants. There are two main parts in this section. Firstly, the housing locations and the descriptive statistics of the respondent distributions in each district. Secondly, the specific job locations and the descriptive statistics of Myanmar migrant workers are discussed.

Housing Locations

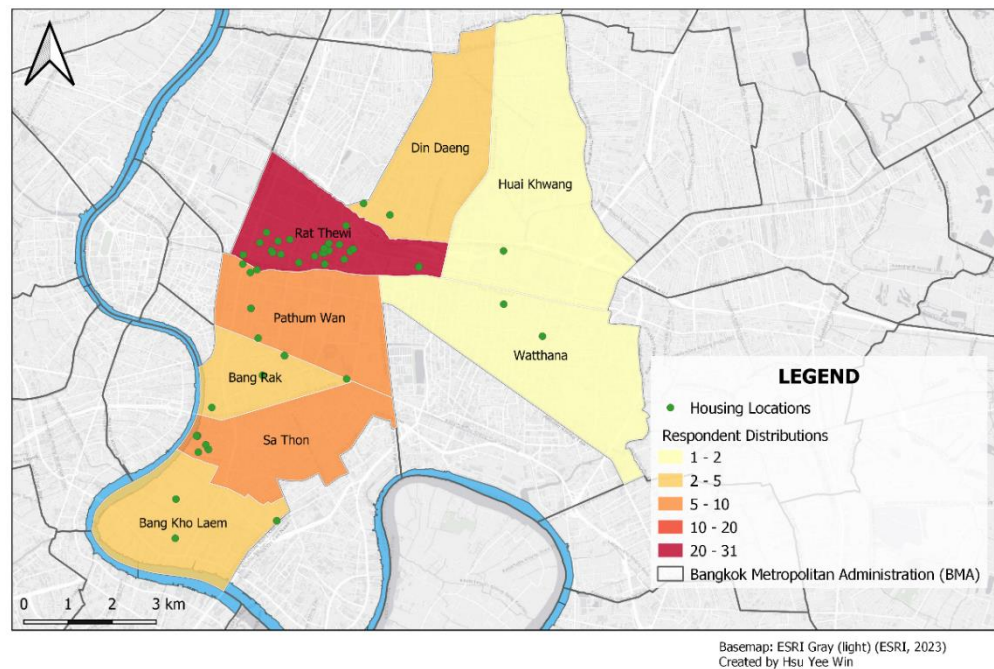


Figure 20 Housing Locations of Myanmar Migrant Workers

Figure 20 displays the spatial distribution of the housing locations of Myanmar migrant workers in Bangkok. The green points on the map indicate the specific point locations of the migrant workers' housing. The gradient color of the districts on the map depicts the distribution of the survey respondents. It can be observed that the respondents are residing in seven different districts within the Bangkok Metropolitan Administration.

To provide a more comprehensive understanding of the distribution, the map legend provides information about the number of respondents present in each district. For instance, the district colored in red, which is Rat Thewi District, indicates that 20 to 31 respondents are living in that area. On the other hand, the orange color represents that 10 to 20 respondents are living in the district, and so on. Therefore, the map displays the varying densities of Myanmar migrant workers' housing locations across the different districts of Bangkok.

Table 20 Housing locations of Myanmar Migrant Workers

Housing Locations of Myanmar Migrant Workers in Bangkok Districts			
Sub-Districts	Districts	Respondents	Percentages (%)
Bang Kho Laem	Bang Kho Laem	4	6.3%
Din Daeng	Din Daeng	3	4.7%
Huai Khwang	Huai Khwang	1	1.6%
Khlong Toei Nuea	Watthana	2	3.1%
Maha Phruettharam	Bang Rak	5	7.8%
Rong Mueang	Pathum Wan	7	10.9%
Thung Phaya Thai	Rat Thewi	34	53.1%
Thung Wat Don	Sa Thon	8	12.5%
Total		64	100.0%

House locations of the migrant workers by the administrative boundaries of Bangkok has described in Table 20. According to survey results (by investigating the point locations of the housing of Myanmar migrant workers), the migrants working in the CBD of Bangkok live in 8 Districts which are Bang Kho Laem, Din Daeng, Huai Khwang, Watthana, Bang Rak, Pathum Wan, Rat Thewi and Sa Thon. More than half (53.1%) of the respondents live in Rat Thewi district. There are 6.3% of the respondents are from Bang Kho Laem, 4.7% are from Ding Daeng, 1.6% of the respondents are from Huai Khwang, 3.1% of the respondents are living in Wattana, 7.8 % are from Ban Rak, 10.9% of migrant workers live in Pathum Wan, and 12.5% of the sample lives in Sa Thon district, respectively.

Housing Distributions

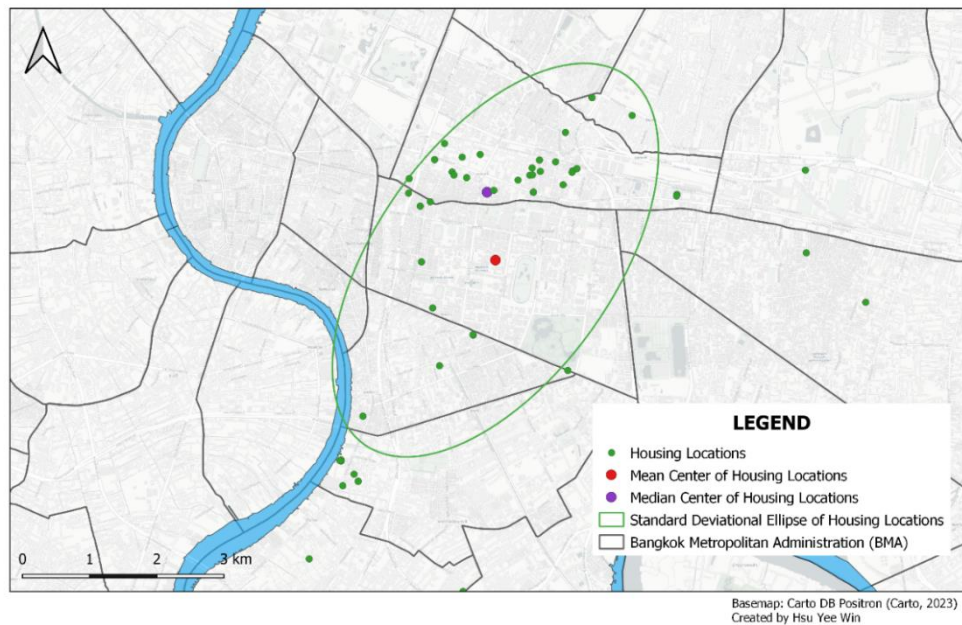


Figure 21 Housing Distributions of Myanmar Migrant Workers

The provided map presents information about the housing locations of Myanmar migrant workers in Bangkok. The green points on the map represent the geographical locations of their residences. The red point on the map represents the mean center, which is the average location of all the housing points on the map, and it is in Pathumwan District.

Furthermore, the purple point on the map represents the median center, which is the middle point of all the housing points on the map, and it is located in Retchathewi District, which means the location points are more evenly distributed in that area than Pathumwan District. It can infer that more than half of the respondents live in Retchathewi District.

By analyzing the map, the housing distributions of Myanmar migrant workers in Bangkok can be observed through the use of standard deviational ellipse. These ellipses are statistical tools used to measure the spatial clustering of points on a map. The standard deviational ellipse is elongated in the North-South direction, which means that migrant housing location is distributed in that direction.

Job Locations

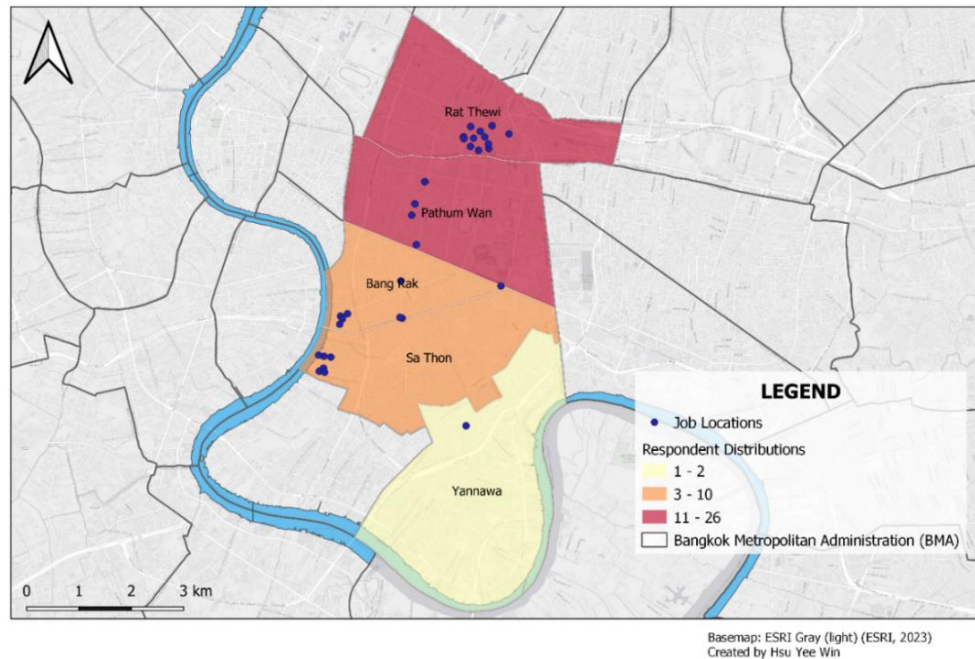


Figure 22 Job Locations of Myanmar Migrant Workers

Figure 22 presents a map that shows the job locations of Myanmar migrant workers in the CBD of Bangkok. The map uses dark blue points to represent the point locations of the jobs. The gradient color of the districts on the map represents the distributions of the respondents. The study area primarily focuses on the job locations of the respondents, which are concentrated in four districts of Bangkok Metropolitan Administration - Rat Thewi, Pathum Wan, Bang Rak, and Sathorn.

The color of the districts on the map corresponds to the respondent distributions in each district. For example, the Rat Thewi district is represented by the color red, which indicates that there are 11 to 26 respondent distributions in that area. Similarly, the orange color on the map represents that there are 3 to 10 respondents in that district and so on.

Overall, the map provides a visual representation of the job locations of Myanmar migrant workers in Bangkok, highlighting the districts where these workers are concentrated.

Table 21 Job Locations of Myanmar Migrant Workers

Job Locations of Myanmar Migrant Workers in Districts of Bangkok			
Sub-Districts	Districts	Respondents	Percentages (%)
Chong Nonsi	Yannawa	2	3.1%
Maha Phruettharam	Bang Rak	8	12.5%
Rong Mueang	Pathum Wan	22	34.4%
Thung Phaya Thai	Rat Thewi	26	40.6%
Thung Wat Don	Sa Thon	6	9.4%
Total		64	100%

According to Table 21, it is observed that the job locations of 26 respondents are 40.6% percent of the respondents in Rat Thewi district and 22 (34.4%) in Pathum Wan district. There are 2 respondents in the Yannawa district, and another 8 and 6 respondents are from Bang Rak district and Sa Thon district, respectively.

Job Distributions

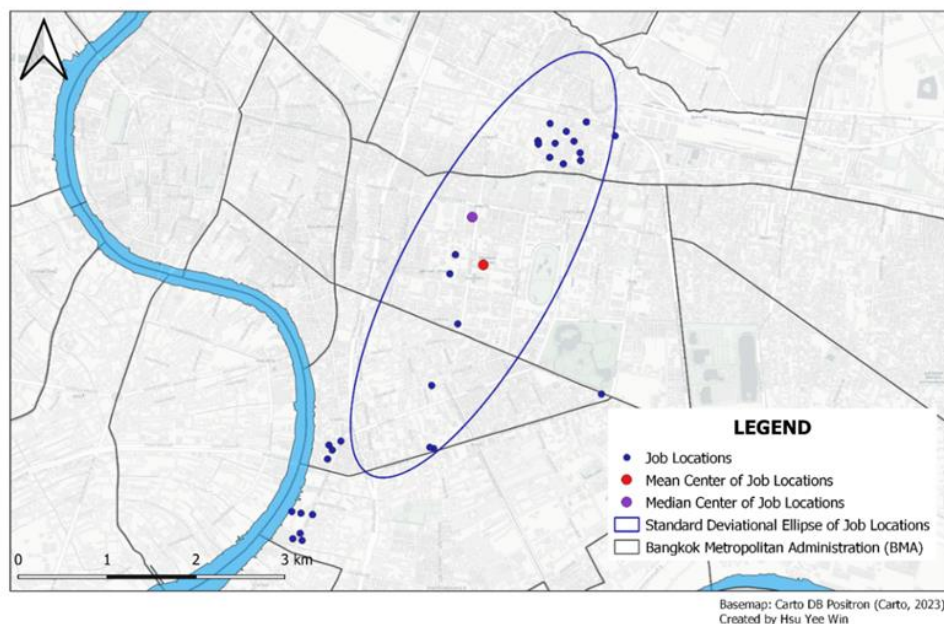


Figure 23 Job Distributions of Myanmar Migrant Workers

The map depicted above displays the job locations of Myanmar migrant workers in the central business district (CBD) of Bangkok. The blue points scattered

across the map indicate the various job locations where these migrant workers are employed. The median center of these job locations is indicated by the purple point, while the red point indicates the mean center. Both the mean center and median center locations are in Pathumwan District. The standard deviational ellipse, which is overlaid on the map, depicts the distribution of these job locations which is elongated in north to south direction.

Distance Between Housings and Jobs

This study was able to calculate the distance between housing locations and job locations with the distance matrix tool in QGIS. The distances from jobs and houses of each migrant worker were measured in kilometers (km). The descriptive statistics of the distance between housing and job as described in Table 22. According to the descriptive statistics presented in Table 22. this study can draw inferences about the distance between the housing and jobs of Myanmar migrant workers.

Table 22 Descriptive Statistics of the Distance (km) between Housings and Jobs

Descriptive Statistics of the Distance(km) between Housings and Jobs	
Mean	3.45
Median	3.71
Mode	1.91
Standard Deviation	2.11
Kurtosis	1.15
Skewness	0.92
Range	9.85
Minimum	0.07
Maximum	9.92
Total Count	64

The mean distance is 3.45 kilometers, which means that, on average, the housing is about 3.45 kilometers away from the workers' jobs. The median distance of 3.71 kilometers suggests that half of the workers have a housing location that is

further away from their jobs, while half have a closer housing location. The mode of 1.91 kilometers indicates that the most common distance between housing and jobs is around 1.91 kilometers. The standard deviation of 2.11 suggests that there is a considerable amount of variability in the distances between housing and jobs, with some workers having housing locations that are very close to their jobs while others have housing locations that are much further away. The range of 9.85 kilometers also emphasizes the wide spread of the distances.

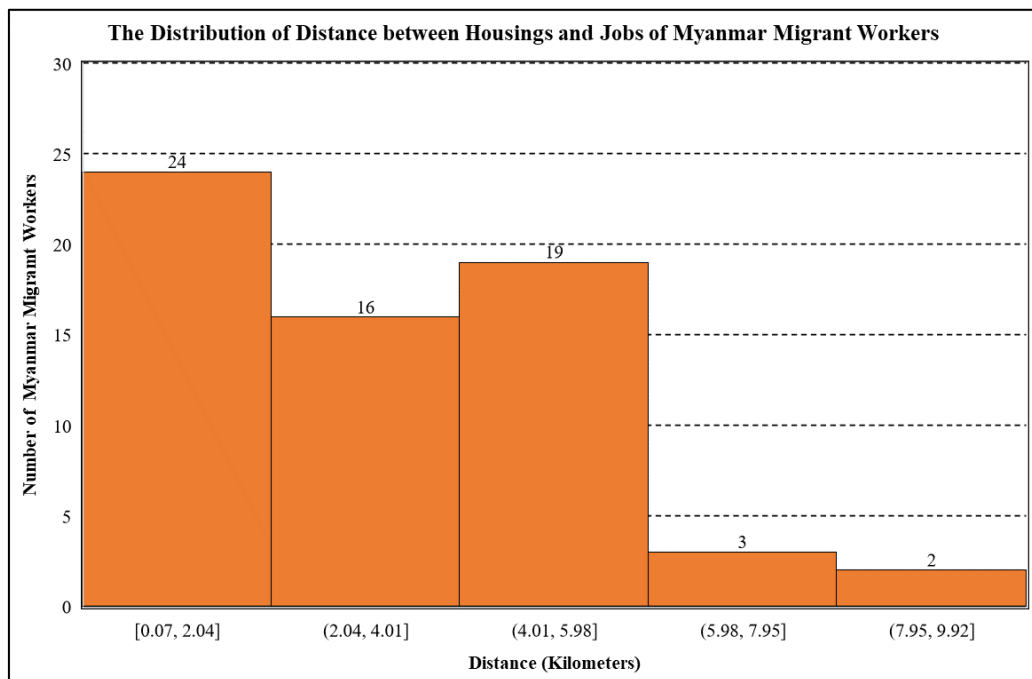


Figure 24 The Distributions of Distance between Housing and Jobs

The kurtosis value of 1.15 indicates that the distribution of distances is moderately leptokurtic, which means that the distribution is more peaked than a normal distribution, as shown in Figure 24. The skewness value of 0.92 indicates that the distribution is moderately positively skewed, meaning that there are more workers with housing locations that are further away from their jobs than there are workers with closer housing locations. Overall, the descriptive statistics suggest that the housing locations of Myanmar migrant workers in the CBD of Bangkok are, on average, about 3.45 kilometers away from their jobs, with considerable variability and a moderately leptokurtic and positively skewed distribution.

Travel Mode Choices from Houses to Jobs

Table 23 shows the percentage distribution of travel mode choices used by Myanmar migrant workers in the CBD of Bangkok to travel from their houses to their jobs.

Table 23 Travel Mode Choices from Houses to Jobs

	Categories	Percentages (%)
Travel mode choices	By foot	55.6%
	Bus	22.2%
	Mass transit	2.8%
	Taxi	11.1%
	Own vehicle; Motorcycle, car	2.8%
	Bicycle	2.8%
	Tuk Tuk	1.4%
	Company car	1.4%

According to Table 23, the most common travel mode choice is by foot. More than half of the respondents (55.6%) use this mode to commute from their houses to their jobs. The next most common mode of travel is by bus, which is used by 22.2 % of respondents. A small percentage of workers (2.8%) use mass transit or bicycles, and the same percentage of workers use their vehicles, which include motorcycles and cars. Tuk-tuks and company cars are the least common travel modes, each being used by only one respondent (1.4%). Overall, the majority of respondents prefer to travel by foot to get to their jobs, although the average distance between their housing and jobs is 3.45 kilometers.

Chapter 5

Results

This chapter mainly presented the results of this study. This chapter is mainly composed of two sections. The first section primarily discussed the spatial analysis results of Myanmar migrant workers working in the CBD of Bangkok. To be exact, the discussions of migrant housing and job distribution in Bangkok, which answered the first research question of this study, have been discussed in the first section. The second section of the chapter discussed the statistical analysis. In particular, the detailed presentations about the cross-tabulation results and chi-Square test answered the second research question of this study.

5.1 Spatial Analysis Results

Housing and Job Locations of Myanmar Migrant Workers in Bangkok

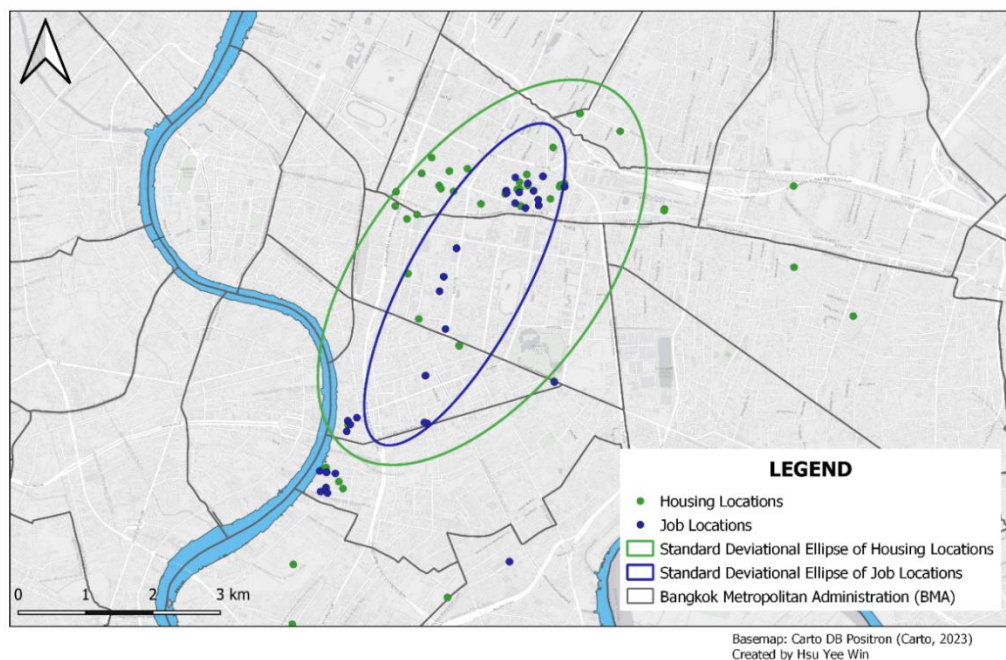


Figure 25 Housing and Job Distributions of Myanmar Migrant Workers

The map presented in Figure 25 provides insightful information about the distribution of housing and job locations of Myanmar migrant workers in Bangkok. By

using standard deviational ellipses, the spatial patterns and relationships between where these workers live and work in the CBD of Bangkok can be observed.

The green points in the map indicate the housing locations of these migrant workers, while the red point represents the mean center, and the purple point represents the median center of their housing distribution. This helps to understand the central tendencies of their housing locations. Moreover, the standard deviational ellipse helps to identify the dispersion of the housing locations around the central tendencies.

The standard deviational ellipses of housing and job locations are elongated in the North-South direction, which are in the same direction. It is revealed that Myanmar migrant workers tend to live close to their workplaces, as evidenced by the spatial clustering of their housing locations around the CBD (central business district) of Bangkok. The housing standard deviational ellipse is wider than the job standard deviational ellipse, suggesting that there is more variation in the location of housing than in the location of jobs. It means that the housing locations are not as concentrated as the job locations.

5.2. Statistical Analysis Results

As described in Chapter (1), the second research question of this study is ‘What are the determinants of the housing choices of Myanmar migrants working in the CBD of Bangkok?’ The cross-tabulation and chi-square test of independence has been performed to address the second research question of this study.

The chi-square test of independence has been performed to investigate the associations between housing choices and the explanatory variables under social economic, social network, and neighborhood and mobility characteristics.

Social Characteristics

The results of the cross-tabulation test, as shown in Table 24 and Table 25, illustrate the distribution of housing choices among Myanmar migrants working in Bangkok's central business district based on various social characteristics.

Table 24 Cross-tabulation of Housing Choices by Social Characteristics (a)

Social Characteristics		Housing Choices			
		Apartments/ Condominiums (N= 40)		Houses (N= 24)	
		Frequency	Percentage (%)	Frequency	Percentage (%)
Age	30 years and younger	29	45.3%	11	17.2%
	31 years and older	11	17.2%	13	20.3%
Gender	Male	24	37.5%	12	18.8%
	Female	16	25.0%	12	18.8%
Marital Status	Single	31	48.4%	9	14.1%
	Married	9	14.1%	15	23.4%
Education	Middle school or lower	9	14.1%	13	20.3%
	High school	12	18.8%	5	7.8%
	College education or higher	19	29.7%	6	9.4%
Occupation	Workers at retail	14	21.9%	3	4.7%
	Workers in the food and beverage industry	19	29.7%	9	14.1%
	General workers	7	10.9%	12	18.8%
Household Size	1 person	7	10.9%	4	6.3%
	2 persons	11	17.2%	8	12.5%
	3 or more persons	22	34.4%	12	18.8%
Living Status	Alone	6	9.4%	5	7.8%
	With friends	24	37.5%	5	7.8%
	With family	10	15.6%	14	21.9%

Table 25 Cross-tabulation of Housing Choices by Social Characteristics (b)

Social Characteristics		Housing Choices			
		Apartments/ Condominiums (N= 40)		Houses (N= 24)	
		Frequency	Percentage (%)	Frequency	Percentage (%)
No. of People working in the household	1 person	9	14.1%	6	9.4%
	2 persons	13	20.3%	9	14.1%
	3 or more persons	18	28.1%	9	14.1%
Presence of Dependents in the Household	Yes	33	10.9%	17	10.9%
	No	7	51.6%	7	26.6%
No. of Dependents in the Household	No dependent	33	51.6%	17	26.6%
	1 or 2 dependents	4	6.3%	6	9.4%
	3 or more dependents	3	4.7%	1	1.6%
Thai Language Proficiency	Low	18	28.1%	7	10.9%
	Medium	15	23.4%	9	14.1%
	High	7	10.9%	8	12.5%
Migrant Status	Passport and visa holder	21	32.8%	12	18.8%
	National Verification Card (NV) holder	18	28.1%	10	15.6%
	Illegal	1	1.6%	2	3.1%
	Less than 1 year	16	25.0%	5	7.8%
Length of Stay in Thailand	Between 1 to 5 years	11	17.2%	7	10.9%
	More than 5 years	13	20.3%	12	18.8%

The majority of respondents (62.5%) reside in apartments or condominiums, while a smaller percentage (37.5%) live in houses. In terms of social characteristics, those under 30 years of age were the most likely to reside in apartments or condominiums (45.3%), followed by males (37.5%), singles (48.4%), and those with a college degree or higher (29.3%).

In terms of occupation, the categories of the occupations are re-grouped into three groups which are workers from the food beverage industry, workers from the retail industry, and general workers to perform the occupation. It is observed that 29.7% of those working in the food and beverage industry resided in apartments or condominiums. Those with a household size of three or more (34.4%) were most likely to reside in apartments or condominiums. The majority of respondents living alone or with friends chose to reside in apartments or condominiums.

The percentage of migrants with low Thai language proficiency who reside in apartments or condominiums was greater than that of migrants with medium or high Thai language proficiency. There was no significant relationship between the length of stay in Thailand and the choice of housing.



Economic Characteristics

Table 26 illustrates the relationship between the economic characteristics of Myanmar migrants working in Bangkok's Central Business District and the choices for housing that they choose.

Table 26 Cross-tabulation of Housing Choices by Economic Characteristics

Economic Characteristics		Housing Choices			
		Apartments/ Condominiums (N= 40)		Houses (N= 24)	
		Frequency	Percentage (%)	Frequency	Percentage (%)
Rent Fees	No rent fee	16	25.0%	3	4.7%
	Less than 5000 Baht	12	18.8%	17	26.6%
	5000 Baht and above	12	18.8%	4	6.3%
Monthly income	Less than 10000 Baht	4	6.3%	10	15.6%
	More than 10000 Baht	36	56.3%	14	21.9%
Monthly household income	Less than 25000 Baht	15	23.4%	13	20.3%
	More than 25000 Baht	25	39.1%	11	17.2%
Rent payment method	Paid alone	7	10.9%	5	7.8%
	Shared with family and friends	16	26.60%	4	23.40%
	Paid by the employer or someone	17	25.0%	15	6.3%
Remittance	Yes	34	53.1%	18	28.1%
	No	6	9.4%	6	9.4%

It is observed that the majority of respondents who chose apartments or condominiums (56.3%) have a monthly salary of more than 10,000 Thai Baht. On the other hand, the respondents who chose houses had lower income levels, with 15.6% earning less than 10,000 Thai Baht.

When it comes to monthly household income, respondents who chose flats or condominiums were significantly more inclined to have a household income of more than 25,000 Thai Baht (39.1%) in comparison to respondents who chose houses (17.2%).

The majority of respondents who chose houses pay less than 5,000 Baht per month in rental fees (26.6%), whereas the majority of respondents who chose apartments or condominiums pay no rent fee at all (25%).

In addition, 53.1% of those who live in apartments or condominiums send remittances, whereas only 28.1% of people who live in houses do so. Finally, the majority of the respondents who pay their rent by sharing with family and friends (26.6%) chose houses, while those who pay by themselves (25%) and those whose rent is paid by their employer or someone else (25%) mostly chose apartments/condominiums.

Social Network and Neighborhood Characteristics

The cross-tabulation test results in Table 27 show the relationship between the social network and neighborhood characteristics with the housing choices of Myanmar migrant workers in the CBD of Bangkok.

Table 27 Cross-tabulation of Housing Choices by Social Network and Neighborhood Characteristics

Social Network and Neighborhood Characteristics		Housing Choices			
		Apartments/ Condominiums (N= 40)		Houses (N= 24)	
		Frequency	Percentage (%)	Frequency	Percentage (%)
Living Near Family or Friends	Yes	33	51.6%	18	28.1%
	No	7	10.9%	6	9.4%
Living Far from the Police Interrogation Area	Yes	11	17.2%	7	10.9%
	No	29	45.3%	17	26.6%
Living Near Public Transport	Yes	30	46.9%	21	32.8%
	No	10	15.6%	3	4.7%

The study found that 51.6% of those who live near family or friends chose apartments/condominiums, compared to 28.1% who chose houses. Additionally, 46.9% of those who live near public transport preferred apartments/condominiums, whereas only 32.8% chose houses. Moreover, those who live far from the police interrogation area are more likely to choose apartments/condominiums than those who live near it. These findings suggest that social network and neighborhood characteristics play a significant role in the housing choices of Myanmar migrant workers in the CBD of Bangkok.

Mobility Characteristics

Table 28 illustrates the relationship between Myanmar migrant workers' mobility characteristics and their housing choices in Bangkok's central business district.

Table 28 Cross-tabulation of Housing Choices by Mobility Characteristics

Mobility Characteristics		Housing Choices			
		Apartments/ Condominiums (N= 40)		Houses (N= 24)	
		Frequency	Percentage (%)	Frequency	Percentage (%)
Plans to work in other cities	Yes	10	15.6%	6	9.4%
	No	30	46.9%	18	28.1%
Resident change history	Yes	23	35.9%	14	21.9%
	No	17	26.6%	10	15.6%
Plans to go back to home country	Yes	17	26.6%	12	18.8%
	No	23	35.9%	12	18.8%

It is revealed that 15.6% of those living in apartments/condominiums and 9.4% of those living in houses intended to find employment in other cities. In contrast, 46.9% of those living in apartments/condominiums and 28.1% of those living in houses had no intentions of seeking employment in other cities. Moreover, 35.9% of those living in apartments/condominiums and 21.9% of those living in houses had a history of changing residences, whereas the remaining residents had no history of resident change. In addition, 26.6% of those living in apartments/condominiums and 18.8% of those living in houses intended to return to their home country, whereas the majority had no plans to do so.

Chi-Square Test of Housing Choices and Social Characteristics

Table 29 and Table 30 show the chi-square test results of social characteristics and housing choices of Myanmar migrant workers.

Table 29 Chi-Square Test of Housing Choices and Social Characteristics (a)

Social Characteristics		Housing Choices				X ² /p-value
		Apartment/ Condominium (N=40)		Houses (N=24)		
Age	≤ 30 years	29	73%	11	46%	4.551/ 0.033*
	≥ 31 years	11	28%	13	54%	
	Total	40	100%	24	100%	
Gender	Male	24	60%	12	50%	0.610/ 0.435
	Female	16	40%	12	50%	
	Total	40	100%	24	100%	
Marital Status	Single	31	78%	9	38%	10.240/ 0.001**
	Married	9	23%	15	63%	
	Total	40	100%	24	100%	
Living Status	Alone	6	15%	5	21%	9.820/ 0.007**
	With friends	24	60%	5	21%	
	With family	10	25%	14	58%	
	Total	40	100%	24	100%	
Education	Middle school or lower	9	23%	13	54%	6.794/ 0.033*
	High school	12	30%	5	21%	
	College education or higher	19	48%	6	25%	
	Total	40	100%	24	100%	
Occupation	Workers at retail	14	35%	3	13%	8.539/ 0.014*
	Workers in the food and beverage industry	19	48%	9	38%	
	General workers	7	18%	12	50%	
	Total	40	100%	24	100%	
Household Size	1 person	7	18%	4	17%	0.249/ 0.883
	2 persons	11	28%	8	33%	
	3 or more persons	22	55%	12	50%	
	Total	40	100%	24	100%	

Note: * = Statistically significant at p-value < 0.05, ** = Statistically significant at p-value < 0.0

Table 30 Chi-Square Test of Housing Choices and Social Characteristics (b)

Social Characteristics		Housing Choices				X ² /p-value
		Apartment/ Condominium (N=40)		Houses (N=24)		
No. of People working in the household	1 person	9	23%	6	25%	0.349/ 0.840
	2 persons	13	33%	9	38%	
	3 or more persons	18	45%	9	38%	
	Total	40	100%	24	100%	
Presence of Dependents in the Household	Yes	7	83%	7	71%	1.195/ 0.274
	No	33	18%	17	29%	
	Total	40	100%	24	100%	
No. of Dependents in the Household	No dependent	33	83%	17	71%	2.688/ 0.261
	1 or 2 dependents	4	10%	6	25%	
	3 or more dependents	3	8%	1	4%	
	Total	40	100%	24	100%	
Thai Language Proficiency	Low	18	45%	7	29%	2.567/ 0.277
	Medium	15	38%	9	38%	
	High	7	18%	8	33%	
	Total	40	100%	24	100%	
Migrant Status	Passport and visa holder	21	53%	12	50%	1.145/ 0.564
	National Verification Card (NV) holder	18	45%	10	42%	
	Illegal	1	3%	2	8%	
	Total	40	100%	24	100%	
Length of Stay in Thailand	Less than 1 year	16	40%	5	21%	2.870/ 0.238
	Between 1 to 5 years	11	28%	7	29%	
	More than 5 years	13	33%	12	50%	
	Total	40	100%	24	100%	

Note: * = Statistically significant at p-value < 0.05, ** = Statistically significant at p-value < 0.01

The chi-square test results for social characteristics and housing choices are shown in Tables 1 and 2. The majority of participants, 40 out of 64 participants, live in an apartment or condominium. Among the social characteristics, age, marital status, living status, and occupation are found to be significantly associated with the housing choices of Myanmar migrant workers. The results show that migrant workers who are 31 years or younger tend to choose apartments or condominiums for their housing ($X^2 = 4.551$, $p\text{-value} = 0.033 < 0.05$). In addition, the married migrant worker group is more likely to choose houses than the single migrant worker group ($X^2 = 10.240$, $p\text{-value} = 0.001 < 0.05$). There is a significant association between housing choices and migrant workers. Migrants with high school education and higher are more likely to live in apartments or condominiums than migrant workers with middle school or lower education ($X^2 = 6.794$, $p\text{-value} = 0.033 < 0.05$). The association between living status and housing choices of migrant workers is also significant since the $p\text{-value}$, 0.007 ($X^2 = 9.820$), is less than 0.05. The participants who live with their families tend to choose houses over those who live alone or live with their friends. Workers who work in the retail or food and beverage industry are more likely to stay in an apartment or condominium than general workers ($X^2 = 8.539$, $p\text{-value} = 0.014 < 0.05$).

Chi-Square Test of Housing Choices and Economic Characteristics

Table 31 shows the Chi-square test results of economic characteristics and housing choices of Myanmar migrant workers.

Table 31 Chi-Square Test of Housing Choices and Economic Characteristics

Economic Characteristics		Housing Choices				X ² /p-value
		Apartment/ Condominium (N=40)		Houses (N=24)		
Rental Fees	No rent fee	16	40%	3	13%	10.407/ 0.005**
	≤ 5000 Baht	12	30%	17	71%	
	> 5000 Baht	12	30%	4	17%	
	Total	40	100%	24	100%	
Rent payment method	Paid alone	7	18%	5	21%	3.902/ 0.142
	Shared with family and friends	16	40%	4	17%	
	Paid by the employer or someone	17	43%	15	63%	
	Total	40	100%	24	100%	
	Monthly income	< 10000 Baht	4	10%	10	
	≥ 10000 Baht	36	90%	14	58%	
	Total	40	100%	24	100%	
Monthly household income	< 25000 Baht	15	38%	13	54%	1.693/ 0.193
	≥ 25000 Baht	25	63%	11	46%	
	Total	40	100%	24	100%	
Sending remittance back home	Yes	34	85%	18	75%	0.985/ 0.321
	No	6	15%	6	25%	
	Total	40	100%	24	100%	

Note: * = Statistically significant at p-value ** = Statistically significant at p-value < 0.01

For economic characteristics, rental fees and monthly income of migrant workers statistically associate with housing choices. The results show that staying in a house is associated with rental fees lower than or equal to 5,000 Bahts, while staying in an apartment or condominium is associated with no rental fees or rental fees more than 5,000 Bahts ($X^2 = 10.407$, $p\text{-value} = 0.005 < 0.05$). The respondents who earn 10,000 Bahts and above are more likely to stay in an apartment or condominium than those who earn less than 10,000 Bahts ($X^2 = 8.802$, $p\text{-value} = 0.003 < 0.05$).

Chi-Square Test of Housing Choices and Social Network and Neighborhood Characteristics

Table 32 shows the Chi-square test results of social network and neighborhood characteristics and housing choices of Myanmar migrant workers.

Table 32 Chi-Square Test of Housing Choices and Social Network and Neighborhood Characteristics

Social Network and Neighborhood Characteristics		Housing Choices				X ² /p-value
		Apartment/ Condominium (N=40)		Houses (N=24)		
Living Far from the Police Interrogation Area	Yes	11	28%	7	29%	0.021/0.886
	No	29	73%	17	71%	
Total		40	100%	24	100%	
Living Near Family or Friends	Yes	33	83%	18	75%	0.521/ 0.470
	No	7	18%	6	25%	
Total		40	100%	24	100%	
Living Near Public Transport	Yes	30	75%	21	88%	1.448/ 0.229
	No	10	25%	3	13%	
Total		40	100%	24	100%	

Note: * = Statistically significant at $p\text{-value} < 0.05$, ** = Statistically significant at $p\text{-value} < 0.01$

The statistical test results for the association of social network and neighborhood characteristics and Myanmar migrant workers' housing choices are shown in Table 32. However, no statistically significant association is found between the social network and neighborhood characteristics.

Chi-Square Test of Housing Choices and Mobility Characteristics

Table 23 shows the statistical analysis results of mobility characteristics and housing choices of Myanmar migrant workers. Nevertheless, none of the mobility characteristics shows a significant association with housing choices.

Table 33 Chi-Square Test of Housing Choices and Mobility Characteristics

Mobility Characteristics		Housing Choices		X ² /p-value
		Apartment/ Condominium (N=40)	Houses (N=24)	
Plans to work in other cities	Yes	10	25%	0.000/1.000
	No	30	75%	
	Total	40	100%	
Resident change history	Yes	23	58%	0.004/ 0.948
	No	17	43%	
	Total	40	100%	
Plans to go home	Yes	17	43%	0.340/ 0.560
	No	23	58%	
	Total	40	100%	

Note: * = Statistically significant at p-value < 0.05, ** = Statistically significant at p-value < 0.01

5.3 Summary of Results

Spatial analysis was conducted to determine the housing and job locations of Myanmar migrant workers in Bangkok's CBD. Mean center and standard deviational ellipse calculations were employed to precisely locate the workers' housing, which showed that the majority of the migrant workers predominantly live around the CBD area. The results of this spatial analysis provide important insights into the living patterns of Myanmar migrant workers in Bangkok's CBD and can be used to inform policy decisions aimed at improving their access to better housing choices.

Statistical analysis was carried out to determine the housing choices of Myanmar migrants working in the CBD of Bangkok. Cross-tabulation was carried out to explore the housing choices of Myanmar migrants, and the chi-square test investigated the determinants of housing choices. It is revealed that the majority of the migrant workers (62.5%) are living in apartments/condominiums, and the rest of the respondents live in houses. Regarding the determinants of housing choices, the chi-square test reveals that age, marital status, education, occupation, monthly rental fees, and monthly income have associations with housing choices. Therefore, it can be concluded that Myanmar migrant workers choose their houses based on their age, marital status, education, occupation, monthly rental fees, and monthly income.

Chapter 6

Conclusion, Discussion, and Strategy Recommendations

6.1 Conclusion

The three main objectives of this study are (1) to explore the housing locations of Myanmar migrants working in the CBD of Bangkok, (2) to explore the determinants of the housing choices of Myanmar migrants working in the central business district of Bangkok, and (3) to provide urban strategies that ensure the housing security of Myanmar migrant workers. Thus, to accomplish the first two objectives, this study sought to answer two research questions; (1) what are the housing locations of Myanmar migrant workers who work in the central business district of Bangkok? and (2) what are the determinants of the housing choices of Myanmar migrant workers in the central business district of Bangkok? Therefore, the researcher analyzed the data gathered from Myanmar migrant workers who work in Bangkok's central business districts (CBDs): Pathum Wan, Rat Thewi, Sa Thon, Bang Rak, and Yannawa to achieve the objectives of this study. The third objective of this research is fulfilled by providing the urban strategy according to findings and discussions.

6.1.1 Housing Locations of Myanmar Migrant Workers

The answer to the first research question was provided by the spatial analysis result from Figure 20, which is the housing and job distribution map that is discussed in Chapter 5. The majority of workers reside around the Central Business District (CBD), as shown by spatial analysis.

6.1.2 Housing Choices and the Determinants of Housing Choices

This study uses cross-tabulation analysis to explore the housing choices of migrant workers, which are apartments/condominiums and houses for this study. Furthermore, this study was able to investigate the association between the housing choices of Myanmar migrant workers and the explanatory variables such as social characteristics, economic characteristics, social networks and neighborhood

characteristics, and mobility characteristics. As a result, it is revealed that there are seven determinants in the housing choices of Myanmar migrants working in the CBD of Bangkok. The results showed that five social characteristics, i.e., age, marital status, living status, and occupations, and two economic characteristics, i.e., rental fees and monthly incomes, are significantly associated with the housing choices of Myanmar migrant workers.

In summary, this study was able to answer the two research questions, which are (1) to explore the housing locations of Myanmar migrants working in the CBD of Bangkok and (2) to explore the determinants of the housing choices of Myanmar migrants working in the central business district of Bangkok.

6.1.3 Discussion and Strategy Recommendations

Discussions

The research questions have been answered through spatial and statistical analysis. Additionally, this research has yielded a few more observations beyond the research questions. Therefore, the discussion section delves into the main findings of the study, highlighting the emerging problems, trends, and patterns related to spatial distribution and commuting patterns among migrant workers in Bangkok. The discussion will be divided into two key aspects: spatial distribution and commuting patterns.

Spatial Distribution

The findings of this research shed light on the spatial distribution of job locations and housing choices among migrant workers in Bangkok. It is observed that not all migrant workers reside in the CBD. The housing locations exhibit a greater variation compared to job locations, implying that the housing of migrant workers is scattered around the CBD. This spatial distribution of housing indicates that many workers need to commute from their residential areas to their workplaces, resulting in varying commuting distances and patterns.

The average distance from job to home for migrant workers is 3.45 kilometers, with a median distance of 3.71 kilometers. This means that approximately half of the

respondents live at a considerable distance away from the city center. Such a spatial arrangement necessitates the use of transportation to bridge the gap between residential areas and job locations.

Commuting Pattern

Despite the availability of public transportation options in Bangkok, the research findings indicate that walking is the most popular mode of transport among migrant workers. The majority of the respondents earn around 10000 Baht per month. It is observed that the workers from the retail industry mostly commute by motorized public transport. However, most of the workers from the food and beverage industry walk to work, and they live together with their colleagues in a place that their employer-provided, which is a considerable distance away from their workplaces. This can infer that the preference for walking may be influenced by various factors, including the proximity of residential areas to job locations, the cost-effectiveness of walking, and potential challenges associated with using public transportation.

The usage of bus services among migrant workers is still low compared to active transport, with 22.2% of respondents reporting its use for their daily commutes. Similarly, the utilization of mass transit, such as trains or subways, is limited to a mere 2.8% of respondents. This suggests that certain barriers or challenges are hindering the widespread adoption of public transport among migrant workers in Bangkok. These challenges could include factors such as affordability, accessibility, and the convenience of alternative modes of transport.

In conclusion, the spatial distribution of job locations and housing choices among migrant workers in Bangkok reveals that migrant workers live around the CBD. The commuting patterns indicate a reliance on walking as the primary mode of transport, with limited usage of buses and mass transit services. Understanding these spatial and commuting dynamics is crucial for developing strategies and initiatives to improve transportation options and address the challenges faced by migrant workers in their daily commutes.

Strategy Recommendations

Based on the main findings and emerging issues surrounding spatial distribution, commuting patterns, and housing rent, a distinct urban strategy is recommended to alleviate the financial burden faced by migrant workers in proximity to the CBD in Bangkok. The research strongly suggests that enhancing public transport accessibility and affordability is key to resolving the commuting challenges linked to housing for Myanmar migrant workers in the CBD.

The proposed strategy, titled "**Convenient Commute: Enhancing Public Transport Accessibility and Affordability**," aims to address the identified issues and achieve two primary objectives. The first objective is to promote the usage of public transportation among migrant workers, encouraging them to rely on convenient and cost-effective modes of travel. This would significantly alleviate the burden of transportation costs associated with commuting to and from the CBD.

The second objective is to improve the overall commuting experience, not only for Myanmar migrant workers but also for residents, including low-income communities, within the inner city and neighboring districts. By enhancing public transport accessibility and affordability, this strategy seeks to create a more inclusive and efficient transportation system that benefits a wider range of individuals. It is designed to enhance connectivity, reduce travel time, and provide a comfortable and reliable commuting experience.

Implementing this groundbreaking solution would not only address the housing challenges faced by migrant workers but also empower them to lead more balanced and fulfilling lives. It represents a transformative step towards enabling migrant workers to choose affordable housing options while ensuring their accessibility and comfort.

The "**Convenient Commute: Enhancing Public Transport Accessibility and Affordability**" strategy serves as a comprehensive and forward-thinking approach to tackle the commuting issues related to housing choices for Myanmar migrant workers in the CBD of Bangkok. By creating a well-connected and affordable transportation

network, this strategy paves the way for a more sustainable and equitable urban environment, benefiting both migrant workers and the local community.

The urban strategy proposed to address the commuting challenges related to the housing choices of migrant workers in Bangkok's CBD comprises three key initiatives. These initiatives aim to improve public transport accessibility, affordability, and overall commuting experiences. By implementing these measures, it is anticipated that the financial burden on migrant workers will be reduced, leading to enhanced housing options and improved well-being.

Initiative 1: Affordable Fare and Ticketing Options

The first initiative focuses on developing affordable fare and ticketing options for migrant workers. This involves collaborating with transport authorities to implement income-based fare adjustments, ensuring that transportation costs are proportionate to individuals' incomes. By doing so, the financial burden on migrant workers can be further alleviated. Additionally, the strategy aims to introduce monthly or bundled ticket packages that offer cost-effective options for frequent commuters. These initiatives not only promote affordability but also provide greater flexibility in terms of ticketing choices, making public transportation a more viable and attractive option.

Initiative 2: Improve Public Transport Service and Coverage

The second initiative centers around enhancing public transport service and coverage. To achieve the strategy, it is suggested to increase the frequency of bus and mass transit services within the inner city and neighboring districts. This step aims to reduce waiting times and provide more reliable transportation options for migrant workers. Furthermore, the strategy emphasizes the need to enhance connectivity between different modes of public transportation, such as feeder services. By creating seamless travel experiences, migrant workers can enjoy efficient and convenient commuting, thereby increasing their overall satisfaction with public transport.

Initiative 3: Raise Community Engagement

The third initiative focuses on raising community engagement among migrant worker populations. This involves organizing awareness campaigns and workshops specifically targeting migrant worker communities. The aim is to educate them about the benefits of public transportation, including cost savings, reduced travel time, and environmental sustainability. By fostering a greater understanding and appreciation for public transport, migrant workers can make informed choices and actively participate in utilizing the available transportation services. Community engagement initiatives also contribute to building a sense of belonging and inclusion within the urban fabric.

In conclusion, the proposed urban strategy presents three key initiatives to address the commuting challenges faced by migrant workers in Bangkok's CBD. These initiatives include affordable fare and ticketing options, improved public transport service and coverage, and community engagement efforts. By implementing this comprehensive strategy, it is anticipated that the financial burden associated with housing choices will be alleviated, and migrant workers will have access to better housing options within their budget. Moreover, by enhancing public transport accessibility and affordability, this strategy promotes a sustainable and inclusive urban environment, benefiting both migrant workers and the broader community.

6.2 Limitations and Recommendations

6.2.2 Limitations of the study

There are some limitations in this study. Due to budget and time constraints, this study was able to recruit 64 Myanmar migrant workers. Additionally, this study collects data at a single point in time, which may not reflect dynamic changes, such as changes in housing affordability or accessibility, that occur over time. This study conducted a quantitative analysis to study the housing choices of migrant workers. Although quantitative approaches provided valuable insights into the spatial distribution, commuting patterns, and housing choices of migrant workers, they may

have limitations on an exploration of the experiences and perspectives that could have been captured through qualitative methods.

6.2.2 Recommendations for Future Studies

Firstly, this study focuses on the migrants working in the CBD of Bangkok. In terms of administrative boundaries, the study area includes Pathum Wan District, Rat Thewi District, Sa Thon District, Bang Rak District, and Yannawa District. Therefore, this study recommends that future researchers study the entire Bangkok and the second-tier cities in Thailand, such as Chiang Mai, Chonburi, and Rayong.

Secondly, this study conducted quantitative methods. Therefore, it is recommended that future researchers employ a mix of quantitative and qualitative methods to obtain a more comprehensive understanding of the housing challenges faced by migrant workers in urban contexts.

Thirdly, this study emphasized housing locations, housing choices, and the determinants of the housing choices of Myanmar migrants working in the CBD of Bangkok. The future researcher can further explore the relationship between housing choices and the social capital of Myanmar urban migrant workers in both qualitative and quantitative methods.

APPENDIX A

Survey Design

Part 1: Housing and Job Locations

1: Where are you currently living?

(Please fill in the pinned location link from the Google map)

2: Where do you work?

(Please fill in the pinned location link from the Google map)

Part 2: Housing Choices and Housing Preferences

1: What types of housing that you currently living in?

(1) Apartments/Condominiums (2) Townhouses

(3) Rowhouses/Shophouses (4) Detached Houses

(5) Camps for Construction Workers

2: What is your housing preference in Bangkok if there is no limitation or constraints?

Part 3: Determinants of Housing Choices

Social Characteristics

1: What is your Gender?

(1) Male

(2) Female

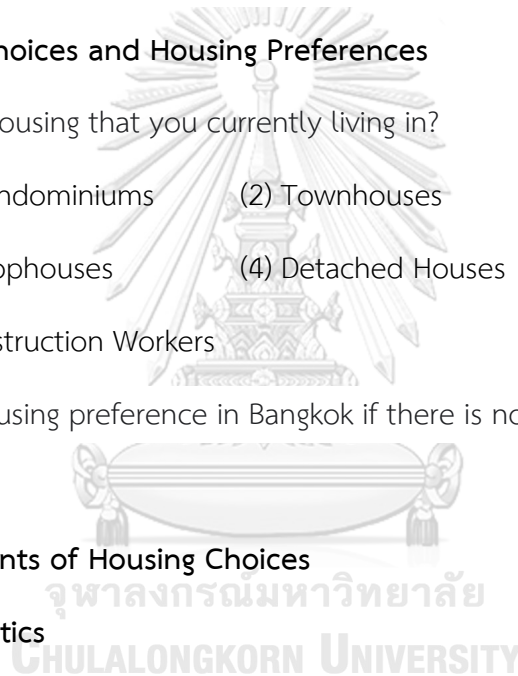
2: What is your Marital Status?

(1) Single

(2) Married

(3) Separated

3: How Old are you?



4: Who do you live with?

- (1) Alone (2) With Parents (3) With Family (4)
With Friends (5) With Employees

5: What is your education level?

- (1) Primary School (2) Middle School (3) High School
(4) College Education Higher

6: What is your occupation?

- (1) Domestic Helper (2) Construction Worker (3) General Worker at Retail
(4) General Worker in Food and Beverage Industry (5) General Worker in Hotel
Industry (6) Street Vendor

7: How many people live in your household?

8: How many people are working in your household?

9: Is there a presence of any dependent (school-aged children or elders) in the household?

- (1) Yes (2) No

10: How many dependents are in your household?

11: In your assessment, what is the level of Thai Language Proficiency?

- (1) Low (2) Medium (3) High

12: What is your Migrant Status in Thailand?

- (1) Living and working illegally (2) Living and working legally with Nationality
Verification Card (NV) (3) Living and working legally with a passport and visa

13: How long have you been staying in Thailand?

- (1) Less than 1 year (2) Between 1 to 5 years (3) Between 5 to 10 years
 (4) More than 10 years

Economic Characteristics

14: How do you pay the rent?

- (1) Paid Alone (2) Paid by Employer (3) Shared with family or friends
 (4) Rent Free (someone who lives together pays the rent)

15: How much is the monthly rent?

- (1) No rent fee (2) Less than 2000-Baht
 (3) Between 2001 Baht to 5000 Baht (4) 5001 Baht and above

16: What is your monthly income?

- (1) Less than 10000 Baht (2) Between 10001 Baht and 25000 Baht
 (3) 25001 Baht and Above

17: What is your monthly household monthly income?

(If you live alone, you can assume your income is your household income, and if you live with friends or family, the total income of the individual who lives in the house is equal to the household income)

- (1) Less than 10000 Baht (2) Between 10001 Baht to 25000 Baht
 (3) More than 25000 Baht

18: Do you send your remittances back home?

- (1) Yes (2) No

19: How many percentages of your income are your remittances?

Social Network and Neighborhood Characteristics

20: Does your neighborhood have frequent police interrogations?

(1) Yes (2) No

21: Are you living near family or friends?

(1) Yes (2) No

22: Is your house close to any public transport?

(1) Yes (2) No

Mobility Characteristics

23: Do you plan to work in other cities?

(1) Yes (2) No

24: Do you have any residence change history?

(1) Yes (2) No

25: Do you have any plans to go back to your home country?

(1) Yes (2) No

Travel Mode Choices from Houses to Jobs

Question 26: How do you Commute to work?

(1) On foot (2) Bus (3) Mass Transit (4) Own Vehicle

(5) Taxi; Motorcycle (6) Taxi; Car (7) Company Car

APPENDIX B

Survey Design (မြန်မာဘာသာ)

အပိုင်း ၁: နေအိမ်နှင့် အလုပ်အကိုင်နေရာများ

၁: သင် လက်ရှိနေထိုင်နေသောနေရာကို မြေပုံတွင်ရွေးပါ။

၂: သင်ဘယ်မှာအလုပ်လုပ်ပါသလဲ မြေပုံတွင်ရွေးပါ။

အပိုင်း ၂: နေအိမ်ရွေးချယ်မှုနှင့် ဦးစားပေးရွေးချယ်မှုများ

၁: သင် လက်ရှိနေထိုင်နေသော အိမ်အမျိုးအစားကိုရွေးချယ်ပါ။

(၁) တိုက်ခန်းများ / ကွန်ဒိုများ (၂) Townhouse အိမ်များ (၃) လုံးချင်းအိမ်များ

(၄) ဈေးဆိုင်ခန်းများ ၏ ထပ်ခိုးများ

(၅) ဆောက်လုပ်ရေးလုပ်သားများအတွက်လှိုင်းခန်းများ

၂: ငွေကြေးအကွာအဝေးကန့်သတ်ချက်များမရှိပါကဘန်ကောက်တွင် သင်မည်သည့် အိမ်မျိုးတွင် နေထိုင်ချင်သနည်း။

အပိုင်း ၃: အိမ်ရာရွေးချယ်မှုဆိုင်ရာ အဆုံးအဖြတ်များ

အထွေထွေ အချက်အလက်များနှင့် လူမှုရေးဆိုင်ရာ များ

၁: အမျိုးသားလား အမျိုးသမီးလား ဖြေပါ။

(၁) အမျိုးသား (၂) အမျိုးသမီး

၂: သင့်ရဲ့အိမ်ထောင်ရေး အခြေအနေက ဘယ်လိုလဲ။

(၁) အပျို/လူပျို (၂) အိမ်ထောင်သည်

၃: သင့်အသက်ဘယ်လောက်လဲ။

၄: သင်ဘယ်သူနဲ့ နေပါသလဲ။

(၁) တစ်ယောက်တည်း (၂) မိဘများနှင့် (၃) မိသားစုနှင့်

(၄) သူငယ်ချင်းများနှင့် (၅) အလုပ်ရှင်နှင့်

၅: သင့်ရဲ့ပညာရေး အဆင့်အတန်းကိုဖော်ပြပါ။

(၁) အခြေခံပညာ မူလတန်း (၂) အခြေခံပညာ အလယ်တန်း

(၃) အခြေခံပညာ အထက်တန်း (၄) အထက်တန်းအောင် သို့မဟုတ် တက္ကသိုလ်

၆: သင်၏ အလုပ်အကိုင်ကိုဖော်ပြပါ။

(၁) အိမ်အကူ (၂) ဆောက်လုပ်ရေးလုပ်သား (၃) လက်လီအရောင်းဝန်ထမ်း

(၄) အစားအသောက်လုပ်ငန်းတွင် လုပ်ကိုင်သူ (၅) ဟိုတယ်လုပ်ငန်းတွင်လုပ်ကိုင်သူ

(၆) လမ်းဘေးဈေးရောင်းသူ

၇: သင့်အိမ်ထောင်စုတွင် လူမည်မျှနေထိုင်သနည်း။

(၁) ၁ ယောက်တည်းနေထိုင်ပါသည် (၂) ၂ ယောက်နေထိုင်ပါသည်

(၃) ၃ ယောက်နှင့်အထက်နေထိုင်ပါသည်

၈: သင့်အိမ်ထောင်စုတွင် လူမည်မျှအလုပ်လုပ်ပါသနည်း။

၉:

အိမ်ထောင်စုတွင် မိခင် (ကျောင်းနေအရွယ်ကလေးများ သို့မဟုတ်

သက်ကြီးရွယ်အိုများရှိပါသလား။)

(၁) ရှိ (၂) မရှိ

မေးခွန်း ၁၀: သင့်အိမ်ထောင်စုတွင် မိခင်နေရသူ ဘယ်နှစ်ယောက်ရှိပါသလဲ။

၁၁: သင်၏ထိုင်းဘာသာကျမ်းကျင်မှု အဆင့်ကို ဖော်ပြပါ။

- (၁) မပြောတတ်
- (၂) အတော်အသင့်
- (၃) ကျွမ်းကျင်

၁၂: ထိုင်းနိုင်ငံတွင် သင်၏ ရွှေ့ပြောင်းနေထိုင်မှု အခြေအနေကိုဖော်ပြပါ။

- (၁) နိုင်ငံအတွင်း တရားမဝင် ဝင်ရောက် အလုပ်လုပ်ကိုင်နေထိုင်ခြင်း
- (၂) အလုပ်လုပ်ခွင့် လက်မှတ်ဖြင့် မှတ်ပုံတင်ပြီး နိုင်ငံသားစိစစ်ခြင်း (NV)လုပ်ငန်းစဉ်ကို လုပ်ဆောင်ပြီးနေထိုင်ခြင်း

- (၃) နိုင်ငံကူးလက်မှတ်နှင့်ဗီဇာဖြင့်တရားဝင်လမ်းကြောင်းများမှတစ်ဆင့် ထိုင်းနိုင်ငံသို့ ဝင်ရောက်ပြီးနေထိုင်ခြင်း

၁၃: သင်ထိုင်းနိုင်ငံတွင်နေထိုင်သည်မှာ ဘယ်လောက်ကြာပြီလဲ။

- (၁) ၁နှစ်အောက်
- (၂) ၁နှစ်မှ၅နှစ်ကြား
- (၃) ၅နှစ်မှ ၁၀ နှစ်ကြား
- (၄) ၁၀ နှစ် နှင့် အထက်

စီးပွားရေးလက္ခဏာများ

၁၄: သင်၏အိမ်ငှားခကို မည်သို့ပေးဆောင်ပါသနည်း။

- (၁) တစ်ပေးစုံတစ်ယောက်နှင့် အတူနေသောကြောင့်ပေးစရာမလိုပါ
- (၂) တစ်ဦးတည်း
- (၃) မိသားစုသို့မဟုတ်သူငယ်ချင်းနှင့်ဝေမျှ၍
- (၄) သူဌေးပေးသည်

၁၅: သင်၏လက်ရှိနေရာတွင် အိမ်ငှားခ (လစဉ်) မည်မျှသုံးပါသနည်း။

- (၁) သုံးရန်မလိုပါ
- (၂) ၂၀၀၀ ဘတ်အောက်
- (၃) ၂၀၀၀ ဘတ် နှင့် ၅၀၀၀ ဘတ် ကြား
- (၄) ၅၀၀၀ဘတ်နှင့်အထက်

၁၆: သင်၏လစဉ်ဝင်ငွေကို ဖော်ပြပါ။ (တစ်ဦးတည်းဝင်ငွေ)

- (၁) ဘတ်၁၀၀၀၀အောက်
- (၂) ၁၀၀၀၀ ဘတ်နှင့် ၂၅၀၀၀ ဘတ် ကြား

(၃) ၂၅၀၀၀ ဘတ်နှင့်အထက်

၁၇: သင့်မိသားစုနှင့်အတူနေထိုင်ပါကသင့်အိမ်ထောင်စုဝင်ငွေ(လစဉ်) မည်မျှရှိသနည်း။

(၁) ဘတ်၁၀၀၀၀အောက် (၂) ၁၀၀၀၀ ဘတ်နှင့် ၂၅၀၀၀ ဘတ် ကြား

(၃) ၂၅၀၀၀ ဘတ်နှင့်အထက်

၁၈: အိမ်ကို ပြန်လည်ထောက်ပံ့နိုင်ပါသလား။

(၁) ထောက်ပံ့နိုင်ပါသည် (၂) မထောက်ပံ့နိုင်ပါ

၁၉: အိမ်ကိုဘယ်လောက်ပြန်လည်ထောက်ပံ့ပါသနည်း။

လူမှုကွန်ရက်နှင့် ရုပ်ကွက်လက္ခဏာများ

၂၀: သင်နေထိုင်သောရပ်ကွက်တွင် ရဲများ၏စစ်ဆေးမေးမြန်းမှုများရှိပါသလား။

(၁) ရှိသည် (၂) မရှိပါ

၂၁: သင်သည် မိသားစု သို့မဟုတ် သူငယ်ချင်းများအနီးတွင် နေထိုင်ပါသလား။

(၁) နေသည် (၂) မနေပါ

၂၂: သင့်နေရာသည် အများသုံးသယ်ယူပို့ဆောင်ရေးနှင့်နီးပါသလား။

(၁) နီးသည် (၂) မနီးပါ

ရွှေ့လျားနိုင်မှု လက္ခဏာများ

၂၃: အခြားမြို့များတွင် အလုပ်လုပ်ရန် အစီအစဉ် ရှိပါသလား။

(၁) ရှိသည် (၂) မရှိပါ

၂၄: သင့်တွင် နေထိုင်မှုပြောင်းလဲခြင်း မှတ်တမ်းရှိပါသလား။

(၁) ရှိသည် (၂) မရှိပါ

၂၅: သင့်နေရပ်နိုင်ငံ/မြို့ကို ပြန်ဖို့ အစီအစဉ် ရှိပါသလား။ ။

(၁) ရှိသည်

(၂) မရှိပါ



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