



IMPLEMENTATION OF A NEW HOMEOWNERSHIP PROGRAM IN JAKARTA:

THE CASE OF ZERO DOWN-PAYMENT HOUSING PROGRAM

Abstract

Governments worldwide deal with the question of how to elevate their low-income household (LIH) into a higher standard of living. The main view of scholars on housing is that homeownership usually is the first step into improving the lives of people with a low income. The Province of Jakarta struggled with the same question. To address the housing challenge in Jakarta, they created the Zero Down-Payment Housing Program (ZDPHP) in 2017. This program's main purpose is to provide financing facilities to meet the basic need for adequate housing, targeting the LIH. However, the adaptation of this program has been slow, begging the question of what could be done to attract more beneficiaries. This article is intended to help improve the ZDPHP in Jakarta and give a perspective for other places thinking about implementing the same program. It explores the current eligibility criteria from the perspective of two out of five elements of the "5 As of Adequate Housing", Affordability and Accessibility, to understand the underlying housing challenge. Indicators of those two elements were collected from the data associated with the project. These data sources were supported and further explained using empirical data from policies analysis, interviews, FGDs, surveys and other existing databases. The most important findings were found as follows. Firstly, the best proportion of housing expenses to household income is to look at the actual comparison between household income and what a household pays for housing and transportation in its respective city. Secondly, to further strengthen the housing planning in Jakarta, an education program should be enforced alongside the ZDPHP. Lastly, with the recent launch of regulation regarding government land use permits, it is hoped that this will be a key solution to overcome land limitations and reduce house prices to become more accessible and affordable.

Keywords: Social Housing, Zero Down Payment, Subsidy Program, Adequate Housing, Affordability, Accessibility, Low-Income Households

Preface

This article marks the end of my journey as a master's degree student at the TU Delft. Before, I never imagined that a bachelor student from the Bandung Institute of Technology could continue her studies at the TU Delft. As you might know, the Bandung Institute of Technology used to be the Delft Technical College for the East Indies. It feels like coming full circle being able to finish my study path in Delft. My journey started when I became a civil servant in the Province of Jakarta with the assignment to develop social housing projects. I faced various challenges in planning and managing these projects. Later on, the opportunity to continue my master's studies came when I was awarded a scholarship from the LPDP and earned a study permit from my employer. To both organizations, I want to express my gratitude for this. Working on my master's research project has allowed me to contribute to Indonesia and bring improvements into reality.

The journey then led me to choose a university and program to attend. After careful deliberation, I decided on a master track program at the TU Delft: Management in the Built Environment, which perfectly fits my past years' work experience. And for my graduation project, I was beyond grateful to be given a chance to study the case I was professionally involved in, knowing that I received full support from my colleagues and all involved stakeholders. Their support became my encouragement to provide the best results in improving the quality of this study case in the future.

I want to take this opportunity to express my gratitude to all parties who helped make this graduation project a success. Firstly, my gratitude goes to all interviewees and respondents who spared their valuable time and shared their experiences to fill in the knowledge gaps. I also want to thank my supervisors, Gerard and Ellen personally, for their expertise and insights. I learned a lot from them and valued all their time leading me through this journey. For my family and friends, your presence made this writing journey so much easier. Last but not least, I would like to thank my husband for his unlimited support throughout writing this thesis and for believing in me. Now this research has turned from "nothing" into "something".

Finally, I wish you a pleasant time reading this report!

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Abbreviations

Abbreviations	Expansion of	Translation
AJB	<i>Akta Jual Beli</i>	Deed of Sales and Purchase
APBD	<i>Anggaran Pendapatan dan Belanja Daerah</i>	Regional Revenue and Expenditure Budget
APBN	<i>Anggaran Pendapatan dan Belanja Nasional</i>	National Revenue and Expenditure Budget
Bapenda	<i>Badan Pendapatan Daerah</i>	Regional Tax Agency
Bappeda	<i>Badan Perencanaan dan Pembangunan Daerah</i>	Regional Planning and Development Agency
BLUD	<i>Badan Layanan Umum Daerah</i>	Regional Public Service Agency
BMD	<i>Barang Milik Daerah</i>	Regional Government Property
BMN	<i>Barang Milik Negara</i>	State Property
BPKD	<i>Badan Pengelola Keuangan Daerah</i>	Regional Financial Management Agency
BPN	<i>Badan Pertanahan Nasional</i>	National Land Agency
BPS	<i>Badan Pusat Statistik</i>	Central Bureau of Statistics
BUMD	<i>Badan Usaha Milik Daerah</i>	Regional Government Owned Enterprises
BUMN	<i>Badan Usaha Milik Negara</i>	National Government Owned Enterprises
CPM	<i>Calon Penerima Manfaat</i>	Candidate for Social Benefits
DKI	<i>Daerah Khusus Ibukota</i>	Special Capital Region
DPRKP	<i>Dinas Perumahan Rakyat dan Kawasan Permukiman</i>	Department of Public Housing and Settlement Area
DRD	<i>Dewan Riset Daerah</i>	Regional Research Council
Dukcapil	<i>Dinas Kependudukan dan Catatan Sipil</i>	Department of Population and Civil Registration
FLPP	<i>Fasilitas Likuiditas Pembiayaan Perumahan</i>	Housing Financing Liquidity Facility
HGB	<i>Hak Guna Bangunan</i>	Building Right Title
HM	<i>Hak Milik</i>	Freehold Title
HP	<i>Hak Pakai</i>	Right to Use
HPL	<i>Hak Pengelolaan</i>	Management right
IDR	-	Indonesian Rupiah
IPL	<i>Iuran Pengelolaan Lingkungan</i>	Apartment Service fee
Kepgub	<i>Keputusan Gubernur</i>	Governor's Decree
Kepmen	<i>Keputusan Menteri</i>	Minister's Decree
KK	<i>Kartu Keluarga</i>	Family card
KP	<i>Kredit Properti</i>	Property Loan
KPR	<i>Kredit Pemilikan Rumah</i>	Home Ownership Loan / Mortgage

KPR FPPR	<i>Kredit Pemilikan Rumah Fasilitas Pembiayaan Perolehan Perumahan</i>	Mortgage from Home Acquisition Financing Facility
KSO	<i>Kerja Sama Operasi</i>	Joint Operation
KTP	<i>Kartu Tanda Penduduk</i>	Identity Card
LTV	-	Loan-to-Value
MBR	<i>Masyarakat Berpenghasilan Rendah</i>	Low-income Household
MBM	<i>Masyarakat Berpenghasilan Menengah</i>	Middle-income Household
NPF	-	Non-performing Finance
NPL	-	Non-performing Loan
NPP	<i>Nilai Perbandingan Proporsional</i>	Value Proportional Comparison
NPWP	<i>Nomor Pokok Wajib Pajak</i>	Taxpayer identification number
OJK	<i>Otoritas Jasa Keuangan</i>	Financial Services Authority
Pergub	<i>Peraturan Gubernur</i>	Governor's Regulation
Perumda	<i>Perusahaan Umum Daerah</i>	Regional Public Company
PKS	<i>Perjanjian Kerja Sama</i>	Cooperation Agreement
PP	<i>Pembiayaan Properti</i>	Property Financing
PPAT	<i>Pejabat Pembuat Akta Tanah</i>	Local Land Deed Official
PPh	<i>Pajak Penghasilan</i>	Income tax
PPJB	<i>Perjanjian Pengikatan Jual Beli</i>	Conditional Sale and Purchase Agreement
PPDPP	<i>Pusat Pengelolaan Dana Pembiayaan Perumahan</i>	Housing finance fund management center
PPPSRS	<i>Perhimpunan Pemilik dan Penghuni Sarusun</i>	Owners' Association
PT	<i>Perseroan Terbatas</i>	Limited company
RP3KP	<i>Rencana Pembangunan dan Pengembangan Perumahan dan Kawasan Permukiman</i>	Vision Plan for Housing and Settlements
Rusunami	<i>Rumah Susun Milik</i>	Social owned housing (apartment)
Rusunawa	<i>Rumah Susun Sewa</i>	Social rental housing (apartment)
SBDK	<i>Suku Bunga Dasar Kredit</i>	Basic loan interest rate
SHM	<i>Sertifikat Hak Milik</i>	Freehold title certificate
SHMSRS	<i>Sertifikat Hak Milik Satuan Rumah Susun</i>	Freehold Title for Apartment Unit
SKBG	<i>Surat Kepemilikan Bangunan Gedung</i>	Building Ownership Title
SLIK	<i>Sistem Laporan Informasi Keuangan</i>	Financial Information Reporting System
SLF	<i>Sertifikat Laik Fungsi</i>	Building Completion Certificate
UFPRS	<i>Unit Fasilitas Pemilikan Rumah Sejahtera</i>	Adequate Home Ownership Facilitation Unit
UUD	<i>Undang-undang Dasar</i>	The Indonesian Constitutional
UPDP	<i>Unit Pengelola Dana Perumahan</i>	Housing Fund Management Unit

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1 Introduction

This chapter presents a brief introduction on the housing problems in Jakarta and Zero Down-Payment Housing Program (ZDPHP), which is the subject of this case study. In this chapter the reasoning behind the implementation of the project and the controversies surrounding the project will be discussed. By presenting the research question, it helps the research stay focus on the specific problem that this research wants to address. Research objective is presented in section 1.2, while main research question follows in section 1.3. Furthermore, the scope, the significant, and the knowledge gap of the study are presented in section 1.4, 1.5, and 1.6 respectively.

1.1 Problem statement

Homeownership is still considered important to most people. In developing countries, homeownership keeps dominating housing tenure (Elsinga & Hoekstra, 2015). Groves et al. (2008) stated that the benefit of having a house is to build up equity that can be used as additional financial support. Most people prefer to live in their property to have the security of tenure rather than being a tenant by renting their accommodation. Green & White (1997) stated that homeownership encourages people to provide a better environment for the family and take greater responsibility for their community and country in the bigger picture. Therefore, the Government is suggested promoting and facilitating homeownership (Saunders, 1990) because it positively impacts both individuals and society in general (Elsinga & Hoekstra, 2005). However, the urban Global South facing the most rapid urbanization process makes it difficult for poor people to find adequate housing and security of tenure (Bredenoord et al., 2014). Therefore, many governments are generating policies to create subsidy system to facilitate people to be able to become homeowners by considering those problems (A. Gilbert, 2012).

Promoting homeownership by enabling access to housing finance is a way to overcome the housing challenge. However, Governments' initiatives to provide access to housing finance primarily benefited middle and high-income people (Kyessi & Furaha, 2010). The initiative is explained further, for instance, in the case of the country of Ghana. Because the requirements for obtaining conventional loans are still very rigid, the housing programs are hardly accessible for the low-income households (LIH). Loans are primarily unprofitable so that it is less attractive for financial institutions. In Indonesia, the Government is looking for the right subsidy mechanism whereby access to housing finance is promoted as a mean to homeownership. There have been many discussions about affordable housing to address housing problems in developing countries (Hoek-smit, 2002; Kyessi & Furaha, 2010; McKinsey Global Institute, 2014). However, the literature lacks up-to-date programs that have been applied that are expected to be a solution to housing problems. Furthermore, little is known about how successful the ZDPHP is as a solution for the people, especially the LIH to be a homeowner in Jakarta.

1.1.1 Jakarta and its housing problems

As the capital city and as the economic, transportation and commercial hub of Indonesia, Jakarta has more than 10,5 million inhabitants living over a territory of 664,01 square kilometres (BPS DKI Jakarta, 2020). Since the Dutch first developed it, the area of Jakarta has increased four times, but its population has multiplied 20 times (Cahyadi, 2007). With a density of 15.600 residents per square kilometre, the city has significant density problems. The rapid population growth, which has reached 1.1% per year (PTSP DKI Jakarta, 2018), causes further traffic congestion, floods, slum development, and environmental degradation. More than 92% of the total land area in Jakarta has been exploited, leaving less than 8% of the city that can still be developed (Sutiyoso, 2007). Limited land availability in Jakarta has increased land prices by around 18% every year (BPS, 2020), which impacted unaffordable housing prices for the majority of the people.

Concerning the effort to overcome various problems, a discourse on the formation of Jakarta to be a megapolitan city began to emerge in 2007. Megapolitan Jakarta is a spatial planning concept that is integrated between Jakarta and its surrounding areas (Figure 1), namely Bogor, Depok, Tangerang, Bekasi (Jabodetabek), which extends to the distribution of welfare from Jakarta to its surrounding areas (Sutiyoso, 2007). Through this concept, the migration from the neighbour cities to the centre can be reduced. They can become an alternative living destination for the people from within and surrounding Jakarta (Jones, 2002). Tjahyono & Bianpoen (2008) also agreed that developing a megapolitan city is the best option to overcome the problem. However, the main challenge in the development of megapolitan Jakarta is the mismatch between the economic characteristics of the population and the housing supply. Residents of the Jabodetabek area are discovered dominated by those economically in the lower middle class. In contrast, the supply of housing is dominated by upper-middle-class housing (Cahyadi & Ketut, 2009).



Figure 1. Area that covers Jabodetabek region (own figure)

As the largest metropolis in Southeast Asia, Jakarta's population consists of different kinds of economic backgrounds. The population who does not have access to housing will eventually endeavour to meet their own need. UN-HABITAT (2009) reported that at least 59% of the urban population in South East Asia is slum dwellers. The gap between the rich and the poor expands rapidly. Even with substantial economic growth, a megacity like Jakarta does not always become a better place to live.

The number of households in Jakarta has reached 3,6 million in 2020 (Dinas Komunikasi Informasi dan Statistika, 2021). Figure 2 shows the income ratio for the Jakarta population (BPS DKI Jakarta, 2020). The highest percentage is the high-income household with 47%, middle-income households with 36%, and the LIH with 17%. The government is currently focusing on providing housing for the LIH, while the middle- and high-income group are left to market mechanism. Therefore, at least there are 612.000 LIH in Jakarta that needs Government's attention for housing.

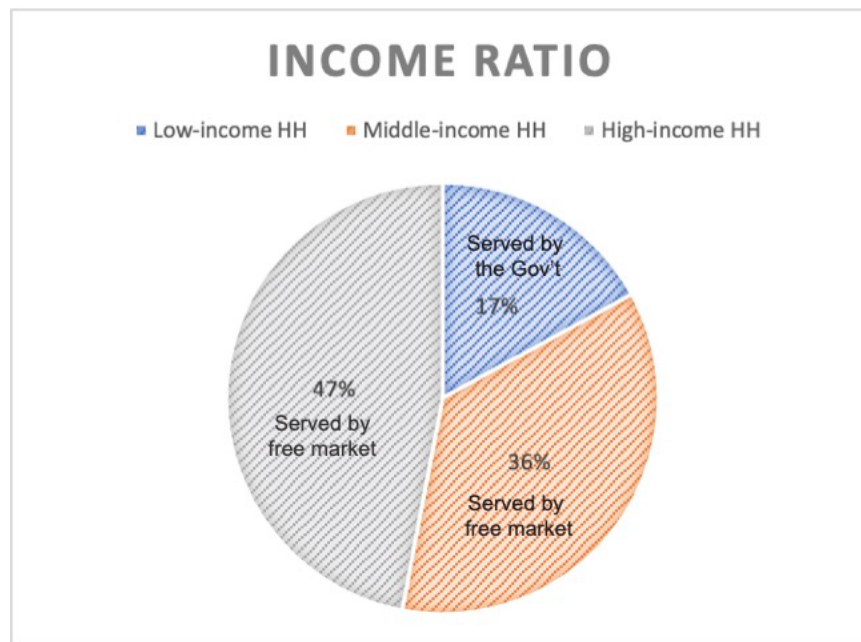


Figure 2. Distribution of income group in Jakarta (BPS DKI Jakarta, 2020)

The lack of housing supply will lead to an increasing number of homeless people. For example, rental fees for a decent studio in a private apartment in Jakarta cost IDR 3-4 million (EUR 175 - 230) per month, the same amount as the provincial minimum wage in Jakarta (Governor act. No. 114, 2018). Cahyadi & Ketut (2009) added that urban middle-class residents create a tendency to live in gated communities that the development of urban slum settlements will follow. In 2016, based on the data from the Department of Public Housing and Settlement Area Jakarta, there is at least a housing shortfall of 312,000 units, followed by a recent report by the statistical bureau that only 47% of Jakarta inhabitants have a house (BPS DKI Jakarta, 2020).

The data shown in Figure 3 indicate a comparison of home sales composition between Jakarta and Jabodetabek in 2016. Statistically shows that there were no houses sold to the lower-middle and lower classes within Jakarta. However, only the middle and high-end houses were sold in this city. On the other hand, 28% of houses for the lower-middle class were sold, ranking second in Jabodetabek, while the lowest income group ranks last with 8% houses sold. In short, the low and lower-middle groups can only find affordable housing in cities surrounding Jakarta.

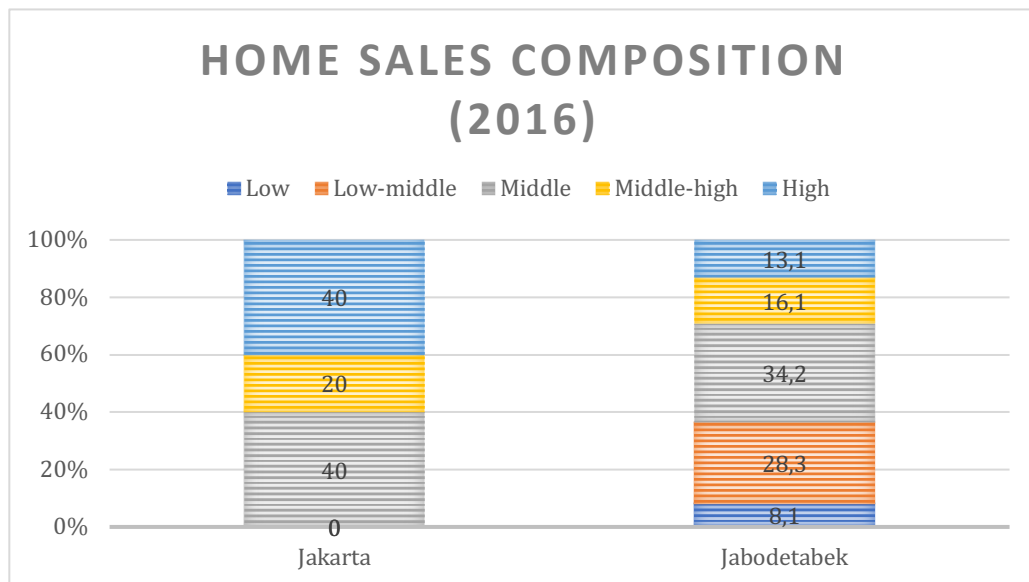


Figure 3. Home sales composition in 2016 (source: PTSP DKI Jakarta (2018))

1.1.2 Dealing with housing problem

In recent years, several studies and plans have been formulated by the Jakarta administration and the Government of Indonesia in order to mitigate the housing challenge in Jakarta and its neighbouring cities. The Government has invested heavily in giving housing guarantees because this almost always leads to new housing construction, which is the basis of solving the housing crisis. However, to identify the core problem, another perspective review needs to be performed. The backlog on housing cannot be overcome by only focusing on homeownership. In terms of adequate housing, the security of tenure is an important point that needs more attention. Having identified this problem, the Ministry of Public Works and Public Housing of the Republic of Indonesia, together with the Ministry of Finance of the Republic of Indonesia, commenced a financial fund program for the low-income target groups to own their first property (Direktorat Jenderal Anggaran Kementerian Keuangan, 2015). The budget was allocated from shared capital between *Anggaran Pendapatan dan Belanja Negara* – APBN (National Revenue and Expenditure Budget) and the appointed bank. Starting in 2010, 760,000 houses have been built across Indonesia, costing more than IDR 55 trillion (EUR 3,4 billion) (Direktorat Jenderal Anggaran Kementerian Keuangan, 2015). Inspired by this, the province of Jakarta adopted a similar financial scheme program fully funded from the *Anggaran Pendapatan dan Belanja Daerah* - APBD (Regional Revenue and Expenditure Budget) of the Jakarta province.

This adopted program was first introduced by Anies Baswedan as one of the candidates during the campaign for the election for governor of Jakarta in 2017. While in the 20th century, governments worldwide tried to withdraw themselves from supplying the house directly to the end-user and instead supported the housing market to develop housing projects, the Government in Jakarta wanted to break the common rules. The reason is that entirely handing over the housing program to the market has been going on for a long time and has only benefited the upper-middle class. As a result, inclusivity is not achieved, and housing is not easily accessible to LIH.

Under the working title 'Zero Down Payment Housing Program', the program responded to lower- and middle-income groups facing trouble buying their first home because of the inability to pay the down payment (Panjaitan, 2018). In October 2017, the province officially started the program with Anies position as a newly elected governor. By scrapping the need to make any down payment and helping them with a financial support plan, the program helps lower-income groups to become homeowners. In addition to this primary purpose, the program also addresses urban problems such as traffic, flood, and air pollution, thus proposing a solution to improve the quality of urban settlements in Jakarta (Dinas Perumahan Rakyat dan Kawasan Permukiman, 2016). However, this program is found contrary to the research of Kelly (2008) that borrowers who do not make any down payment have a higher rate of default. This statement is supported by D. M. Harrison et al. (2004) that initial equity in the form of down payment reflects a household's ability to save money. Down payment is presumed as an exercise to accumulate savings and earning behaviour. Therefore, financial institutions cannot prove the capacity of the household's economic condition on how to perform the mortgage's monthly payment without any down payment.

It is also becoming a concern among the housing experts in Indonesia. Later it was found that this project is not without its flaws. According to *bisnis.com*, until July 2020, the number of applicants has reached ten thousand people (Wahyudi, 2020). However, this did not go along with the transaction figures. After almost two years of publication, not more than half of the total unit had been sold. Most applicants fail to pass the verification (Fitriani, 2019). It can be argued that there is a mismatch between what is offered and what is demanded. Thereby the provincial Government must revise its policy. Moreover, the central Government is also criticized if the beneficiary has saved money before buying a house. Giving housing access to the lower-income target group without the need for a down payment is considered ill-informed and burdensome to the community (Puspita, 2020). It is also discovered that since this program was introduced, there has been a change in policy regarding the amount of income allowed to participate in this program (YOA, 2021). Therefore, investigating the causes of these mismatches by evaluating the current eligibility criteria from the perspective of affordability and accessibility is essential to understand the underlying reasons for this program for the purpose of improving the program in the future.

1.2 Research Goal

This research aims to contribute to the newest homeownership program in Jakarta, the ZDPHP. The study strives to match better the demand and supply of ZDPHP for the LIH. The investigation will analyse the gap between the non-functioning criteria of financial product and housing supply with the demand from a specific target group. The methodology is briefly explained; firstly, the existing accessibility criteria will be evaluated to determine which criteria are still functioning and which are not functioning. Secondly, the affordability criteria will also be assessed with a reasonably similar technique. Thirdly, the gap will be known by analysing the mismatch between supply and demand. Lastly, the findings will be explained to make recommendation to the current policy in order to improve the design of the program in the future.

1.3 Main Research Question

The main research question that will be assessed in this study is as follows:

How can the ZDPHP's accessibility and affordability criteria be improved in order to better match the demand of the low-income households of Jakarta?

Because this is a broad question that consists of multiple aspects and underlying assumptions, sub-questions are necessary for sufficient answering of the leading research question.

1.3.1 Sub-Question

To answer the main research question, the sub-questions have been defined as follows:

1. What is the Zero Down-Payment Housing Program in Jakarta?
2. How effective is the performance of current accessibility criteria in this program?
3. How effective is the performance of current affordability criteria in this program?
4. What is the mismatch between supply and demand in this program?

1.4 Scope of the Study

The study was conducted in the province of Jakarta, where the ZDPHP has its focus. The primary respondents were part of the supply and demand sides. Starting with the demand side, successful and unsuccessful applicants of this program will be examined. On the supply side, experts from the initiating side, banks and companies will give their input. The context of this research project comprises the selection process for ZDPHP enthusiasts and policy decisions. Of the three locations that have participated in marketing their project using ZDPHP, this study focuses on Pondok Kelapa Apartment. The other ZDPHP locations will not be included as part of this research. On the theory side, the theory on the 5As of adequate housing of Ayala et al., (2019) will be used to analyse the program, with a particular emphasis on the perspectives of the affordability and accessibility criteria. To assess the characteristics of the two criteria in more detail, the frameworks inspired by Germain (2008) and Majale et al., (2011) will be used.

1.5 Significance of the study

This study is a methodological research project which promises to be relevant to both theory and practice. In the context of Jakarta, the study aims to understand better how the provincial Government of Jakarta solves the housing problem by creating this financial support program for people to buy their first home. This program was supported by several local and national housing policy mandates to provide tenure options, focusing on homeownership to deliver affordable housing. Through theoretical and empirical investigations, the study explores the factors deemed necessary from the demand side as a consideration in deciding to buy a house and what kind of support systems in the program can be adjusted to increase the application's success of the applicants. The study builds on existing literature as it explains the relationship between adequate housing of homeownership and government policy of access to housing finance and housing supply.

Nevertheless, this study was carried out to help solve the housing challenge that has been the main housing issue in Jakarta. The findings of this study could help recommend the Provincial Government of Jakarta and policymakers in developing countries about stimulating homeownership targeting the low and low-middle income earners specifically.

1.6 Knowledge gap

This research aims to give more insight into the variables in play regarding the ZDPHP financial support for housing project in Jakarta. Due to the pilot phase of this program, there are no academic studies on this subject to date in Jakarta, or in the bigger picture, Indonesia and the surrounding countries within the South East Asia. This lack means that there is no prior research to build on or improve. There are no prior intuitions regarding the most relevant criteria for the specified target group in Jakarta or the causes of the mismatches between supply and demand in this program. The research conducted to write this study should offer some first insights into these topics.

2 Theory on Adequate Housing

When discussing a challenge to the status quo caused by complex factors, Jakarta's Zero Down-Payment Housing Program (ZDPHP) is undoubtedly one. There are so many aspects that contribute, shape and decide if the program can be a success. A comprehensive overview of the various ideas, theories, and works that influence the program in the coming section will be given. To start, the idea of adequate housing will be explored, followed by the dissection of the notion of homeownership. The literature should give some clarity on what type of housing the program should minimally deliver. Thirdly, attention is given to housing finance. This finding should shed some light on the financial constraints that the program exists in. Lastly, housing subsidies for different income groups will be investigated. It should become apparent if there are any flaws in this process and how these could be negated.

2.1 Adequate housing

The organisation UN-HABITAT (2002) has expressed its concerns about the living conditions of the urban poor and is working towards fulfilling the universal right of adequate housing. To achieve this, they promote the "Inclusive city" as the backbone of their strategy. This program aims to reduce urban poverty through an excellent urban governance policy that includes housing and slum upgrading. One of the tenets of this program is focused on creating a better housing policy for the low-income population of urban environments.

In Indonesia, the right to adequate housing is enshrined in the Constitution of Indonesia.

*Every citizen shall be entitled to work and a living that is decent for humanity.
(The Constitution of Indonesia Article 27)*

Furthermore, article 28H added:

Every person is entitled to live prosperous physically and spiritually, have a place to reside, acquire a good and healthy living environment, and be entitled to obtain health care.

(The Constitution of Indonesia Article 28H)

Article 28H deals with the right of citizens to have access to the means to fulfil their basic needs. Rawls (2014) argued that accepting inequalities in a society should be allowed if it optimises the life chance for the people with the least resources. Following his argument, it should follow then that the Indonesian Government uses part of their taxable income to alleviate the problems the lowest income classes have to fulfil their need for adequate housing. Hence, in this case, housing justice would be the successful implementation and operation of the ZDPHP. Before going deeper into the “how” of the program, we should first inform ourselves about what adequate housing is precise.

A shelter, equivalent to housing, can be considered adequate if it comprises of the following; (1) physical building that has four walls and a roof, (2) privacy, (3) space, (4) accessibility, (5) security, (6) security of tenure, (7) durable and stable structure, (8) lighting, heating and ventilation, (9) basic facilities, (10) proper healthcare and environment quality, and (11) access to work station, whereas everything should be in affordable cost (UN-HABITAT, 2013). Furthermore, adequate housing should also be interpreted broadly, for instance, by incorporating the freedom to live, to move, and against forced eviction (UN-HABITAT, 2009). Evictions cannot make someone homeless; this will be considered a violation of human rights.

There are many different interpretations on how to apply for adequate housing in each country. The UN-HABITAT (2009) document of “The Right to Adequate Housing” emphasises that the Government is not obliged to provide housing for the whole population. Instead, any intervention to cover measures that are required to prevent homelessness is sufficient. Programs developed for adequate housing are not only long-term programs, but some programmes also have an immediate effect. The population keeps growing and therefore the number of households who need a house is constantly increasing. Only having a focus on the long term will only lead to adding more weight to the task. In addition to that, the guidelines of the UN not only relate to the right to own property; it is broader than that. The right to adequate housing aims to ensure that everyone has a safe and secure place to live in peace and dignity even if they do not own any property.

As Quigley described in 1979, housing is a complex product with unique characteristics that form a formal model. Ranges of attributes and relationships address specific elements of the housing market within a comparative static framework. This discovery already shows that the concept of adequate housing is not easily captured in a single point list. Ayala et al. (2019) posited the “5 As of Adequate Housing” model, which can be used as a solid basis to evaluate housing policies with the end goal of achieving adequate housing. The five As are comprised of (1) Availability, (2) Accessibility, (3) Affordability, (4) Acceptability, and (5) Adaptability. Together they comprise the elements needed to provide adequate housing (Figure 4). The UN framework has more than the 5As of Ayala, but with the 5As, some of the matches that can be seen from the UN Framework cannot be grouped. The 5As are designed to evaluate the policy

and the effectiveness, whereas the UN framework of the adequacy of housing takes the broader position of tasking the adequacy. To show that Ayala et al. has not made an oversimplified list, the 5 As will be explored more in-depth and discuss their interpretation in the broader light of the academic discourse.



Figure 4. The 5As of Adequate Housing (Ayala et al., 2019)

2.1.1 Availability

Adequacy is determined by the quality of the housing unit itself and the availability of the housing. Housing availability is elaborated by Ayala et al. (2019) as adequate housing stock for the right target group and in the correct location. Turner (1986) identified that a rental room in the inner-city slum has lower living costs than a new house in the peripheral area for the low-income households (LIH). Not only that but being closer to their place of work also gives them the advantage of saving money, time and energy. By working longer, there is a bigger chance of acquiring new skills and improving their income. Bredenoord & Verkoren (2010) stated that many housing projects were still located far away from the source of income of their inhabitants, with a further lack of access to public transport to the city centre. With the growing population worldwide, it follows those interesting areas for the target population get filled up quickly. Therefore, location becomes an important aspect if we are talking about housing availability.

Ayala et al. (2019) identify four indicators that determine how successful a project fulfils the availability aspect. These are the specific location, number of houses, type of dwelling and the intended target group. Availability is not only assessed based on the number of houses that are already built or newly built, but this assessment is also influenced by the ratio of the number of people, which income group, and the location of the project. For instance, if the context is housing for LIH in the city centre, the location can be considered having available houses if the number of dwellings exceeds this group's demand. On the other hand, if the number of the houses is sufficient but the location is far from their place of work, they have to spend additional money for transportation, this condition cannot be considered fulfilled.

2.1.2 Accessibility

According to Ayala et al. (2019), accessibility focuses on the target group's eligibility criteria to approach urban infrastructure by utilising the available housing program or housing finance. Accessible housing of Frechette (1996), from another perspective, should enable people free to live in their own house, while age and physical capacities are not something to worry about anymore. Having the freedom to live in a house without any restriction to do everyday activities is not everyone's luxury. This freedom can no longer be a luxury due to disability or age. Therefore, it requires a good understanding of the needs of the specific target group to be able to access housing according to their needs. Pal & Van Vliet (2012) added that housing accessibility not only means being able to obtain the physical asset that is the house, but that one also should be able to maintain it, have it serviced, follow local regulations and finance it. Ball & Kirwan (1977) analysed the connection between accessibility and housing value. The housing price declines when their distance from the city centre rises. They conceived the market as an aggregation of individual households, which generates an equivalently declining house-price gradient. If the cost and speed of travel from the target location to the city centre increase at a decreasing rate and the marginal time of time are favourable, they showed that the price-distance function would decline at a decreasing rate (IBID). This outcome shows that access to urban infrastructure plays a big part in determining the housing value.

When looking at the financial capabilities of the target group, Quigley & Raphael (2004) remind us that fixed-rate mortgage creates fixed payment over time while adjustable-rate mortgage makes the pay rise or fall depending on the interest rates. In addition, the more variable mortgage type would only be interesting for the LIH if the rates always fall, which is not the case. Furthermore, the McKinsey Global Institute (2014) reported that at least 330 million people in the world live in substandard housing and face problems affording their housing costs. Because of this, they have to sacrifice other basic needs such as education, health, or food to cover housing costs. The problems of the LIH do not end there because traditionally, lowering the cost of housing is done by self-help (Bredenoord et al., 2014). The buyer can do minor repairs or refurbishments of rooms. However, if one is already struggling to make ends meet, there is often no time for that. Apart from that, they also have problems accessing financing options when they try to obtain it from the formal financial sector (Ferguson & Smets, 2010). However, developing countries are often forced to obtain loans through the informal loan market because the state housing stakeholders lack the required technical and financial capabilities to help them.

The importance of having adequate housing is related to several preconditions of human rights (UN-HABITAT, 2009). When a person has to be relocated, he will also lose the employment opportunities nearby. A homeless person without a valid address will be facing problems accessing other government programs, such as health care and education. They also face a greater risk of illness because of the inaccessibility of clean water and sanitation. According to Turner (1986) to make a location habitable, a house needs to fulfil four minimum criteria that he calls assemblies; (1) a location, (2) connecting routes to other places, (3) a water supply and (4) shelter. This number of assemblies could be adjusted upwards to 70 or more components when projected onto contemporary urban development. Bredenoord et al. (2014) add to this idea by bringing in the components of building skills, knowledge, and that finance must be provided in the housing provision.

Given that there are many discussion topics regarding access to housing, this research project will focus on access to housing finance because the ZDPHP program's primary goal is to provide financial access for prospective beneficiaries. Access to housing finance and its cost of debt is identified as one of the main housing issues in developing countries. While finance helps to expand housing affordability, on the other hand, the ability to access it is considered very limited. Specifically, when it comes to the LIH, many financial institutions often marginalise them due to incompatibility with strict banking requirements (Kyessi & Furaha, 2010).

Germain (2008) assessed an alternative by utilising Micro Finance Institutions (MFIs) for the poor people to meet the rigorous criteria set by the banks. MFIs offer microcredit services that can be used to acquire land, construct a new house, renovate, or support programs to build the infrastructure around a residential area (Un-Habitat, 2005). The assessment identified four variables to be evaluated, including three housing loan products, legal aspects, repayment, and institutional factors (Figure 5). The MFIs can play an essential role in closing the gap between the traditional large financial institutions and the urban poor, making it easier to access housing loans. In the ecosystem surrounding housing projects, the Government plays the role of enabler and the policymaker; the private sector has a leading role in the development on the national level with easy access to resources while civil society provides access to the needed technical know-how and competence in dealing with community issues (Kyessi & Furaha, 2010).

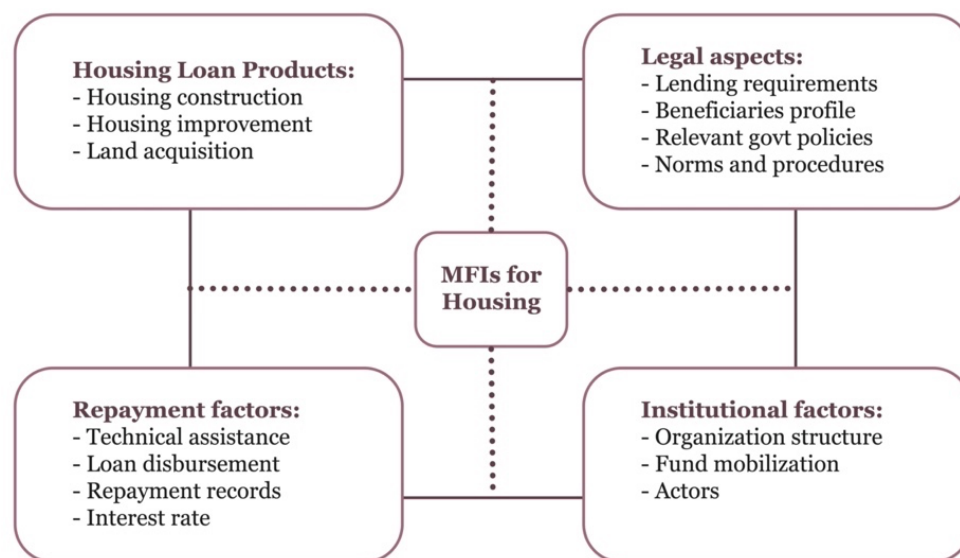


Figure 5. Assessment framework of MFIs in financing housing improvement (Germain, 2008)

Hoek-Smit (2009) elaborated on some constraints about access to housing finance. First, the types of property collateral influence the chance of a household to secure their debt. In many cases, long-term debt can only be given to registered title property. Secondly, the lender will assess the property's value by considering the neighbourhood's quality and risk. It is generally influenced by the kind of services available in the neighbourhood and the crime prevention system. Lastly, the ability to save money is also a factor for the lender. This factor is influenced by the type of employment and salaries of the household. Informal employment, which is often considered equal to earning an inconsistent income, can limit acquiring a mortgage. All in all, accessibility to adequate housing can be translated into several

components that can be seen in Figure 6. The focus for this research project is highlighted with the dotted line.

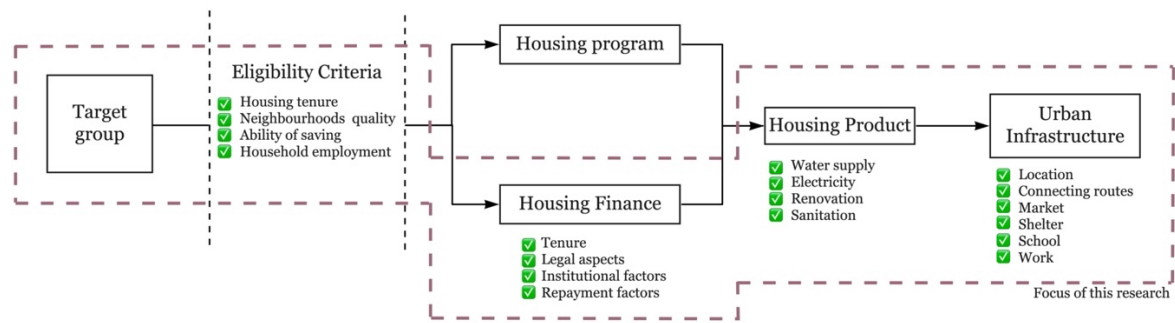


Figure 6. Basic component of Accessibility (own figure)

2.1.3 Affordability

Ayala et al. (2019) evaluate the success of affordability by showing the relation between the household income and the cost of housing (i.e., electricity, water, mortgage, rental fee, and maintenance) which is highly affected by the length of time and tenure model. Because of the differences between the various income groups, it can be challenging to make affordability comparisons. King (2016) offered a solution to this conundrum by arguing that the only way to measure affordability between people is by defining housing costs as a percentage of their earnings. This solution makes it possible to say something about housing affordability regardless of a person or household's income class. The discussion is concluded by Majale et al., (2011) who modelled the table shown in Table 1 on assessing housing affordability.

Table 1. Affordable housing assessment (Source: Majale et al., (2011))

	House price to income ratio	Housing expenses as a percentage of income
Measure	Median house price divided by median household income. The ratio of the median free-market price of a dwelling unit and the median annual household income.	Annual median household income divided by annual median housing expenditure (mortgage payment, rent, services, taxes, insurance, etc.)
Trend alert	Very high or rising ratios imply that either there is no effective housing market or that land is extremely scares, generally owing to regulatory inefficiencies or restrictions.	A high percentage indicates housing is negatively impacting on meeting non-housing basic needs and the housing market is not functioning properly.
Remarks	A key measure of housing affordability. Also generally regarded as the single indicator that gives the greatest amount of information about housing markets.	It can account for essential non-housing expenditure such as food, water, clothing, schooling, transport, etc and the decisions households make regarding housing and non-housing expenditures.

An additional study that was done by Bredenoord et al. (2014) explained that affordable housing could be approached from the following measures: (1) house price-to-income ratio;

(2) the residual income approach; and (3) the incremental affordability approach. Originally, 'one week's pay for one month's rent' was recognised as the affordability measure in western countries. Later on, the most common threshold became 25% - 30% of the total income in a household to be spent on housing expenses (Bredenoord et al., 2014; Luque et al., 2019; Majale et al., 2011). However, Hulchanski (1995) and Malpezzi & Green (1996) argued that this amount is imprecise and not a strict calculation. For instance, some households are willing to spend 40% of their income on housing which usually means they can afford it. Therefore, Stone (2006) provides the second measure by analysing the relation between income, housing expenses, and non-housing needs based on the number of family members. To overcome the problem of LIH who generally have small and unstable incomes, an incremental affordability approach resulting in smaller, short-term, and more flexible loans could be arranged to fit better their conditions (Bredenoord et al., 2014).

Figure 7 illustrates the different kinds of components and measures of affordable housing that are divided into two main variables: (1) capital and (2) occupation. The ability of a household to buy a house depends on the purchase cost and how to finance it.

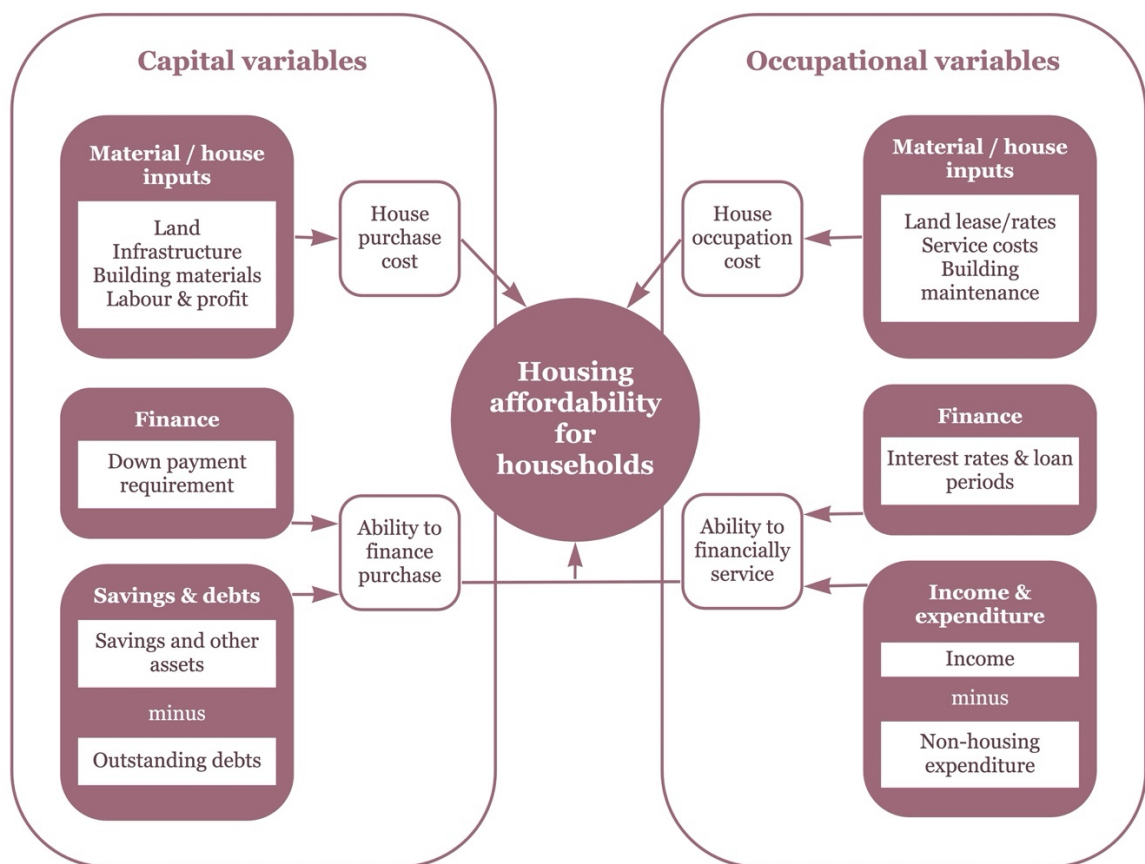


Figure 7. Basic component of affordable housing (Source: Majale et al., (2011))

Afterwards, one should also consider the occupation cost and how to finance the service cost after purchase. This concept has been described by Majale et al., (2011) in their study called Affordable Land and Housing in Asia.

The lack of housing or unsupportive finance terms (for instance, high down payment requirement, high-interest rates, short loan periods) also directly limits housing affordability, especially for lower- and middle-income groups. (Majale et al., 2011)

However, according to Quigley & Raphael (2004) younger households face more problems to afford owner-occupied housing than the other age group. This problem is logically acceptable because younger households have just started their financial savings. While the average household spends one-quarter of their income on housing, the LIH can spend more than half of their income on the same. Therefore, many scholars suggest rental housing as a solution to lower the ratio and make housing costs more affordable for the target group with a low-income.

2.1.4 Acceptability

Acceptability shows the acceptance of the target group of the housing outcome. It requires a personal understanding of every process of the housing system. Because of this, personal preference and the freedom to choose to make a housing system acceptable to people. Ayala et al. (2019) identify four indicators to use when determining the quality of the acceptability. In this section, the indicator used on acceptability will always be related to the other 5As:

1. The physical objective focuses on the affordability of urban infrastructure and the quality of the housing stock. In other words, are the objects well maintained and do they match the standards of the target group?
2. The social and cultural objective concentrates on the characteristics of the neighbourhood, including the availability of public spaces, social interactions, cultural adequacy and identity, and access to nature.
3. The economic objective emphasises employment opportunities and convenient access to the urban environment.
4. The last indicator is the financial objective which emphasises the affordability of the regular expenses for housing in general.

2.1.5 Adaptability

Popularised by the Brundtland report (United Nations, 1987), *sustainable development* is commonly defined as the long-term balance between society, the environment and economic growth – a world where human and natural systems can continue to exist and even thrive in tandem over a long period. However, climate change jeopardises the future life of the population and threatens urban development. It is essential to minimise the risk through climate change adaptation and choose suitable policy options as a political responsibility. However, the onus for this does not rest solely with the Government. Households too must be aware of the consequences of climate change and have their role to play in its prevention and mitigation.

Adaptability as an element of adequate housing relates to the level of sustainability measures and how adaptive a building is to the changing needs of the households. Ayala et al (2019) identify both the climate change measures and the adaptability of an object to the growth of a family as important. Bredenoord et al. (2014) wrote about sustainable urban development and housing development strategies. They identify the following success factors, and only by fulfilling these three successes factors a development project can be counted as adaptable;

1. It requires policies and strategies in every discipline and support in a long-term program.
2. There must be a collaboration between all stakeholders, public, civic and private sectors.
3. People must actively participate and be involved in the development process

2.1.6 Connecting the 5 As

In order to understand the 5 As of Adequate housing in general, Table 2 shows the researcher's definition and indicators gathered from the literature. They are deemed to exemplify the strong relation with each element from Ayala's Adequate Housing model.

Table 2. Elements and indicators of the 5 As of Adequate Housing (adapted from (Ayala et al., 2019))

Elements	Description	Indicators
Availability	Sufficient number of housing stock for the right target group in the right type of dwelling and location	Housing in specific location Number of housing unit Type of dwelling that are fit to the user Specific target group
Accessibility	A condition where certain target group can approach housing with its housing product and urban infrastructure through housing program or housing finance	Eligibility criteria Housing finance (tenure, legal aspects, institutional factors, repayment factors) Housing program (subsidy) Housing product Urban infrastructure
Affordability	The ability of a household to buy and occupy a house that depends on the cost and how to finance it.	Household income and expenses Household savings and debts Housing price Housing cost Types of finance Length of time for loan Tenure model
Acceptability	The consent of target group towards housing outcomes	Physical objective (housing quality, urban infrastructure) Social and cultural objective (neighbourhood, recreational opportunities, social interactions, cultural adequacy, cultural identity, access to nature) Economic objective (employment opportunities, access to urban environment) Financial objective (financial instruments)
Adaptability	The ability of household to adjust to climate change and the changing needs of the household themselves.	Natural disaster Carbon footprint Energy consumption Adaptable housing construction

This study will explore ZDPHP by using affordability and accessibility criteria, considering that these criteria have sufficient indicators for developing the policies and their implementation. The financial background of the registrants, who are the Government's primary concern and the selling price of housing will be assessed through the affordability indicator. On the other hand, the extent to which LIH's ease of obtaining housing financial assistance will be assessed using accessibility indicators.

2.2 Homeownership

Discussions about tenure preference of homeownership over rental housing are described in many articles. While many studies state that most people prefer homeownership over renting (Elsinga & Hoekstra, 2005; Glaeser & DiPasquale, 1999; Green & White, 1997; Saunders, 1990), rental housing is found to be the most suitable tenure option for the low and middle-income groups in society (Alan Gilbert, 2016). Elsinga & Hoekstra (2015) and Malpass (2008) exposed that social rental housing is used as a safety net. It is considered a stepping stone for LIH on their journey to becoming homeowners. Being a homeowner is desirable; however, some LIH who are not yet prepared to become homeowners might find it more suitable to live in social rental housing, as Alan Gilbert (2016) explained. To understand the motivation of the LIH better, it is essential to understand what positive factors could influence the decisions made surrounding the transition from rental housing to buying a house.

Homeownership is often associated with asset-based welfare. Some people think housing is just a shelter, but others deem it the most valuable type of wealth (Beall & Fox, 2009). Homeownership-based welfare is perceived as having two aspects; (1) an instrument of poverty-alleviation and (2) as a driver of national welfare, which can be a financial solution (Elsinga & Hoekstra, 2015). Sherraden (2003) stated homeownership-based welfare policy in the US originated as an anti-poverty approach where owning a house was a key asset to empower the poor. Nevertheless, house owners can also serve other societal purposes.

Turner (1986) added that for LIH, security and transferability are the most critical aspects. For instance, the ageing population who lack income but are rich in assets can use their housing equity for financial support and retirement purposes (Groves et al., 2008). Because they often lack social security or pension money, the only financial security can pass on to their offspring is their home. A study done by Toussaint (2011) concluded that the benefit of having a house as an asset could be seen in three ways:

1. Once the mortgage is paid, housing expenses will reduce.
2. The proceeds of the value of the house can be helpful.
3. The mortgage can be withdrawn.

However, the intricacy of this asset sometimes creates wariness from the housing providers.

According to the Department of Housing and Urban Development (1995), there are four fundamental benefits of homeownership; (1) commitment to personal security, (2) commitment to strengthening families and good citizenship, (3) commitment to community, and (4) commitment to economic growth. Saunders (1990) added that it also provides a

feeling of autonomy and personal identity. Hence, housing has become the foundation of a more individualistic economic and social policy agenda (Groves et al., 2008). In this way, affordable housing through homeownership programs is deemed an asset-based welfare policy (Sherraden, 2003).

The house is the biggest asset owned by most people and is considered necessary for the stability of the family and the education of the kids. Maintaining the value of these assets can also be interpreted to protect the family's future. The house can be pledged or sold when the financial situation is not good, or there is an urgent situation when people need money to pay for the hospital. Low mobility of the family improves the education level of the kids. Green & White (1997) found a strong relationship between homeownership and the probability of children dropping out of school or getting pregnant. Aaronson (2000) and Glaeser & DiPasquale (1999) found that homeownership improves the incentive to invest in the neighbourhood and community. Higher investments in the community will have a positive effect on the improvements of the children's education. Hanushek et al. (2004) presented evidence that a family who moved their place of residency many times had a more negative impact on their children's achievements at school, particularly in the group of LIH. Therefore, homeownership will help maintain the stability of the family and improve the children's achievements at school.

Renter's consideration of living in social rental housing mainly pays the monthly rental fee, a part of the water and electricity bills. Often, renters mistreat and disregard rented items (Durgee & Colarelli O'Connor, 1995). In contrast, owner-occupiers are fully responsible for their house and bear all the cost of utilisation on their account. Because of this, homeowners are better at taking care of their house than renters. This responsibility often has to do to maintain a high property value while, in contrast, rental units keep depreciating due to poorer maintenance (Harding et al., 2000). If the Government owns the facility, the rental fee can even be lowered with a partial subsidy. Renters also receive less risk by renting a house. Since they do not own the building, renters have a common sense of ownership and are less bound to rental items (Durgee & Colarelli O'Connor, 1995). Therefore, most rental buildings are not well-maintained.

2.3 Housing finance

The need for adequate housing will continue to increase. However, the immense need for housing is not always matched by the community's ability to own a house. The available alternatives for people who cannot afford a house include living in a crowded house with other family members, couch-surfing, rental housing, informal housing, or even slumming. Here the role of housing finance is needed, and the Government should tailor the laws and policy to the most needful group rather than targeting the majority (UN-HABITAT, 2009). The UNDP (1982) catalogued the limitations of conventional financial institutions based on low-income and high-income groups. Their resulting table can be found below and shows how this divide can inform housing finance strategy (Table 3).

The World Bank (2009) explained that the base function of a housing finance system is to connect lenders and borrowers. Both benefit from this system because borrowers can buy a house without having to save the whole worth. Lenders get interested in the money they lend to the borrowers with the house as collateral which guarantees that they get their money back. Kruger-Levy et al. (2017) say of the inherent risks of dealing with LIH that the height of the risk is determined by the type of segment of the housing market that is being targeted. The cheaper the housing becomes, the higher the risk for either a lender or seller of the property (Ibid).

Table 3. Limitations of conventional financial institutions (UNDP, 1982)

Limitations of conventional financial institutions	
<i>a. High eligibility criteria</i>	<i>Constraints inherent for low-income groups</i>
<ul style="list-style-type: none"> An “adequate” income at a specified minimum, e.g., \$6,000 	<ul style="list-style-type: none"> An income usually below \$2,00
<ul style="list-style-type: none"> Regular savings at a specified minimal rate 	<ul style="list-style-type: none"> Intermittent savings, at a very low rate and often not deposited
<ul style="list-style-type: none"> Regular employment and place of residence 	<ul style="list-style-type: none"> Intermittent employment, frequent changes in residence
<ul style="list-style-type: none"> Collateral in the form of conventional marketable assets 	<ul style="list-style-type: none"> Small assets of a form rarely acceptable to conventional institutions
<i>b. Restrictive loan terms</i>	<i>Needs of lower income groups</i>
<ul style="list-style-type: none"> Minimum loan size is large 	<ul style="list-style-type: none"> Small but frequent loans
<ul style="list-style-type: none"> Loans for completed dwellings only 	<ul style="list-style-type: none"> Loans for gradual purchase and/or improvement of dwelling
<ul style="list-style-type: none"> High down payments and ratios of down payments to total house price 	<ul style="list-style-type: none"> Very small down payments
<ul style="list-style-type: none"> Maturity of 25 years 	<ul style="list-style-type: none"> Very short maturities
<ul style="list-style-type: none"> Interest at the market rate 	<ul style="list-style-type: none"> Interest at below-market or subsidized rates
<ul style="list-style-type: none"> Regular amortization payments through banking 	<ul style="list-style-type: none"> Flexible loan schedules, convenient premises and business hours for cash payments
<ul style="list-style-type: none"> A total cost of housing finance that frequently amounts to 20-25% of income 	<ul style="list-style-type: none"> Allocations of only 8-10% of their household income to housing expenses
<ul style="list-style-type: none"> Loans with terms and conditions that require considerable s 	<ul style="list-style-type: none"> Loan terms and schedule that are easily understood by people with low level of formal education or literacy

In his work on regulation and access to housing finance, Dübel (2011) states that having more housing finance does not create increased access to this finance in emerging markets. According to Dübel, increased availability often leads to negatives like house price inflation, which leads to a decrease in affordability for the households that already had access to finance and a drop in affordability for the people that could not access finance before. Increased access to finance should go hand in hand with an increase in housing supply (Ibid). He presents the following factors that, when combined, lead to broad and sustainable access to housing finance:

- institutional diversification and specialisation,
- product innovation, with reasonable risk mitigation,
- adequate consumer information, protection and education,
- adequate loan underwriting and monitoring based on borrower cash-flow,
- appropriate use of technology and information and efficient use of collateral, and
- access to funding beyond the risk appetite of banks through capital markets. (Ibid)

2.4 Housing Subsidy to Households

In developing countries, the Government has the task to build new housing and improve housing conditions to mitigate shelter problems. Housing subsidies have been used by countries, international organisations, or charities to solve housing problems. Several reasons for implementing subsidies to the housing sector were distinguished by M. Hoek-Smit & Diamond (2003). The objectives are to improve public health, justice in society, balance out the housing market for the poor, and stimulate economic growth. In another study, Hoek-Smit (2009) defined subsidy in a broader perspective;

A subsidy is an incentive provided by the Government to enable and persuade a particular class of procedures or consumers to do something they would not otherwise do by lowering the opportunity cost or increasing the potential benefit of doing so.

(Adapted from the US Congress, 1969)

Housing subsidies can be divided into two; demand-side subsidies, where the focus is to increase the ability of the household to get better housing and supply-side subsidies that are granted to the developers, contractors, or the housing management. M. Hoek-Smit & Diamond (2003) stated that demand-side subsidies are more efficient as the beneficiaries could choose the best fitting house for their financial situation. It is only when the market does not respond to its policy, that is when the supply-side subsidies can be considered adequate. This situation can happen because if it is misused, supply-side subsidies can disrupt the market. Therefore, most governments nowadays have shifted to increase subsidies for the demand-side.

Housing subsidies are often used to help the household to access mortgages. In the research, M. C. Hoek-Smit (2008) explored different limitations that households often face when acquiring loans and subsidy options that can fit their limitations. From the different subsidies shown in Table 4, an upfront subsidy is the most recommended type. It uses a more equitable focus system than tax grants. However, it is interesting to look at the down payment subsidy. This type ensures the size of the subsidy cannot be replaced with the saving amount of a household. This requirement is understandable due to the higher risk involved.

In order to delineate a subsidy policy, M. C. Hoek-Smit (2008) distinguishes the market segment and its boundaries to access housing finance into two general groups. They are listed beyond specific supply and demand; (1) The middle- and lower-middle-income group sector, who are adequately eligible to formal moderate-earn housing and (2) the LIH sector, who are primarily informal workers or self-employed and live in substandard housing with limited access to housing services. Focusing private resources to support the middle-income sector will shift the majority of the subsidy addressing severe problems in the low-income housing sector, particularly for new housing. Nevertheless, housing subsidies' main challenges are moving mortgage boundaries to the lower range and widening their scope, especially in developing countries.

Table 4. Household subsidies to expand access to mortgage (adopted from M. C. Hoek-Smit (2008))

Household limitation	Propose type of subsidies	Remarks
Limitation of income compared to housing price	Interest rate subsidy	The type of subsidy most frequently provided by the government Expensive in present value compared to other subsidies
	Transparent buy-downs of interest payments	Directly reduced the interest payment The subsidy is gradually eliminated over the early years
	House price subsidy	Most preferable in higher interest Other fees (down-payment, tax) are excluded
Limitation of savings	Down-payment subsidy	An effective option to broaden formal housing sector Should not replace the saving of household
	Mortgage insurance subsidy	Lower the amount of down payment
	Upfront subsidy with saving program requirement	Household able to save equity in the house
	Soft-second mortgage	Only applicable if the house is appreciated in value
Limitation of employment and irregular income	Contribution to a blocked escrow account	Suitable for low-income households
	Payment for a specialized mortgage insurance program	Monthly payment is lower than the average house price Subsidies are not well targeted because the eligibility criteria do not match
	Borrower education	Effective for self-employed or informal employer

2.5 Definition of Concept and Conceptual Framework

2.5.1 Definition of Concept

Low-income household (LIH)

In general, the LIH is defined as "a group of people who are mostly informal workers or self-employed and live in substandard housing with limited access to housing services" (M. C. Hoek-Smit, 2008).

Affordability

The concept of housing affordability is defined as a condition where the household income can afford the housing cost while affected by the length of time and tenure model (Ayala et al., 2019).

Accessibility

The concept of housing accessibility is defined as a condition, whereas the eligibility criteria for the target group can approach urban infrastructure by utilising the available housing program or housing finance (Ayala et al., 2019). It not only means being able to obtain the physical asset that is the house, but accessibility should also be able to maintain it, have it serviced, follow local regulations and finance it (Pal & Van Vliet, 2012).

Housing Subsidy

The concept of subsidy is defined as an incentive provided by governments to enable and persuade a particular class of procedures or consumers to do something they would not otherwise do, by lowering the opportunity cost or otherwise increasing the potential benefit of doing so (Adapted from the US Congress (1969) (M. C. Hoek-Smit, 2008).

Homeownership

The concept of homeownership is defined as a tenure preference to own a house which is often associated with asset-based welfare as the most valuable type of wealth (Beall & Fox, 2009).

2.5.2 Conceptual Framework

To determine who are eligible to get the subsidy, the Province of Jakarta uses a verification system that involves a variety of criteria. The least number of successful beneficiaries in ZDPHP was assumed because there is a mismatch in the eligibility criterion for assessing the LIH that wants to buy their first house. In order to find out where the flaw of the program lies, which causes this mismatch, this research will focus on assessing the affordability and accessibility criteria that were applied in this process. In this regard, the theoretical review concludes that the eligible group and housing subsidy are influenced by affordability and accessibility criteria. The operationalisation of this framework (Figure 8) and their respective indicators are developed in detail in Chapter 3.

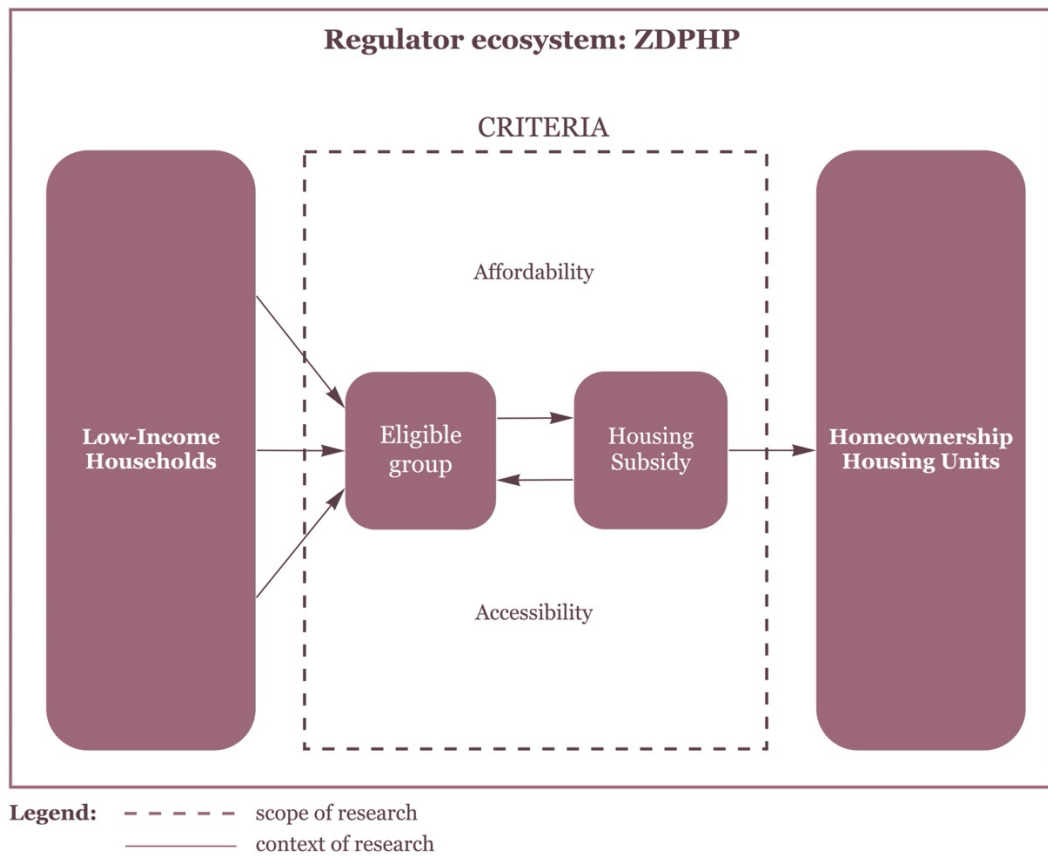


Figure 8. Conceptual Framework (Own figure)

3 Research Design and Methods

This chapter captures the overall procedures and methodologies applied to ultimately answer the research questions. In Chapter 1, the research problem and questions had been identified and formulated. To form the basic intentions on where this research project could fit in the existing discourse and on which previous work it could build upon, a literature study was conducted in Chapter 2. In this chapter, the research design and adopted methodology will be described in 7 parts: (1) Research strategy, (2) Operationalization table, (3) Research design, (4) Data collection, (5) Data analysis, (6) Data plan, and (7) Ethical consideration.

3.1 Research strategy

The primary research strategy adopted for this study was a case study research design, in which a single case of a homeownership program in Jakarta, namely the Zero Down Payment Housing Program (ZDPHP), was selected as the unit of analysis. Schoch (2019) described that case study research entails a detailed and thorough study of a specific event, condition, organisation, or social unit. Ridder et al., (2014, p. 28) explained that the typical study includes a defined time and space: "a phenomenon of some sort in a bounded context". Based on these references, this research project could be categorised as case study research that adopted the characteristic element from Harrison et al. (2017) as shown in Table 5. These characteristics demonstrate that the case study design research method matches well with this project's objective and was expected to answer the research questions accordingly.

Blatter & Blume (2008) distinguished three types of a case study: co-variational, casual process tracing (CPT), and congruence analysis. For this research project, CPT was determined to be the most appropriate research method. Blatter & Haverland (2014) added that the focus of CPT is the causal condition, composition, and mechanism that make a specific outcome feasible. Another significant benefit of CPT is that one can deeply expose the

causal sequence of factors to find the outcome of interest. The rationale behind selecting this particular method is discussed in the following paragraph.

Table 5. Case study elements and research elaboration (adopted from Harrison et al. (2017))

Element	Elaboration based on research
The case	The ZDPHP was identified as the object of this research as this program was the entity of interest and source for analysis.
A bounded system	The case of ZDPHP was bounded by time, space and activity. The starting time of the observation is when the program was introduced in 2017 up until May 2021. The space or location of the case was in Jakarta. Lastly, the activity being analysed was how the Government runs the ZDPHP to help the low-income households (LIH) in Jakarta buy their first home. However, indeed the boundaries between the case and context are indistinguishable, as mentioned in the description of case study design by Harrison et al. (2017)
Studied in context	This case was conducted to understand the real-life setting where the program is currently still active. The study evaluated the affordability and accessibility criteria because these variables were part of the social and economic context, and they might even touch the political context.
In-depth study	An intensive analysis of looking at the mismatch in the supply and demand identified this program's issue.
Selecting the case	There were many points of interest identified for this research project. However, the research focused on the single case study of ZDPHP, emphasising the affordability and accessibility criteria.
Multiple sources of evidence	The sources were selected from all the stakeholders who were involved in designing the program up until now. Interviews, focus group discussion (FGD), surveys, and document reviews were conducted to collect, generate, and validate it internally by triangulating the collected data to prove the findings fully.
Case study design	A mixed-method of exploratory sequential design was chosen by developing qualitative research (interviews, FGD, databases) followed by quantitative research (Surveys) to develop a qualitative finding.

Firstly, the ZDPHP is a pilot project in Indonesia. As a result, it was found to be impossible to compare it to another similar project. By choosing CPT, the analysis within-case that focuses on the process that connects the causes and effects can be conducted (Blatter & Haverland, 2014). Firstly, as a stand-alone approach, CPT does not only have distinct research goals and techniques of data generation and data analysis, the logic of case selection and generalisation also differ substantially from those that are connected to the methods that draw causal inferences based on cross-case comparisons (Blatter et al., 2012). Secondly, analysing the affordability and accessibility criteria of ZDPHP can also be interpreted as analysing how the sequence of its policy was created, formed, and adjusted following the conditions in the field. It is aligned with the explanation from Blatter & Haverland (2014) that in CPT, the long-term procedure of policy most likely focuses on the evolution based on timing and the casual mechanism.

The CPT case study is an explanatory research method that will better match the demand and supply of ZDHP. On the other hand, the assumption is that there is a gap between the non-functioning criteria of the financial product and housing supply and the demand from the target group. This assumption could explain why there are many unsuccessful applicants to the program. To determine the reason why this happens, indicators were collected from the data associated with the project. Furthermore, this data was supported and further explained using empirical data from interviews, focus group discussion (FGD), surveys and other existing databases. Within the case study approach, a questionnaire and secondary data were used in the process of triangulation in order to answer the research questions. In conclusion, the main research strategy used a casual process-tracing case study method, in which empirical data and secondary data were supported to answer the research questions.

3.2 Operationalization

The use of operationalization tables attempted to bridge theoretical studies with empirical studies. Concepts that were still abstract were translated into measurable observations. The research process became more systematic, mainly when the evaluation could not be directly analyzed. Table 6 demonstrates the breakdown per sub-research questions into smaller variables by using the basic components of accessibility (Figure 6) and affordability (Figure 7).

Table 6. Operationalization: variables and indicators

No	Concept	Variable	Sub-Variable	Indicators	Data collection	Source of Information
1	How effective is the performance of current accessibility criteria in this program?					
	Performance of current accessibility criteria	Precondition	Eligibility criteria of the target group	<ul style="list-style-type: none"> Housing unit and tenure Neighbourhood quality Ability of saving Household employment 	<ul style="list-style-type: none"> Analysis of documents 	<ul style="list-style-type: none"> Databases
		Mediator	Housing program	<ul style="list-style-type: none"> Available housing program Program organizers 	<ul style="list-style-type: none"> Semi-structured interview 	<ul style="list-style-type: none"> Jakarta province (DPRKP)
			Housing finance	<ul style="list-style-type: none"> Available housing finance Financial providers 	<ul style="list-style-type: none"> Semi-structured interview 	<ul style="list-style-type: none"> Jakarta province (UFPRS) Bank DKI
		Target to be accessed	Urban infrastructure	<ul style="list-style-type: none"> Location Connecting routes Market Shelter School Work 	<ul style="list-style-type: none"> Semi-structured interview 	<ul style="list-style-type: none"> Jakarta province (UFPRS) RE Developer (Sarana Jaya)
			Housing service and maintenance	<ul style="list-style-type: none"> Water supply Electricity Sanitation Renovation 	<ul style="list-style-type: none"> Semi-structured interview 	<ul style="list-style-type: none"> Jakarta province (UFPRS) RE Developer (Sarana Jaya)

No	Concept	Variable	Sub-Variable	Indicators	Data collection	Source of Information
2	How effective is the performance of current affordability criteria in this program?					
	Performance of current affordability criteria	House purchase cost	Material / house inputs	<ul style="list-style-type: none">LandInfrastructureBuilding materialsLabour & profit	<ul style="list-style-type: none">Semi-structured interview	<ul style="list-style-type: none">Jakarta province (UFPRS)RE Developer (Sarana Jaya)
		The ability to finance purchase / buy the house	Finance	<ul style="list-style-type: none">Down-payment requirementHousing priceTypes of financeTransferability of asset	<ul style="list-style-type: none">Analysis of documentsSemi-structured interview	<ul style="list-style-type: none">Jakarta province (UFPRS)Bank DKI
			Savings and debts	<ul style="list-style-type: none">Savings and other assetsOutstanding debts	<ul style="list-style-type: none">Analysis of documents	<ul style="list-style-type: none">Databases
		House occupation cost	Material / house inputs	<ul style="list-style-type: none">Land lease/ratesService costsBuilding maintenanceElectricity, water and gas billing	<ul style="list-style-type: none">Semi-structured interview	<ul style="list-style-type: none">Jakarta province (UFPRS)RE Developer (Sarana Jaya)
		Ability to financially service	Finance	<ul style="list-style-type: none">Interest rateLoan period	<ul style="list-style-type: none">Semi-structured interview	<ul style="list-style-type: none">Jakarta province (UFPRS)Bank DKI
			Income and expenditure	<ul style="list-style-type: none">IncomeNon-housing expenditure	<ul style="list-style-type: none">Analysis of documents	<ul style="list-style-type: none">Databases
3	What is the mismatch between supply and demand in ZDPHP?					
	Mismatch between supply and demand	Low-income household (applicants)	Successful applicants	<ul style="list-style-type: none">Number of participants and basic informationThe expected type of housing unit (based on number of family member)Age groupOccupationEducationExpectation of the programFeedback for the future program	<ul style="list-style-type: none">Analysis of documentsFGDsSurveys	<ul style="list-style-type: none">DatabasesSuccessful applicants
			Unsuccessful applicants	<ul style="list-style-type: none">Number of participants and basic informationThe expected type of housing unit (based on number of family member)Age groupOccupationEducationExpectation of the programFeedback for the future program	<ul style="list-style-type: none">Analysis of documentsFGDsSurveys	<ul style="list-style-type: none">DatabasesUnsuccessful applicants
		Homeowners hip housing unit (enabler, suppliers, banks)	Housing subsidy	<ul style="list-style-type: none">Limitation of the programProgram and policy adjustmentFuture plan	<ul style="list-style-type: none">Analysis of documentsSemi-structured interview	<ul style="list-style-type: none">Jakarta province (UFPRS)RE Developer (Sarana Jaya)Bank DKI

3.3 Research Design

At its core, this study is a mixed-method research project that combines qualitative and quantitative research in a single research project. Using this research design was inspired by Bryman (2016), who wrote that by comparing two sets of findings and situations, the researcher could offset the weaknesses of both quantitative and qualitative research by capitalising on the strength of both. Morgan (1998) pointed out two further approach criteria to classify mixed-method research by considering the priority and sequence decision. These criteria will help the researcher determine which mixed method design is the best fit for this research.

The explanatory sequential design (Figure 9) was considered the most appropriate for this research, as this entails collecting quantitative data prior to collecting qualitative data. This research design was not required the intent to describe the situation but instead to explain the question between two or more variables.



Figure 9. Explanatory sequential design (source: Bryman (2016))

Creswell & Plano Clark (2013) explained that the overall structure for mixed-method research is similar to the structure for articles based on qualitative or quantitative research methods. However, the nature of mixed-method research surfaces when the two sets of findings are brought together, in which it can be discerned. The design for the research project proposed in this study is provided below (Figure 10).

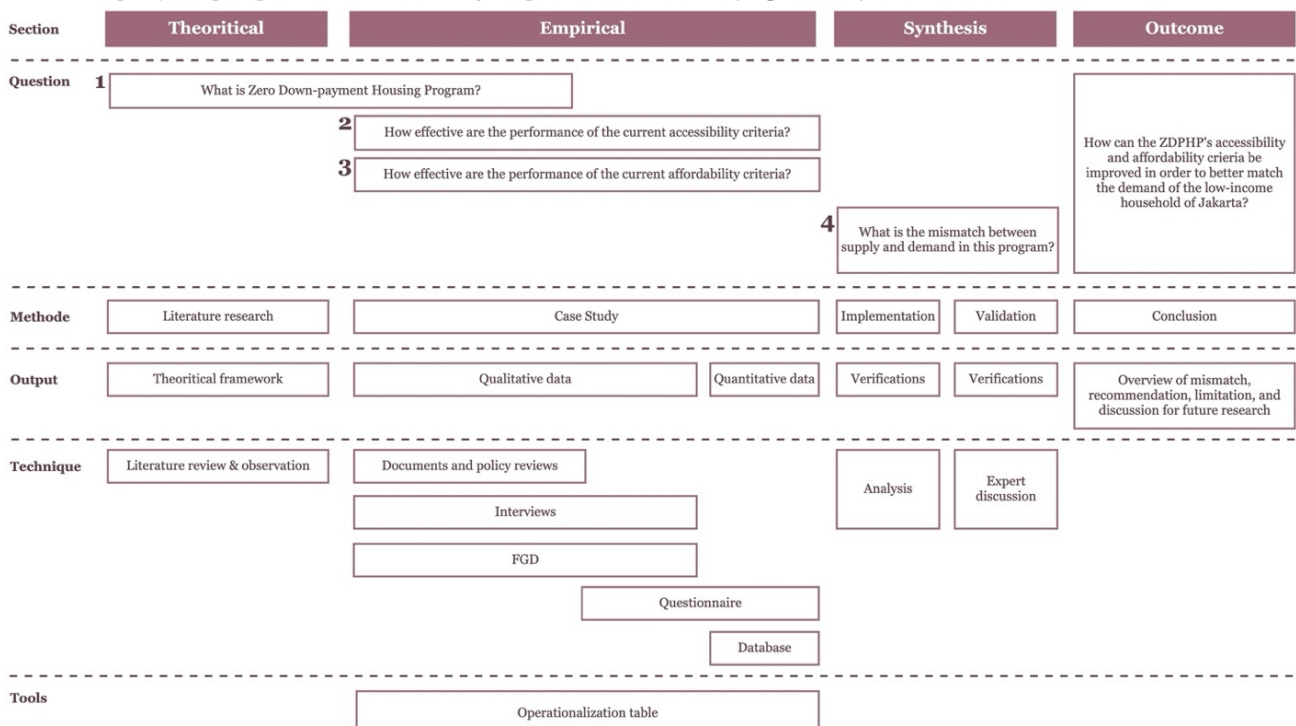


Figure 10. Research design (own figure)

The research method is comprised of three parts: theoretical, empirical and synthesis. This division was carried out based on the data sources used to answer the sub-research questions sequentially. In the theoretical part, the first sub-research question was applied to understand how the program runs and the stakeholders involved. Literature research, observations in the field, interviews and policy analysis were used as data sources to answer the first research question. Furthermore, in the empirical section, the second and third questions were used to analyse the performance of ZDPHP in terms of accessibility and affordability. All types of data collection techniques were used to answer these two questions. Additionally, an operationalisation table was used as a tool to construct data collection and evaluation in a more systematic manner. Finally, the fourth sub-research question, which is part of the synthesis, was answered by analysing the performance criteria that do not match the supply and demand in the program examined. In addition, an expert discussion was conducted to validate the findings of the analysis. All in all, the conclusion of this research was determined by answering the main research question. This resulted in a recommendation derived from the results of the expert discussion that can be applied for program improvements in the future.

3.4 Data collection

The study used a **mixed-method research** that is a combination of qualitative and quantitative data. The data was collected through the following means: semi-structured interviews, databases, a focus group discussion (FGD), and questionnaires. In addition, several regulations at the regional and national levels related to housing, financial support for homeownership and property rights in Indonesia were also used as supplementary data sources.

Qualitative research was conducted to answer the first and second research sub-questions, specifically focusing on the supply side. The researcher conducted semi-structured interviews with eight primary key informants from the involved stakeholders and one professional (Table 7) to develop a solid and in-depth understanding of the underlying problem. The topics and questions for the interview were gathered and identified in the literature study. Parallel to the interview phase, the researcher asked for permission to gain access to relevant databases from each institution. The third research sub-question was answered by conducting FGD and surveys for the demand side, as well as semi-structured interviews for the supply side. A FGD was conducted to create an improved survey template and validate the questions that need to be asked.

On the other hand, **quantitative research** in the form of conducting surveys was distributed through online channels as the COVID-19 pandemic was still ongoing at the time of the research. Lastly, the result of all qualitative and quantitative data collection from the secondary data, semi-structured interviews, FGD and surveys were analysed through the process of triangulation in order to answer the main research question (Figure 11). When collecting the data via the assistance of a hired research assistant, it was determined that there was unintentional bias found. For example, this occurred when the research assistant

subjectively selecting the respondent for FGD and the questionnaire. Therefore, triangulation was applied to address this bias.

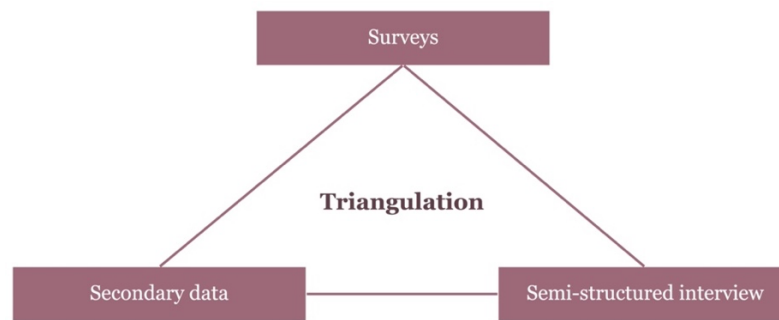


Figure 11. Triangulation (own figure)

Research assistant

A research assistant based in Jakarta was hired as an extension of the researcher to conduct research activities that cannot be carried out directly from the Netherlands in online meetings. Activities carried out by the research assistant included:

- Contacting the key informant from the stakeholders to be interviewed and the target group in regard to their willingness to participate in FGD and surveys
- Preparing work equipment to support the implementation of discussions and interviews
- Distributing and inputting the results of the questionnaire.

Prior to obtaining permission to conduct the interviews, the first step was to prepare the administrative process by sending formal letters to the involved stakeholders. The role of the research assistant was to meet the human resource development department of the stakeholders' office and ensure that the supporting documents were appropriate and well-received. Request letters to conduct interviews and the research proposals (Appendix B and Appendix C) were delivered by post. The research assistant followed up to ensure that the right department had received the letters.

When searching for research participants for especially the FGD stage, the research assistant played a significant role in convincing the prospective participants that this research was legitimate and not fraudulent. When conducting the FGD and distributing questionnaires, it was required to receive the consent of participants to be a part of this research. The research assistant was first to attend and meet with the head of the residents' community to directly explain how to conduct the online FGD and the required devices to be used during the event.

3.4.1 Literature review

Conducting a literature review was the starting point for this research. This desktop research method was used to uncover the theoretical basis for the project to further build upon. To answer the main problem posed in this research, a literature study was done and continued on the importance of adequate housing, the criteria of affordability and accessibility of

housing projects, homeownership, housing finance, and housing subsidies for households. The purpose of the literature study was to map the indicated housing criteria for the specific target groups. This review was completed by using the 5A's of Adequate Housing theory, focusing on specifically the affordability and accessibility criteria as a framework to assess the performance of current eligibility criteria of the applicants. From here, the conceptual framework was formed to organize ideas and capture the important aspects of this research.

3.4.2 Policy analysis

The government's housing program is closely related to the regulations that apply to it. The aims and objectives of those regulations needed to be comprehended thoroughly, both of which directly and indirectly impact this research's case study. In addition, the overarching regulations also need to be considered so that the targets to be achieved both at the provincial and national levels can be met and are on target. In this research, at least 18 regional and 15 national levels of policies (as shown in Appendix H) were used as references for analysis.

3.4.3 Semi-structured interviews

Noor (2008) stated that semi-structured interviews allow the researcher have an in-depth understanding of a case. Therefore, this instrument was used to gather the data for this project. To be able to develop a strong base for subsequent theory-building, robust evidence must be gathered accordingly. The semi-structured interviews are ideal as they allow for case-specific insights that show how much of the observations are shared between the interviewees. By using various sources, the research questions were observed through different perspectives and lenses. Through these sources, a more holistic and complete understanding of how the various indicators interacted with each other in the current model of the Zero-down payment case is formed.

Since this study was conducted in a Master's thesis, it is vital to remember a strict time frame and resource pool, which should be used wisely. Bryman (2016) noted that purposive sampling would provide an advantage of relevancy to the research questions, while it can also help identify and determine the valuable information within the case.

The three main key informants are the Province of Jakarta, Bank *DKI - Daerah Khusus Ibukota* (provincial level bank), and Sarana Jaya (real estate developer). They were selected based on the level of involvement, as well as specific knowledge and expertise of the ZDPHP. Within these organisations, the respondents were selected based on the following criteria:

1. The respondents must be employed within the organisation structure related to the ZDPHP.
2. The respondents are involved in the oversight and improvement of the program.
3. At least on the level of a policymaker or higher position.
4. Have at least five years of relevant experience in the organizations.

The structure of the semi-structured interviews was based on the knowledge and findings from the literature review and theory. Furthermore, the interviews were still open to improvements based on findings from the respondents. The initial plan was to conduct a total of five interviews, in which if required, it was intended that more interviews were done using the snowballing concept. As the researcher worked for the Province of Jakarta prior to writing this thesis, she was familiar with the Department of Public Housing and Settlement Area (DPRKP), which helped her determine the specific interviewees within the organisation. However, the other organisation was not familiar to the researcher. Therefore, during the interviews, the question was asked if the interviewee knew of any other key informants to be interviewed in order to obtain more information. The following table (Table 7) captures the number of interviews that were conducted. It shows that the intended number of interviews grew from five to eight interviews.

In order to collect qualitative data, a total of nine interviews were conducted. This was done to understand how the program works, to provide insight into the policy planning process, and to reveal challenges during the program's implementation, including how they selected all the criteria for the applicants and how did they decided to adjust the program with the new regulation. The first eight interviews were with the managers and directors of the respective government organisation and companies directly involved in the program, as well as with two housing experts (professionals) who have been significantly involved in housing projects in Jakarta. All interviews with the involved stakeholders were conducted in Bahasa Indonesia via zoom calls, in which the conversations were recorded, transcribed, translated, and analysed using different triangulation methods. The researcher had asked permission from the interviewees to record the content of the interviews and use all of the interview results as material for the analysis of this research. Irrelevant data that did answer the research questions, such as off-topic information, repetitions or personal details, was left out of the interview transcripts.

Table 7. Description of the interviewees

No	Organization	Position	Name
1	Facilitation Unit (UPDP)	Staff in investment and risk management division	Fajaresthy
2	Facilitation Unit (UPDP)	Head of sub-section of administration	Muhammad Ali
3	Department of Public Housing Jakarta (DPRKP)	Head of Regulation and Community Participation	Ledy Natalia
4	PD Sarana Jaya	Director of Administration and Finance Chairman of management committee of Nuansa Pondok Kelapa	Bima Priya Santosa
5	PD Sarana Jaya	Building manager Nuansa Pondok Kelapa	Afri
6	Bank DKI	Relationship Manager Credit Division II	Daulat Yusuf Harahap
7	Ministry of Public Works	Deputy of Finance	Iskandar Saleh
8	Regional Research Councils DKI Jakarta	Member	Ibnu Tadjji
9	Wharton University of Pennsylvania	Expert / Director of International Housing Finance Program	Marja C Hoek-smit

The last interview was conducted with Marja C. Hoek-Smit, an expert who has extensive experience with the housing market in emerging and developing countries and has also been involved several times in the housing policymaking in Indonesia. Her expertise helped the researcher validate the findings of the research and elevated the conclusion to a more holistic view, particularly the Global South economy.

3.4.4 Databases

Due to the different time zones and locations, a research assistant in Jakarta was hired to help collect databases. Databases were collected from two primary sources, with the initially expected entries provided in Table 8 below.

Table 8. Source and information for secondary data

Stages	Data sources	Expected amount of data	Expected information
First verification	Facilitation Unit (UPDP)	Up to 19.000 entries	<ul style="list-style-type: none"> • Name • Contact number • Email • Passed/rejected from the first verification
Second verification	Bank DKI	Up to 500 entries	<ul style="list-style-type: none"> • Name • Contact number • Expected types of housing unit • Number of family member • Age • Occupation • Educational background • Assets • Salary • Eligible/ineligible applicants • Expectation of the program • Feedback for the future program

When access to the databases were received, the quantitative data contained more than 41.000 entries. The data received covered the timeframe from the start of the program on October 2018 up until the 8th of June 2021. Table 9 shows the breakdown of the individual entries in the dataset divided into the various application statuses. A simplified status was formed to simplify the analysis process. A simpler version was formed of the 21 stages that were presented in the original dataset. It only consisted of five major stages, as captured in Appendix D. These five application stages were then used as analysis material.

Table 9. Original database application stages (Source: PD. Sarana Jaya)

No	Stages	Number of entries
1	Newly registered	1016
2	Submitted Mortgage Application	14
3	Visited show unit	4963
4	Passed tax verification	165
5	Passed dept of public housing verification	363
6	Passed civil registration verification	1
7	Withdraw (uncomplete documents)	92
8	Withdraw (uninterested)	3459
9	Withdraw (not present at contract signing)	20
10	Withdraw (did not submit mortgage application)	82
11	Unit selected	5
12	Banking process	6
13	Decision by bank made	2
14	Unit handover	485
15	Unsuccessful banking verification	33
16	Unsuccessful SLIK verification	417
17	Unsuccessful first round requirement	8229
18	Unsuccessful verification	2936
19	Unsuccessful bank application	338
20	Viewing unit invitation did not respond	15142
21	Sent out invitation to view the unit and bank process	4139
TOTAL		41907

3.4.5 Focus Group Discussion

The focus group discussion (FGD) was conducted for specific topics to explore the in-depth understanding of the underlying problem. A FGD is an interesting means to show individual discussing a topic as members of a group, interacting with each other, and building up an opinion together. The findings of this step were used as input for the survey. The result of the FGD allowed the scope and concept of the qualitative findings to be evaluated. The initial plan was for the FGD to be carried out with selected applicants of ZDPHP from two groups, namely (1) successful and (2) unsuccessful applicants. The reason for separating the FGD was that the questions were different and allowed the discussion topic to be more focused. In conducting FGDs, these applicants were selected because they were known to have been involved in this program. Databases that already were collected have been used to interpret the initial cause of the mismatch of this program. However, the function of the FGD was to prepare more targeted questions for the target of the survey. The FGD was done through

zoom calls with the help of the research assistant hired. The researcher needed to ensure the selected participants had sufficient devices to conduct a zoom meeting and were available at the appointed time.

Furthermore, the questionnaire targets were divided into two major groups, beneficiaries and non-participating applicants. FGD was conducted to help develop appropriate questions for the questionnaire. In practice, the assistants only managed to carry out an FGD with successful applicants (the beneficiaries). The head of the community group in the residential building assisted in attracting beneficiaries to participate in the FGD and making it a success. A video call via Zoom was used to carry out the FGD with four beneficiaries who had already moved into the new residential building in Pondok Kelapa Apartment (Table 10). The topic of discussion started from the experience of registering for the program, and applying for credit to the impression after living in a new residence. The guide used to conducting a FGD with the beneficiaries can be found in Appendix A. With this FGD, a questionnaire was compiled and distributed to beneficiaries and non-participating applicants. Meanwhile, the initial plan to perform FGD with unsuccessful applicants encountered obstacles as the database needed to contact the unsuccessful applicants was not available. Therefore, only FGD with beneficiaries was performed for this research.

Table 10. Description of the FGD participant

No	Participants	Position
1	Participants #1	Head of community
2	Participants #2	Head of cooperative organization
3	Participants #3	Head of muslim organization
4	Participants #4	Resident

3.4.6 Survey

The questions that were asked during the survey were taken from the FGD results. The database that already was collected was used as a key reference in conducting this survey. The eligible participants for this survey were the people who have registered themselves to ZDPHP, both of those who succeeded as beneficiaries and those who were unsuccessful. The survey was distributed by the research assistant in the form of digital questionnaires. The main reason for conducting surveys was to allow the respondents to open up about their issues, which were not captured during the FGD process. Moreover, a survey was determined to be an effective method of reaching a large number of respondents. The main task of the research assistant was to gather the contact information of target respondents and ensure the target respondents have received and filled out the questionnaires.

The questionnaires were distributed online. For the beneficiary group, it was distributed through community groups. As for the non-participating applicants, the questionnaires were distributed by sending direct messages (DMs) on the social medium platform, Instagram. This online questionnaire used Google form, and the results were presented in the form of tables, graphs, and charts. The target for filling out the questionnaire was 50 respondents for each respective group (a total of 100 responses). As per 24th of August, 2021, 61 respondents from

the beneficiary group filled out the survey, but only 26 respondents from unsuccessful applicants responded to the questionnaire (Table 11).

Table 11. Questionnaire responses sorted by outcome

No	Participants	Number of respondents
1	Beneficiaries	61
2	Unsuccessful applicants	26
TOTAL		87

Instagram as a medium to invite the questionnaire participants

Finding eligible participants to fill out the questionnaire was challenging because of the unavailability of consent from the registrants within the available database. In the absence of consent, researchers could not use the data provided in the database to contact applicants. Researchers utilised social media, Instagram, to contact applicants as a solution, focusing on capturing the unsuccessful applicant's group. Instagram was considered a solution because Jakarta residents are familiar with this media. Researchers created a particular Instagram account (@gradlab.pritha) as research support media. By using this account, the researcher sent out *direct messages* to other Instagram users who posted comments regarding questions about the program, registration status, or other relevant matters on the following official accounts:

- The Province of Jakarta (@dkijakarta)
- Department of Public Housing and Settlement Area of Jakarta (@dinasperumahan.jakarta)
- ZDPHP (@dp0rupiah samawa)
- Pondok Kelapa Residence (@nuansa.samawa)

The message conveyed in the direct message explained the research activities being carried out, the research objectives, and the google form link directing to the online questionnaire. Learning from the experience of using Instagram as a data collection method, several biases were identified. Out of the 355 accounts that were offered to fill out the questionnaire, only 26 unsuccessful applicants filled out the questionnaire from the initial target of 50 respondents. The only participants who successfully filled out the survey were Instagram users. However, the experience of other ZDPHP applicants who did not have an Instagram account was not captured. Therefore, the survey was not completely random. In addition, even though it was sent more than 350 direct messages, it was considered low response rate because less than 10% responded to the message. The nonresponse bias is a challenge in the use of this method.

3.5 Data analysis

The data extracted for this research was analysed using both qualitative and quantitative methods. Semi-structured interviews and FGD have been undertaken for the primary qualitative data, while quantitative data was obtained from the surveys conducted. An excel file with a pivot table feature was used to analyse the participants' database mentioned in Table 10 and the questionnaire mentioned in The questions that were asked during the survey were taken from the FGD results. The database that already was collected was used as a key reference in conducting this survey. The eligible participants for this survey were the people who have registered themselves to ZDPHP, both of those who succeeded as beneficiaries and those who were unsuccessful. The survey was distributed by the research assistant in the form of digital questionnaires. The main reason for conducting surveys was to allow the respondents to open up about their issues, which were not captured during the FGD process. Moreover, a survey was determined to be an effective method of reaching a large number of respondents. The main task of the research assistant was to gather the contact information of target respondents and ensure the target respondents have received and filled out the questionnaires.

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3.6 Data plan

The researcher sent several documents as part of the requirements requested by the relevant institutions to obtain information from the interviewees on the following:

- Interview request letter,
- Recommendation letter from the graduation supervisor,
- Research proposal,
- CV, and
- Academic transcript,

The interview process was recorded with the interviewees' consent. As a result, the interviews can be used as part of data collection in this study.

The FGD guide was prepared in advance and carried out during the discussion. The complete scheme for the focus group discussion can be found in Appendix A: Focus Group Discussion.

The participants agreed that the discussion could be recorded and information provided could be used for the research. Their personal information was kept private, and their identities were anonymous in this research.

The main database was collected with the approval of the Director of the Company under the Non-disclosure Agreement (NDA) between *Kerja Sama Operasi – KSO* (Joint Operation) Nuansa Pondok Kelapa Sarana – Totalindo and the researcher by the supervision of a lawyer. The data received was determined to be confidential information that could only be used to conduct research. As stated in the NDA, it cannot be disseminated. However, it is allowed for the analysis and the results of this research to be published.

Lastly, as explained in their study, the researcher will follow the FAIR principles according to the description provided by Wilkinson et al., (2016).

3.7 Ethical considerations

Before involving the key informants and the respondents for the FGDs and Surveys when conducting the research, the researcher first clarified what it meant to decide to participate in the research. As a result, all respondents were provided sufficient information regarding ethical issues of consent or confidentiality of their data. In addition, the transparency and integrity of conducting this research is always prioritised for the originality of this research.

4 The Zero Down Payment Housing Program

This chapter captures the knowledge gained from fieldwork that followed the research design. Firstly, the subsidy housing program is commonly discussed in the literature but the zero down-payment subsidy program in particular is not common to be found. Since this program is a pilot project in Jakarta, this chapter begins with a description of the program and how it works. This is answered through the review of relevant documents and policies directly and indirectly towards the Zero Down Payment Housing Program (ZDPHP). Secondly, the theoretical framework of accessible and affordable housing is used to identify the criteria in the ZDPHP. Thirdly, the performance of both affordability and accessibility criteria is assessed. Lastly, the accessibility and affordability criteria outcome are matched with the demanded outcome from the low-income households (LIH) of Jakarta. The mismatch is identified and used to improve the program by developing recommendations for the Province of Jakarta.

4.1 The Program

According to Indonesian Law no 1/2011 regarding Housing and Settlement Areas, LIH comprise of the demographic with limited purchasing ability for housing, in which they require government support to acquire a house. In practice, this means that either the Central Government or the Local Government has the responsibility to support this group in finding adequate housing in Jakarta. As a result, the Provincial Government has the duty and authority to support the LIH to access adequate housing.

The fourth chapter of Indonesia Law no 1/2011, states that both Central Government and Local Government must:

Allocate funds and/or development costs to support the realization of housing for LIH. We are facilitating the provision of housing and settlements for the community, especially LIH.

(Indonesia Law no 1/2011 Chapter 4 Article 13.f and 13.g)

According to this commitment, the governmental responsibility to provide housing facilities in Indonesia is not only the responsibility of the Central Government but also the responsibility of the Local Government. In addition, for the provision of housing, the government is to pay special attention to providing housing to LIH. By enabling the LIH to become homeowners, the central government simultaneously seeks to alleviate poverty in Indonesia. Homeownership is considered to alleviate poverty, as stated by Elsinga & Hoekstra (2015).

According to the Directorate General of Budget (2015), LIH is categorized into three segments based on their ability to access homeownership, as described below:

1. LIH who already own land or houses but cannot afford to build/repair their house
2. LIH who can buy a house but still have low ability to repay the mortgage
3. LIH who absolutely cannot afford to buy a house.

The approach of Central Government intervention applied for each segment is undoubtedly different. For LIH who cannot afford to buy a house, the government provides *Rumah Susun Sewa – Rusunawa* (Social Rental Housing) and the construction of self-help houses for LIH who already have land or a house. For LIH who can afford to buy a house but have a low ability to pay mortgages, the Central Government provides subsidies through the *Fasilitas Likuiditas Pembiayaan Perumahan – FLPP* (Housing Financing Liquidity Facility).

In the One Million Houses National Program, approximately 603 thousand houses are intended for LIH. This is a Central Government program to enable LIH to purchase houses. Through the Ministry of Public Works, the Central Government distributes the FLPP as an instrument to increase the house purchasing ability for LIH, which in turn helps achieve the success of the One Million Houses Program. FLPP aims to provide funds to support *Kredit Kepemilikan Rumah Sejahtera - KPR Sejahtera* (Mortgage for Adequate Housing), for single- and multi-family houses in collaboration with selected banks (Direktorat Jenderal Anggaran Kementerian Keuangan, 2015).

Based on the Minister of Public Works' Decree no. 552/KPTS/M/2016, the target groups for these mortgages are LIH with a fixed income and/or a variable income. These target groups encountered limited access to affordable homeownership loans programs. Based on the regulation mentioned above, the eligible LIH are the people who earn a maximum income of IDR 4,000,000 (EUR 237) for single-family houses and a maximum income of IDR 7,000,000 (EUR 415) for apartments. Therefore, the Provincial government of Jakarta also uses the maximum income of IDR 7,000,000 when determining the target group of the ZDPHP.

The implementation of the ZDPHP program is referred to in Governor's Regulation no. 104/2018 of October 2018. The loan interest rate and the instalment tenure are the same: a flat interest rate of 5% per year and a maximum tenure of 20 years. The Jakarta Provincial

Government adopted the FLPP model in realizing a ZDPHP. The difference is that the Central Government's FLPP participants still have to pay a 1% down payment, while the ZDPHP does not require any down payment equivalent to Loan-to-Value (LTV) ratio of 100%. Another requirement of the ZDPHP is that the beneficiary is not **currently** receiving any housing subsidies; this stands in contrast to the FLPP program, in which requires the beneficiary to have **never** received any housing subsidies (Mahendra, 2021). The ZDPHP is intended to allow people to improve their housing career, for example, moving from living in *Rusunawa* to becoming a homeowner. Further differences between the two programs are provided in Table 12.

Table 12. Differences between FLPP and ZDPHP in 2021 (Mahendra, 2021)

Housing Financing Liquidity Facility (FLPP) <i>Managed by the Central Government</i>	Zero Down-payment Housing Program (ZDPHP) <i>Managed by the Province of Jakarta</i>
<i>Criteria of the applicants</i>	
Beneficiaries have never received housing subsidies before	Beneficiaries are not currently receiving housing subsidies
Maximum income limit: IDR 8,000,000 (EUR 480)	Maximum income limit: IDR 14,800,000 (EUR 875)
<i>Type of subsidy</i>	
Requires 1% down-payment	No down-payment required
Receives a down-payment subsidy of IDR 4,000,000 (EUR 240)	No additional down-payment subsidy
Provision fee of 0.5%	No provision fee
Administration fee: IDR 250,000 (EUR 15)	No administration fee
<i>Source of capital</i>	
Seed capital is 75% <i>Pusat Pengelolaan Dana Pembiayaan Perumahan – PPDPP</i> (Housing finance fund management centre) and 25% the Executing Bank	Seed capital is 100% reserved from <i>Anggaran Pendapatan dan Belanja Daerah – APBD</i> (Regional Revenue and Expenditure Budget)
<i>Yield</i>	
Yield received 0.5%	Yield received by <i>Unit Pengelola Dana Perumahan - UPDP</i> (Housing Fund Management Unit) is 1.9% and the Executing Bank is 3.1%.
<i>Housing conditions</i>	
Transfer of ownership is possible after 5 years for a single-family house and 20 years for a multi-family house (apartment)	Transfer of ownership is possible after 5 years

Before the ZDPHP was launched, the Province of Jakarta focused on developing *Rusunawa*. The Province of Jakarta has 26,500 units of *Rusunawa* in 34 locations, and the number of households living in these facilities is 21,000 (Dinas Perumahan Rakyat dan Kawasan Permukiman, 2021). Moreover, with this homeownership program, the rental fee can be used to pay for the mortgage. At the same time this program helps to minimize the housing backlog in Jakarta. In comparison to general commercial apartment, Bank Indonesia

Regulation no 20/8/PBI/2018 stated that the minimum required down-payment is between 10% - 40% depending on the size of the apartment. On top of that, the basic loan interest rate for Bank DKI, for example, was 10,5% in October 2018 (Otoritas Jasa Keuangan, 2021b).

4.1.1 Institutional Framework

Involving relevant stakeholders when dealing with a complex problem is a critical element in the policymaking process. It is likely that a lack of support for a proposed policy may occur if the government disregards other stakeholders in the policymaking process (Van de Riet, 2003). Figure 12 presents the organizational chart of the stakeholders involved in the policy implementation process for the ZDPHP. The **supply side** is laid out on the right, while on the left of the diagram, the LIH group is shown as part of the **demand side**. The stakeholders are divided into three different institutional levels, with the highest position is held by the National Level, followed by the Ministerial level, and the Provincial Level being at the lowest level.

Although the focus is on institutions directly involved in the Program, it is also necessary to understand the relations and positioning of the Provincial institutions and the National institutions. Understanding the relationship is especially important to grasp the limitations the Local Government faces when wanting to adjust local policy as the boundaries of the National policy restrict them. For example, The Jakarta Provincial Government could not determine the maximum limit for selling subsidized housing by itself but must follow the price set by the Ministry of Public Works. However, the province is permitted to adjust the national policy by giving a detailed clause, for instance, in determining how the housing subsidy is distributed according to the government's ability at the provincial level.

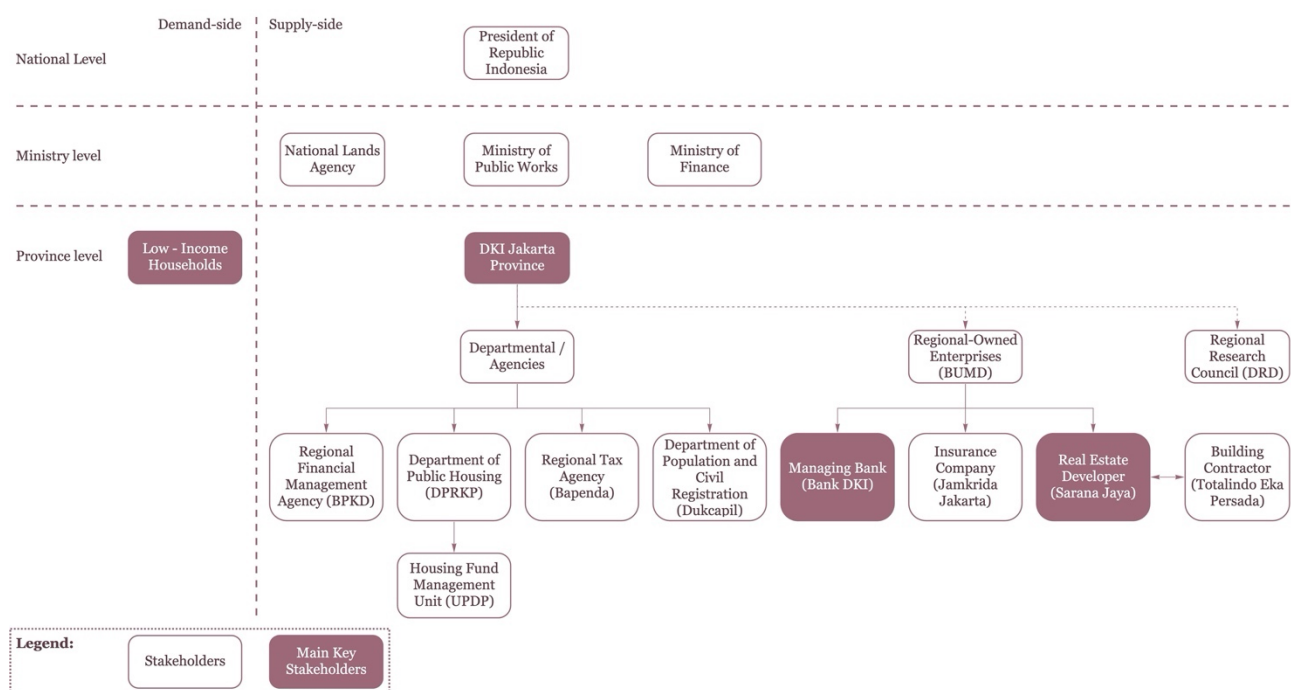


Figure 12. Organization Charts (own figure)

Dinas Perumahan Rakyat dan Kawasan Permukiman – DPRKP

On the **supply** side, the Province of Jakarta assigned the *Dinas Perumahan Rakyat dan Kawasan Permukiman – DPRKP* (Department of Public Housing and Settlement Area) to provide housing financing facilities and handle LIH housing as stated in The Governor of Jakarta's Regulation no. 158/2019 article 3 section 2n and 2p. With this responsibility, DPRKP leads the policy implementation of ZDPHP. In contrast, when formulating policy, DPRKP has formed a particular unit as a sub-division within their organization named *Unit Fasilitasi Pemilikan Rumah Sejahtera - UFPRS* (Adequate Home Ownership Facilitation Unit). This unit focuses on helping DPRKP in the policy development process, budgeting, and implementing the policy by running the program as stated in article 48 from the same regulation.

UPDP, Dukcapil, and Bapenda

In order to maximize the performance of UFPRS in managing ZDPHP, which has a lot to do with financial management affairs, UFPRS was given a mandate by the governor as a *Badan Layanan Umum Daerah – BLUD* (Regional Public Service Agency).

Granting authority to UFPRS to be able to use the revenue of the Regional Public Service Agency directly and finance its operations in accordance with the provisions of the legislation.

(The Governor of Jakarta's Decree no. 1177/2019 Article 2)

As a BLUD, the **financial management model** provides healthy business practices to improve community services and promote general welfare. The business practice is an exception to the regional financial management model provisions in a government agency in general. BLUD can receive income from its services and is given the flexibility to manage resources to improve its services (Badan Pengawasan Keuangan dan Pembangunan, 2018). This flexibility and income-earning are some of the business models of government agencies that are more difficult to implement by pure bureaucratic institutions in Indonesia. By using a "business basis" financial management system through BLUD, service to the community can be more effective and efficient. Further after the new mandate, UFPRS changed their name and is now referred to as UPDP, *Unit Pengelola Dana Perumahan - UPDP* (Housing Fund Management Unit).

Staff of UPDP (personal communication, April 1, 2021) stated two main tasks of UPDP in running the program; (1) being the first verifier for the applicants and (2) manage the capital for the housing acquisition facility program. As the first verifier, UPDP requires residency data, home and motor vehicle ownership to validate the registrants' data. Due to these requirements, UPDP has to coordinate with *Dinas Kependudukan dan Pencatatan Sipil - Dukcapil* (Department of Population and Civil Registration) as the holder of residency data and *Badan Pendapatan Daerah - Bapenda* (Regional Tax Agency) as the holder of home, land and motor vehicle asset data as shown in the Head of DPRKP's decree no 538/2019.

When implementing this program, The Province of Jakarta cannot rely solely on its departments because this program is closely related to the availability of housing. Therefore, it is also necessary to involve other partners, i.e., real estate developers as land and housing providers, the executing banks as providers of housing finance facilities, and insurance

companies that can provide financial protection guarantees. The current involved partners are identified to be registered as *Badan Usaha Milik Daerah – BUMD* (Regional Government Owned Enterprises) by the Province of Jakarta.

The local government assigned: (a) Perumda Sarana Jaya, Perumda Pasar Jaya, PT Jakarta Propertindo (Perseroda), to carry out the provision of houses to LIH, (b) Bank DKI to provide home acquisition financing facility for LIH, and (c) PT Jamkrida Jakarta to insure for the distribution of credit/financing for the acquisition of houses for LIH.
(The Governor of Jakarta's Regulation No. 51/2019 Article 5 Section 1)

Badan Pengelolaan Keuangan Daerah - BPKD

As this program is implemented with a financial scheme, a financial institution plays a significant role. *Badan Pengelolaan Keuangan Daerah - BPKD* (Regional Financial Management Agency) as the financial manager at the provincial level (*Badan Pengelola Keuangan Daerah*, 2019) plays the role in providing seed capital which would later be used as funds for housing acquisition facilities. Through the Governor of Jakarta's decree, BPKD disburses IDR 350 billion (EUR 21,8 million) as seed capital for ZDPHP:

Disbursement of regional loans, revolving funds for home acquisition financing facilities for the 2019 fiscal year of IDR 350 billion (EUR 21,8 million).
(The Governor of Jakarta's Decree No. 1536/2019 Article 1)

Bank DKI

Bank DKI is a commercial and regional-owned enterprise with shares that are owned by the Provincial Government of Jakarta and PD Pasar Jaya (Bank DKI, 2021). At the moment, they are appointed as a financial institution to manage the beneficiaries' loan payments to the real estate developers. Based on Governor Regulation no. 51/2019, the main core for Bank DKI is providing housing financing facilities for the LIH by using *Kredit Pemilikan Rumah Fasilitas Pembiayaan Perolehan Perumahan - KPR FPFR* (Home Ownership Loans with Home Acquisition Financing Facility). The agreement between the Jakarta Province and Bank DKI is explained in The Governor of Jakarta's Regulation no 71/2019 as an 'executing' agreement where all the financial works and responsibility belong to Bank DKI:

Distribution of housing funds for financing facilities by the appointed bank is carried out with executing model. Distribution pattern with the risk of uncollectible Housing Funds borne by the Executing Bank.
(The Governor of Jakarta's Regulation No. 71/2019 Article 13)

As compensation, Bank DKI earns a commission for this work and responsibility.

PT Jamkrida Jakarta

PT Jamkrida Jakarta insures this mortgage scheme. The importance of incorporating an insurance company is to provide services for events in the tail of distributions. In contrast, the banking sector tends to provide services closer to the mean of distributions.

PD Sarana Jaya

As the real estate developer, PD Sarana Jaya also received a mandate from the governor to provide LIH housing, together with other regional-owned enterprises PD Pasar Jaya and PT Jakarta Propertindo, as mentioned in Governor Regulation no. 51/2019. Sarana Jaya's primary duty as a BUMD in the Province of Jakarta is to support public policies to improve people's welfare. Their work includes land supply, construction projects of housing, public buildings, industrial estates, facilities, and infrastructure. They adhere to the principles of business economics, which in nature is a profit-oriented legal entity (Sarana Jaya, 2020). In particular, at the Pondok Kelapa, they also supply land to construct the apartment building for ZDPHP. As a regional company that focuses on developing the housing sector in Jakarta, Sarana Jaya needs to establish a residential development project for apartments that follows the rules and restrictions of ZDPHP. By forming a joint operation with PT Totalindo Eka Persada, a contractor company, Sarana Jaya became the first real estate developer in Jakarta that successfully built and sold apartment units for the ZDPHP (Director of Administration and Finance of Sarana Jaya, personal communication, May 11, 2021).

The Ministry of Public Works, The Ministry of Finance, and Bank of Indonesia

When examining the national level, it was known that several ministries and government agencies also indirectly play a role in implementing the policy formulation of ZDPHP. In this case, the criteria of healthy homes and FLPP were adopted from the Ministry of Public Works. Next, the subsidized housing price policy was referred from the Ministry of Finance. Lastly, the banking regulation was implemented from the policy of the Bank of Indonesia.

The Low-income Households of Jakarta

The target group identified as the LIH in Jakarta belongs on the **demand-side**. LIH is a specific demand group that the government attempts to capture through the eligibility criteria stated in The Governor of Jakarta's Regulation no 104/2018 article 8. In its realization, the criteria had been adjusted to make it more accurate in the selection process. The adjustment of criteria will be further explained in Chapter 4.4.

4.1.2 Stakeholders' relation

In regard to the level of engagement of the involved stakeholders and the relevance of the program's development, it is important from a managerial point of view to identify the relevant parties, their respective roles and responsibilities, as well as their power and interest, vis-à-vis the policy. This applies to not only the policy implementation, but also how the policy is developed. The stakeholder analysis of the institutional organization has identified the involved stakeholders to better understand which stakeholders have influence in the decision-making process and are managing potential problems. The categorization of the identified stakeholders in Table 13 follows the framework of Winch (2010) and is presented from the enablers' perspective: *the Province of Jakarta*. As captured in Table 13, the

internal stakeholders are the stakeholders that are bound to the program in terms of legal contracts, and **external stakeholders** have a vested interest in the ZDPHP.

Table 13. List of Stakeholders

Internal Stakeholders		External Stakeholders	
<i>Demand Side</i>	<i>Supply Side</i>	<i>Private</i>	<i>Public</i>
<ul style="list-style-type: none"> • Low-income households in Jakarta • Successful applicants • Unsuccessful applicants 	<ul style="list-style-type: none"> • The Province of Jakarta • DPRKP • UPDP • BPKD • Dukcapil • Bapenda • Sarana Jaya • Bank DKI • Totalindo Eka Persada • Jamkrida Jakarta 	<ul style="list-style-type: none"> • Local residents • Land owners • Private Banks • Real estate developers 	<ul style="list-style-type: none"> • Ministry of Public Works • Ministry of Finance • Bank of Indonesia

The list provided below the demand side is based of the researcher's observations. In a broader perspective, the need for housing in Jakarta has become the need of the entire population of Jakarta. However, considering the type, size and price of the housing market in the context of ZDPHP, the target group of people are **low-income households (LIH)**. Furthermore, if analysed further, it is possible to find groups of residents who have registered in this program and have either succeeded in becoming beneficiaries and those who have not succeeded as they do not meet the criteria of ZDPHP.

When examining the stakeholders listed in the supply side, it is evident that the Province of Jakarta is a complex organization. Different interest groups within the government organization may also have different functional requirements depending on the position of its department and to whom they are responsible to. Other than that, several BUMDs who work closely with the Province of Jakarta to develop the policy and enterprises involved directly in program implementation are listed on the supply side. All in all, the supply side consists of the stakeholders who work together in facilitating **financial support and housing products** for the ZDPHP. It is significantly apparent that there is an inherent **conflict of interest** between the stakeholders on the demand and supply side, even though the supply side aims to fulfil the needs of the demand side. This research project aims to examine how these unbalanced needs are being mitigated to allow both the demand and supply sides to meet joint objectives, in which a win-win outcome is achieve rather than a zero-sum situation.

It was determined that the opinions of the external stakeholders are more diverse, as they were found to either be in favour, against or indifferent. Those in favour may be local landowners who expect a rise in the Program's value or the residents supporting a better amenity in participating in the Program. The private banks and other real estate developers are the ones the government expects to join the Program. Their participation will add advantages such as increasing more beneficiaries or apartment units. They will support the Program if they find it brings added value to their business. Otherwise, they can be indifferent to the time being.

The benefits of the creation of the ZDPHP are readily observable in successful cases, as in Pondok Kelapa, East Jakarta. However, the implementation program can be very complex because of the difference in the interest of the involved stakeholders that were identified, as shown in Table 14.

Table 14. Key stakeholders of ZDPHP and primary interests

Stakeholders	Primary interests	Power Level	Interest Level
DPRKP	Overcoming housing challenges in Jakarta Enabling LIH in Jakarta to be homeowners Improving the quality of life for Jakarta residents	10	10
UPDP	Acquiring as many beneficiaries as possible in order to ensure the success of the ZDPHP	10	10
BPKD	The funds provided are used according to program needs and are on target	10	10
Bapenda	Supporting the governor's program by providing access to applicant's tax data as a validation tool	8	6
Dukcapil	Supporting the governor's program by providing access to civil registration data as a validation tool	7	6
Low-income households	Buying a house that fits to their needs in a good location and affordable price	2	9
Bank DKI	Supporting the governor's program Attracting more bankable customers Products offered must comply with applicable regulations	9	8
Sarana Jaya	Supporting the governor's program Building housing projects that are in good demand by the community Obtaining quick financial returns from their investment	8	8
Totalindo Eka Persada	Earning profit from the construction project	5	6
Jamkrida Jakarta	Supporting the governor's program Gaining clients from low-risk programs	6	8
Other private banks	Attracting more customers who are suitable for mortgage with high potential for economic growth and certainty to payback	6	4
Other real estate developers	Acquiring strategic project locations and further demand by the community with a fast return	6	5
Ministry of Public Works	Developing policies to further support the realization of housing developments in Indonesia	10	5
Bank of Indonesia	Ensuring that the credit process improves the financial quality of the community that ensures stability economy in Indonesia	10	4
Ministry of Finance	Driving economic growth Low-income households can buy houses at affordable prices	10	5
Local residents	To have a more liveable city	4	5
Land owners	Selling their land at high prices	2	7

Table 14 shows that the interests of the key stakeholders are aligned with the main goal of the Province of Jakarta to overcome the housing challenge, however, there are notable differences. For instance, the Local and Central Government agencies have the goal of providing adequate housing for LIH without having any interest in making a profit. For the LIH, the essential requirement for this group is that the housing product matches with their

financial background. The banking institutions are found to be very restrictive with their policy and regulations, and for the developers, the objective is to obtain quick financial returns from the initial capital. The main stakeholders differ in their levels of interest and power (assuming a range of 1 to 10 for both dimensions).

In order to manage all stakeholders' interests, it is necessary to first identify the stakeholders with interests and influence that are most relevant within the environment of this program and understand the factors that motivate them, when possible, to generate mutual benefits. The identification of the stakeholders is critical, and when the level of their power and influence are mapped out accordingly, their impact on the project can be better understood (Bourne & Walker, 2005). For Olander & Landin (2005), identifying each stakeholder's level of power and interest allows the stakeholders to be positioned accordingly in power/interests matrix, in which the outcomes would lead to the most appropriate management strategy, as captured in Figure 13.

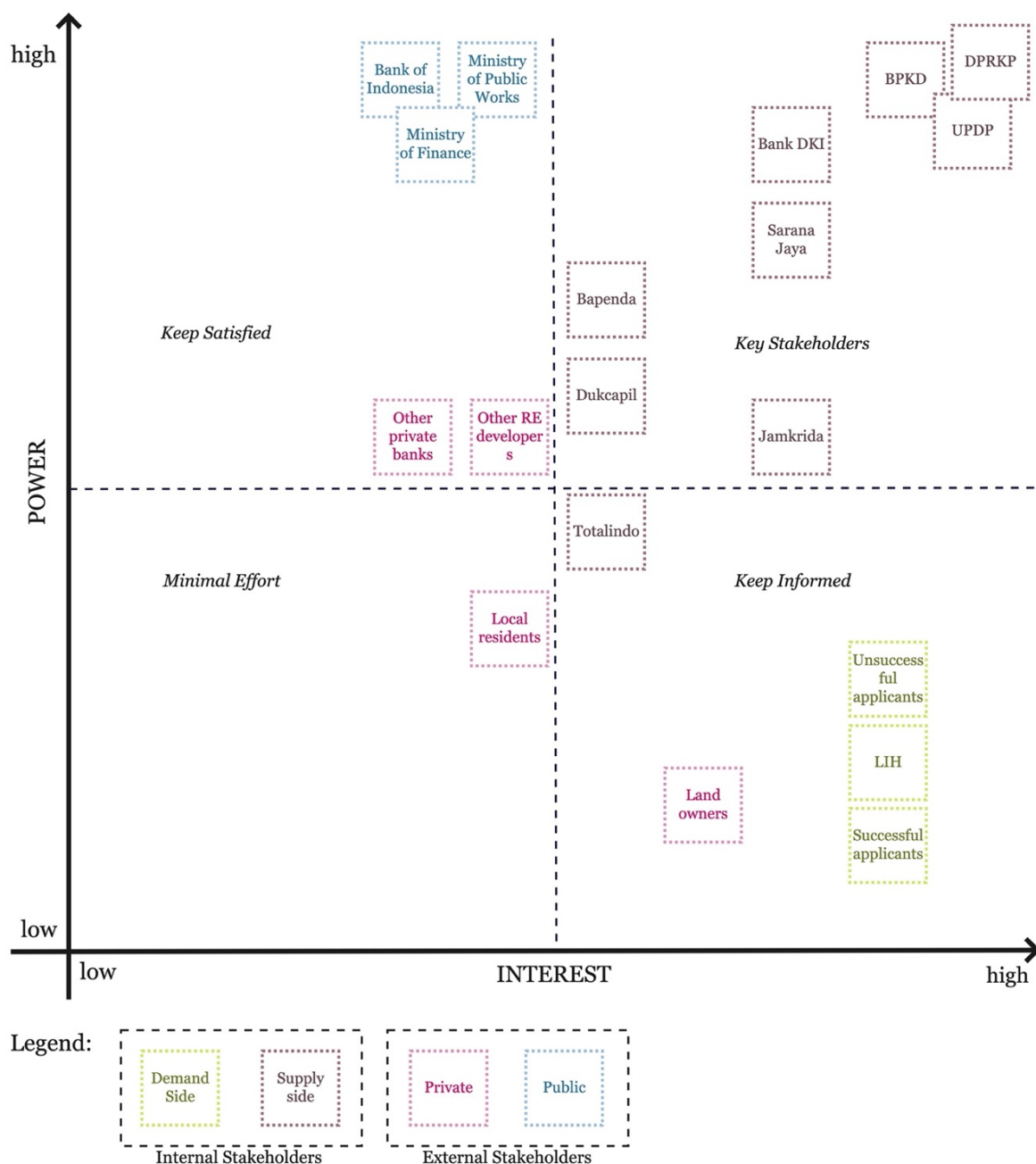


Figure 13. Stakeholders mapping with power/interest matrix

As can be seen from Figure 13, most stakeholders from the **supply side** in Table 13 can be found in the top right quadrant, which is classified as the ZDPHP's **key stakeholders** according to Olander & Landin (2005). These particular stakeholders include the involved departments within the organization of Province of Jakarta are delegated to ensure the success of the ZDPHP. As policy makers as well as facilitators, they have significant influence on how the program is developed. Clement (2005) recognised them as definitive stakeholders as they possess the following three key: **power, legitimacy, and urgency**. The power that they have can determine which stakeholders are qualified to be involved in the implementation of this program while their legitimacy is present as the program is widely seen as suitable and valuable for the residence of Jakarta. Lastly, urgency is evident as the DPRKP prioritises this program among the other housing programs that they are running.

The only stakeholder that has a lower level of power than the key stakeholders in Figure 13, but still achieves the same goal as them is Totalindo as the contractor; the joint operation company of Sarana Jaya in Pondok Kelapa location. Bank DKI has more negotiation power with the government, but they have a very different interest as their interest centres around acquiring more clients with as little risk as possible. LIH, including the successful and unsuccessful applicants, have been identified as having high interest but low power. This is due to the fact they are required to follow the rules set by the government to join the program. The Central Government is captured on the top left of the matrix, as they are found to have high power. However, their responsibilities have been delegated to the local government. Therefore, their interest is not as high as the local government but they are in the position to monitor how the program runs. Other private banks will only be interested in the program if the government offers them an excellent advantage. Similar to private banking, the private developers are only interested in joining if they are certain they can achieve a quick return on investment from the project.

4.2 The unit

The physical health is closely related to the physical condition of the house. Health-promoting houses make residents feel safe, comfortable and allow them to easily carry out their daily activities. A sense of **security** is manifested by a solid house structure, a roof does not leak, walls that are not damp, and a floor that is not slippery and damp (Becker, 1975). A sense of **comfort** is manifested by adequate lighting, sufficient air flow that is able to meet the oxygen requirements, and proper humidity indoors that is in accordance with body temperature of the occupants of the home, as well as the need for enough space for movement (Heijs & Stringer, 1988).



Figure 14. Nuansa Pondok Kelapa Apartmen-artist impression (source: Sarana Jaya)

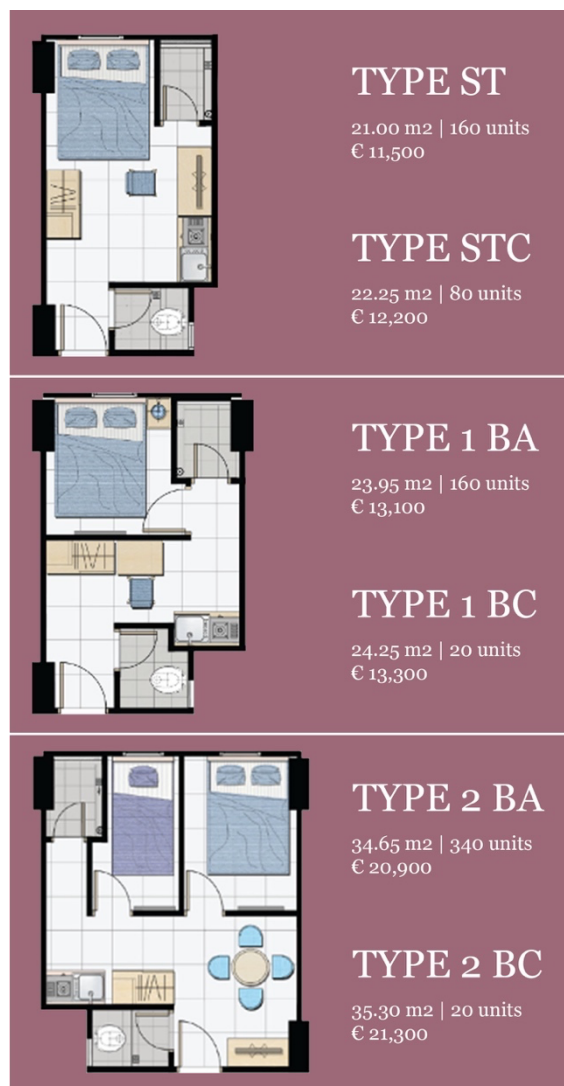


Figure 15. Unit Layouts (Source: PD. Sarana Jaya)

In Indonesia, regulations regarding the minimum requirement for a healthy and adequate home have been established through the Decree of the Minister of Settlement and Regional Infrastructure no. 403/KPTS/M/2002. When considering basic human activities which include sleeping, eating, working, sitting, bathing, going to the toilet, washing and cooking as well as a circulation area, the standard space requirement is stated to be **9 m² per person with the acceptable ceiling height of 2.80 m**. This is the basis measurement for determining the area of residential units in the ZDPHP. The number of family members is also a determining factor for the size of the residential unit that would be provided through the program. The target groups for this program include unmarried individuals, couples, or a family with a maximum of 2 children. Therefore, the set assumption is that the maximum number of family members in one household is **4 people**. With this assumption, the residential area that meets the requirements of a healthy and adequate house with a maximum of 4 family members is **36 m²**. This calculation is the reference basis for determining the size of ZDPHP housing unit, not only in Pondok Kelapa but also on other social housing project in Jakarta.

The ZDPHP was first implemented in Pondok Kelapa, East Jakarta as part of the development of a **21-storey** high building with a total of **780 units**. The construction was completed in August, 2019. The number of units is divided into Type 21 and Type 36 with a total amount of 240 studio units, 180 units of 1-bedroom layouts and 360 units of 2-bedroom layouts (Figure 15). The total construction cost was determined to be IDR 192 billion (EUR 11,3 million). The price for each unit varies, starting from IDR 184 million (EUR 11,400) for the smallest type to IDR 340 million (EUR 21,300) for the biggest type. Table 15 below provides an overview of unit prices and the mortgage calculation scheme in 20 years for each unit type in the Pondok Kelapa Apartment.

Table 15. Mortgage scheme Pondok Kelapa Apartment (Source: DPRKP (2020))

Category	Unit type	Size (m ²)	Price		Monthly mortgage payment in 20 years	
			IDR	EUR	IDR	EUR
Type 21	ST (Studio)	21	184,800,000	11,500	1,219,598	76
Type 21	STC (Studio corner)	22.5	195,800,000	12,200	1,292,193	80
Type 21	1BA (1-bedroom)	23.95	210,760,000	13,100	1,390,923	86
Type 21	1BC (1-bedroom corner)	24.25	213,400,000	13,300	1,408,346	87
Type 36	2BA (2-Bedroom)	34.65	335,412,000	20,900	2,213,571	138
Type 36	2BC (2-bedroom corner)	35.30	341,704,000	21,300	2,255,095	140

The housing prices shown above follows the maximum residential selling price for affordable housing regulations determined by the Ministerial of Public Works Decree no. 552/2016. According to this regulation, the maximum selling price of an apartment unit in East Jakarta where the Pondok Kelapa Apartment complex is situated is **IDR 8.8 million (EUR 550) per square meter**. On top of this, housing with a selling price above IDR 250 million (EUR 14,800) is subjected to a value added tax (VAT) of 10% in reference to the Ministerial of Finance Regulation no. 269/2015 article 2. In this circumstance, only **the 2-bedroom unit is subject to 10% VAT** while other unit types are tax free.

4.2.1 Location and facilities

The 2,9-ha residential area as shown in Figure 16 is located in East Jakarta, more precisely in the Pondok Kelapa sub-district, which was eventually used as the branding name for this residential development project. This land has long been **owned by PD Sarana Jaya** as part of their land banking scheme. Initially, this land was to be developed as a middle-class residence project together with a partner, but the collaboration was stalled (Director of Administration and Finance of Sarana Jaya, personal communication, May 11, 2021). The development of this residential project was resumed after the Governor had issued a mandate in The Governor of Jakarta's Regulation no 51/2019 article 5 section 1 to all Jakarta's regional-owned enterprises to support the success of this program. Sarana Jaya which had a stalled project in Pondok Kelapa decided to participate in this program.

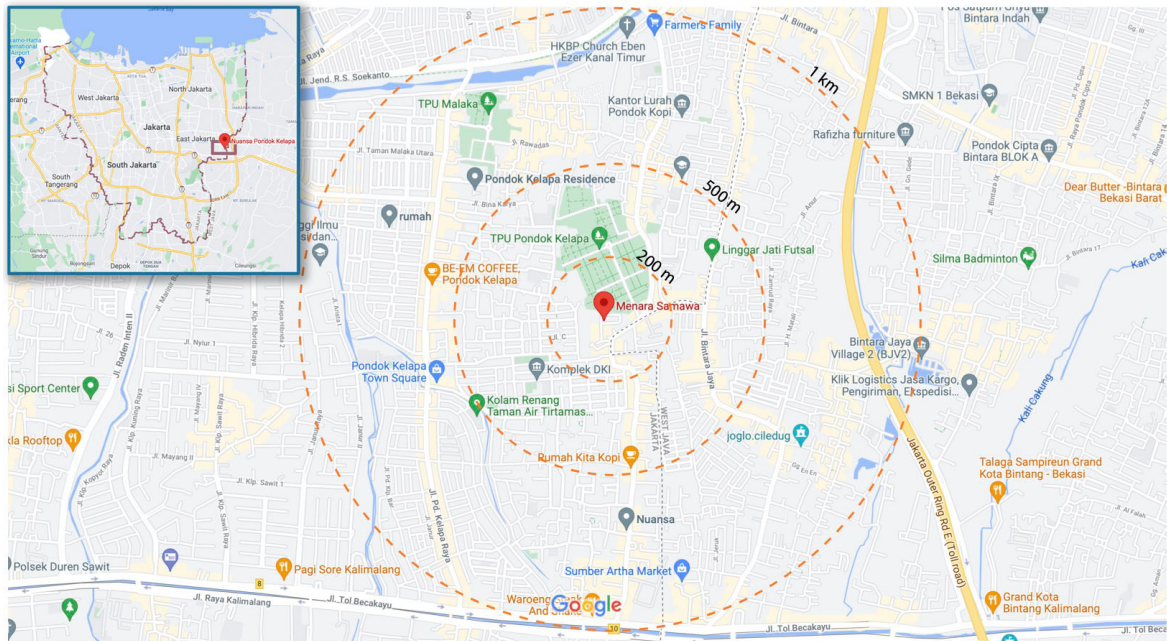


Figure 16. Map of Nuansa Pondok Kelapa, East Jakarta

Sarana Jaya took the initiative and took immediate action to resume development of the stalled project in Pondok Kelapa. After the obligations with the old partners were settled, Sarana Jaya formed a **joint operation** with PT Totalindo Eka Persada (Molasiarani, 2018). Samawa tower as the first tower that was built on an area of 6.126 m² (21% of the total area) that is intended specifically for the ZDPHP (PD. Sarana Jaya, 2018). As a contractor, PT Totalindo Eka Persada had an obligation to invest in land and development financing in the sum of 25% and the project implementation will be carried out under the newly formed joint operation (Humas Pembangunan PD Sarana Jaya, 2018). From the previous collaboration, the first tower building has been designed and the building's foundation was already built. Fortunately, the size of the apartment unit is in accordance with the regulation of ZDPHP, in this respect, 36m² for the biggest unit (Director of Administration and Finance of Sarana Jaya, personal communication, May 11, 2021).



Figure 17. Facilities in Pondok Kelapa Apartment (Suciatinengrum, 2019)

The master plan for this location has 4 towers, of which **the first tower and 200 units of the second tower** are also dedicated to ZDPHP, while the remaining units from the second tower, along with the third and fourth towers will be built for middle-class housing (Kusuma, 2018). This 21-story apartment building has the basic facilities needed for a low-income

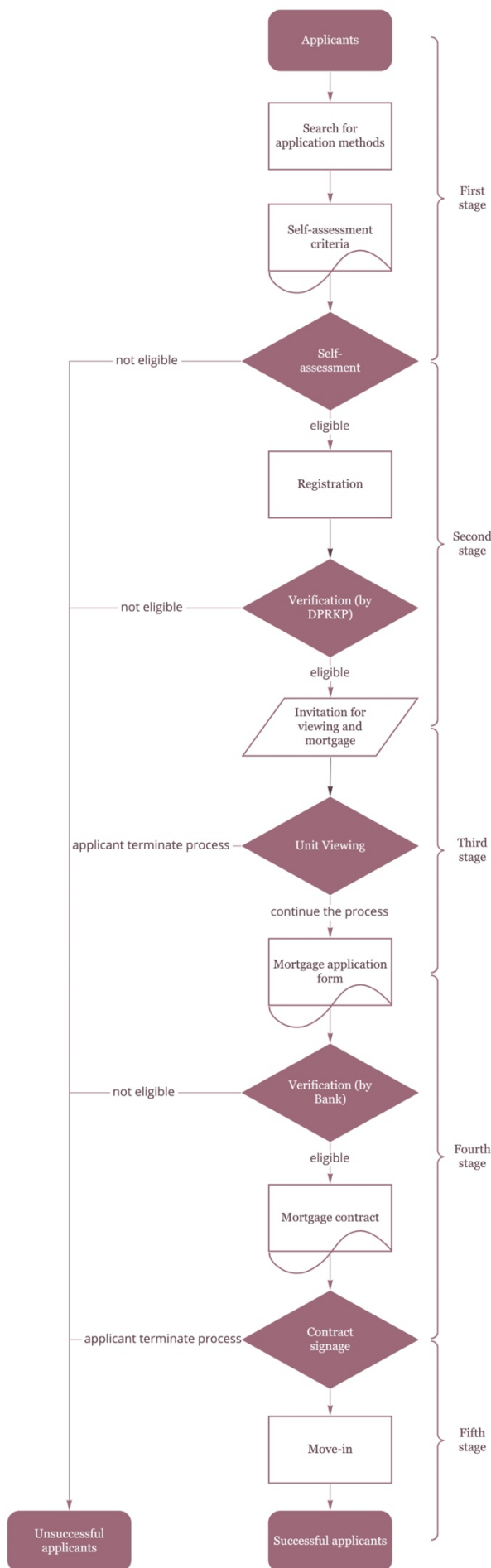


Figure 18. Selection process (own figure)

apartment. In addition to a feeder bus for Transjakarta bus system, there are also nursery schools, children's playgrounds, prayer rooms, community halls and car parks located in the apartment complex vicinity (Figure 17).

4.3 Application process

Having the right target group for this program is important to its success. As a result, there are certain conditions that need to be met by applicants in order for them to be the beneficiaries of this program. This program involves several components that are to be followed by the applicants, from self-assessments to properly registering through the application system. There are several verification stages of this application process, that sorts the applicants based on who best meets the requirements in accordance with the eligibility criteria.

In practice, the selection stage consists of several steps. However, for the purposes of this study, the selection process has been simplified into five stages. The stages of the complete verification process that were collected from the original database document can be seen in Appendix D. The *first stage* of the simplified process is a pre-verification where a self-assessment is performed independently by the applicants. The *second stage* is the verification that is carried out by UPDP together with Dukcapil and Bapenda. The *third stage* is the unit viewing, where the applicant can decide whether to continue the application process or not based on the units available in the location. The *fourth stage* is the second verification which is carried out by the executing bank. The *last stage* is the final decision from the applicant to buy the unit by signing the mortgage contract. The process of these stages is presented in Figure 18.

The first step that needs to be completed by the applicant is to determine the registration method. When the program was launched in October 2018, applicants were shown two ways to register: **online**

registration through the samawa.jakarta.go.id website or **manual registration** by visiting the registration counter. The process breakdowns for the two registration options are described in table 16. As the beginning of the initial launch, there were several registration locations provided by UPDP, which included the UPDP counter located at the DPRKP office, 5 municipality offices and 1 district office (DP 0 Rupiah Samawa, 2018b). For registrants who do not have the ability to operate a computer or smart phone, UPDP does provides a registration counter facility where there is staff available to help applicants to register.

Table 16. Registration process from November 2018 to February 2020 (Anies Baswedan [@aniesbaswedan], 2018)

	Online registration via web samawa.jakarta.go.id	Manual registration at registration counter
1	Log-in to the website	
2	Understand and follow the requirements	
3	Prepare the required documents: KTP, KK, NPWP, marriage certificate	
4	Download the application forms and statement letters: <ol style="list-style-type: none"> Application letter for home acquisition financing facility for LIH Statement letter of applicant's fixed/non-fixed income Statement letter that states applicant does not own a house Statement letter that states applicant has never received a government subsidy Statement letter of who will occupy the house 	
5	Fill in the required statement letters	
6	Fill in the form on the registration web	The applicant brings the required documents to registration counter
7	Upload the original application letter	Officers help fill out the form on the registration web
8	Applicant is assigned a registration number	The officer uploads the registration form
9	Original application documents sent to UPDP	Applicant is assigned a registration number
10	Applicant monitors status of their application by entering the registration number	Original application documents are kept by the officer
11	All original statements are given after the normative list of beneficiaries is published	

Registration via a smartphone app was finally launched in February 2020 by Sarana Jaya, 15 months after the initial launch of the program. The 'Samawa DP 0' application was launched to make it easier for people who wanted to register for the ZDPHP. This internet-based registration can save time compared to the manual registration. Prospective applicants have access to the registration terms and procedures of ZDPHP through this application. Prospective applicants can also easily register by filling in appropriate and valid data, and can see the accurate registration status (Mutiarra, 2020). This application was developed and managed by Sarana Jaya, but only for one specific location in Pondok Kelapa which is the site that belonged to Sarana Jaya.

In July 2020, UPDP launched the application portal (<https://pendaftarandp0.jakarta.go.id>) as well as the 'Pendaftaran DP 0 Rupiah' mobile phone application. In the future, all registrations for various locations of ZDPHP will go through the website and application provided by UPDP with the aim that the database would be well integrated and can be accessed more proportionally by all parties involved.

4.4 Verification process

The verification process carried out by the UPDP team at the beginning of the program launch was performed manually. The UPDP's task is to receive, input, select, and distribute applicants' data to Bapenda, Dukcapil, and the executing banks. Delegation of work is provided in Appendix II of The Head of DPRKP's Decree no 539/2019. In February 2020, along with the launch of the registration application developed by Sarana Jaya, a more robust and complete database was also developed (indirectly) to facilitate access for the authorities. This updated policy can be found in appendix II of The Head of DPRKP's Decree no 495/2020.

The initial eligibility criteria for the applicants were adopted from a National subsidized housing regulation. The maximum salary limit set by the Ministry of Public Works was IDR 7 million (EUR 415) as described in the Ministry of Public Works' decree no 552/2016 article 1. The maximum salary limit of IDR 7 million (EUR 415) was also used by the Jakarta Provincial Government at the launch of the program. Overall, the following criteria were presented by the marketing department at the beginning of the program launch are the following: (1) Applicants require a Jakarta Identity Card (KTP) and have lived in Jakarta for at least 5 years, (2) Applicants do not have own a house, (3) Applicants have never received housing subsidies, (4) Priority given to married citizens, (5) Tax-abiding citizens, (6) Applicants earn IDR 4 million (EUR 280) to IDR 7 million (EUR 415) per month, and (7) For the applicants who are selected (pass the selection), they must have a Bank DKI account (Ariyanti, 2018; DP 0 Rupiah Samawa, 2018a).

Table 17 shows an overview of the adjustment of beneficiaries' basic criteria with one major change in income bracket from IDR 7 million (EUR 415) to IDR 14,8 million (EUR 875) which came into effect in June 2020. This maximum cap was measured by the amount of an applicant's own income, if the applicant is unmarried or the combined total salary of both partners if married. The new adjustment value was referred to the Ministerial of Public Works' Regulation no 10/2019;

*LH's income limit is equal to 3 times the instalment value or the costs incurred to obtain a house on credit with a commercial financing scheme.
(The Ministerial of Public Works' Regulation no 10/2019 Article 10)*

Seeing that the average instalment of the people in Jakarta is IDR 5 million (EUR 307), the highest instalment was increased to IDR 14,8 million (EUR 875) (Head of Sub-section of Administration of UPDP, personal communication, April 21, 2021). This value can be readjusted in the coming year due to the yearly inflation in property and construction cost. Other than the above-mentioned criteria, the length of stay in Jakarta and the value of transportation ownership were also found to have been adjusted several times.

Table 17. Overview eligibility criteria according to revised regulation

November 2018	July 2019	February 2020	June 2020	September 2020
<u>Governor's Regulation no. 104/2018:</u> 1. Applicant has KTP-electronic and KK that are registered in Jakarta 2. Has lived in Jakarta for at least 5 years at the time of submitting the application 3. Does not have a house, proved by a statement letter by the Head of District office where applicant is registered 4. Has never received any housing subsidy from the Central Government or Local Government 5. Marriage certificate issued by the competent authority for those who are married 6. Has NPWP 7. Has an annual personal income tax return according to the laws and regulations	<u>Head of DPRKP's Decree no. 538/2019:</u> 1. Applicant and partner (if any) have KTP-electronic and KK that are registered in Jakarta 2. Family member ≤ 5 people 3. Maximum age of children to be considered = 18 years 4. Does not have a house 5. Does not in mortgage contract 6. Maximum car ownership = 1 per KK 7. Maximum value of vehicle ownership = IDR 200 million (EUR 11,825) 8. Allowed maximum salary of the applicants for fixed income: Base salary = 100% Allowance = 50% 9. The maximum instalment allowed per month is 1/3 of the total income	<u>Head of DPRKP's Decree no. 101/2020:</u> 1. Applicant and partner (if any) have KTP-electronic and KK that are registered in Jakarta 2. Family member ≤ 5 people 3. Maximum age of children to be considered = 18 years 4. Does not have a house 5. Has never received any housing subsidy from the Central Government or Local Government 6. Marriage certificate issued by the competent authority for those who are married 7. Has NPWP 8. Has an annual personal income tax return according to the laws and regulations 9. Maximum car ownership = 1 car 10. Maximum value of vehicle ownership = IDR 250 million (EUR 14,770) 11. Allowed maximum salary of the applicants for fixed income: Base salary = 100% Allowance = 50%		<u>Head of DPRKP's Decree no. 495/2020:</u> 1. Applicant and partner (if any) have KTP-electronic and KK that are registered in Jakarta 2. Family member ≤ 5 people 3. Maximum age of children to be considered = 18 years 4. Does not have a house 5. Has never received any housing subsidy from the Central Government or Local Government 6. Marriage certificate issued by the competent authority for those who are married 7. Has NPWP 8. Has an annual personal income tax return according to the laws and regulations 9. Maximum car ownership = 1 car 10. Maximum value of vehicle ownership = IDR 250 million (EUR 14,770) 11. Allowed maximum salary of the applicants, if: a. Fixed income: Base salary + Allowance b. Variable income: follow regulation of Executing bank
<u>Governor's Decree no. 855/2019 (phase 1):</u> Maximum applicant's income is IDR 7 million (EUR 415) per month			<u>Governor's Decree no. 588/2020 (phase 2):</u> Maximum household income (combined salary if married) is IDR 14,8 million (EUR 875) per month	

4.5 Financial framework

The biggest factor in implementing the ZDPHP is the choosing the most appropriate financial policy. To implement the ZDPHP, the Provincial Government of Jakarta has reserved a housing fund in their *Anggaran Pengeluaran dan Belanja Daerah – APBD* (Regional Revenue and Expenditure Budget) with the value of IDR 350 billion (EUR 21,8 million) that is to be used as seed capital.

*Disbursement of regional loans, revolving funds for home acquisition financing facilities for the 2019 fiscal year of IDR 350 billion (EUR 21,8 million).
(The Governor of Jakarta's Decree No. 1536/2019 Article 1)*

In comparison to the original concept of FLPP that a shared equity of 75% for the *Anggaran Pengeluaran dan Belanja Nasional – APBN* (State Revenue and Expenditure Budget) and 25% for the executing bank, the ZDPHP has **100% equity supplied by the Province of Jakarta**.

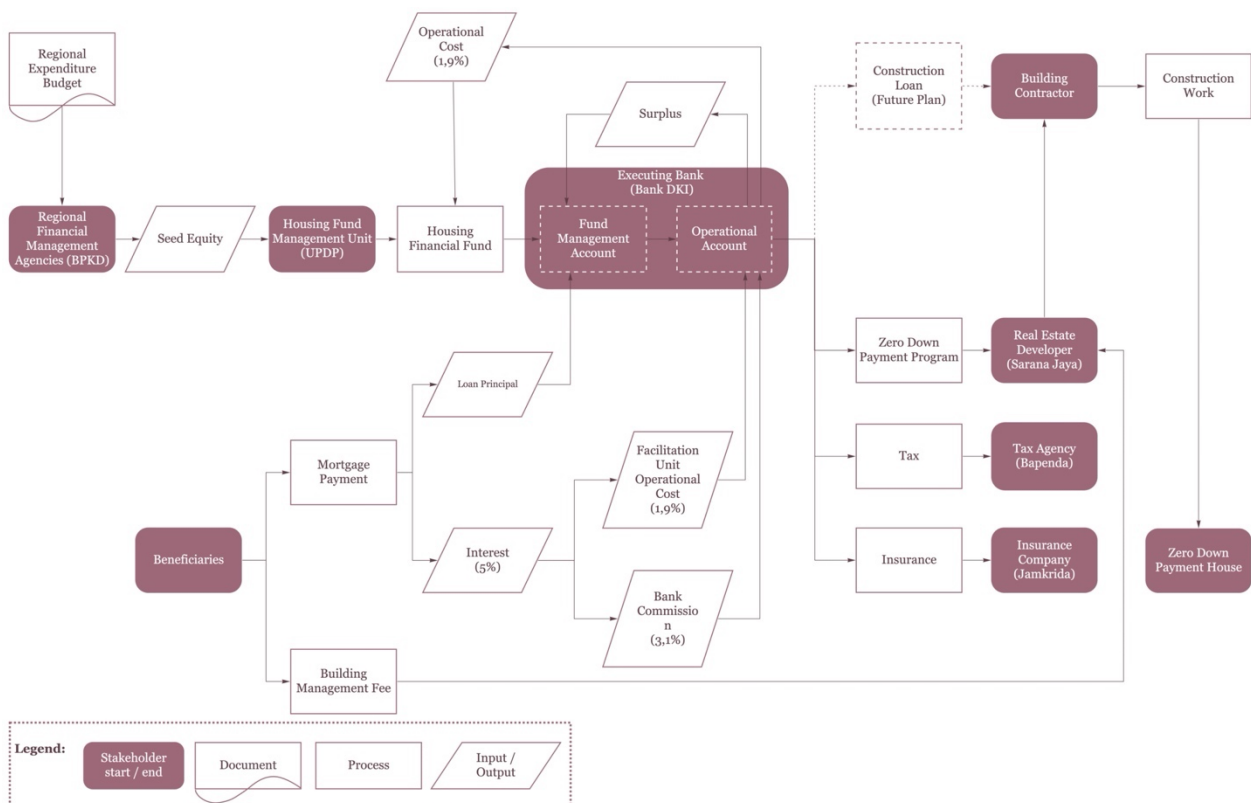


Figure 19. ZDPHP financial framework (own figure)

The procedure for managing the housing fund is explained in the Governor of Jakarta's regulation no 71/2019. Figure 19 demonstrates how the housing fund was designed for the ZDPHP. The seed equity received from BPKD, is deposited by UPDP in the account of the executing bank (currently Bank DKI). There are 2 types of accounts, as described in article 14, namely **Fund Management Accounts** and **Operational Accounts**. The Fund Management Account is used for revolving funds, where part of the seed equity that is stored can be withdrawn anytime to pay the apartment unit. The interest is used for the monthly operational expenses of UPDP and to fund new projects. On the other side, the Operational

Account is used to receive the mortgage instalment from the beneficiaries (*Staff of UPDP, personal communication, September 11, 2020*).

The Governor of Jakarta's regulation no 71/2019 stated that the bank is assigned to help the province of Jakarta in distributing the housing fund. The agreement between Jakarta province and the bank is 'executing' where fund distribution work is done by the bank. When there is a default, the risk is borne by the appointed bank.

Distribution of housing funds for financing facilities by the appointed bank is carried out with 'executing' model; The risk is borne by the Bank in case of default. (The Governor of Jakarta's regulation no 71/2019 Article 13)

This program offers a fixed interest rate of 5% per year as stated in the Governor of Jakarta's Regulation no 80/2019.

Interest rate from UPDP to the appointed bank is 1,9% per year; Interest rate from the Bank to beneficiaries is 5% per year. (The Governor of Jakarta's Regulation no 80/2019 Article 3)

In this regulation, it is explained that 5% interest rate consists of UPDP's operational cost of 1.9% and a bank commission of 3.1%. Operational costs cover the income of UPDP's services to compensate the day-to-day expenses to run the business. UPDP is given flexibility to manage resources in order to improve its service (Badan Pengawasan Keuangan dan Pembangunan, 2018). On the other side, the bank commission is the amount received by Bank DKI as the executing bank. This commission includes the applicable tax and three insurance coverages: **fire insurance, life insurance, and credit insurance** (Relationship Manager of Bank DKI, personal communication, May 25, 2021).

The Governor of Jakarta's regulation no 71/2019 article 8 also states that housing funds can be used for 2 different fund supports: **housing acquisition financing facilities** and **housing supply financing facilities**. The key different from the aforementioned policy is the target of beneficiary. The main target of the housing supply financing facility is the housing suppliers, on the other side, for the housing acquisition financing facilities is the LIH. However, during the time this research was conducted, there were no examples of housing supply financing facility case being implemented.

4.6 Regulatory of Property Rights

Apartments in Indonesia can be built on land with various property right statuses as described in Indonesia Law no 20/2011 article 17.

*Apartment can be built on the following land status; (1) Freehold Title, (2) Right to Build Title or Right to Use Title on the state land, and (3) Right to Build Title or Right to Use Title on Right of Management land title.
(The Indonesia Law No. 20/2011 Article 17)*

Table 18. Property rights in Indonesia (Ashri, 2020)

Property Rights	Description	Validity period	Permissible holder
Freehold title (<i>Hak Milik</i>)	This type of land ownership that can be inherited to a family member and the highest type of ownership in Indonesia. Rights can be transferred to other parties and can be used to guarantee debt by burdened withholding rights.	Indefinite	Indonesian citizen Indonesian legal entities
Right to Build (<i>Hak Guna Bangunan</i>)	The right to build holder can build, construct and use the land and the property above it.	30 years and can be extended for another 20 years (Government regulation no 40/1996)	Indonesian citizen Indonesian legal entities
Right to Use (<i>Hak Pakai</i>)	The right to use and/or to collect the product, from land directly controlled by the state, or land owned by the other persons which gives the rights and obligations stipulated in the decision upon granting his right by the authorized official, or in the agreement to work the land, as far as it is not conflict with the spirit and the provision of the law. (Indonesia Investment Coordinating Board, 2021)	30 years, can be extended for another 20 years and renewed again for 30 years according to the agreement with land rights holders (Government regulation no 103/2015)	Indonesian citizen Indonesian legal entities Government institutions Social organisations Foreign citizens Foreign companies Representatives of foreign states or organizations
Right to Manage (Hak Pengelolaan)	The use of government's land that the authorities are partially delegated to their rights holder to plan the use of land for the purpose of their duty/assignment. The utilization of this land can be given to the third party or in collaboration with third party (Santoso, 2012).	No time limit, as long as the land is used for the implementation of its task or duty.	Government institutions State/regional owned companies Government authorities

Sarana Jaya is the landowner of the Pondok Kelapa Apartment with a **Freehold Title ownership**. This property right is the highest status that can be held by individuals or legal entities in Indonesia. Apartments in Indonesia can be built on land with various property right statuses as described in Indonesia Law no 20/2011 article 17.

*Apartment can be built on the following land status; (1) Freehold Title, (2) Right to Build Title or Right to Use Title on the state land, and (3) Right to Build Title or Right to Use Title on Right of Management land title.
(The Indonesia Law No. 20/2011 Article 17)*

Table 18 explains the different property rights in Indonesia.

Furthermore, there are two different apartment ownerships in Indonesia: *Sertifikat Hak Milik Satuan Rumah Susun – SHMSRS* (Freehold title to apartment unit) and *Surat Kepemilikan Bangunan Gedung – SKBG* (Building ownership title). The overview of differences between both apartment ownership types can be found in Table 19.

Table 19. Apartment ownership in Indonesia (Chidtian, 2013)

Type of Apartment Ownership	Description	Form of guarantee
Freehold title to apartment unit (SHMSRS)	A proof of ownership of the apartment unit and the common areas (including parts, objects and lands) above the following land ownership: Freehold title, building right or right-of-use title above the state land, or building right or right-of-use title above management land right	Mortgage
Building ownership title (SKBG)	A proof of ownership of the apartment unit above the state/government land or waqf land with lease term.	Fiduciary

The type of ownership offered through the ZDPHP at the Pondok Kelapa Apartment is a *Sertifikat Hak Milik Satuan Rumah Susun – SHMSRS* (Freehold title to apartment unit) (Tobing, 2019). This type of ownership can be burdened with debt guarantees in the form of mortgage rights. This ownership can also be switched or transferred. **Switching** implies the transfer of land rights or ownership rights to an apartment unit from the right holder to another party due to two reasons: right holder dies or through inheritance. Meanwhile, **Transference** is the transfer of land rights or ownership rights to the apartment unit from the holder (subject) of the right to another party due to a legal act that is intentionally carried out with the aim that the other party obtains that right (Chidtian, 2013).

To ensure that the relevant zoning and uses are in line with the intended use of the real estate being acquired, certain permits (e.g., location permits) must be obtained by the buyer before *Akta Jual Beli – AJB* (Deed of Sales and Purchase) can be executed and the real estate acquired. This does depend on the location of the real estate. If the buyer intends to develop or redevelop the real estate, the Regional Government may require the buyer to fulfil certain development obligations, for example, providing public facilities. The act of buying and selling the apartment unit is proven by the release of AJB. AJB is legal evidence for the transfer of rights to land and buildings that must be done with the assistance of *Pejabat Pembuat Akta Tanah – PPAT* (Local Land Deed Official). However, Law no 20/2011 stated that it is possible to sell an apartment unit when the construction process has only reached 20% completion. The sale and purchase can only be carried out through a *Perjanjian*

Pengikatan Jual Beli – PPJB (Conditional Sale and Purchase Agreement) that is made in the presence of a notary. PPJB does not bind land as the object of the agreement, therefore it restricts the transfer of land ownership from the seller to the buyer. Until this research was made, beneficiaries of the Pondok Kelapa Apartment complex own PPJB and they still have to upgrade the certificates to AJB.

5 Accessibility and Affordability Performance in the Zero Down-Payment Housing Program

Understanding the concepts of accessibility and affordability and its criteria have been reviewed in Chapter 2. This chapter discusses the empirical research of Zero Down-Payment Housing Program (ZDPHP), whose performance was assessed using accessibility and affordability criteria. By understanding the interests of each stakeholder, as explained in Chapter 4, the performance of this program was assessed whether it is in line with the stakeholders' interests. The alignment of applicants' interest as a demand-side with enablers, suppliers, and banks on the supply side was evaluated. Furthermore, the criteria that are still not aligned were identified for further improvement.

5.1 Accessibility criteria assessment

In analysing ZDPHP using accessibility criteria, researchers utilised operationalisation table (Table 6) and mind map (Appendix E) to translate various information received from available data collected. The use of operationalisation tables attempted to bridge theoretical studies with empirical studies. Concepts that were still abstract were translated into measurable observations. The research process became more systematic, mainly when the evaluation could not be directly analysed. Table 6 demonstrates the breakdown per sub-research questions into smaller variables by using the basic components of accessibility (Figure 6) and affordability (Figure 7).

5.1.1 Precondition

Access to housing finance is one of the problems that is a concern for the Jakarta provincial government in overcoming the housing challenge in Jakarta. Banks play an important role in the result of the housing ownership subsidy program in Jakarta. This is because the program requires banking facilities as the executor of the program. The bank's role in this program is not only to manage and distribute the cashflow of the housing funds, but also involve in the verification of the beneficiaries. On top of that, banking facilities have quite strict and structured regulations. This condition shows how important the function of banking institution in ZDPHP.

In preparation for the launch of the program, Bank DKI has been involved in the policy making process since the beginning to be able to provide input, opinions, or suggestions. This is because Bank DKI in practice also plays an important role in the verification process of prospective beneficiaries. After the program terms and conditions were finalized, Bank DKI made internal mortgage provisions according to the program and also should comply with the bank's prudential principles in accordance with the Banking Law, Bank Indonesia Regulations, *Otoritas Jasa Keuangan – OJK* (Financial Services Authority) Regulation, and other provisions (Relationship manager of Bank DKI, personal communication, May 25, 2021).

In determining the housing provision program that can be supported by the banking system, there are several factors that are considered by financial institutions to provide access to housing finance. The factors as explained by M. C. Hoek-Smit (2008) are as follows; (1) ability of savings, (2) type of collateral, and (3) neighbourhood quality and risks.

Ability of savings

As a provider of mortgage facilities, Bank DKI needs to ensure that beneficiaries are able to pay the mortgage. The requirement of a down-payment of the mortgage application is used as a proof of the borrower's ability to save money. Down payment serves to prove of those who are more ready to increase their savings than those who find it hard to do. Kelly (2008) explained the borrowers who are able to provide down payment has a significant low of default. This fact supports the statement from Dübel (2011) that the existence of regulatory limitations and bias in mortgages often makes low-income households (LIH) unable to afford housing.

Bank Indonesia Regulation No 20/2018 article 9 explains that mortgage loan-to-value (LTV) ratio for apartment within the size of 22-to-70-meter square through banks that do not have problems with credit requirements is 90%. This statement is applicable for a **commercial apartment**. However, for **government programs**, including ZDPHP, the ratio is 100% which means that an exception is given to the DP requirement as stated in article 19. In this sense, the government supports the ZDPHP program, but on the other hand, banks will find it increasingly difficult to obtain proves from the potential beneficiaries of their ability of savings. The implication is that banks will be more inflexible in providing financial assessments to applicants.

Relationship manager of Bank DKI (personal communication, May 25, 2021) explained that the financial authority in Indonesia and its related regulations only determine the LTV ratio that determines the required amount of down payment, while the requirement criteria for the future beneficiaries are left to the risk appetite of each bank. The **principle of prudence** is one important factor that is considered by Bank DKI in assessing applicants. This principle makes the bank inflexibility higher with the intention that the bank will avoid the increment of non-performing loans (NPL), which will affect the profitability of a bank.

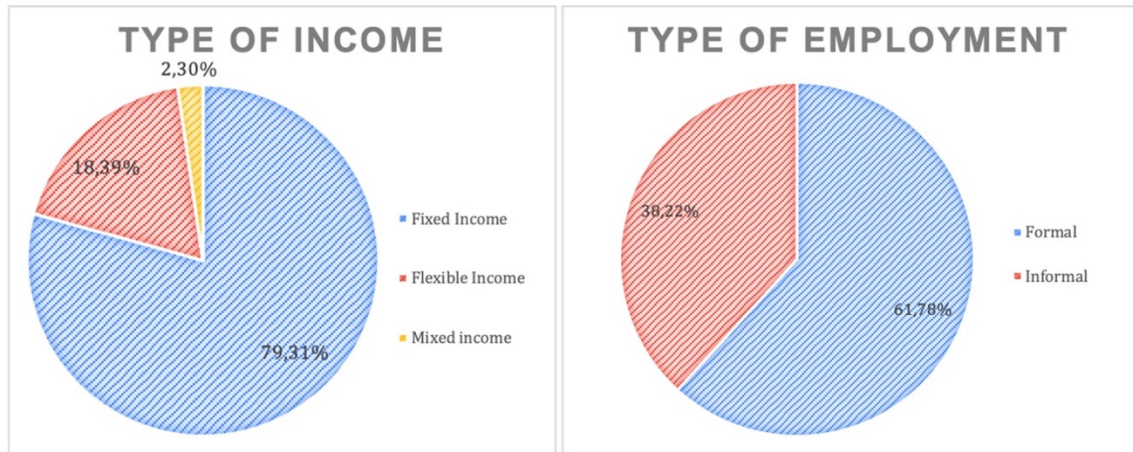


Figure 20. Applicants' type of employment and income (Badan Pusat Statistik Provinsi DKI Jakarta, 2020)

Based on information from Bank DKI, from 27 August 2019 to 15 May 2021, the total number of applicants who made it to the verification stage by filling out a mortgage form, were 1,500 people. 750 debtors were successfully passed the verification. Unfortunately, only 3% of the total beneficiaries are informal workers with flexible income while at least there are 18% applicants are earning flexible income according to the survey (Figure 20). Jütting & de Laiglesia (2009) mentioned as an informal workers, people are often being associated with low productivity and underpaid. Hoek-Smit (2008) added that residents who work as informal workers find it more difficult to get access to housing finance. For example, in Mexico, an LIH with a formal job can already get a mortgage subsidy with incomes of twice of the minimum wages, while an LIH with an informal job must earn four to five times the minimum wages to get a mortgage subsidy. Therefore, with this condition, not many informal workers have managed to get mortgage subsidies. Compare to the case in Jakarta, Figure 20 shows there are at least 38% informal workers of the Jakarta inhabitant were identified in 2020 (Badan Pusat Statistik Provinsi DKI Jakarta, 2020). With the high number of informal workers in Jakarta coupled with their difficulties in saving money, banks should have relaxed the criteria so that they can still access housing finance.

On the other side, Bank DKI admitted that they need to perform multiple evaluation on assessing informal workers if the applicants cannot provide payslip to prove their monthly income.

Maybe he doesn't have a payslip but we ask for a savings account. From his sales report, we will verify whether it is in accordance with what he submitted, if the salary is still below 14.8 million, they still can enter. [...] As long as the work and income can be verified, we can process it. Sometimes when the work is verified, the office is not existed. Or it turns out that the income is paid in cash, so it cannot be verified. We still can verify if the salary is put into savings. But if there is no evidence it cannot be verified.

(Relationship manager of Bank DKI, personal communication, May 25, 2021).

DSR	: 60%
Salary	: IDR 7,000,000
Motorcycle installment	: IDR 1,000,000
Credit card bill	: IDR 500,000
Remaining salary	: 60% x IDR 7,000,000
	: IDR 4,200,000
Residual income	: IDR 4,200,000
	IDR 1,000,000
	IDR 500,000 —
	IDR 2,700,000

Figure 21. DSR calculation example

Regarding Bank DKI's risk appetite, KPR for government programs has been given leeway compared to commercial mortgages. For commercial mortgages, the maximum Debt Service Ratio (DSR) is 50%, while the ZDPHP program has reached 60%. For example, an applicant has a salary of IDR 7 million (EUR 430) and is still unmarried. *Sistem Laporan Informasi Keuangan - SLIK* (Financial Information Reporting System) shows that the applicant has a motorcycle instalment of IDR 1 million (EUR 61)

per month and a credit card bill of IDR 500 thousand (EUR 30). The DSR applicant is 60% of the IDR 7 million, which is IDR 4.2 million (EUR 257). In total, the maximum mortgage instalment that can be given to that person is IDR 4.2 million minus the amount of outstanding loan (Figure 21), that the remaining is IDR 2.7 million (EUR 165). This IDR 2.7 million will be assessed whether it is still sufficient for the mortgage instalments from the selected residential unit. DSR score is one way for banks to regulate the extent to which they dare to accept risk on the financial profile of the applicants. It can be seen that Bank DKI has given a way of relaxation of their financial assessment. However, it does not seem to be sufficient for the informal applicants to have bigger chance to pass the bank's verification if their salary is still considered low.

Type of collateral

In most developing country, less than 25% household are qualified to mortgage loan (M. C. Hoek-Smit, 2008). One of the reasons why they have limitation of access to housing finance is because not many of them hold registered title to their property. Without ownership title of the property, in common cases, someone should have something valuable as a substitute to payback their loan in case of default. For the ZDPHP, because there is no requirement for down payment and no other items that are used as collateral to secure the mortgage instalment, then the apartment unit becomes the collateral. Therefore, property rights influence one's opportunity to access housing finance.

Bank DKI also uses the apartment unit as collateral to secure the loan of the beneficiaries. In this sense, if the beneficiaries breach the contract due to payment failure, the unit will be

used as a means of paying off debts to Bank DKI. However, this only applies if this apartment has done the process of transferred of ownership and earning SHMSRS certificate. If the purchase agreement is still based on *Perjanjian Pengikatan Jual Beli – PPJB* (Conditional Sale and Purchase Agreement), due to the uncomplete splitting land certificate, Sarana Jaya still has the obligation to buy back the problematic apartment unit. Next to that, the bank will charge the developer a buyback guarantee. The complete overview of the difference between PPJB and *Akta Jual Beli – AJB* (Deed of Sales and Purchase) can be found in Table 20. By understanding the difference in status between PPJB and AJB, it will be clearer how the bank assesses this program and how much risk must be borne by the bank.

Table 20. Overview of PPJB and AJB in Pondok Kelapa Apartment

	Scenario 1 (PPJB)	Scenario 2 (AJB)
Legal force	No	Yes
Transfer of ownership	No	Yes
Land status ownership	Initial owner (PD Sarana Jaya)	Beneficiaries (following the percentage of ownership)
Responsibility of buyback in case of default	Sarana Jaya (by returning the upfront payment)	Bank DKI
Apartment value	Original price as when it was bought	Appraisal
Fees charged to beneficiaries	Includes selling price	Additional fees
Loss on the beneficiary's side in case of default	Paid mortgage payments cannot be returned	Paid mortgage payments are returned according to the appraisal price

When the apartment purchase status is still in PPJB, the purchase agreement process is only between beneficiaries and developers. This is “*under the counter*” act with a non-authentic deed as a result of an agreement that does not involve a PPAT/notary. PPJB is the chosen agreement because the land certificate is still in HGB title under the name of Sarana Jaya. This PPJB is required for the beneficiaries to be able to start the mortgage process with Bank DKI.

What needs to be taken into account is when it comes to a condition where there is a breach of contract due to late payments. Arrears fine for late payment on a predetermined date is 150% per annum. If the debtor is in arrears in payment of mortgage loan and interest to the bank, the fine is calculated from the amount of the loan in arrears. According to Relationship manager of Bank DKI (Personal communication, May 25, 2021), the procedure carried out by Bank DKI if there are late payments is given a maximum of 3 warning letters. This is to keep the collectability level of borrowers from reaching “call 3” (Table 21). If it comes to call 3, it will automatically affect the debtor's financial records in the *Sistem Laporan Informasi Keuangan - SLIK* (Financial Information Reporting System) issued by the *Otoritas Jasa Keuangan – OJK* (Financial Services Authority). As a result, if one will apply for another credit in the future, it is likely to be rejected.

Table 21. Credit rating assessment according to PBI no 7/2/PBI/2005

	Status	Conditions
Call 1	Good	No outstanding arrears
Call 2	In special attention	Maximum arrears 90 calendar days
Call 3	Less good	Arrears more than 90 calendar days
Call 4	Doubtful	Arrears more than 120 calendar days
Call 5	Bad	Maximum arrears more than 160 calendar days

When the beneficiary does not pay the mortgage loans three times in a row under the PPJB agreement, the developer still has the obligation to buy back the problematic unit and the bank will collect buyback guarantee from the developer. The developer still has a buyback obligation, because the building has been completed but the bank still has not received a guarantee in the form of SHMSRS. This condition resulted in the developer having to incur huge costs, knowing that with the obligation to buy back, the developer also needed to incur additional costs to repair the dwelling so that it would be in a proper condition again when resold to the next beneficiary. All in all, instead of being an **active real estate developer** to construct housing project, they also have to be **the asset manager** afterwards.

The buyback guarantee condition of Sarana Jaya will void if beneficiaries has received SHMSRS and has upgraded the buy and sell agreement into AJB with Bank DKI. With AJB, the apartment unit ownership status has been transferred to the beneficiary, which means all the liability of this unit is fully possessed to the beneficiary. To have an AJB, beneficiary must pay additional fee such as taxes, fees for the PPAT and fees for the certificate. In the event of default, the beneficiary can use the house as the collateral to the bank. The value of this asset will be assessed through bank appraisal and also, must get approval from *Dinas Perumahan Rakyat dan Kawasan Permukiman - DPRKP* (Department of Public Housing and Settlement Area) to be sold (based on The Governor of Jakarta's Regulation no 104/2018 article 16 section 2).

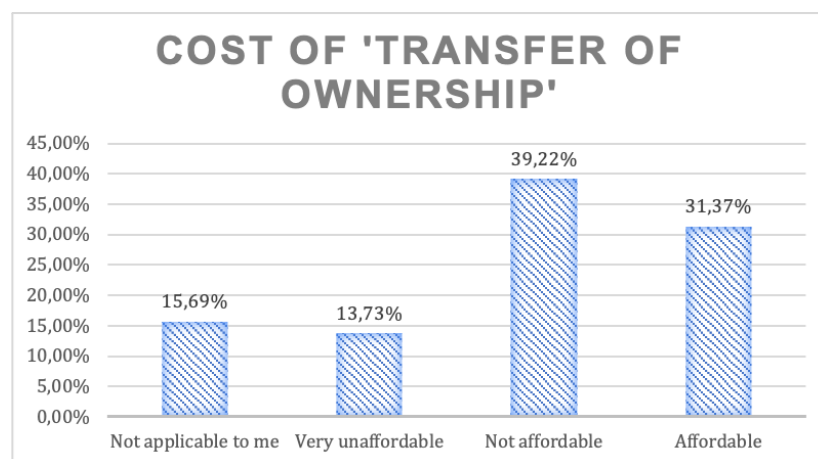


Figure 22. Affordability of transfer of ownership (own survey)

In order to avoid the risk borne by real estate developers does not settle for long and the responsibilities can be distributed evenly, the transition process from PPJB to AJB should not be delayed. However, one of the things that hindered the transition process was known because the costs for AJB were considered quite high by the beneficiaries, as can be seen

Figure 22. More than 50% of the respondents stated that the costs for transferring of ownership were not affordable. This has caused many beneficiaries to delay the upgrading process from PPJB to AJB.

Actually, it was quite informed. Yes, regarding the issuance process of PPJB to transfer of ownership until we received the SHMSRS, it was well informed. [...] The notary informed us during contract signing.
(Participant #2, Focus Group Discussion, June 16, 2021)

Prospective beneficiaries have been notified from the beginning the estimated cost that must be prepared, but the exact cost cannot be given because the costs incurred can only be known in the year AJB was conducted (Relationship manager of Bank DKI, personal communication, May 25, 2021).

This mortgage has insurance that will protect the bank against losses in the event of a default. If the AJB process is delayed, the credit risk that should be the responsibility of the bank is still held by the real estate developer, while the real estate developer does not have insurance coverage, therefore the cost implication of the buyback guarantee which is the responsibility of Sarana Jaya must be borne alone. This means that **the risk owned by the bank is very small** compared to the responsibility borne by the real estate developer.

Neighbourhood quality and risk

Banks as lenders consider the quality of housing that they will pledge as collateral. This is closely related to the stability of the housing value. To keep the housing value stable rather than a decrease in price, financial institutions will prefer housing that has reliable maintenance plans, good access to public services, and crime prevention system (M. C. Hoek-Smit, 2008).

Building maintenance plan

Living in a single-family house and a high-rise apartment building has a significant difference in building maintenance planning. In a single-family house where one person owns the entire building, all decisions and maintenance responsibilities belong to one person's decisions. Different from living in a multi-family house such as in a high-rise apartment building. Homeowners require a regulatory measure to ensure the safety of their residents. Especially in a high-rise building, it involves more complex maintenance compared to a one-storey building. This implies more complicated management that requires residents involvement to manage and maintain the building (Yip & Forrest, 2002).

The local government has anticipated the possibility of future problems if the dwellings do not have clear regulations regarding their management system. Therefore, real estate developers are given the mandate to manage newly built apartment buildings for a maximum of one year from the handover of housing and also initiate residents to immediately form *Perhimpunan Pemilik dan Penghuni Satuan Rumah Susun – PPPSRS* (Housing Owner Association) as stated in The Governor of Jakarta's Regulation No. 132/2018.

Real estate developer who was the one to build private apartments, in the transition period prior to the establishment of PPPSRS are obligated to manage the apartment building. The transition period is set for a maximum of one year from the first handover of the apartment unit to the owner and the period of time cannot be extended.

(The Governor of Jakarta's Regulation No. 132/2018 Article 6)

And the amendment of article 9.

Article 9 is changed as follows; During the transition period, real estate developers have obligations that include temporary management, facilitating the establishment of PPPSRS, and others.

(The Governor of Jakarta's Regulation No. 133/2019 Article 2)

Therefore, Sarana Jaya appointed one of its subsidiaries, PT Saranawisesa Properindo (PT WSP) as the building management that was mandated prior to the establishment of PPPSRS. During the transition period, the appointment of PT SMW by a joint operation between Sarana Jaya and Totalindo has more advantages in terms of transfer of knowledge. As subsidiary of Sarana Jaya, the information related to material specifications and building equipment can be more easily accessed. Building manager of Sarana Jaya (personal communication, May 27th, 2021) conveyed the scope of maintenance carried out by PT WSP at the Pondok Kelapa apartment, as follows:

1. Service contract for several building equipment: 4 elevators to be serviced once a month through direct authorized suppliers.
2. Gondola maintenance.
3. Sewage treatment plant and Wastewater Treatment Plant once a month must also be brought to the lab whether it is feasible to be disposed of in the city riol.
4. Prepare building spare parts. For example, light bulbs, faucet, iron pipe, etc. There are 900 pieces in the common room. Faucet, iron pipe.
5. Stock up diesel oil
6. Stock up transformer
7. Inspection of electrical panels using experts, with infrared photos.
8. Hazardous and toxic material waste management
9. Technician equipment, amortization of the procurement.

Internal technicians are hired by the building management to carry out routine maintenance as many as five people to do the work such as heating the generator and do some repairs that do not require special skills. If it comes to a special equipment, the internal technicians have to liaise with the license technician due to safety matters. In this matter, Sarana Jaya is known to be well-experienced in dealing with all the risks that will be encountered in running this program considering they have a large portfolio as real estate developers in Jakarta. They also have their own subsidiary that can work as building managers in the apartment projects that they build until the PPPSRS is formed.

After the PPPSRS is formed, the residents of the apartment building are given the freedom to determine who will carry out the maintenance work, by doing it themselves or appointing building management as stated in The Governor of Jakarta's Regulation no 132/2018 article 4 section 2.

*In managing the apartment building, PPPSRS can form or appoint a manager.
(The Governor of Jakarta's Regulation no 132/2018 article 4 section 2)*

However, the forming of PPPSRS is known to be delayed due to several reasons, because the number of occupancies in the first year was very low and then the Covid-19 pandemic occurred.

*According to the governor's regulation, it (PPPSRS) has to be formed no later than 1 year. It was inaugurated in September 2019. Until December 2019 the residents were still under 100 people. After covid strikes, it is not allowed to make a crowd. I received a letter from the DPRKP that the formation of the PPPSRS is still being postponed until Covid is over.
(Building manager of Sarana Jaya, personal communication, May 27th, 2021).*

This is a concern for Sarana Jaya and PT SWP because it means that they still have to bear the responsibility of managing the building which should have been managed by the apartment residents themselves. Not only time but also, they have to spent more money. On the other side, Bank DKI did not get a significant impact from the losses experienced by Sarana Jaya.

Access to public services

The Provincial Government of Jakarta cannot easily determine the location that will be used as a housing for ZDPHP due to the limitation of land in Jakarta. This limitation greatly affects the determination of the location for the construction of apartment residential projects that are in accordance with the ZDPHP criteria with the designation of LIH. The choice of location in Pondok Kelapa was also not because this location had been reserved from the start for the ZDPHP program to be built, but because the project had stalled. Fortunately, the area of the residential unit is still in accordance with the occupancy provisions for the LIH target. So that all limitation in facilities and infrastructure as well as access to public services must be completed by Sarana Jaya, otherwise they will not get a building permit and *Sertifikat Laik Fungsi – SLF* (Building Completion Certificate) from the Jakarta Provincial Government.

*Because tower one is a government program, this program is supported by the provincial government. SLF is issued 6 -7 days after the completion of construction report is submitted. That's a record in Jakarta, SLF only came out for a week. We are happy. Second, there is feeder Transjakarta bus in our project.
Adds value to our project.
(Director of Administration and Finance Sarana Jaya, personal communication, May 11, 2021)*

Ease of transportation is an important feature in residential locations. The provincial government also ensures that the location is connected to the public transport system in

Jakarta, particularly the bus rapid transit system line “*The Transjakarta*”. With the construction of an apartment in this location, a new Transjakarta feeder bus route is also added right in front of the residential location for the convenience of its residents to travel. Internal coordination between departments carried out by the provincial government is needed to ensure support from all parties for the success of this program and add value to the project in particular.

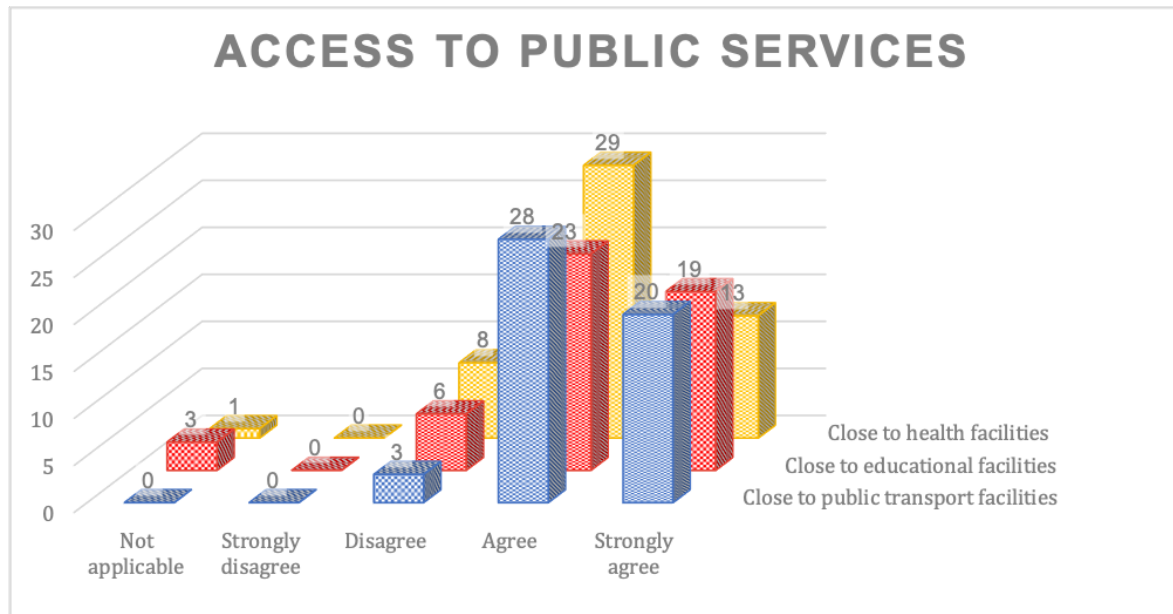


Figure 23. Access to public services based on survey

To assess how well Pondok Kelapa's location is with public facilities, the opinions received directly from beneficiaries who already live in that location can be used as reasonable answers. As seen in Figure 23, above 80% of beneficiaries agree that public facilities such as health facilities, schools and public transport are close to residential locations. One beneficiary had even planned beforehand to send his child to nearby schools, knowing that the schools are not far from his new place of residence.

Since the first time, the intention was to be in a new environment, a new place. So, I had planned that my child would live there and go to school there. Because the elementary school and the junior high school are really close from there, it's not too far away.

(Participant #4, Focus Group Discussion, June 16, 2021)

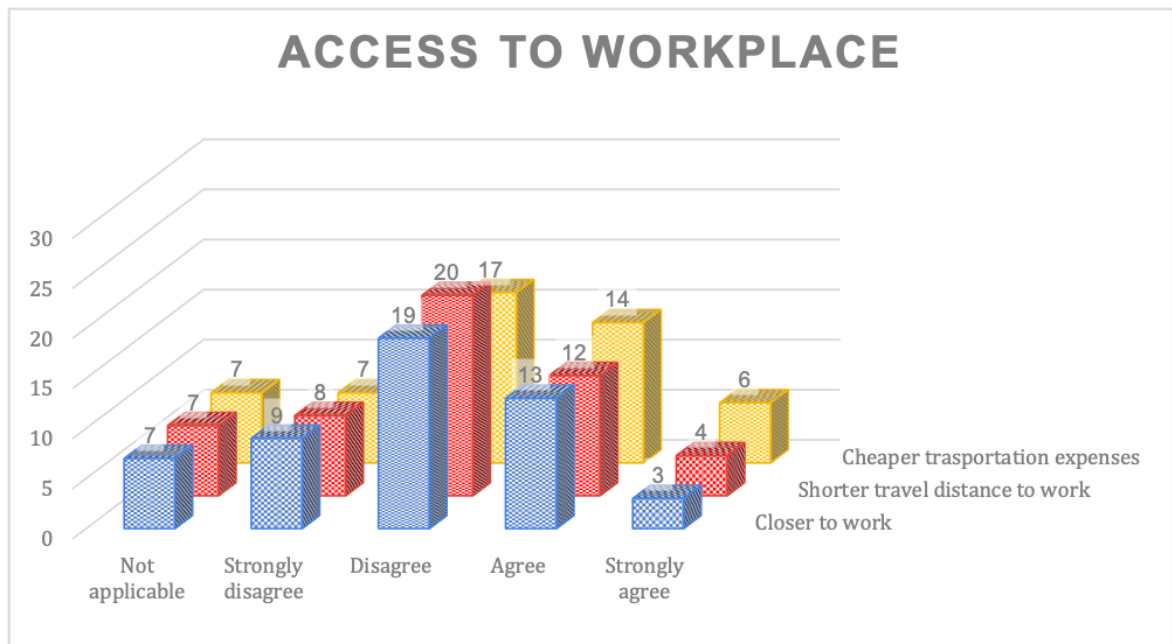


Figure 24. Access to workplace based on survey

However, being close to public facilities does not mean that they are closer to their workplace. More than half of the residents exposed that the distance from their place of work was longer so they spent more time traveling to their place of work (Figure 24). The costs incurred for transportation costs are also more expensive. But on the other hand, some residents experience that this location makes their workplace closer. As represented by one beneficiary, he found an improvement in his standard of living by moving into his new home because he could spend more time with his family.

Improvement in a person's standard of living is subjective. But for me, I feel a lot of things have changed (in a better way). Closer to work, faster to be arrived at home. [...] I'm also closer to my wife's place of work, so I can commute together. We have more time to be spent together, we can fight more. The more at home the more romantic too. So, in this way, my quality of life is better.
 (Participant #2, Focus Group Discussion, June 16, 2021)

The solution to overcome the problem of mileage and time spent going to work is to get adequate transportation facilities. In addition to using the Transjakarta feeder bus, it was found out that riding a private motorbike is the main preference for residents to go to work or also online (motorbike) taxi for those who do not have private vehicles. As can be seen in Figure 25, 75% of residents choose to use their own motorbike. A small percentage of residents as much as 15% still choose to use a car to travel. With the high number of residents who choose to drive with private motorbikes and private cars, adequate number of parking space is also required in the property.

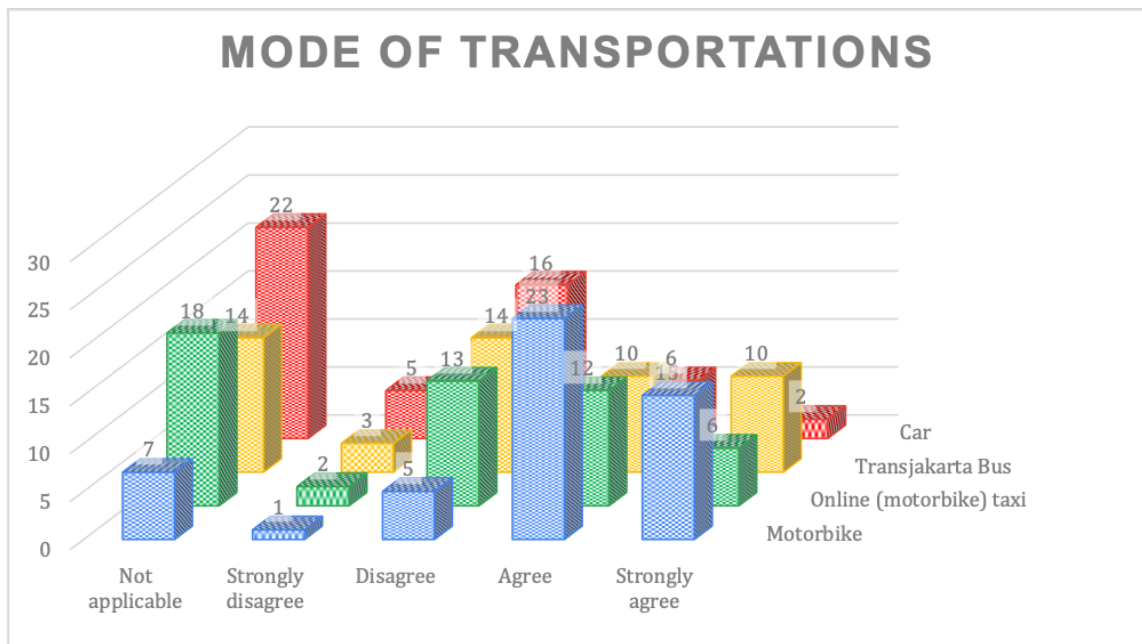


Figure 25. Beneficiaries' transportation preferences

It is hereby known that the location of the Nuansa Samawa Pondok Kelapa Apartment is not too far from public services coupled with the availability of access to various modes of transportation. Quoting Ball & Kirwan (1977), in connection with good access to public services, the housing value of this residence will increase. This, of course, will be a good assessment from the bank in seeing the value of this program.

5.1.2 Housing program

Transparency

Becoming a pilot project in Jakarta requires many adjustments in order to be able to adapt to the real conditions of the needs of the citizens of Jakarta, especially the specific target of LIH. The provincial government uses a variety of media to ensure that this program is well informed of the changes on policies as well as the update status of unit availability, especially to LIH. The openness and balance of information conveyed through all information media selected by the Jakarta Provincial Government should be an important concern. Transparency is very much needed considering the number of available housings is very limited compared to the number of LIH who register in this program. As stated by Sohail & Cavill (2008), the ease with which the public can obtain information on a development project, regardless of whether it is a government or private project, will be accountable if it upholds the transparency mechanism. Deng et al. (2003) added that by using a transparency mechanism strategy, corruption in public works could be prevented.

For this research, several online media, print media, and offline marketing were identified which were actively broadcasted to make it easier for LIH to get information related to ZDPHP. According to DPRKP official website, there are various ways to get information and application, both online and offline. Online information can be accessed via land phone, WhatsApp centre, email, 2 website links, Facebook Fan page, YouTube, and 3 official

Instagram accounts. While offline marketing is carried out by participating in property exhibitions, socialization at the municipality offices of Jakarta, and applicants are also able to come directly to the location to meet marketing agents.

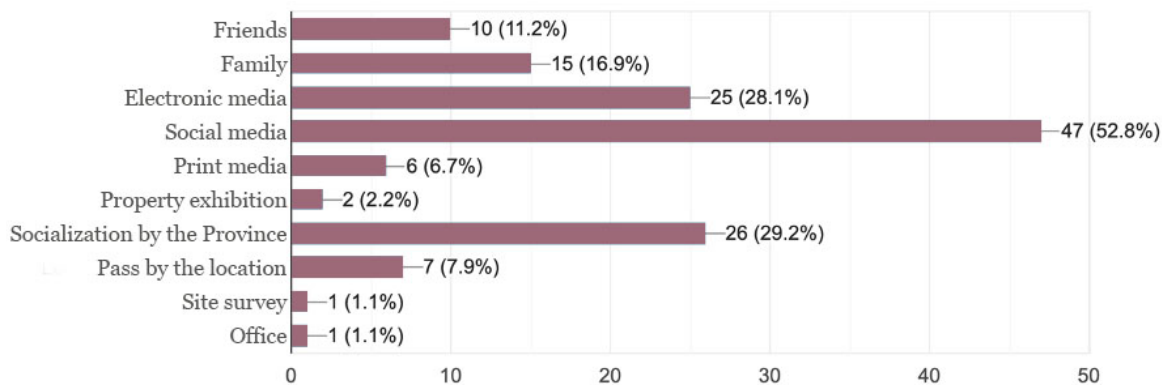


Figure 26. Applicants' preferences of media information

Of all available access to information, social media is the main preference for registrants with a voter turnout of 52%, followed by socialization in government offices at 29% and electronic media such as television, radio, YouTube at 28% (Figure 26). The result of this survey is reasonable to the fact that the trend of Instagram social media users in Indonesia was placed the third highest in the world in 2019 (Hootsuite, 2019). With a simple interface and an app-based on a mobile phone, Instagram is a medium that is easily accessible and considered a user-friendly media by all level of society. Without having to open a computer device, the broadcast news can be delivered to people's mobile phone. Meanwhile, the official website of DPRKP and ZDPHP could not be accessed at the time this research was taking place. Therefore, it is coming as no surprise that Instagram becomes an accountable media to deliver the latest news related to ZDPHP.

Social media is considered the easiest. From 2019 advertising to offices for now is still limited to the provincial government of Jakarta and Badan Usaha Milik Daerah - BUMD (Regional Owned Government Enterprises), ask these offices to choose employees whose salaries meet the criteria to be invited to this marketing event. So, this is a specific marketing strategy, the target group is reduced, while for social media it is considered that it can cover a wider target.

(UPDP Staff, April 2021)

On the other hand, the applicants expect the verification process should also be more transparent and have a clearer sequence to follow. Many questions were found regarding the clarity of the applicants' verification status in the comment's column of the official ZDPHP's Instagram account. Most of the applicants did not accept the invitation for apartment viewing which was sent by UPDP when the applicants successfully passed the first verification stage done by the DPRKP. Figure 27 also shows the highest number of unsuccessful applicants in the second stage with a total of approximately 18,000 people, of which 15,000 people were not connected to visit the show units. This is an example of the importance of information disclosure and transparency of the verification process flow that can be accessed by applicants.

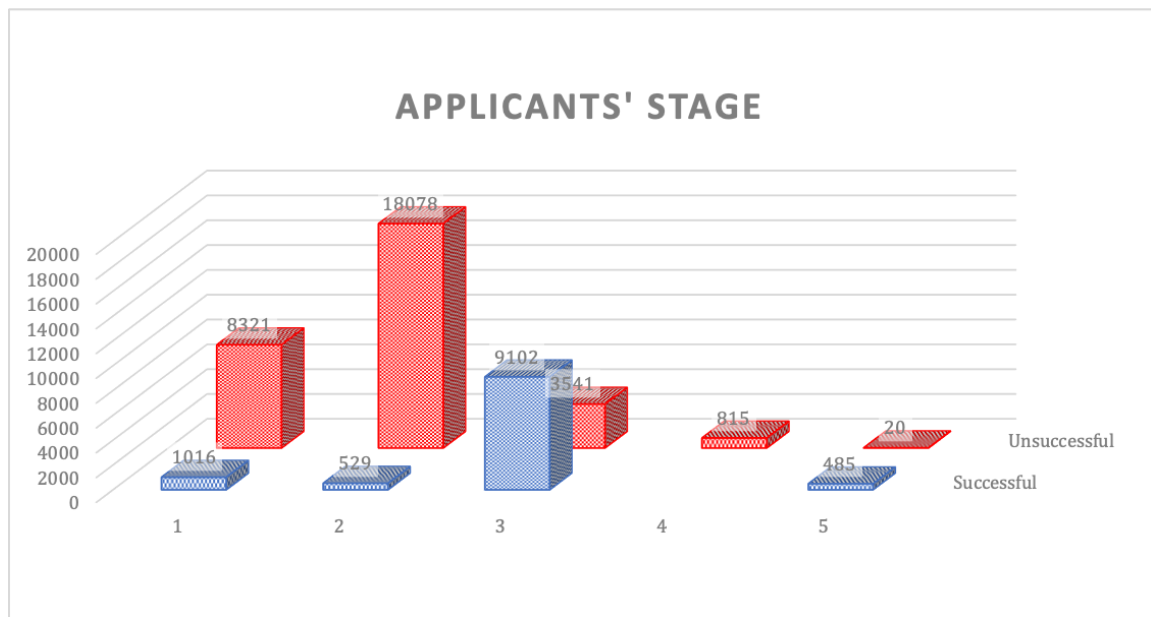


Figure 27. Applicants' status in stages (Source: Database)

Nevertheless, the government's efforts to maintain the transparency of the program by providing updates for a change in policy or occupancy status through social media in a way should be given appreciation. Kenny (2012) added that the efforts made by the government in conveying information to the public is a common method to improve transparency mechanisms. It is unfortunate that the information to be conveyed is not updated on all media channels owned by the Jakarta provincial government, especially the website. Using too many different types of communication channel is not as effective as using one reliable central information hub. There is no central information hub such as website where all the information of the program can be found and there is a strong emphasis on internet and social media. Which is problematic because some part of the target audience might only have a very basic phone that is not compatible with an application that specific for one social media.

Unit type

Since the marketing started in October 2018, the sale of apartment units in Pondok Kelapa is still ongoing until now. 93 studio units out of a total of 240 units are still unsold (DP 0 Rupiah Samawa [@dp0rupiah samawa], 2021). Although there are a small number of registrants who still want a single-family house, it can be seen in Figure 28 that the studio unit is the least desirable unit by the applicants with a total of 10%. This fact is not directly proportional to the availability of housing. The number of studio units is higher than 1-bedroom units and 71% of applicants' interest is the 2-bedroom unit.

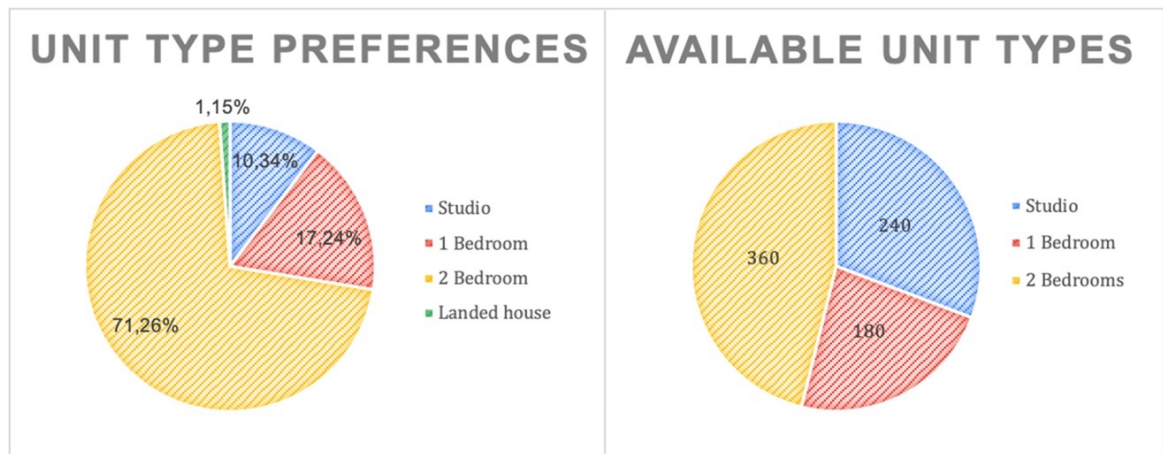


Figure 28. Housing preferences vs unit availability

The mismatch between the interests of the applicants and the availability of the type of dwelling can be caused by various reasons. If we look back through the planning process for the construction of this apartment, this building already has a design and the building foundation has been casted when the ZDHP program was launched by the Jakarta provincial government. Thus, the number of residential units and the composition of housing do not match the target group set by the government.

In addition, there is a relationship between the culture of living with the sale of residential types. Cultural values that are passed down between generations merge with the values that exist in the community around where they live, will form a different cultural appreciation in parents and affect parenting practices shown on a daily basis. Wiswanti et al., (2020) conveyed that people living in Jabodetabek are more prominent in **collectivism cultural values**. Collectivism cultural values tend to place a strong emphasis on harmonious and interdependent relationships with other people (Durgel et al., 2013). In society that majority individualistic focus, the people is more concern about in their well-being and more comfortable living alone. In majority collectivist society, the needs of the group are greater than the needs of individual. Therefore, it is much more normal for children to stay with their parents for a longer time. Furthermore, in the most collectivist society, the elderly parents commonly found moving in with their kids.

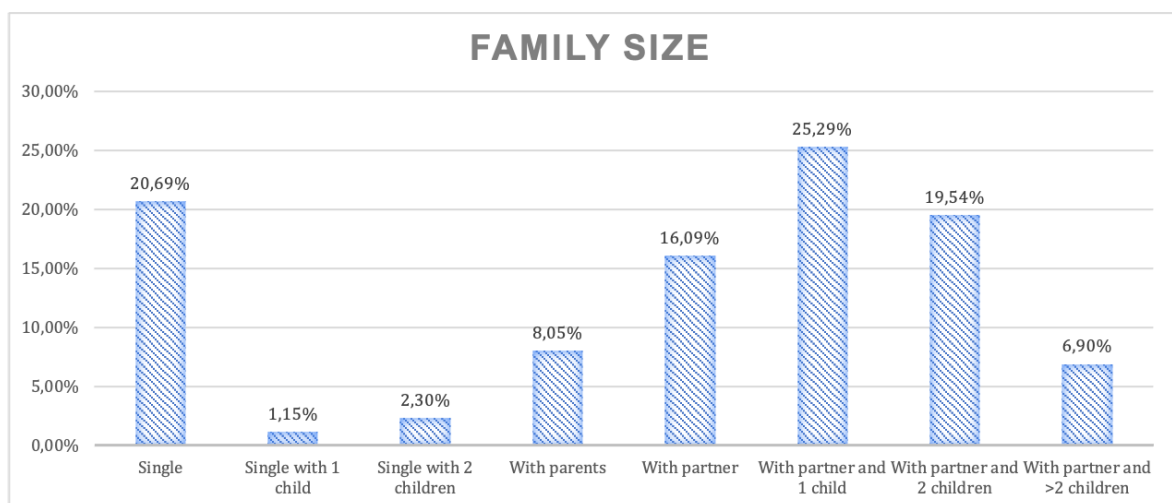


Figure 29. Family size of the applicants

In relation with the residential preferences of people in Jakarta, it is not really common for a person to live individually in an apartment unit especially if the person is still single. Someone who has just started work and started his career even though he can afford to buy his own house will mostly still live with his parents. Only when someone gets married, the couple will start to look for a new place to live. Depending on financial ability, but the choice will certainly fall into a unit type that is more liveable for at least 2 people to live in. As can be seen in Figure 29, almost 80% of the applicants are living together, either with their partner and children or with their parents. Therefore, a 1-bedroom unit will be more preferable than a studio unit.

5.1.3 Housing Finance

Housing expenditure ratio

To gain accessing to housing finance, financial institutions will look for potential beneficiaries who best meet their verification criteria. A twofold verification system is implemented not only through screenings done by the provincial government with respect to the civil registration status and the ownership of building asset, but also screenings conducted by the executing banks in relation to the financial capability of the applicants. With these multi-layered verification stages, the government hopes to get an LIH that is truly in line with the expected target group.

The provincial government through UPDP, together with other relevant departments, perform the first verification with the emphasis on the income bracket. In determining the income range for the eligibility criteria, the provincial government adopted the figures from the national policy. They worked with the assumption that 1/3 of the total household income is spent on housing. Equation 1 captures the calculation of the eligible income range from the amount of mortgage loan per month.

Equation 1. Monthly mortgage instalment (The Ministerial of Public Works Regulation no. 10/2019)

LIH income limit per month = 3 x monthly mortgage instalment

$$\text{Monthly mortgage instalment} = P \times \frac{i}{12} \times \frac{1}{\left\{1 - \frac{1}{\left\{1 + \frac{i}{12}\right\}^m}\right\}}$$

P : Loan principal ((Selling price + 10% VAT (if applicable)) – Down payment)

i : Interest rate

m : Instalment period

By referring to the base selling price of an apartment that has been set beforehand, the Ministry of Public Works decided that the income limit for subsidized housing in Indonesia should be set at IDR 7 million (EUR 415) per month. This nominal amount was also used by the provincial government as the highest salary limit for ZDPHP at the time of program launch as shown in Table 17. However, the housing market in Jakarta is not comparable to

the whole market of Indonesia. Because of this difference in market's composition, the ratio on housing expenditure of 1/3 of total expenditure and the IDR 7 million income limit could not successfully be applied in the case of the ZDPHP in Jakarta.

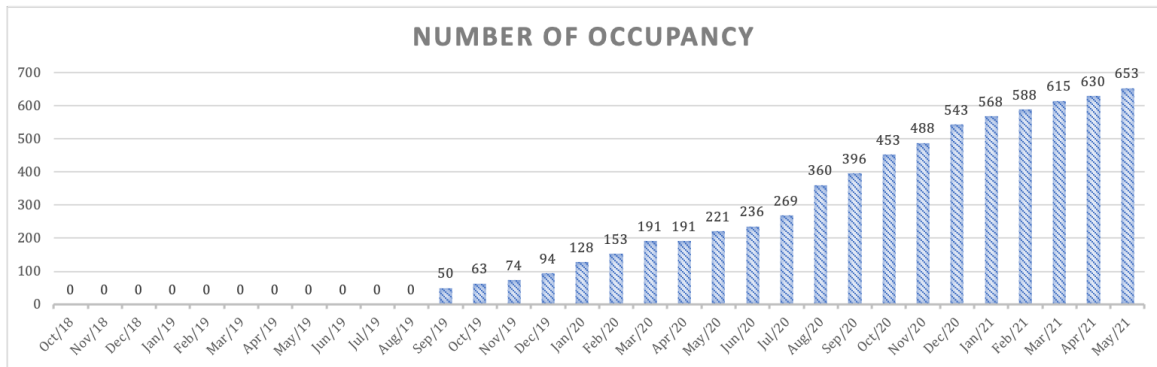


Figure 30. Number of occupancy (Source: Sarana Jaya)

The sales report in Pondok Kelapa apartments after a year since the launch of the program showed that the number of houses sold has not increased much. As seen in Figure 30, there were only 63 applicants or less than 10% of the total apartment units who succeeded in becoming beneficiaries and occupying their homes. Hence, the provincial government immediately intervened so that the number of sales increased and the occupancy filled quickly.

The common housing expenses proportion in a household of 30-40% of the total income has been mentioned extensively in the existing literature (Bredenoord et al., 2014; Luque et al., 2019; Majale et al., 2011). It is seen as a prudent proportion of expenses that ensures that other needs can still be paid for by a household. The reason given for the earlier mentioned expansion of the eligible income range is that the standard subsidized housing prices as the benchmark for calculating used by the Ministry of Public Works is much cheaper than the selling price of subsidized houses in Jakarta.

Residential prices (in Jakarta) are higher than other locations, so if you apply the Ministry of Public Works' limit of IDR 7 million (EUR 415), the residents of Jakarta will still not be able to buy housing. Then it will affect the income criteria. So, the income limit can be increased to IDR 14.8 million (EUR 875). (Head of sub-section of administration of UPDP, personal communication, April 21, 2021)

In June 2020, a new adjustment of the eligible income range was implemented with the issuance of governor's decree no 588/2020. In this regulation, it was emphasized that the maximum salary limit of IDR 14.8 million (EUR 875) was calculated on the basis of 3 times the value of ZDPHP residential instalments.

The formulation of the highest income limit for LIH, which is equal to 3 times the value of the instalments or costs incurred to obtain a house on credit with conventional financing schemes.
(The Governor of Jakarta's decree no 588/2020 article 3)

As can be seen in Figure 31, the expansion of the salary range eligibility led to an increase in the number of registrants. In May 2020 there were a total of 614 people who registered with the average number of registrants recorded from February to May 2020 being as many as 1,800 people. In contrast, June 2020 showed a total of 4,900 applicants. In the following months, the number of registrants in general rose with an average number of 2,600 registrants per month. However, the overall number of registrants that succeeded to become beneficiaries was, on average lower. Between February and May 2020, the average number of beneficiaries was 42 people, while after the salary range was expanded from June 2020 to May 2021, the number of beneficiaries decreased to an average of 26 people per month. In summary, the expansion of the salary range carried out by the Jakarta provincial government proved to increase the number of applicants but it did not increase the number of people who passed the verification to become beneficiaries.

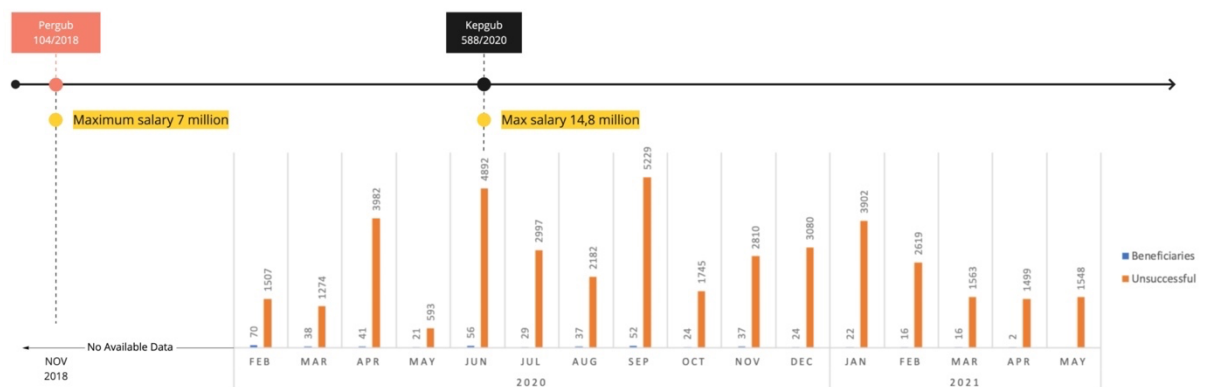


Figure 31. Comparison graphic between the number of applicants and the successful beneficiaries (Source: Database Sarana Jaya)

Other literature gives a different view on the proportion of housing expenses, where this time the focus of the target group is distinguished between LIH and the higher eligibility criteria. This is based on the attention to the difference in the amount of income between the two groups. In fact, other expenses incurred by living in the same city of LIH compared to the middle-income group is nearly equivalent, for example the transportation cost, tuition fees and food expenditures (Lozano-Gracia & Young, 2014; Malpezzi & Mayo, 1987). UNDP (1982) stated that if the higher income group still has residual income that reaches 20-25 % that can be used for housing expenditure, at the other end, the allocation of LIH's household income for housing expenses only left 8-10% (Table 3).

Hoek-Smit (Personal communication, October 19, 2021) argued that the proportions mentioned earlier are too general because it is based on the US market and it is not applicable for the case in Indonesia, especially for Jakarta City. According to Hoek-Smit, the best proportion is to look at the real comparison between household income and what a household pays for housing and transportation in its respective city. Transportation costs are an important part in this calculation because it is directly related to the location of residence to the workplace or the market which absolutely will add some cost for the transportation.

30% is US based, you should totally ignore it. You go to household survey, BPS (Badan Pusat Statistik), you can see in the income and expenditure survey, what household pay for housing and transportation. Those two have to go together. It is now just housing but if the houses located faraway, they have to go to work or to the market using public transportation.

(Hoek-Smit, personal communication, October 19, 2021)

Therefore, in finding out the actual proportion for the Jakarta case, the information of income and expenditure data need to be known. There are no real good sources specific for Jakarta's LIH target group. However, there is general information on the expenditure for the people in Jakarta provided by *Badan Pusat Statistik - BPS* (Central Bureau of Statistics). Unfortunately, this has been clustered into expenditure brackets without the information on how many people are included per bracket and what the actual income of the people in this bracket is, as shown in Table 22. Therefore, this makes it difficult to make any general statement about how much they spent on a specific commodity.

Table 22. Average expenditure per capita per month by expenditure class and commodity group in Jakarta Province (IDR), 2019 (BPS DKI Jakarta, 2020)

Golongan Pengeluaran Expenditure Class (Rp)	Kelompok Barang/Commodity Group		
	Makanan/Food	Bukan Makanan/ Non-Food	Jumlah/Total
(1)	(2)	(3)	(4)
<150 000	-	-	-
150 000 - 199 999	-	-	-
200 000 - 299 999	193.789	103.605	297.394
300 000 - 499 999	288.771	183.798	472.570
500 000 - 749 999	415.714	269.950	685.664
750 000 - 999 999	548.592	376.616	925.208
1 000 000 - 1 499 999	713.277	578.350	1.291.627
1 500 000 +	1.190.491	2.195.797	3.386.288
DKI Jakarta	877.449	1.278.664	2.156.113

On a separate table from the same source, the average monthly expenditure is known which can be used to calculate the specific ratio of housing expenditure in the non-food group of expenditures. However, the information provided only talks about the average over the whole group and not the expenditure bracket that they use. Therefore, the ratio can only be known in general over the whole income group. For the purpose of being able to use this data to make some general assumptions, it will be assumed that even though the expenditure numbers fluctuate between expenditure brackets, the percentage of expenditure per category remains the same. Using Table 23, which deals with the average amount of money expended on different food and non-food categories, we can calculate that 56% of the non-food expenditures is going to housing. Concurrently this ratio can be used to calculate the

expenditure per bracket of Table 22. After that we can calculate the ratio of the average household costs per bracket as shown in Table 24.

Table 23. Monthly average expenditure per capita of DKI Jakarta Province by commodity group (IDR), 2018 and 2019 (BPS DKI Jakarta, 2020)

Kelompok Komoditas/Commodity Group	2018	2019
(1)	(2)	(3)
Makanan/Food		
Padi-padian/Cereals	60.142	56.533
Umbi-umbian/Tubers	7.085	6.816
Ikan/udang/cumi/kerang/Fish/shrimp/common squid/shells	60.407	64.131
Daging/Meat	46.365	50.547
Telur dan susu/Eggs and milk	54.405	54.346
Sayur-sayuran/Vegetables	49.718	47.432
Kacang-kacangan/Legumes	12.498	12.733
Buah-buahan/Fruits	41.722	42.573
Minyak dan kelapa/Oil and coconut	14.022	14.431
Bahan minuman/Beverage stuffs	18.372	18.213
Bumbu-bumbuan/Spices	11.843	11.425
Konsumsi lainnya/Miscellaneous food items	13.564	12.266
Makanan dan minuman jadi/Prepared food and beverages	381.625	406.777
Rokok/Cigarettes	76.078	79.226
Jumlah makanan/Total food	847.847	877.449
Bukan makanan/Non-food		
Perumahan dan fasilitas rumah tangga/Housing and household facilities	696.985	726.430
Aneka komoditas dan jasa/Goods and services	299.535	311.207
Pakaian, alas kaki, dan tutup kepala/Clothing, footwear, and headgear	48.437	57.931
Komoditas tahan lama/Durable goods	53.082	75.992
Pajak, pungutan, dan asuransi/Taxes and insurance	63.518	73.521
Keperluan pesta dan upacara/kenduri/Parties and ceremonies	29.751	33.584
Jumlah bukan makanan/Total non-food	1.191.310	1.278.664
Jumlah/Total	2.039.157	2.156.112

Table 24. Actual ratio of housing expenditure of Jakarta inhabitants in 2019.

Salary Range	Food	Non-food	Total Expenditure		Housing & Household Facilities Expenditure	Ratio	
200.000-299.999	193.789,00	103.605,00	297.394,00	56% of the non-food expenditure	58.859,70	19,79%	Decreases Trend
300.000- 499.999	288.771,00	183.798,00	472.569,00		104.418,66	22,10%	
500.000 - 749.999	415.714,00	269.950,00	685.664,00		153.363,02	22,37%	
750.000 - 999.999	548.592,00	376.616,00	925.208,00		213.961,73	23,13%	
1.000.000 - 1.499.999	713.277,00	578.350,00	1.291.627,00		328.570,13	25,44%	
> 1.500.000	1.190.491,00	2.195.797,00	3.386.288,00		1.247.468,31	36,84%	

To understand the relationship between households' income and the mortgage repayment, Table 24 shows that when the salary gets higher, a larger portion of the salary is spent on housing and households' facilities. In other words, the households with a higher income can reserve higher amount to pay the mortgage instalment than the lower-income households. Nevertheless, this calculation still has many flaws. Firstly, there is no specific information about transportation expenses and it is not easy to make assumptions based on the available information. Secondly, there is also no information available regarding the total household income. The information provided is only the expenditure bracket per person. Lastly, the

available expenditure bracket does not indicate a specific income group, whether it includes low-income, middle-income, or high-income group.

By doing this calculation, it can be concluded that the less the people have to spend, the smaller the percentage becomes that the people are able to spend on housing. Therefore, to answer whether the 1/3 proportion has represented the actual ratio of the LIH in Jakarta, the answer is **not appropriate**. Looking back to Table 24, the difference in salary range greatly affects the housing expenses ratio. It could be more targeted if the used proportion of household expenses follows the ratio linked to the existing income range.

Financial and homeownership literacy

Public knowledge regarding the mortgage finance system in their respective country is important as mentioned by M. C. Hoek-Smit (2011). Poor transfer of information and little exposure to the banking system and credit risks can cause failures in the lending market. This problem is identified as one of the constraints in the success of housing financial programs. Absence of good public knowledge can hamper implemented programs to grow effectively and efficiently.

Based on the acknowledgment of the head of the residents' community in Pondok Kelapa Apartment, many applicants failed to pass bank verification because they did not know that they have an outstanding consumer loan or might probably be on the list of problematic customers.

*On average, they lend their ID cards to their families, but they do not know the impact. When they apply (a mortgage), it was identified as a problematic customer in the SLIK system. In the end they must be thwarted.
(Head of residents' community, focus group discussion, June 16, 2021)*

This outstanding loan often comes from the ease of getting a loan from an **online fintech** company. The development of fintech services in Indonesia is motivated by technological advances in the national economy. Like almost every sector in the era of globalization the financial sector has made forays into fully automated and integrated financial platforms. The companies involved in those platforms are generally named as fintech companies, distinguishing themselves from classic financial companies by being based online and offering financial services as alternative to traditional banking (Barkley & Schweitzer, 2021). One example of services that these fintech businesses offer is peer-to-peer (P2P) lending.

In Indonesia alone, in 2018 this sector comprised a value of IDR 22 trillion (EUR 1.3 billion) (Budiyantri, 2019). OJK reported in November 2021 there were at least 20,1 million entities using the facility offered by fintech lending to borrow money with an average of 1% default rate (Otoritas Jasa Keuangan, 2021a). The number of entities in Indonesia were increased by 18% from January to November 2021 as shown in Figure 32.

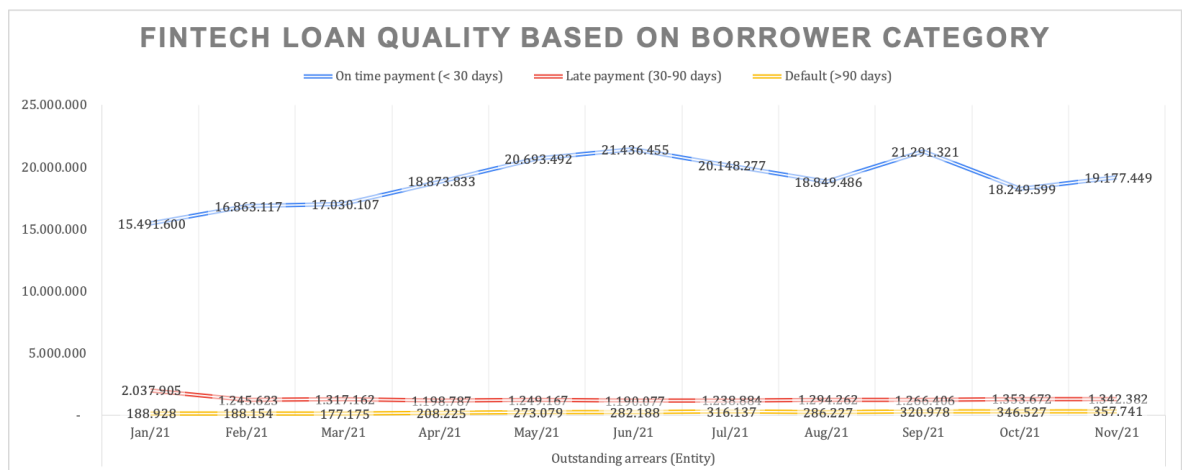


Figure 32. Fintech loan quality based on borrower category (Otoritas Jasa Keuangan, 2021a)

The rapid growth of online fintech lending practices is also due to the potential large market among the people in Indonesia. There are a lot of Indonesians who are not bankable that can easily be influenced to use morally ambiguous practices of financial technology business. In the past these types of loan were less of an issue because they were almost not accessible for the LIH. But as the stake of the fintech companies in the financial market grows it becomes easier for the LIH to gain access to low and short-term loans. The issue of fintech companies preying on easily manipulated people is further compounded by the existing financial technology business regulations giving businesses the opportunity to not register themselves with the OJK (Wahyuni & Turisno, 2019). People can easily get funds just by providing their personal data. In addition, with the weakness of the poor verification system, many irresponsible parties misuse the identities of others (Anugerah, 2021). Poor practices online fintech that do not follow OJK regulations will easily provide loans using identities that are misused by others.

If they are already in debt at online fintech, their residual income will decrease. Of course, this will affect the bank's assessment of their financial capacity, based on the bank's policy on the DSR that has been determined beforehand. This means that their chances of passing bank verification will be less if their residual income is lower. Financial literacy like this should be conveyed more openly to applicants when they submit a mortgage application to the bank concerned.

In addition to the importance of having sufficient financial literacy, most residents do not have experience in owning and maintaining their property, especially as a first homeowner. Property ownership regulations in Indonesia along with their rights and obligations should be known by the owners as a form of responsibility. Although applicants have been reminded to read the apartment unit purchase contract before they agree to be bound by the mortgage system, there are still many beneficiaries who claim that they do not understand the mortgage contract system offered, what costs need to be prepared and the consequences that will be faced if at any time a default occurs.

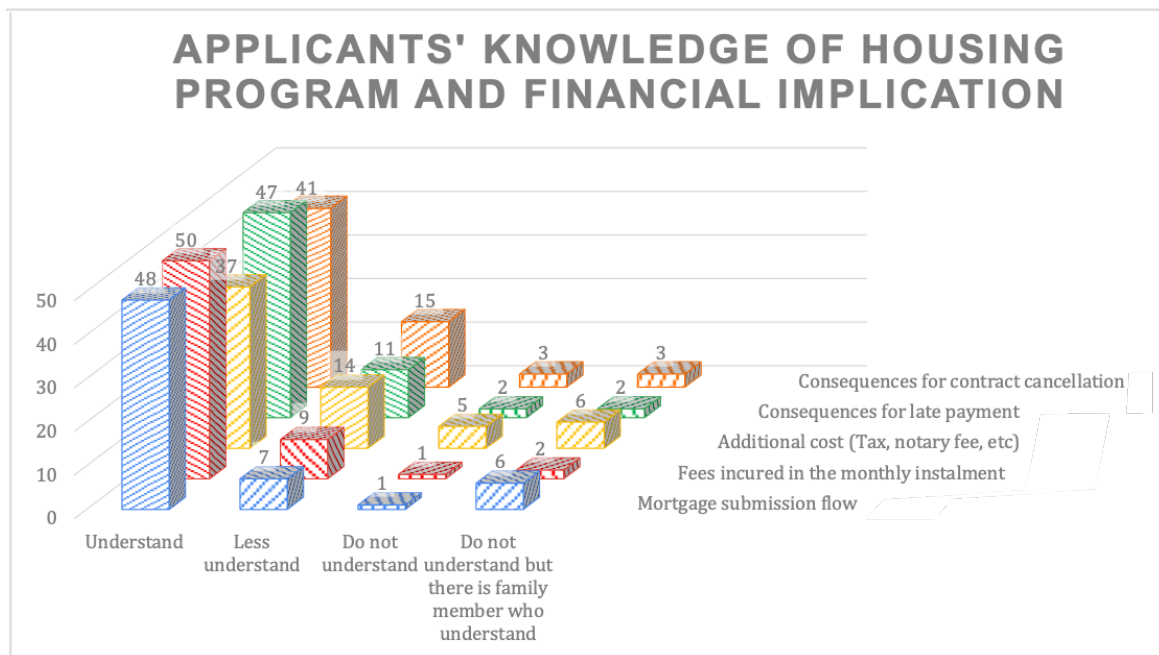


Figure 33. Applicants' knowledge of housing program and its financial implication (source: own survey)

By using a resident survey as shown in Figure 33, it can be seen how far the residents understand in regard to the responsibilities and consequences of owning a ZDPHP unit. About 80% of residents understand the stages of applying for a mortgage, what fees they have to pay per month, and the consequences if they are late in paying. But the number of residents who know the consequences if a default occurs has decreased to 66%. Furthermore, the knowledge of additional costs when residents have to upgrade their buy and sell agreement into AJB is the lowest with the number only reaching 59% of applicants. It can be concluded that approximately 25% of residents still do not understand the rules regarding their rights and obligations when occupying their dwellings.

The Relationship Manager of Credit Division II of Bank DKI (personal communication, May 25, 2021) added that at the beginning of the program, several cases of contract cancellation were found. By right, a case like this should not have happened. The main reason for cancelling the contract was due to not knowing of the obligation to pay *Iuran Pengelolaan Lingkungan - IPL* (Apartment Service Fee) every month.

At the beginning of the program, some registrants who passed the verification cancelled the agreement because the registrants did not know that IPL must be paid every month. They think that the obligation to pay the IPL is on the developer side.

(Relationship Manager Credit Division II Bank DKI, personal communication, May 25, 2021)

The head of the owners' association (Focus Group Discussion, June 16, 2021) also conveyed that the prospective residents think that living in an apartment is the same as living in a single-family house. They do not realize that by living in a vertical dwelling, the mindset of living in a horizontal dwelling must be replaced because there are additional costs that they must spend collectively for the maintenance of the building and the shared area.

If we live in a vertical house, there is a horizontal mindset that goes vertical, right? There are maintenance costs and management costs. The first family to live in was surprised that there was an IPL.
(Head of the owners' association, Focus Group Discussion, June 16, 2021).

This problem has been anticipated for a long time by UNDP (1982). Because this program involves LIH which *nota bene* have a low level of formal education, the mortgage system offered must be easier to understand. In relation to the method of delivering information, Hoek-smit (Personal communication, October 19, 2021) also stated that it is necessary to organize an education program, especially because high-rise buildings are actually not suitable for lower income people. It takes additional effort to get a structured and planned high-rise building management system and also to create a housing program that can grow effectively and efficiently by providing the right education to this target group. Of course, there will be risks and cost implications that the government and housing financial institutions should be aware of with when they have to deal with the underserved market. Dübel (2011) and Kohn & von Pischke (2011) concluded that adequate consumer information and education programs must be part of housing planning for LIH.

They need to have education for this program. Apartment ownership for poor people, it does not work anywhere in the world. You need to educate people on mortgage payment, home maintenance, building maintenance, maintenance of the common ground, so you cannot let that go.
(Hoek-smit, personal communication, October 19, 2021)

5.2 Affordability criteria assessment

In analysing ZDPHP using affordability criteria, researchers utilised operationalisation table (Table 6) and mind map (Appendix F) to translate various information received from available data collected. The use of operationalisation tables attempted to bridge theoretical studies with empirical studies. Concepts that were still abstract were translated into measurable observations. The research process became more systematic, mainly when the evaluation could not be directly analysed. Table 6 demonstrates the breakdown per sub-research questions into smaller variables by using the basic components of accessibility (Figure 6) and affordability (Figure 7)

5.2.1 Housing purchase cost

In implementing the housing program, it is not only the financial capacity of the beneficiaries that needs to be taken into account, but attention must also be given to the providers. This becomes relevant to be discussed in the housing purchase cost section because the role of

Sarana Jaya for its involvement in providing products in ready stock housing units has a very large influence on the success of this program.

Sarana Jaya's position in the organizational structure of Jakarta Province is a *Badan Usaha Milik Daerah - BUMD* (Regional Owned Government. Enterprises), which focuses on working in the housing sector where Sarana Jaya is required to help realize the dwelling that is programmed by the Jakarta Provincial Government. It cannot be ruled out that political motivation plays the role in the selection of the stakeholders. Sarana Jaya's involvement in this program is a mandatory, especially after the issuance of The Governor's regulation containing assignments to 4 BUMDs to support the running of ZDPHP. Especially for Sarana Jaya, the task is to provide housing.

Sarana Jaya, when forming **joint operation** with Totalindo Eka Persada, is acknowledge to finance the entire construction using its own capital. Because large capital is needed, forming a partnership with a composition of 51-49 really helps Sarana Jaya in realizing the construction of Pondok Kelapa Apartment. This should be more advantageous because Sarana Jaya still has land banking with buildings that are already under construction. Under these conditions, there are many costs that can be eliminated with the largest proportion being the land acquisition costs followed by design and planning costs. Therefore, the main budget that needs to be prepared is the construction costs, permit and building management until it is ready to be handed over to residents, if it is in accordance with the timeline.

Developers are generally vulnerable and have thinly capitalized. In addition, the developer also bears various risks in the stages presented by Loic Chiquier (2009). This is also what Sarana Jaya faces in providing housing in ZDPHP as presented in Table 25.

Table 25. Real estate development process and risks faced by Sarana Jaya in ZDPHP

Stages	Problem identification	Risks for Sarana Jaya
Regulatory process	Unaffordable land price in Jakarta	Extra investment with using own capital
Construction phase	Can only sell after physical completion of the building	No advance payment from buyers (beneficiaries) that resulting construction costs must be borne by the developer
Commercialization phase	Register and transfer land title	Longer responsibility on building management

Regulatory process

Land price in Jakarta is already so high that not many real estate developers are interested in participating in ZDPHP. Obviously, because the selling price of housing for the LIH has been set by the government with a maximum price in East Jakarta of IDR 8.8 million (EUR 530) per square meter, as a result, the set price will make a significant loss by the developer if the amount includes land acquisition costs. However, the circumstances in Pondok Kelapa Apartment are different. Because the land acquisition had been executed many years ago as part of their land banking, the land acquisition price was still very low. With the unit selling price of IDR 8.8 million per square meter, Sarana Jaya's business model is still profitable. Nevertheless, the main concern for this problem is the continuity of the program. If in the

future there is still no land acquisition solution found, the developer will find it more difficult to build housing for ZDPHP.

Firstly, we are still referring to Ministry of Public Works price of IDR 8.8 million per meter square in East Jakarta. If you look at the market price, you can check other projects, our building is actually valued higher than IDR 8.8 million per meter square. [...] Secondly, because of the land price for the old assets, the old acquisition price is still cheap. But of course, for the next project it will be an issue. The price of the building can be measured but the price of land is the most troublesome component.

(Director of Administration and Finance Sarana Jaya, personal communication, May 11, 2021)

Construction phase

It is also known that all construction costs are borne by Sarana Jaya. In fact, there are many other alternatives that can be done to reduce the financial burden of developers in the construction phase. One of them is by allowing buyers to obtain mortgage financing before the building is completed. If this system can be implemented, it can ease the financial burden on the developer, because at least there is additional capital that the developer can use to finance construction costs. Especially when facing various challenges, for examples, the difficulty to achieve good building quality standards if they still have to rely on cheap labour who must be competent to operate advance machines in modern building technology. However, this advance payment cannot be applied to this program. In the governor's regulation it is clearly stated that one of the criteria for obtaining financial assistance is if you have already obtained the *Sertifikat Laik Fungsi – SLF* (Building Completion Certificate). Meanwhile, to get the SLF, the building must be 100% completed so that building inspections can be carried out immediately.

Home acquisition financing is only granted to adequate housing. Adequate housing must fulfil the following criteria: own SLF that is released by the local government. (The Governor of Jakarta's Regulation no 104/2018 Article 9 Section c)

The advantage of SLF requirement in ZDPHP residential buildings is aimed at eliminating the risk of beneficiaries from construction delay or losing their homes in the event of a construction failure (Chiquier, 2009). Another advantage is beneficiaries can also immediately move to their new house after signing the contract with the assurance that the building is functioning properly and is liveable by earning this certificate. This is the beauty of the ZDPHP program, in a way to attract consumers and can immediately perform transactions and handover units.

Commercialization phase

The burden on the developer does not stop when the building is completed. Since the purchase agreement is still based on PPJB, Sarana Jaya still has a bond to buyback the unit in case of default. This buyback obligation will continue if the residential owners do not continue the sale and purchase agreement process to become AJB. It means that there is no

transfer of land title from Sarana Jaya to the beneficiaries. Therefore, Sarana Jaya, by right is still the owner of the apartment land.

With this obligation for buyback, Sarana Jaya must take into account the cost implications that will be faced. They have to pay for unit renovation if there is damage during occupancy by the first buyer and make sure the unit is in the right state to be sold again. Furthermore, the money from the sale of the unit must be returned to the bank. It would be great if Sarana Jaya also had insurance, but throughout this research, researchers did not find any information related to insurance covering the developer's work.

Apart from this responsibility, Sarana Jaya also has other responsibilities to manage the building until the *Perhimpunan Pemilik dan Penghuni Satuan Rumah Susun – PPPSRS* (Housing Owner Association) is formed. The Governor's Regulation no 132/2018 does stipulate the responsibility to manage the building is a maximum of 1 year until the formation of the PPPSRS, but in reality, until the research was made, the PPPSRS had not yet been formed. This becomes an additional cost burden because the building maintenance costs charged to residents are lower than the actual costs. Based on information from the Nuansa Pondok Kelapa Building Manager (personal communication, May 27, 2021), the IPL rate of IDR 9,900 (EUR 0.6) per square meter including 10% tax is the value mandated by the DPRKP considering that many residents complain that it is too expensive. The actual maintenance fee without profit based on PT SWP's calculation is IDR 15,000 (EUR 0.9) which includes the work in Table 26. This means that PT SWP still has to provide a subsidy of IDR 5,100 (EUR 0.3) per square meter to the residents of Pondok Kelapa Apartment and it has been running for 2 years.

Table 26. List of works that covers the Building Management Fee (Source: PT SWP)

Work that includes in the Building Management Fee (IPL)
<ul style="list-style-type: none"> • Salary of the management team • Building maintenance • Waste disposal administration fee (Paid to Sanitary Agency) • Maintenance contracts fee (Elevator, WWTP, generator) • Permits; building equipment (for example; elevator and generator) require permission from the Department of Manpower, Transmigration and Energy with renewal each year. • Savings on Land Tax for public areas • Savings for SLF renewal every 5 years • Building insurance

Seeing how big the costs that have to be borne by Sarana Jaya, it is understandable that this program is less attractive to other developers. Even Sarana Jaya itself admits that they will face difficulties in continuing this program if they have to open a new location because they no longer have land banking. They use this location as a marketing strategy, to attract future buyers to other towers. The next development for the second to fourth towers, which are commercial apartment projects, is expected to attract more buyers by looking at the success of the first tower from the ZDPHP.

Many ask why do we initiate the construction? Because our business is about housing, so there's nothing wrong with starting ahead. If we look at the design, it is still in line with the needs of the ZDPHP [...] We do not expect much from the first tower, but expect a lot from the other towers. This is from our business model perspective. We see it as a portfolio project.

(Director of Administration and Finance Sarana Jaya, personal communication, May 11, 2021)

Despite all the work and financial burdens that Sarana Jaya has, it turns out that there is a reason that makes Sarana Jaya persistent in supporting the province of Jakarta to provide housing. As part of BUMD, Sarana Jaya also bears the same burden as the province of Jakarta to provide the best social services for its citizens. This **social mandate** is the spirit of Sarana Jaya to continue to play an active role in participating in ZDPHP.

Mandate as a BUMD, apart from profit, there is also a mandate for services/contributions to the community. You can't lose but you don't need to make 100% profit like other developers. There is a social mandate. This is how to see it.

(Director of Administration and Finance Sarana Jaya, personal communication, May 11, 2021)

Loic Chiquier (2009) emphasized that construction finance has an important role in the housing supply system because it can increase the supply of formal housing, especially in developing countries. In addition, it also improves housing quality and increases efficiency in the supply of affordable housing. The option to enable construction finance has actually also been taken into account by the Jakarta provincial government because the regulations have already been released, although it is still in general statement in The Governor of Jakarta's Regulation no 71/2019 regarding Housing Fund Management. In practice, subsidies for construction finance still cannot be applied because they still require some detailing in the regulations.

In addition to subsidies on construction costs, the biggest cost burden faced by developers is the cost of land acquisition. Hoek smit explained that by providing subsidies for land purchases, unit prices can be reduced and it is still possible to adjust to the maximum sales limit price that have been set by the government, by not forgetting to follow the annual inflation. Furthermore, in order to attract the interest of other developers to this program, Hoek Smit added that the obligation to manage the building after the building is built should be transferred to another party. Because, again, the burden on the developer in this program is already massive.

They require more subsidies. They may get subsidy through the land to make the unit lower in price, so then it becomes on the whole, you nearly almost need some supply side subsidy. That is the first thing. Also, the risk for the management overtime. It is too much for the developers to take. Unless they get or make it special business. It should be taken over by the management company, not the developer.

(Hoek-smit, personal communication, October 19, 2021)

One of the solutions that can be offered to overcome land problems is, in fact, by utilizing government-owned lands. Looking back to Table 19, the option for apartment ownership other than SHMSRS is to obtain Building Ownership Title (SKBG), with the requirement that the building is built on top of government land. This particular property title is not widely known as the official regulation has just been released by the Ministry of Public Works through Ministerial Regulation number 17/2021 early 2021. Undoubtedly, it will take time to develop organizational structures and implementing agencies at the provincial level before they can be fully implemented. However, with the existed of this legal basis, there is already a glimmer of hope for the Jakarta province to solve the problem in continuing the ZDPHP.

In conclusion, this option can solve 2 major problems related to affordability. Firstly, the problem of the difficulty of getting new land in the middle of Jakarta with an unaffordable land price. Secondly, the unaffordable housing offered by ZDPHP can be reduced because the price offered exclude the price of land acquisition. By answering the first problem, the second problem is also settled.

5.2.2 House occupation cost

In considering the aspect of affordability, apart from paying attention to capital variables to purchase the house, occupational variables are also an important factor when it comes to homeowners that reserve their money in keeping and maintaining the house. The costs that must be incurred are not only monthly mortgages but also service costs which includes electricity, water, internet, and building maintenance cost (IPL). When referring to the affordability framework presented by the Majale et al., (2011), only land lease rates that are not applicable in the ZDPHP case due to the freehold title status of the unit. However, according to Galster (1987) and Littlewood & Munro (1996), the benefit as homeowners decline when the LIH become owners occupiers due to the lack of ability and knowledge to maintain the dwelling. Many of them neglect their responsibility to take care of their unit creates a potential loss on the value of the dwelling in the future when the housing deteriorates, which adds more problems than solutions (Scanion, 1998). This aspect for the affordability makes it more difficult for these people to live and thrive there, unless they are made very much aware of it that this is a factor that they have to keep into account.

By living in an apartment building, the decision-making for maintaining and managing common property is collective to share with co-owners and other residents. Owners' association, which is the representative of the residents to manage the building, becomes a solution as it has been commonly applied in the US, Argentina, and South Africa (Bailey et al.,

1997; van de Merwe, 1994). In Indonesia, especially in Jakarta, the law stipulates that an apartment building must have an owners' association (PPPSRS) to determine the form of building management that is still in accordance with the aspirations of the occupants to provide benefits but also has legal force in it (the Governor's Jakarta regulation no 132/2018 article 2).

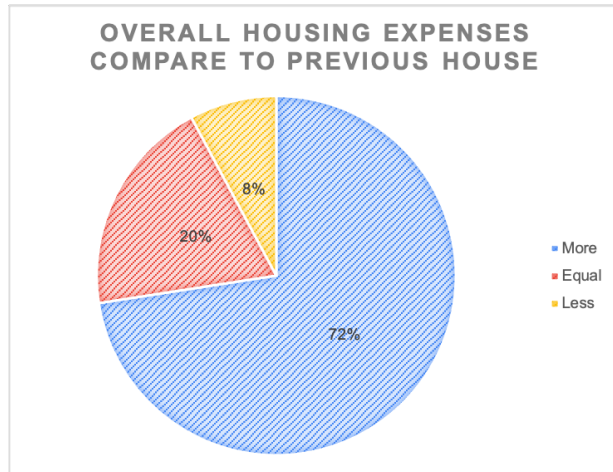


Figure 34. Overall housing expenses compare to previous house by the beneficiaries (own survey)

A questionnaire was performed among the beneficiaries to find out if their expenses for housing after they moved to their new house is higher or lower as shown in Figure 34. According to 51 respondents, 72% found out that they spend more money on housing than before. Moreover, 20 % of the beneficiaries spend the same amount of money compare to their previous house and only 8% of them that spend less expenses than before. In general, living in Pondok Kelapa Apartment makes them spend more money than before. However, even though they spend more money to

live in this apartment unit, keep in mind that some of these expenses are the mortgage payments which will later become their own equity, unlike a rental fee that will lose the value of money.

Although most of the residents of Pondok Kelapa apartments think that their overall spending on living in a new residence has increased, it turns out that the housing expenditures are still affordable. It is validated in the next question of the same survey related to the level of affordability of each variable (Figure 35).

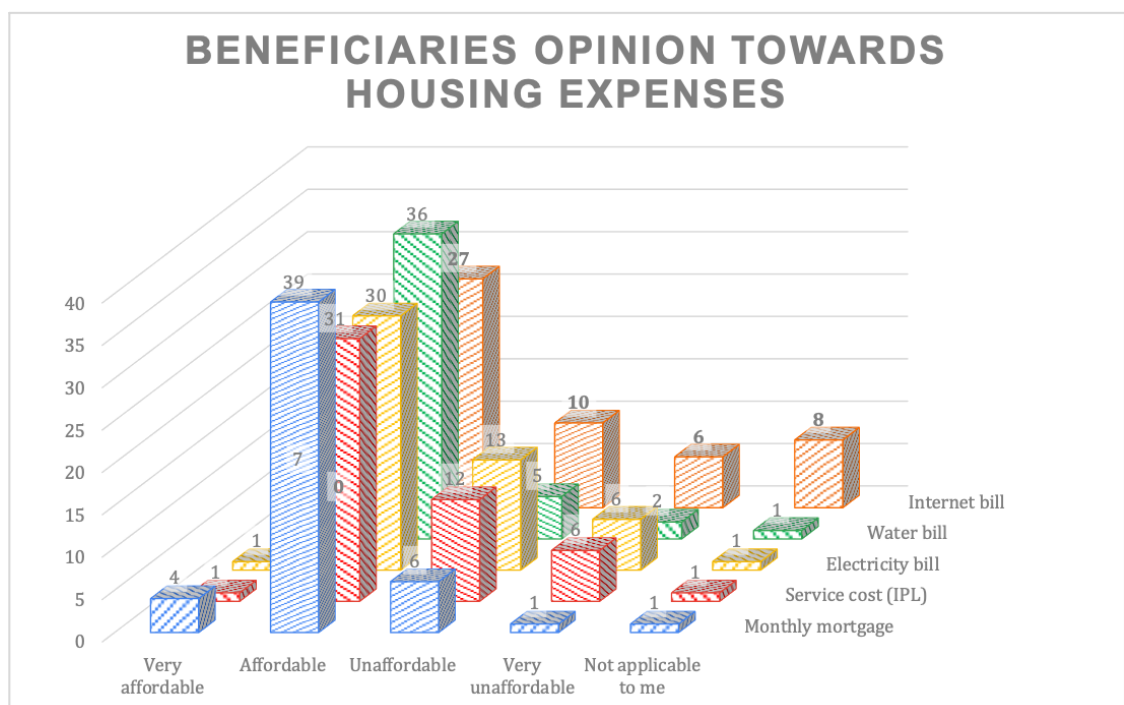


Figure 35. Beneficiaries' opinion towards housing expenses (own survey)

Regarding the affordability opinion of service cost apartments (IPL), 37.5 % of residents admitted that an expenditure of IDR 9,900/m²/month is still considered unaffordable, even though this cost has received a subsidy of IDR 5,100/m²/month from the developer. This needs special attention because when the PPPSRS is formed, they must find a solution to the service cost which is considered too expensive. Learning from the current building management, PT SWP hired internal technician who can do some routine maintenance that does not need special skills. The following works such as heating the generator and re-painting the wall are done by the internal technician. However, some heavy equipment, such as elevator, requires a specialist who has a specific safety licence.

Internal technicians are hired by Building Management to carry out routine maintenance as many as 5 people such as heating generator sets, repairs that do not require special skills. If it is listed as a heavy-equipment, it must follow the safety guidelines, because it is related to their own safety. Elevator is maintained every month. All these (special) tools are maintained once a month.
(Nuansa Pondok Kelapa Building Manager, personal communication, May 27, 2021)

In order to push down the service cost, some solution can be offered. Once the PPPSRS is formed, they should be able to figure out which tasks that can be done by the occupants and which tasks that cost money. There are some negative but also there are also some positive ways to deal with it and not to make it a big problem. Firstly, PPPSRS could activate people that are living in the apartment building to do some of the jobs themselves. And with this solution they can lower the cost by doing the **self-maintenance**. Secondly, there should be some professional help from government that specialized for this type of issues to assist the homeowners of ZDPHP at the beginning to educate them, including the help in planning for which things can do themselves and which things cannot do themselves. Lastly, the government should make it very clear from the beginning what are the fix costs and variable costs of becoming a homeowner. That is something that has to be made very clear that one day there could be a situation where suddenly they have to pay a lot of money that damage the building that does not covered by the insurance. Because owning a house means so much more than only the mortgage, not only to pay the down payment, the government really need to put the effort on educate the people about what the consequences are going to be of buying the apartment unit. With the affordability, if they start missing the payment, they are losing the house.

5.3 Overview of the criteria performance

The overview of the performance of ZDPHP from accessibility and affordability criteria can be found in Table 27 and Table 28 below. To find the perfect balance and overcome the mismatch, some decision has to be made by the government. From this overview, it can be seen the impact that has to be dealt by stakeholders on various decisions and interventions set by the government.

Table 27. Overview of accessibility performance criteria of ZDPHP

Accessibility criteria	Demand	Supply		
	Applicants	Enabler	Supplier	Bank
<i>Precondition</i>				
Ability of savings	High number of informal workers with flexible income that mostly low salary Difficulty in saving money	Allows 100% LTV ratio		Strict assessment due to principle of prudence Set a higher DSR than commercial mortgage (60%)
Type of collateral	Does not own asset as mortgage collateral			Apartment unit as collateral
Neighbourhood quality	Apartment building needs advance planning for management and maintenance	Mandated to form an owners' association (PPPSRS)	Maintain the building until the association is formed	The quality of the building is an aspect to be concerned for banks to provide mortgage loans
	Residents need to form owners' association	Inauguration delay due to covid	Longer responsibility to manage the building until the association is formed	
	Demand of good access to public services	Provide support for additional facilities such as transportation access Ensuring buildings are liveable by issuing SLF	Owned piece of land (land banking) in the city	
<i>Housing program</i>				
Transparency	Accountable delivery information to avoid corruption	Using multiple medium to deliver information, with an emphasis on the use of social media Instagram		
Unit type	Prefer at least 1 bedroom unit type or bigger		Built too many studios type	

Accessibility criteria	Demand	Supply		
	Applicants	Enabler	Supplier	Bank
<i>Housing finance</i>				
Housing expenditure ratio	Low people who can pass verification	Salary range max IDR 7 million		
		Max house price IDR 8.8 million per square meter	Set price is too low for combination of construction and land price	
	Increasing number of applicants did not follow by the rising number of beneficiaries	Adjust maximum income to IDR 14.8 million adopting 1/3 total expenditure rule		
Financial and homeownership literacy	Applicants do not aware of their outstanding commercial loans (mostly P2P lending)			The bank's assessment of the applicant's financial background is still calculated from residual income
	25 % of beneficiaries do not understand their rights and obligations to occupy the dwelling		Building Management has explained the rules and obligation before beneficiaries sign the sell and purchase contract	

Table 28 below shows the overview of the performance of affordability criteria in ZDPHP.

Table 28. Overview of the affordability performance criteria of ZDPHP

Affordability Variable	Demand	Supply		
	Applicants	Enabler	Supplier	Bank
<i>Housing purchase cost</i>				
Regulatory process			Unaffordable land price in Jakarta	
Construction phase	Cannot buy house during construction stage	Housing for home acquisition program in Jakarta must hold SLF certificate Housing construction fund has already mentioned in the regulation but need to be developed in detail	Housing product can only be sold after 100% completion and earn SLF certificate. No financial assistance in the construction phase.	
Commercialization phase	Unaffordable fee to upgrade property title (Stay in PPJB)		Obligation to buyback when the unit still ties to PPJB and return the upfront payment Incurs additional cost after buyback	
<i>Housing occupation cost</i>				
	IPL is considered too expensive	Appointed developer to maintain the building until PPPSRS is formed	Responsible for the maintenance and management of the building. Incur additional costs because the service fee from the occupants does not cover the overall cost	

6 Conclusion

In this chapter, a summary was given of the results of the analysis done in the previous chapter. By doing this, it also answered the main research question: *How can the Zero Down-Payment Housing Program (ZDPHP)'s accessibility and affordability criteria be improved to better match the demand of the low-income households of Jakarta?* The answer to the main research question was built towards by first answering the sub-research questions. As the main research question asked for ways to improve the ZDPHP's accessibility and affordability criteria, the chapter closed off with the recommendations on how to improve the program in the future.

The first sub-question addressed was *What is the ZDPHP in Jakarta?* Answering this question helped the researcher and the readers to understand how the program works, who is involved in the policy-making, what regulations are applied, and how to manage the funds that have been reserved so that the beneficiaries can utilise them. Key elements from the main research question are addressed in the later sub-research question. These elements, the accessibility and affordability criteria, are used to find the differences between demand and supply through the second and third sub-research questions, respectively. Furthermore, the last sub-research question synthesises both abovementioned elements that do not match the supply or demand in this program. Here, in the last chapter, the main question is concluded by giving solutions gathered from the mismatch found from the analysis validated by literature and experts' discussion.

6.1 Answering the research questions

6.1.1 Sub-question 1: What is the Zero Down-Payment Housing Program in Jakarta?

The first implementation of a Jakarta provincial government program to stimulate homeownership, **the homeownership program**, has become a breakthrough and an excellent example in practising housing knowledge. It has been widely studied by the experts. This program offers a basic apartment unit targeting the low-income households (LIH) without the requirement of a down payment, 5% flat interest and a mortgage tenure from 5 to 20 years. The amount of mortgage interest offered is 5% – 8% lower than the commercial mortgage interest rate in Jakarta. Hence, when it is evaluated from the point of view of the demand side, LIH get an **enormous subsidy**.

The **verification system** is aimed to screen applicants to match the desired target group, namely the LIH. The group have difficulty buying houses in Jakarta due to the prices for commercial houses no longer being affordable with their financial condition. The proportion of 1/3 of income used for housing expenses is the basis for determining the income bracket policy for this program. In addition, verification related to residence status, number of family members and asset ownership also determines the eligibility of applicants. The provincial government also carried out several interventions because the previous policies were deemed not yet on target, for instance expanding income limits and permitting car ownership.

Most of the stakeholders who play a role in organising this program are organisations under the Jakarta province, both from internal departments and regional owned enterprises (BUMD). The selection of key stakeholders from the organisational structure under the supervision of the provincial government is considered part of the government's strategy. Internal departments can better coordinate and give higher opportunities for the program to succeed because they share the same targets and objectives. **Political environment** within the organisation also brings influence even though not all parties get a balanced benefit. For example, several BUMD were appointed to support the program, including Bank DKI and Sarana Jaya. Bank DKI is considered to have less risk than Sarana Jaya in carrying out its work. This can be seen when Sarana Jaya has to prepare a very large capital without being protected by insurance, while Bank DKI does not need to prepare capital but is protected by mortgage insurance. However, this fact can still be tolerated in order to achieve the main goal of the program, which is to give opportunities for LIH to become homeowners in Jakarta.

6.1.2 Sub-question 2: How effective is the performance of current accessibility criteria in this program?

The benefits of granting mortgages with free down payments received by the beneficiaries mainly because of the limitations of LIH in setting aside their income for saving. Without having to wait to set aside savings each month, beneficiaries can immediately move to their new home at a price offered on the spot. If they delay buying a house, they will experience a

loss because by following the principle of the 'time value of money', inflation always occurs in property prices and the housing price will increase in the future. In contrast, the value of money decreases overtimes every year.

The role of the executing bank in ZDPHP as one of the verifying parties plays an important role, especially since the bank's assessment is in the final position in the verification stage. It should also be emphasized that any bank verification results contain risks that must be borne by the bank. Therefore, the **relaxation on the principle of prudence** of Bank DKI is a valuable addition to the program. By providing a DSR value of 10% larger than a commercial mortgage it is recognised as a valuable move from Bank DKI in the effort to allow more LIH to pass the financial assessment.

Usually, collateral is a prerequisite for securing a loan, but the ZDPHP is aimed at people who have never owned a house. The beneficiaries cannot bring in any collateral for their previous property. Thus, the apartment units they bought through the ZDHPHP were automatically used as collateral, which is common in the commercial mortgage system. The only thing that needs to be considered is the status of residential ownership. The beneficiaries need to upgrade the agreement from *Perjanjian Pengikatan Jual Beli – PPJB* (Conditional Sale and Purchase Agreement) to *Akta Jual Beli - AJB* (Sale and Purchase Agreement) because in case of default, the AJB certificate is the one that will allow the bank to assess the property value through appraisal and the paid mortgage payments will be returned according to the appraisal price.

Living in an apartment in a high-rise building is undoubtedly different from living in a single-family house. The responsibility for the physical building is usually borne alone. By living together in a multi-storey dwelling, this responsibility becomes the shared responsibility of the fellow residents. To ensure that the building is always in prime condition, building maintenance is needed, especially in the Pondok Kelapa Apartments building, where residential buildings use high technology that requires well-skilled mechanics. With the establishment of the *Perhimpunan Pemilik dan Penghuni Satuan Rumah Susun – PPPSRS* (Housing Owner Association) as a representative of the residents, all decisions related to common areas can be discussed and determined in official forums and become a forum for the aspirations of the residents.

Seeing the enthusiasm of Jakarta residents who use social media to interact, the provincial government has also adapted by using social media to grab the attention of all circles of society, especially the LIH. This step is considered adequate, considering the survey results show that more than half of the respondents access social media as their source of information related to the ZDPHP. In addition, the distribution of the questionnaire for this research project also used Instagram to interact directly with each target respondent. The submission of sensitive and accurate information can build public confidence in the government's accountability, which is a broader view, prevents acts of corruption.

6.1.3 Sub-question 3: How effective is the performance of current affordability criteria in this program?

The Jakarta provincial government's homeownership assistance program, ZDPHP, for LIH is recognized to significantly ease the financial burden and provide many advantages for beneficiaries. Apart from not requiring a down-payment to buy a house and 5% flat interest throughout the tenure, the prices offered are much lower than the commercial houses in the surrounding area. Other conveniences such as complete public facilities around the residence and additional monthly IPL subsidies are added values in this Program. Location plays a big part in terms of access to public services, which provides big savings in transports and housing expenses, and also increase housing value. It can be concluded that they receive a **huge subsidy** from the government by becoming beneficiaries.

Establishing a **joint operation** between Sarana Jaya as a RE developer and Totalindo as a contractor is considered the right strategic choice. This cooperation can share responsibilities regarding finances and the risks borne. The cooperation also makes both parties use less capital in carrying out the project so that it is more affordable by the financial conditions of each party.

The price of land in Jakarta is already high, and for most projects aimed at the LIH target group, there is no real business case to be made. Nevertheless, the Pondok Kelapa Apartment complex could be successfully built and is intended for the right target group. The key to success at this location was that the developer Sarana Jaya purchased the land long time ago. It is not a surprise if Sarana Jaya, as a developer, still **profits** from constructing this apartment even though the central government has determined the maximum price for the unit size per square meter. In addition, this location is used by Sarana Jaya in a portfolio marketing strategy, with the hope of attracting many interested people to the second and other towers located in the same place. These towers are meant for other target groups, middle-income households, so they can recoup some of the income they forfeited by targeting the LIH group with their first tower.

The government regulation stated that RE developer is **obliged to manage the building** during the transition period until the formation of PPPSRS. During this time, beneficiaries can learn how to plan the maintenance and gain knowledge from building management properly. When the time comes to establish PPPSRS, beneficiaries can determine the most appropriate, efficient and affordable building maintenance strategy that applied best for their residential building.

6.1.4 Sub-question 4: What is the mismatch between supply and demand in this program?

Since Bank DKI is a lender, it provides them with the flexibility to determine the financial profile of prospective beneficiaries according to the risk appetite they dare to bear. The bank will choose the applicant profile with the least risk to reduce risk. This decision means that the opportunities for formal workers with fixed incomes are much more significant than informal workers with irregular incomes. Meanwhile, Jakarta's number of informal workers is known for more than 1/3 of Jakarta's population. Therefore, the share of 3% of

beneficiaries being from the group of informal workers is considered very low compared to the number of existing informal workers. This suggests that the principle of prudence applied is still too rigid. What is needed by the LIHs in Jakarta is a relaxation of regulations from banks in order to allow more informal workers to be a beneficiary.

In implementing this program, the developer uses their equity to execute the land acquisition, pay the construction, and later bear the additional cost of managing the operation of the building. The burden borne by the developer is significant, considering that this residence is intended for the LIH community, which means that the profit from this project is not significant compared to another commercial residential project. In addition, when running the property business, the developer typically runs multiple projects. Therefore, the returned capital will be used as equity in the next project. However, with the condition of ZDPHP's occupancy that has not been sold 100% after being marketed for more than three years, it means that some of the capital is still tied up in this project. Seeing that the developer's cash flow is stuck in this project, this situation can influence the decision of other developers to participate in the ZDPHP.

Approximately 25% of the beneficiaries said that they did not fully know what costs to prepare for, other than the house instalment fees paid to the bank. The prospective applicants think that living in an apartment is the same as living in a single-family house, where building maintenance is typically a personal responsibility and decision. Nevertheless, living in an apartment requires additional expenses due to the need for maintenance for shared spaces and utilities owned collectively by all apartment occupants. This monthly service fee (IPL) has to be paid in full by the occupants following the actual maintenance cost. As requested by the occupants, the building management also subsidises the monthly service fee as long as the owner association (PPPSRS) has not yet been formed. The reason is that the monthly service fee is not affordable based on their income levels, especially when compared to the expenses they typically had paid per month when living in their previous residence. In addition to that, the information of this additional cost (IPL) was not clearly informed during the application process.

In addition to the lack of information on monthly service fees, the beneficiaries were not prepared with the additional payment to upgrade the sale and purchase agreement from PPJB to AJB. However, the exact cost cannot be given because the costs incurred can only be known in the year AJB was conducted. As a result of the delay in the upgrading sale and purchase agreement, the financial impact of real estate developers' expenditures is more significant. This is because there is no land title transfer from Sarana Jaya to the beneficiaries. The longer the PPJB contract binds the beneficiaries, the buyback obligation is still under Sarana Jaya's responsibility. Therefore, there are cost implications, including the renovation cost if there is any damage from the previous owner.

As long as the property title ownership has not been transferred to the buyer, the developer's responsibilities are as follows: (1) has a buyback obligation, (2) incur additional costs to repair the dwelling, (3) return the upfront payment to the executing bank. Therefore, it can be said that the role as a developer becomes wider because initially, after the building is completed, the developer can immediately hand over the property ownership to the buyer. However, in this case, the developer still must manage the building. As a result, the role of the asset manager must also be taken on by the developer.

The key indicator of this Program's success is when all the apartment units are sold (Head of Sub-section of Administration of UPDP, personal communication, April 21, 2021). However, it is known that only approximately 40% of the total studio units were sold when this research project was conducted. The studio unit is the residential type that is less attractive to the target group, considering that most Jakarta residents have high **collectivism cultural values**. In other words, they tend to place a strong emphasis on harmonious and interdependent relationships with other people. This also means that they tend to depend more on others and are less comfortable living independently. The studio unit is less suitable for this type of culture because they prefer to live with the family than live individually.

It was known that the Provincial Government of Jakarta had changed the eligibility criteria for applicants several times since the Program was first released to the public. Since the residential sales target did not match expectations, the salary bracket initially set to a maximum of IDR 7 million (EUR 415) was finally re-assessed. The Provincial Government uses 1/3 of the total combined household income for housing expenses. Based on this proportion, they estimated the size of the instalments to be paid. With that knowledge, they determined the maximum income limit. Therefore, the Government interfered the regulation by expanding the salary bracket with a maximum limit of IDR 14.8 million (EUR 875). As a result, the average number of applicants has increased with the new provisions. However, the average number of applicants who have successfully passed the verification each month has not increased. This result indicates that the use of **1/3 proportion** of the total combined household income for housing expenses is considered **too high** following the specific conditions of the LIH in Jakarta.

A reason that caused the number of registrants who passed the verification not to increase significantly was that the registrants **lacked financial literacy**. Consequently, they were unaware that outstanding commercial loans would affect the bank's assessment of their financial verification when applying for a mortgage loan. The bank typically assesses the residual income after deducting the obligation to pay other ongoing commercial instalments. If the applicant has an outstanding debt, their residual income will decrease, and their chances of passing bank verification will be lower.

6.2 Answer to main research question

To answer the main research question, more in-depth analysis was conducted to be able to propose a solution based on several findings from the responses of the four sub-research questions.

How can the ZDPHP's accessibility and affordability criteria be improved to better match the demand of the low-income households of Jakarta?

The use of 1/3 of the combined household income for housing expenditure is considered inappropriate for the conditions of the people of Jakarta. Using proportions of the actual financial situation can assure that housing will be more affordable. Some exercises were conducted to determine the best proportion of housing expenditure. Hoek-smit (personal

communication, October 19, 2021) suggests that the best proportion to be used as the reference for housing expenditure is by calculating the comparison between household income and what a household pays for housing and transportation in its respective city. Although not all the information is needed for this calculation exercise, it can be concluded that the proportion of 1/3 of income expended on housing is still too high for LIH residents in Jakarta. As shown in sub-chapter 5.1.3, the fewer people have to spend on their salary, the smaller the percentage they can spend on housing.

Education on information related to **financial literacy** and what they need to know if they are a homeowner is a key intervention that many government institutions often forget. Access to information and appropriate education will increase the number of housing program enthusiasts. Hoek-Smit (personal communication, October 19, 2021) also validated that knowledge about **mortgage payments, home and building maintenance** should be conveyed to new homeowners considering this information is new information they may not have had before. The government needs to organize **an education program**, regardless of the LIH group living on single- or multi-family houses. As long as they are LIH who have a low level of education, this educational program should be seriously considered part of the housing planning in Jakarta, including the cost implications according to Dübel (2011) and Kohn & von Pischke (2011)'s suggestions.

Transparency is a core that must be upheld, especially in implementing programs organized by the government. In delivering information to the public, social media is considered quite effective in its ability to reach various circles of society. However, by using a lot of social media, it is feared that there will be an imbalance of information due to the limitations of each social media channel. While it is often expected to be a solution, it can provide additional workload and become inefficient. To be effective, a reliable central communication hub is needed. The use of a website is believed to be a relatively reliable and common medium that is still being accessed by various groups of people.

As explained in the previous sub-chapter, delaying the establishment of PPPSRS will only increase the financial burden of real estate developers. Based on the governor's regulation, the maximum time until the PPPSRS is formed is only one year. Therefore, naturally, the developer has considered the cost implication of the obligation to manage the building for one year after the first handover. However, there needs to be reconsideration if the establishment of the PPPSRS should be delayed. Who will be responsible for the additional costs related to management if the residents are still not unanimous in determining the most appropriate form of building maintenance and management for their residents?

Loans for housing provision will greatly assist real estate developers as suppliers to strengthen capital and improve the ZDPHP housing quality, mainly because the land price in Jakarta is increasingly unaffordable. The enormous financial burden borne by developers at this time can be lighter if the government immediately activates the housing construction fund policy whose seeds have been written in the existing governor's regulation. Suppose the housing construction fund still cannot be activated, according to the Hoek Smit suggestion. In that case, the government needs to involve one more stakeholder, namely professional building management, to be responsible for building maintenance. This idea ensures that the high-rise residential buildings occupied by LIH residents are always in excellent condition.

Of all the solutions offered, the problem of land availability still does not have a satisfying solution. Land prices that are less affordable and limited land in a dense city like Jakarta will eventually become a latent issue. It is feared that the continuity of the program will be disrupted because of this. With the release of a new building ownership system on government-owned land under the name SKBG, it is expected that ZDPHP residences can be incorporated in market buildings, terminals, schools, or in any location in the future where the land has been assigned the statuses of either the *Barang Milik Daerah - BMD* (Regional Property) or *Barang Milik Negara - BMN* (State Property) without having to deal with land eviction.

6.3 Recommendations for further research

At the start of this research project, the only forms of housing financing that were considered were those frequently mentioned in research studies and other literature. Therefore, it was surprising that during the FGDs, the option of sharia financing came up. Further research showed that this type of financing also came up a couple of times on the official Instagram channel of the Province of Jakarta in relation to the ZDPHP. Because of the Muslim background of the majority of the inhabitants of Indonesia, it is clear why this type of mortgage would be in demand. The fact that potential applicants decided to not make use of this government program due to the absence of a sharia financing option is very interesting. From an academical point of view, it would be interesting to examine the potential effect of adding this type of financing to the growth of the applicants as well as what type of applicants would be attracted to this addition. Another avenue of interest could be to find out how attractive these kinds of financing are for banks to offer in relation to mortgages.

Hoek-Smit (personal communication, October 19, 2021) suggested to conduct a NPV calculation to find out whether the investment plan for the amount of revolving funds reserved for ZDPHP by the government is the right choice. By using the NPV calculation, an analysis can be made which shows to what extent the benefits in the future will pay off by projecting the investment. Unfortunately, the time constraints of this research project did not allow time to do this type of analysis, mainly because of the larger amount of data that had to be analysed. Apart from that, it also lies outside of the scope of this project. However, admittedly, having this insight could reveal more regarding the long-term viability of the ZDPHP. This insight could also be used in a more general way as it says something about the way governments finance and make possible these types of programs. Therefore, it would be a worthy addition to the discourse to have these extra insights.

This research project uses **the 5 A's adequate housing framework** on the provincial Government's subsidy program to address the housing backlog. Due to the time constraints of this Master's thesis project, not all criteria could be applied. Only two of the 5 As were used. While this did allow for an in-depth analysis of these two criteria, applying on 5 As would have provided a complete understanding of the situation. In addition, it would make the outcome of future research more robust if all criteria could be taken into account. However, without the researcher realising it, the conclusions from the results of this study provide results that can be assessed touch upon each of the criteria contained in 5A's adequate

housing framework. Although the research concentration was only on accessibility and affordability, the analysis results cannot be separated entirely because there is an interrelation between all criteria. And this is what makes this research interesting.

The time constraints of the research project also made it very difficult to examine more than one ZDPHP location. For future research it would be interesting to replicate this research project while having the other two locations as the unit of analysis. This would allow for validation of the findings in this work and maybe also for an expansion on the findings. By expanding the project to include all locations, but still acknowledging that they are separate cases, the discourse would be broadened. This will allow other researchers to use these cases to test the findings in their own chosen countries. This in turn could help policymakers with making informed decisions when deciding how to implement alike programs in their countries.

In future research, it would also be advisable to spend more resources on the interview and FGD phase of the project. Since this research project was financed by the researcher, the resources were limited. This made it difficult to reach out to the unsuccessful applicants of the program. Their viewpoint is very important nevertheless because the insights can reveal what happens on the other side of the experience of applying but failing to secure participation. The addition of these insights would make the findings of any future research project more robust as it included more of the target group.

7 Discussion

7.1 Relevance

Social relevance

The housing backlog is a critical problem in Jakarta. There are many strategies and regulations that the Jakarta Province has applied to increase the number of houses and stimulate the contraction of the backlog in Jakarta. However, the primary approach of the provincial Government still is building more housing units.

The economic and social characteristics of the housing sector are the reason that almost all society intervenes in the housing market through an array of policies intended to increase the housing consumption by the various group. The research project outlined in this proposal will help the public in general and the state government, including the Province of Jakarta and other provinces specifically from developing countries, learn about and improve the local housing conditions. It will also help the Government better utilise the fund for housing by getting it to the right target more efficiently. By making these types of projects more secure and successful, the sliding scale of risk can be halted. Reducing the risks make investments in lower-tier housing more interesting for the private sector. The influx of capital that they bring can be used to fund other large scale housing projects, which will allow more beneficiaries to make use of the program while at the same time decreasing the housing backlog that exists in many developing countries.

This program is categorised as a social assistance program. Therefore, the income of the residents of Jakarta is the primary basis for selecting target groups for this program, followed by assets ownership and residency status. This program is closely related to the community's capacity to access housing and has long been applied in various places to make government subsidies reach the right target group. M. C. Hoek-Smit (2008) stated that the division of market segments based on the financial capacity of the community helps government subsidies be more targeted.

Scientific relevance

The scientific relevance of this research project lies in the fact that the case study can be repeated for other cases. It also further tests and develops the 5As of Adequate Housing framework by Ayala et al. (2019). The mismatch of supply and demand and the results of the inquiry into that can also be used as the basis for other studies. Either to refine the model used or to apply it to other cases in a comparative study. Furthermore, researchers could use this work to determine what type of housing program should be used in their country.

7.2 Limitations

Theoretical limitations

There is minimal scientific research available with the similar case project, zero down-payment housing subsidy, that can be used as a comparison to the ZDPHP in Jakarta. All information will have to be supplied from the sources surrounding the project. Therefore, it is difficult to say how far the project is a success vis-à-vis other projects. Next, the suggested theory of the 5a's features five frameworks is considered a comprehensive tool to evaluate a housing program. However, time constrains forced the research to limit by only using two of the five.

Case selection

When evaluating the program, it was still in the early stage. The program was a working progress and it was not completely done. Additionally, ZDPHP is a pilot program. The collected data was not the final result, it was still changing as the program was still in the implementation stage. In another word, nothing is set in stone and sudden changes could be implemented without prior warning. This made the analysis can only be concluded at certain time when data collection took place, but the results of the analysis may change along with the development of its implementation. This brought to the third limit, that there were three locations that implement the ZDPHP. However, with the time constrains, only one of the three locations was chosen to be analysed.

Data set

The datasets that were acquired for analysis was not fit for direct processing. Some data errors were not solvable so the choice had to be made to drop parts of the dataset. It also included some test records that had to be dropped. The data set did not have the consent of the applicants to be used as research material. Therefore, it was difficult to perform FGD with unsuccessful applicants as the available contacts could not be used.

External limitations

In the current pandemic conditions, traveling to a location to conduct interviews, discuss and study the surrounding conditions is impossible. Travel restrictions and the obligation to self-isolate for international travellers, which constantly change from time to time, make it very difficult for the research process if you still want to try to be present in the entire data collection process. With the limited mobility, you can imagine that many things that should not be difficult become very complicated. So, it was decided to carry out fieldwork research through internet media with the help of a research assistant as an extension when the research process cannot be done just by discussing via video/zoom call. However, direct attendance at the location to conduct interviews and FGDs will be very helpful to understand the real conditions and understand the surroundings better.

The time difference between Jakarta and Delft is also one of the limitations of this study. The communication process, both during administrative work and with interviewees, takes longer because sometimes messages or e-mails that were sent during working hours in the Netherlands have already exceeded working hours in Jakarta, and the response e-mail could only be received the next day. The time difference resulted in the process of setting the schedule for the interview taking a long time. The time difference also has implications for the flexibility in time of the persons to discuss topics.

With limited distance, the initial strategy is to maximise mail delivery via e-mail. The interview request, which was initially sent via e-mail, did not get a severe response from the Jakarta agency. Follow-up should still be accompanied by sending a physical letter and checking by telephone to ensure that the interview request has arrived in the right hands. In addition, it is well understood that the bureaucratic system in Indonesia is known to be very complicated. In other offices, e-mail is not sufficient to complete the needs of an interview request. Also, an authentic signature that can prove this research is genuine is needed so that even physical letters must still be sent by airmail. Therefore, the time spent just for the interview preparation has taken weeks and even months.

From the FGD experience, it is known that the people involved are people who are active in community organisations or at least active on social media, as, at the beginning, they were contacted through Instagram, which can be only possible if their account was set to public. Those volunteers may have a biased opinion. The distributed survey might not cover all opinions as the less involved people might not participate or fill in the survey. The biased opinion also applies to the questionnaire for the unsuccessful applicants. This survey can only reach out to those who have Instagram accounts or second- or third-degree people who happened to be contacted through my connection and are willing to participate in the survey. Therefore, the conclusion cannot be generalised as a whole complete opinion of all applicants.

8 Reflection

When I started the journey to attain a master degree in Management in the Build environment, I couldn't have guessed that I would end up working on a research project so close to home for my thesis. As an employee of the province of Jakarta I had some exposure to the Zero Down-Payment Housing Program (ZDPHP) that was introduced by the current governor. I wanted to apply my new found knowledge to something that could benefit Indonesia in general and Jakarta specifically. After some deliberation I decided that the ZDPHP would be the ideal government initiative to analyse. It is my hope that the findings in this study will help improve similar programs around the world. This first chapter will introduce the problem statement, the research objective, the research questions, the scope, research significance and limitations of this study.

This research project results from my long journey back to university more than ten years after graduating with a bachelor of architecture. I call it a long process because the decision to go back to school is not an easy one, considering how difficult it is to get permission to go to university from my office and get a scholarship. With my background in the initial policy-making process to address the housing backlog problem in Jakarta, and on top of that, the fully-supported scholarship program I was awarded by the Indonesian government through the LPDP Institute, I feel that I have an obligation to apply the knowledge I have gained immediately. Because of this desire I chose a pilot project for a homeownership program as the focus of my research, hoping that my research will improve the program in the future. However, I have to position myself to be neutral to stay professional and nonbiased during this research project.

The managerial skills I learned in the MBE study program will be used to analyse the quality of housing provision programs in Jakarta. First, the mastering of the composition of supply and demand of the building stock. Secondly, applying the processes on the development project to make a project more successful Delft University of Technology (2021). These skills are aligned with my interests, which have always been about housing management.

The housing backlog is a critical problem in Jakarta. The Province of Jakarta has applied many strategies and regulations to increase the number of houses and to mitigate the problem of

the backlog in Jakarta. However, the primary approach of the provincial government still is building more housing units.

The housing sector's economic and social characteristics are why almost the whole of society is involved in the housing market through an array of policies intended to increase the housing consumption by the various groups. The research project outlined in this proposal will help the public in general and the state government, including the Province of Jakarta and other provinces specifically from developing countries, to learn about and improve the local housing conditions. It will also help the government better utilise the funding for housing by optimizing target selection. By making these types of projects more secure and prosperous, the sliding scale of risk can be halted. This would make investments in lower-tier housing more interesting for the private sector. The influx of capital that they bring can be used to fund other large scale housing projects, which will allow more beneficiaries to make use of the program while at the same time decreasing the housing backlog that exists in many developing countries.

8.1 Reflection on ethical concerns

Research on housing and resident behaviour can quickly get personal since the researcher tries to get a deep insight into the private lives of interviewees and survey respondents. During this work, some social issues were encountered that challenged the researcher in staying professional and nonbiased.

The decision to hire a research assistant is the right thing to do, especially during a pandemic. The biggest challenge is finding the right people to work with. Careful planning of the research plan and work will be delegated to research assistants are also important to think ahead. This is to avoid job desk incompatibility with what is written in the contract. As an assignor, I need to know how to arrange a contract. Only people with working experience may not find it challenging to work under a work contract agreement.

On the other hand, someone who has never had work experience will be challenged to make an employment agreement that can clearly describe the type of work required of a research assistant. In preparing a work contract, apart from knowing what work the research assistant will do, it will be an advantage if the assignor also knows where to find a qualified assistant. Educational background is an up-and-coming place to look for a research assistant. With the same curiosity perspective, looking for an assistant from among students, especially from the same faculty, at least has the same basic knowledge regarding research being carried out.

8.2 Reflection on the research process

Doing research that involves many informants from the government, private parties, and the general public is a challenge for me. From the start, I realised that the advantages I had as an employee at the Province of Jakarta could be used to reconnect with the stakeholders involved in this program to get more in-depth information. This helped me supplement the information I got with a triangulation methodology, as Denzin (2017) described using various forms of data for internal validity. Based on this reason, my data collection involved various parties, from the supply side to investigate the thinking behind policy-making on the housing supply program and from the demand side to find out the basic form of housing requirements by the citizens of Jakarta.

The first group interviewed was the supply group, which involved government officials, real estate developers and Bank operator. Semi-structured interviews were chosen to carry out interviews with elites, where all questions were open-ended questions. Harvey (2011) supported an explanation for conducting elite interviews using open-ended questions, which provides flexibility and gets a quick response.

I experienced two contradictory conditions when conducting interviews with stakeholders in the supply group. Conducting interviews with government employees in the Jakarta province is very easy, without the need for layers of bureaucracy. This is influenced by my status and personal closeness to the interviewees. On the other hand, in conducting interviews with real estate developers and supply banks, I have to prepare a list of questions and send them to the respective parties in advance. This is because they want to make sure that the information I need in the interview does not get out of hand and does not touch on sensitive issues that will potentially become a problem, considering that this program is also known among the public having high political interest. I did not anticipate this because with my experience being directly involved in this program, I thought it was enough guarantee that I would maintain the public value of each stakeholder involved. It did not have that effect.

Behind all the negative things about my limitation of not conducting direct interviews in Jakarta, this pandemic condition also gives me advantages, one of which is the familiarity of the interviewees for using online zoom meeting. My interviews were conducted online with the media zoom application, and I have never experienced a technical failure during the interviews. Zoom also makes people accustomed to giving permission to record the contents of the conversation. So this refutes the opinion regarding general etiquette from Peabody et al. (1990) that recording equipment should not be used when interviewing political elites because it will lead to ambiguous answers.

The duration of the interview runs from one to two and a half hours. Although I have prepared a list of questions, in practice, it works differently. An interesting conclusion that I can convey is, the higher the position of the interviewees I interview, the freer and more flexible the interview flow without following the list of questions that I have prepared. This is because the answer to one question can extend to various aspects, which also turn out to answer other questions. Meanwhile, when I interviewed an interviewee who was not from top-level management, the answers given were relatively rigid, even following the flow of the questions given. This is understandable because the higher manager must approve the

answers to the questions I asked. The information they provide does not spread or touch information they consider confidential.

My initial interview targets only included stakeholders who were directly involved in the implementation of this program. However, along the way, the information obtained is considered incomplete if it does not include resource persons from the ministry as the organiser of the housing program at a higher level. I was lucky because I knew the informants from family relations so that the interview schedule was straightforward. His involvement in the same program at the national level was beneficial in answering questions, and I was also given many reference documents to support his answer, especially regarding the regulations that apply at the national level.

My need to analyse the financial background of the group of applicants as a whole requires a database of applicants. Unlike the procedure for submitting an interview, I did not think that the procedure I had to follow turned out to be much more complicated. Even though I received a "go ahead" from the developer's director of finance as the primary owner of the database of applicants, this is not enough to protect "an expensive" document from misuse of the information contained in it. The program registrant database is the most valuable thing in the housing business because the document displays all personal information that is very confidential. Other than personal data, salary information and asset ownership are also included, which will be easily misused by unauthorised people. From the perspective of a real estate developer, this database is considered very valuable to be used as material for analysing housing needs. To protect against misuse of this database, a Non-Disclosure Agreement (NDA) is a prerequisite for accessing the information contained in it. Since I have no background knowledge about law and all the consequences of using this information, I was accompanied by a lawyer to arrange this NDA to avoid problems related to using databases in this research in the future.

Social media platforms became a phenomenon in the twenty-first century. Trends and popularity are runs by many kinds of social media, following the wide access and distribution of the internet throughout the world. Instagram is one of the platforms to date that serves the popular consumer things from ordinary people. Using Instagram as a platform of advertisement and reaching out to "real" users became more common in Jakarta. Because I could not travel back to Jakarta to reach out to real people and discuss with them, this platform gives me an excellent mediation to find the people who are willing to share his/her experience on applying for this program. Through Instagram, I could find people living in Nuansa Pondok Kelapa as I found an account that is a community account for the residents of Nuansa Pondok Kelapa. From this account, I met the community leader and had the opportunity to conduct FGD with three other residents. This method can be considered successful when I asked my research assistant to come directly and try several people passing by in the residential area to participate in the FGD willingly. My research assistant could not find a single person who is willing to participate. I finally understood that the direct approach is even considered inappropriate in today's social life because it may be considered dangerous and too intrusive into one's personal life.

In contrast, through social media, one is free to express and speak openly without worrying about his personal life being fully exposed. Moreover, when I connected with the head of the resident community and managed to get him to participate in the FGD, the people's

confidence in the seriousness of this research increased. As a result, the FGD went smoothly, and the information I got helped me formulate more targeted questions in the questionnaire.

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Appendix A – Focus Group Discussion Guide

Target Group: Beneficiaries/residents of Nuansa Pondok Kelapa

- Estimated time per session is indicated in each section in color **(Blue)**
- Instructions for assistant moderators are marked with *Italics*

Minutes 0-5 : Introduction

Welcome to today's discussion and I thank you for taking the time and joining this Focus Group Discussion. Re-introducing, my name is Pritha Hayuningtyas, a master's degree student at TU Delft who is currently doing his final research and Violetta Ciptafiani as my research assistant. This discussion session is part of my thesis research to complete the master's program that I am currently pursuing at TU Delft.

Before we start today's discussion, let me explain a little bit of the research I am currently doing. You may also already know that the ZDPHP is a relatively new program organized by the DKI Jakarta Provincial Government. This program aims to help people to make it easier to buy a house in the city of Jakarta, and for a broader target, namely reducing the number of housing needs in Jakarta.

This study aims to determine whether there is a discrepancy between the ZDPHP and the actual housing needs desired by . Furthermore, with the implementation of this research, I hope that the results of the research can be an input to the DKI Jakarta Provincial Government and related parties involved in it, with the hope of improving this program in the future so that the number of housing supplies and the number of home buyers can increase. many.

On this occasion, we would like to hear about the experiences of the fathers and mothers from the registration process for the purchase of a DP 0 house in Nuansa Pondok Kelapa, the submission of the KPA until the father/mother succeeded in occupying their new residence. I also want to hear the impressions and experiences after occupying his new house, is it in accordance with what you imagine.

Minutes 5-15 : Get acquainted with participants

[To all participants] Before we start with the discussion on the first topic, namely the registration process, ladies and gentlemen are welcome to introduce themselves first.

Screen sharing shows self-introduction points .

1. Name
2. Age
3. Number of families living together at Nuansa Pondok Kelapa
4. Type of residential unit currently occupied
5. Jobs and work locations

15-30 minutes : Background

1. The main reason for moving to a new house?
2. How long have you been wanting to move house?
3. Where was the previous house located?
4. How was the quality of the previous house?
5. What is the price offered by the provincial government?
6. Do you have other installments besides this house installment?

Minutes 30-45 : Registration process

Screen sharing shows the registration criteria according to the Samawa website

1. How was your experience in the registration process?
2. Are there any obstacles or difficulties in the registration process?
3. What criteria make it difficult to apply?
4. What criteria should be improved?
5. Is the registration process easy to understand?
6. Which part of the registration process was difficult to understand?
7. What method did you use when registering? Manually or using an app?

Minutes 45-50 : Residential unit selection process

1. Did you have time to see the residential unit before applying for the KPA?
2. When viewing the unit, is it as expected?
3. What are the things that are not in line with your expectations?

Minutes 50-60 : PPJB Process and Credit Agreement

1. How was the experience for applying for a credit agreement with Bank DKI?
2. Do you know the consequences if you fail to pay the installments?
3. Has your residence changed its name?

Minutes 60-70 : Break

Minutes 70-90 : After occupying a new residence

1. When to get information about additional fees such as IPL etc?
2. Are IPL, electricity and water fees considered affordable?
3. How much do you know about house rules?
4. Do you agree with all applicable house rules?
5. If there is a leak who is responsible?
6. What is in line with expectations?
7. What did not live up to expectations?
8. Do you know your neighbors/other unit occupants?
9. How often do you use residential facilities? Jaklinkgo? Islamic Prayer Room? Gathering room?
10. Do you use the application to its full potential?
11. What facilities are considered important but are not here?
12. Has the quality of life improved after moving?
13. Does living here make it easier or does it make it more difficult?
14. The biggest expense when moving into this residence?
15. Are you ready to incur unexpected expenses?
16. How much consideration to invest in this residence?
17. Plans to stay forever or just for a while?
18. Is the residential unit sufficient for all family needs? Compared to the previous hunai?
19. Would recommend family/friends to stay at DP 0 residence? Do you know there are many or few who want to buy this residential unit?
20. Do you know about P3SRS?

Minutes 90-100 : Knowledge of investment systems, buybacks, and residential takeovers

1. How far do you understand the rules regarding this residential unit buyback system?
2. Does this buyback rule affect your decision to buy a house?

Minutes 100-110 : Last session before closing

Giving participants the last chance to convey things that were not conveyed in the previous session and the impression of the message in following this discussion.

Ask the head of community the possibility to help distribute the survey.

Minutes 110-120 : Closing

Thank you and ensure that participants provide data and contacts to get an appreciation gift in the form of an ovo/gopay balance.

Appendix B – Research Proposal and List of Questions for the Executing Bank

Background Information

Many people think that owning a house is the main reason to get guaranteed certainty of living when compared to occupying a rental house. Green & White (1997) stated that owning a house encourages people to not only provide a better family environment, but also take on greater roles and responsibilities for their surrounding community and country. Therefore, the government is advised to promote and facilitate home ownership (Saunders, 1990) because it has a positive impact on both individuals and society in general (Elsinga & Hoekstra, 2005). However, the rapid urbanization process in developing countries has resulted in high land prices so that low-income people find it difficult to find decent housing in the city centre (Bredenoord et al., 2014). By considering these problems, the government is expected to be able to provide a solution by looking for a new subsidy system to help tenants become homeowners (A.Gilbert, 2012).

In recent years, several studies and plans have been formulated by the Jakarta Provincial Government and the Government of Indonesia in order to overcome the housing backlog in Jakarta and its surrounding cities. Backlog on housing cannot be overcome by focusing solely on home ownership, but in terms of decent housing, tenure security is an important point that needs more attention. To address this problem, the Ministry of Public Works and Public Housing of the Republic of Indonesia together with the Ministry of Finance of the Republic of Indonesia initiated a financial fund program for low-income target groups to own their first property (Directorate General of Budget, Ministry of Finance, 2015). Inspired by this, the Jakarta Provincial Government adopted a similar financial scheme program which was fully funded from the Jakarta Provincial Revenue and Expenditure Budget (APBD).

The program which was first introduced by Anies Baswedan as one of the candidates during the 2017 Jakarta gubernatorial election campaign under the name 'Program Rumah DP 0' (PRDP0) offers a home ownership program without a down payment. The program was well received by community groups who had difficulty buying their first house due to the inability to pay a down payment (Panjaitan, 2018). In October 2017, concurrent with his position as the newly elected governor, the province officially started the program.

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List of Question

In order to fulfil the required information for this thesis research, interviews with Bank DKI as one of the involved stakeholders needs to be carried out. Bank DKI as the executing bank appointed by the Jakarta Provincial Government as the manager of the ZDPHP in the Pondok Kelapa location is one element that has an important role in the success of the program. Along with this document, several questions regarding the involvement of Bank DKI in the ZDPHP will be asked during the interview. The list of questions is as follows:

I. General Questions

1. How was the involvement of Bank DKI in ZDPHP?
2. What are the roles and duties of Bank DKI in ZDPHP?
3. What kind of brief did Bank DKI receive from the Jakarta Provincial Government to prepare this ZDPHP?
4. What are the biggest challenges in implementing this program?
5. In what form is the evaluation system implemented by Bank DKI regarding the implementation of ZDPHP?
6. What are the inputs and complaints from the applicants to date and how are the responses to these complaints and inputs?
7. How many applicants have made it to the verification stage at Bank DKI?
8. How many applicants have passed the verification and executed the credit contract?
9. What is the reason for the applicants who passed the verification to cancel the agreement?

II. Affordability

1. Are there any differences in the agreement/regulation between the commercial mortgage and the ZDPHP?
2. On what basis does Bank DKI determine the amount of installments and the length of tenure for each beneficiary? What options are available to beneficiaries?

III. Accessibility

1. What is the selection and verification process for applicants for this program?
2. What are the criteria used for selection and on what basis are these criteria used for this program?
3. Is there a difference with the general mortgage selection system?
4. To what extent is the flexibility of this criterion to be adapted to market conditions?
5. How does the asset check process through SLIK work?
6. How and when do applicants who pass the verification find out about their obligations regarding installment payments?
7. How does the credit agreement process take place?
8. What happens if the occupant cancels the agreement (default)?
9. How does Bank DKI market this program?

Data request fulfillment process

As part of the triangulation process, to complete the information and validate this research, I also need some information from the side of the PRDP0 registrants. With this, I hope to be granted permission to obtain data in the form of the number of registrants, along with educational background, family, occupation and asset ownership. The registrant's personal data will be treated completely anonymously and the confidentiality of this data information will be maintained and only used for my research purposes.

Due to the limitations of distance and time, as well as the ongoing pandemic conditions, I submitted an interview process via zoom call. Technically, I can prepare a zoom link after the interview time is mutually agreed upon.

Thus, I submit this research proposal. I hope to get a positive response from Bank DKI for the successful completion of my thesis. The results of this thesis are expected to be able to contribute to developing a public housing program as part of a wider housing policy in Indonesia.

Appendix C - Research Proposal and List of Questions for the RE Developer

Background Information

Many people think that owning a house is the main reason to get guaranteed certainty of living when compared to occupying a rental house. Green & White (1997) stated that owning a house encourages people to not only provide a better family environment, but also take on greater roles and responsibilities for their surrounding community and country. Therefore, the government is advised to promote and facilitate home ownership (Saunders, 1990) because it has a positive impact on both individuals and society in general (Elsinga & Hoekstra, 2005). However, the rapid urbanization process in developing countries has resulted in high land prices so that low-income people find it difficult to find decent housing in the city center (Bredenoord et al., 2014). By considering these problems, the government is expected to be able to provide a solution by looking for a new subsidy system to help tenants become homeowners (A.Gilbert, 2012).

In recent years, several studies and plans have been formulated by the Jakarta Provincial Government and the Government of Indonesia in order to overcome the housing backlog in Jakarta and its surrounding cities. Backlog on housing cannot be overcome by focusing solely on home ownership, but in terms of decent housing, tenure security is an important point that needs more attention. To address this problem, the Ministry of Public Works and Public Housing of the Republic of Indonesia together with the Ministry of Finance of the Republic of Indonesia initiated a financial fund program for low-income target groups to own their first property (Directorate General of Budget, Ministry of Finance, 2015). Inspired by this, the Jakarta Provincial Government adopted a similar financial scheme program which was fully funded from the Jakarta Provincial Revenue and Expenditure Budget (APBD).

The program which was first introduced by Anies Baswedan as one of the candidates during the 2017 Jakarta gubernatorial election campaign under the name 'Program Rumah DP 0' (PRDP0) offers a home ownership program without a down payment. The program was well received by community groups who had difficulty buying their first house due to the inability to pay a down payment (Panjaitan, 2018). In October 2017, concurrent with his position as the newly elected governor, the province officially started the program.

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List of Questions

In order to fulfill the information needs of this thesis research, it is necessary to conduct an interview with PD Sarana Jaya as one of the stakeholders involved in the implementation of this program. PD Sarana Jaya as a real estate developer appointed by the Jakarta Provincial Government as the manager of the residential units at Pondok Kelapa location is one element that has an important role in the success of the ZDPHP. With this, several questions related to PD Sarana Jaya's involvement, provision, and asset management in the ZDPHP will be asked in the interview. The list of questions is attached below:

I. Frequently Asked Questions

1. How is PD Sarana Jaya involved in the 0 House DP program?
2. What are the roles and duties of PD Sarana Jaya in the DP 0 House program?
3. Why is the Pondok Kelapa location the pilotproject for this program?
4. What kind of brief did PD Sarana Jaya receive from the Jakarta Provincial Government to prepare housing in Pondok Kelapa?
5. How is the process of handing over housing to beneficiaries?
6. What are the rules in the residence?
7. Who is responsible for building management/maintenance?
8. How does the building management work on this DP 0 house building?
9. What are the biggest challenges in implementing this program?
10. Is there an evaluation system organized by PD Sarana Jaya?
11. What are the inputs and complaints from residents to date and how are the responses to these complaints and inputs?

II. Affordability

1. How is the financial calculation and the selling price of each unit?
2. How to determine the appropriate material/product for the target group?
3. What is included in the IPL fee?
4. What will happen if the residents do not pay the IPL?

5. What happens if the tenant cancels the agreement (default)?
6. How is the buyback system implemented?

III. Accessibility

1. How does PD Sarana Jaya market this program?
2. How to determine the types of dwellings and the composition of the number of dwellings in each type?
3. What are the facilities received by the beneficiary (residents), are they the same as the facilities received by the residents of the flats?
4. Does this residence also have PPRS/P3SRS?
5. What is the role of residents in maintaining this shared residential building?

Data request fulfillment process

As part of the triangulation process, to complete the information and validate this research, I also plan to distribute a questionnaire to residents in Pondok Kelapa. With that, I request permission to meet the residents and if possible, I can get the occupants data. I will keep this data confidential and will only use it for my research purposes.

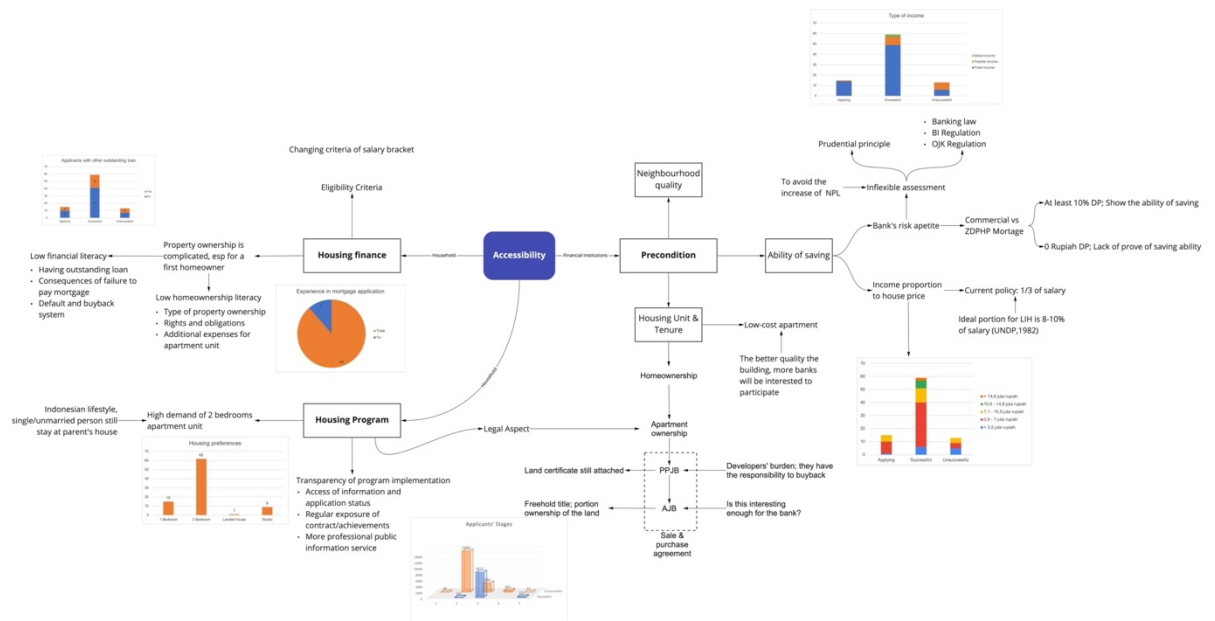
Due to the limitations of distance and time, as well as the ongoing pandemic conditions, I submitted an interview process via zoom call. Technically, I can prepare a zoom link after the interview time is mutually agreed upon. As for the process of distributing questionnaires, if I get data on the telephone numbers of the residents, I will contact the residents directly and distribute the survey through online media (google form). My team will be on standby to provide guidance to residents if they have difficulty filling out the questionnaire. This is to reduce the possibility of direct contact with residents considering the ongoing pandemic conditions. However, if needed and the process of filling out the online questionnaire was not successful, I prepared a physical questionnaire that could be distributed on behalf of my research team.

Thus, I submit this research proposal. I hope to get a positive response from PD Sarana Jaya for the successful completion of my thesis. The results of this thesis can later contribute to developing a public housing program as part of a broader housing policy in Indonesia.

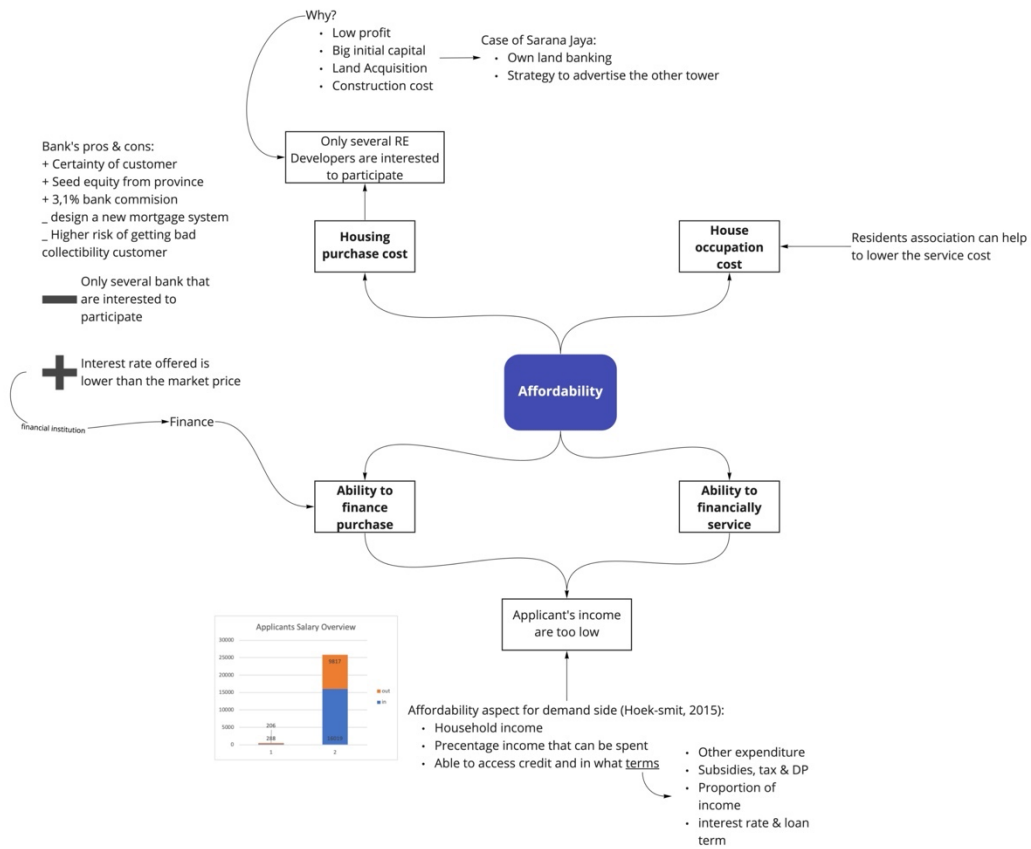
Appendix D – Simplified stages of application process

No	Stages	Simplified stages		
			Unsuccessful	Successful
1	Newly applied	1		Self-assessment
2	Did not pass self-assessment		Self-assessment - Not eligible	
3	Withdraw (uncomplete doc)			
4	Passed dept of public housing verification	2		First verification (by DPRKP)
5	Passed tax office verification			
6	Passed civil registration office verification			
7	Did not pass verification		First verification failed	
8	Unit viewing invitation did not successfully delivered	3		
9	Delivered invitation for unit viewing and bank process			Unit viewing
10	Visited the unit			
11	Withdraw (uninterested)		Applicant terminate process – after unit viewing	
12	Withdraw (did not fill in for mortgage application)	4		
13	Choosing unit			Second verification (by Bank)
14	Fill in the mortgage application form			
15	Banking process			
16	Bank decision			
17	Did not pass bank verification		Second verification failed	
18	Did not pass Financial Information Reporting System			
19	Bank declined	5		
20	Unit handover			Successful applicants
21	Withdraw (did not show up on the contract signage)		Applicant terminate process - final stage	

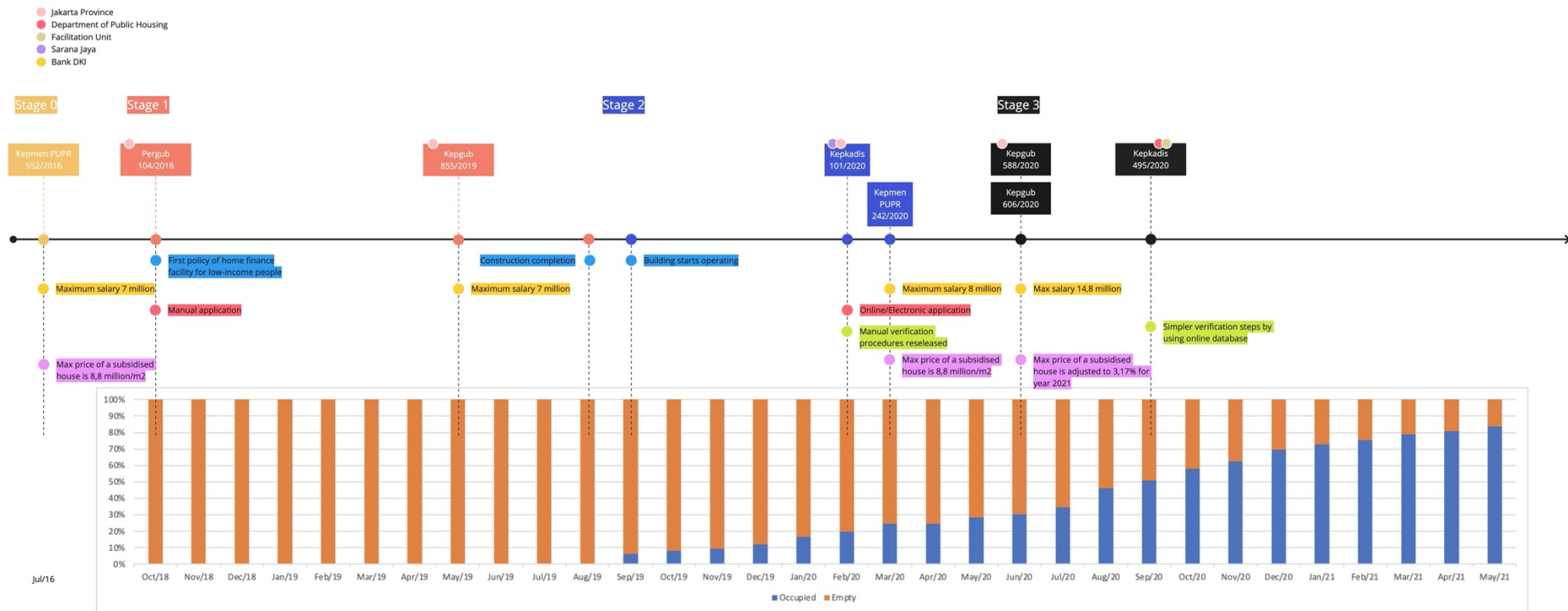
Appendix E – Accessibility mindmap



Appendix F – Affordability mindmap



Appendix G – Project timeline



Appendix H - Regulations Overview

No	Classifications	Number	Year released	Date	Description
1	The Constitution	-	2002	13/08/2002	Fourth amendment of The 1945 Constitution of Indonesia
2	Indonesia Law	39	1999	23/09/1999	Human Rights
3	Indonesia Law	1	2011	12/01/2011	Housing and Settlement Areas
4	Indonesia Law	20	2011	10/11/2011	Apartments
5	Government Regulation	88	2014	17/10/2014	Guidance on the Implementation of Housing and Settlement Areas
6	Government Regulation	14	2016	25/05/2016	Implementation of Housing and Settlement Areas
7	The Ministry of Housing and Regional Infrastructure's Decree	403	2002	02/12/2002	Technical guidelines for building a basic and healthy house
8	The Ministry of Finance's Regulation	269	2015	31/12/2015	Price limit of basic apartments and income limit for individuals who own of basic apartment
9	Bank of Indonesia's Regulation	7/2/PBI/2005	2005	20/05/2005	Asset quality assessment of commercial banks
10	Bank of Indonesia's Regulation	20/8/PBI/2018	2018	01/08/2018	Loan to Value Ratio for property loans, Financing to Value Ratio for property financing, and down payments for loans or financing vehicle
11	Bank of Indonesia's Regulation	23	2021	26/01/2021	Third amendment ... about Loan to Value Ratio for property loans, Financing to Value Ratio for property financing, and down payments for loans or financing vehicle
12	The Ministry of Public Works's Regulation	10	2019	01/07/2019	LIH criteria and requirements for the ease of obtaining houses for LIH
13	The Ministry of Public Works's Regulation	17	2021	31/03/2021	Forms and procedures for issuance of Surat Kepemilikan Bangunan Gedung Satuan Rumah Susun (SKBGSRS)
14	The Ministry of Public Works' decree	552	2016	28/07/2016	Target group's income limit for subsidized mortgage, price limit for landed adequate housing, and the amount of down payment subsidies
15	Ministerial of Public Works decree	242	2020	24/03/2020	Target group's income limit for credit/financing subsidized housing, interest rate/ margin of subsidized financing, the length of subsidy period and the period of credit/financing of home ownership, ...
16	The Governor of Jakarta's Regulation	104	2018	11/10/2018	Home Acquisition Financing Facility for LIH

17	The Governor of Jakarta's Regulation	132	2018	05/12/2018	The creation of owned-apartment management
18	The Governor of Jakarta's Regulation	133	2019	06/12/2019	Amendment to Governor's Regulation Number 132 of 201 concerning The creation of owned-apartment management
19	The Governor of Jakarta's Regulation	51	2019	24/05/2019	Assignment to BUMD related to the Provision and Financing of Housing Acquisition for LIH
20	The Governor of Jakarta's Regulation	71	2019	29/07/2019	Housing Fund Management
21	The Governor of Jakarta's Regulation	80	2019	07/08/2019	Homeownership loan/financing service rates
22	The Governor of Jakarta's Regulation	158	2019	31/12/2019	Organization and Work Procedure of the Department of Public Housing and Settlement Areas
23	The Governor of Jakarta's Regulation	14	2020	11/02/2020	Amendment to Governor's Regulation Number 104 of 2018 concerning Home Acquisition Financing Facilities for LIH
24	The Governor of Jakarta's Decree	855	2019	17/05/2019	Limitation of Beneficiaries of Housing Acquisition Financing Facilities for LIH
25	The Governor of Jakarta's Decree	1142	2019	08/07/2019	Acceleration Team of Policy Making for the Implementation of Housing Acquisition Facilities for LIH
26	The Governor of Jakarta's Decree	1177	2019	22/07/2019	Decision of UFPRS as the technical managing unit of DPRKP that utilize the BLUD financial management system
27	The Governor of Jakarta's Decree	1536	2019	24/10/2019	Disbursement of Regional Loans Revolving Fund to Facilitate Home Acquisition
28	The Governor of Jakarta's Decree	437	2020	29/04/2020	Evaluation Team of the Executing bank for the Facilitation of Home Acquisition Financing for LIH
29	The Governor of Jakarta's Decree	588	2020	10/06/2020	The Highest Income Limit for the Beneficiary of the House Acquisition Financing Facility for LIH
30	The Governor of Jakarta's Decree	606	2020	12/06/2020	Social housing (Apartment) Price limit for LIH
31	The Head of DPRKP's Decree	538	2019	29/06/2019	Procedure for registration of real estate developers and selection of prospective beneficiaries of housing financing facilities for LIH
32	The Head of DPRKP's Decree	101	2020	14/02/2020	First amendment of Procedure for registration of real estate developers and selection of prospective beneficiaries of housing financing facilities for LIH
33	The Head of DPRKP's Decree	495	2020	28/09/2020	Second amendment of Procedure for registration of real estate developers and selection of prospective beneficiaries of housing financing facilities for LIH

