Evaluation of Standard Space Size of Residential Unit, Residential Unit Kebon Kacang, Central Jakarta

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Abstract

As part of the history of vertical housing development in Indonesia, the government began construction of the first flats in 1981 with the Kebon Kacang Flats project in Jakarta. These flats pioneered the concept of vertical settlements designed for the general public. Since then, flat construction has continued to develop. The government and private developers are increasingly aggressively developing flats across various areas, especially in urban centers and commercial areas where land availability is under high pressure. Therefore, a deep understanding of the concept, function, and development of flats is essential for formulating a comfortable and effective apartment policy for the future of cities in Indonesia. However, in reality, there are often problems with the amount of space in an apartment unit, so it does not meet the minimum requirements for survival. The research entitled Evaluation of the Standard Size of the Space Standard of the Kebon Kacang Flats Residential Unit, Central Jakarta was carried out to measure whether the size of the space of the Kebon Kacang Flats, Central Jakarta, is in accordance with the standard of the size of the Apartment Housing Unit and the living needs of the residents. This research was conducted through field observation and data collection at the Kebon Kacang Flats residential unit in Central Jakarta.

Keywords: *Standard Space, Flats, Residential Units.*

A. INTRODUCTION

A house is one of the primary needs for human life. In accordance with the times, the need for houses is increasing (Hondro, Lakat & Punuh, 2022). This is directly proportional to population growth: rapid population growth and limited land availability for housing cause several settlement problems, including overcrowding and slums.

Based on type, houses can be classified into two main categories: landed (horizontal) houses and vertical houses (Tania & Lianto, 2022). A landed (horizontal) house is a house that is built directly on the ground and stands alone or Single (Bournas, 2020). While vertical houses are houses that are built in stacks upwards, such as flats (Malik & Dewancker, 2019).

Currently, many flats are being built in big cities, such as DKI Jakarta, due to land constraints, which are driving up land prices and housing demand for the growing population (Jamika et al., 2023). Therefore, flats are built to accommodate more residents on a smaller land area, making them more efficient in the use of land and space.

As part of the history of the development of vertical housing in Indonesia, the government began constructing the first flats in 1981, with the Kebon Kacang Flats in

Jakarta (Suswandari et al., 2020). This apartment is a pioneer in the concept of vertical settlements designed for the general public, with 632 residential units across 3 types and 8 residential blocks. It also includes parking facilities, basketball courts, mosques, multipurpose buildings, playgrounds and *security*. The presence of this infrastructure shows that, even though it is simple, flats are still designed to provide comfort and make living feasible for their residents.

Since then, the construction of flats has continued to develop. The government and private developers are increasingly aggressively developing flats in various areas, especially in urban centers and commercial areas where land availability is under pressure. In addition to overcoming land limitations, flats also offer opportunities to design standard sizes that can be adjusted to the space needs and provisions of the flats, ensuring enough space for residents and helping them feel comfortable. Therefore, a deep understanding of the concept, function, and development of flats is very important in formulating a comfortable and effective apartment policy for the future of cities in Indonesia. But in reality, there are often problems with the amount of space in an apartment unit, so it does not meet the minimum survival needs. The research entitled Evaluation of the Standard Size of the Space Standard of the Kebon Kacang Flats Residential Unit, Central Jakarta was carried out to measure whether the size of the space of the Kebon Kacang Flats, Central Jakarta, is in accordance with the standard of the size of the Apartment Housing Unit and the living needs of the residents. This research was carried out using a descriptive qualitative method, collecting data from literature reviews on flats and their technical guidelines, field observations, interviews/surveys and data on the residential units of Kebon Kacang Flats in Central Jakarta. Kebon Kacang flats are owned, so the results of this study can also inform the standard apartment unit size in regulations, as a flat is considered adequate in size if the resulting design creates an atmosphere of comfort, security, and productivity for its residents. The design of the flats' spaces must be carefully considered, as it will affect residents' quality of life and lifestyle (Mariana, 2014).

B. LITERATURE REVIEW

Housing is one of the primary needs for the sustainability of human life, but as the population grows, the need for housing is increasing, and vacant land is becoming increasingly limited (Rahmawati, 2023). To solve the problem of the limited number of vacant land, especially in urban areas and also to make the city have a fairly good level of efficiency, as an alternative to housing development in urban areas, including in the Special Capital Region (DKI) of Jakarta, which has a very dense population, namely by carrying out the development process of building housing vertically, called flats (Rubiati, 2023).

Flats in Indonesia are categorized into several types based on income group and unit area, including:

1. Simple flats, which are intended for people with medium or low incomes. The unit area of the house ranges from 21 to 36 m2, excluding mechanical and electrical equipment.

2. Medium flats, flats with a unit area of 36-54 m2. Sometimes it is equipped with mechanical and electrical equipment, depending on the concept and purpose of its construction. These flats are intended for the middle-income community.
3. Luxury Flats, flats for the upper-income group. The area of the space, the quality of the building, and the building equipment depend on the concept and purpose of its construction, as well as the presence of several complete facilities and a certain ownership status (Japto, 2014).

Flats include residential units, shared areas, shared facilities, and jointly managed land, such as:

1. A flats unit is a residential unit in a multi-storey building that is specifically designed as a residence for several families or individuals.
2. A shared part of a flat is a facility or area that is jointly owned and used by all residents, such as public facilities, such as meeting rooms, play areas, or sports facilities.
3. A common object is a collectively owned object
4. Shared land refers to an area of land that several parties jointly utilize without physical division.

So, it can be concluded that a flat is a multi-storey building with an individual and collective ownership system, used for both residential and non-residential purposes, and can be built separately or as part of a larger development project. The facilities that must be ensured in the flats are:

1. Provide certainty regarding security, tranquility and comfort, which is in accordance with applicable cultural values.
2. Evoke a sense of belonging and change habits that are inappropriate for the lifestyle in vertical housing.
3. Prevent planning from abusing shared facilities for the benefit of certain groups.
4. Supporting the activities and needs of residents according to the predetermined location conditions.
5. Accommodating functions related to the organization and development of aspects related to the economy and socio-culture. Meanwhile, when planning environmental facilities for vertical housing, they must comply with requirements for commercial facilities (*warung*), educational facilities, health facilities, worship facilities, government and public service facilities, and parking lots.

The design criteria for the standard amount of space in flats are a measurement tool for the research. The standard used is based on the criteria for Simple Flats under Presidential Decree No. 22 of 2006 concerning the coordination of Planning for the Development of Flats in Urban Areas (PPRSKP), measuring 18 m^2, 25 m^2, and 36 m^2. Based on the standards of the Jakarta Department of Public Works (DPU), the amount of Residential Unit Space that is considered ideal is as follows:

1. For 1 (one) unit = 5 people, with the standard 1 person = 7 m^2.
2. Flat units are divided into three types, namely:

a. Small Type = accommodates 3 people = 3 × 7 = 21 m^2
b. Medium Type = accommodates 5 people = 5 × 7 = 35 m^2
c. Large Type = accommodates 7 people = 7 × 7 = 49 m.

C. METHOD

Therefore, the research entitled Evaluation of the Standard Size of Apartment Units of Kebon Kacang Flats, Central Jakarta was carried out to measure whether the amount of space in Kebon Kacang Flats, Central Jakarta, is in accordance with the standards of the Apartment Unit Size and the living needs of its residents based on regulations or not. If it meets the standards, then this flat is worthy of being used as a reference for the ideal apartment residential unit design based on the area of unit space, but if the result is not, then a recommendation for the ideal residential unit design based on the area of unit space that meets regulatory standards is needed. Before the research was carried out, the researcher first approached by reviewing several national journal articles from three (3) similar studies. The analysis is needed to determine which methods will be used and which have been used by previous researchers. Based on the analysis results, the most appropriate research method can be determined.

The first research article is entitled A Study of the Amount of Space in Central Jakarta Flats (Suryawan & Hartanti, 2021). This research article describes the amount of space in the Tanah Abang Flats to measure whether the amount of space in the Tanah Abang Flats is in accordance with the standards of the Size of the Flats and the living needs of the residents by using the observation method in the field and data collection of the Tanah Abang Flats residential units. The results of the study showed that the level of comfort in the Tanah Abang Flats Residential Unit was (66%) which was categorized as "quite comfortable" in terms of the amount of space. Article: The second study is entitled Analysis of the Adequacy of User Space in the Residential Unit of West Jatinegara Flats and Pengadegan, Jakarta (Rahardjo, 2022). This research article describes the ergonomic and anthropometric factors associated with activities and the amount of space needed by residents in carrying out their activities, accompanied by tools or support activities, using descriptive qualitative methods, using two research loci as *sampling* of 54 locations of simple high-rise flats that have been built in Jakarta, namely West Jatinegara Flats and Pengadegan Flats. The third research article is titled Study of the Typology of Vertical Residential Space Patterns in Jakarta (Gunawan & Purwantiasning, 2021). This article describes the challenges of identifying residential space patterns and typologies in apartment buildings, based on three case studies employing a qualitative descriptive method. The author will describe and identify each aspect of this study, guided by the theoretical foundation.

Based on the three studies, it can be seen that the appropriate methodology to be used in the study entitled Evaluation of the Standard Size of Residential Units of Kebon Kacang Flats, Central Jakarta is qualitative, descriptive and interviewable using random sampling techniques of at least 10% of the total number of units in the flats.

The process of collecting and processing research data is carried out in the following steps:

1. Field observation to obtain the dimensions/size of the space of each unit in the flat. Field observation was carried out using two methods: documenting important information related to this study as photos and interviewing residents and administering questionnaires to at least 10 percent of the occupied apartment units.

Figure 1. Kebon Kacang Flats Survey Documentation, Central Jakarta

Source: Results of Researcher Survey (2026)

2. Survey and documentation directly, as well as data collection, re-measurement and then re-drawing the Kebon Kacang Flat. The existing locations are as follows:

Figure 2. Existing Conditions of Kebon Kacang Flats, Central Jakarta
Source: https://www.bloombergtechnoz.com/

3. Literature study is carried out by reviewing literature related to research, such as theories related to flats, standards related to the minimum standard amount of each apartment unit room.
4. Comparison by comparing the results of field observations, surveys and literature studies, as well as interview results, to produce a result and discussion in the research.

D. RESULT AND DISCUSSION

The number of units in Kebon Kacang Flats, Central Jakarta, is 632, with 3 types of residential units: studio (21 m2), 2-bedroom (42 m2), and 3-bedroom (51 m2).

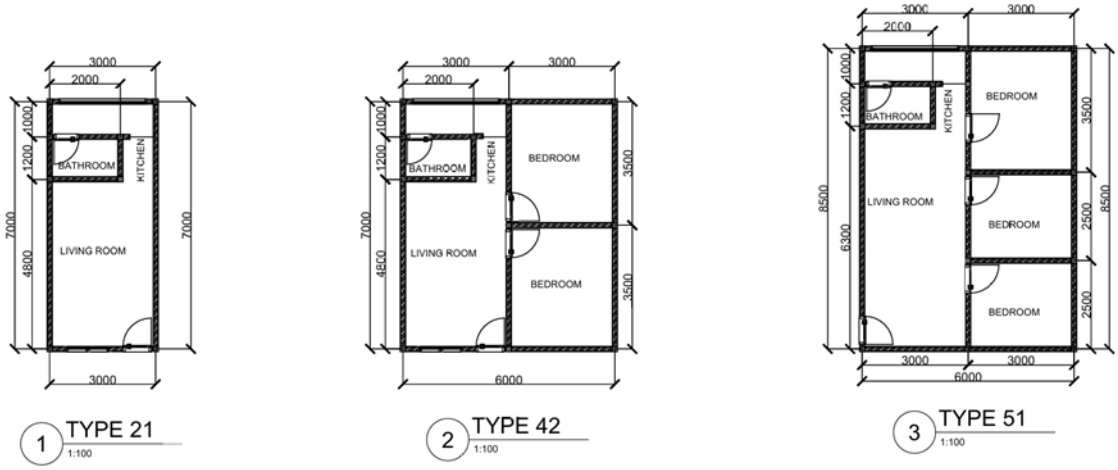

Figure 3. Three Types of Residential Units in Kebon Kacang Flats, Central Jakarta
Source: Results of Researcher Survey (2026)

The space available in each residential unit is as follows:

Table 1. Space in each residential unit

Studio	Living Room/Bedroom, Kitchen, Bathroom, Back Porch	4
2 Bedrooms	Living Room, 2 Bedrooms, Kitchen, Bathroom, Back Porch	6
3 Bedrooms	Living Room, 2 Bedrooms, Kitchen, Bathroom, Back Porch	6

Source: Results of Researcher Survey, 2026

Of the 632 residential units, only 500 residential units were occupied, so the researcher sampled 10% of the 500 units, namely 50 respondents in residential units surveyed/interviewed with interview instruments containing information about the identity of the respondents (name, gender, location of the tower of the building and floor, type of residential unit type and size, Number of households in 1 residential unit, number of family members, number of residents and occupation), how long have you lived in the flat, what spaces are in the residential unit, what activities are carried out in the residential unit of the flat, whether there are more than 1 activity carried out in 1 room of the residential unit and what facilities need to be added to the flat.

The results of the study, based on the results of surveys/interviews of 50 respondents, with 27 male and 23 female respondents, are as follows:

1. The number of respondents who live in type 21 is 22, the number of respondents who live in type 42 is 24, and the number of respondents who live in type 51 is 4

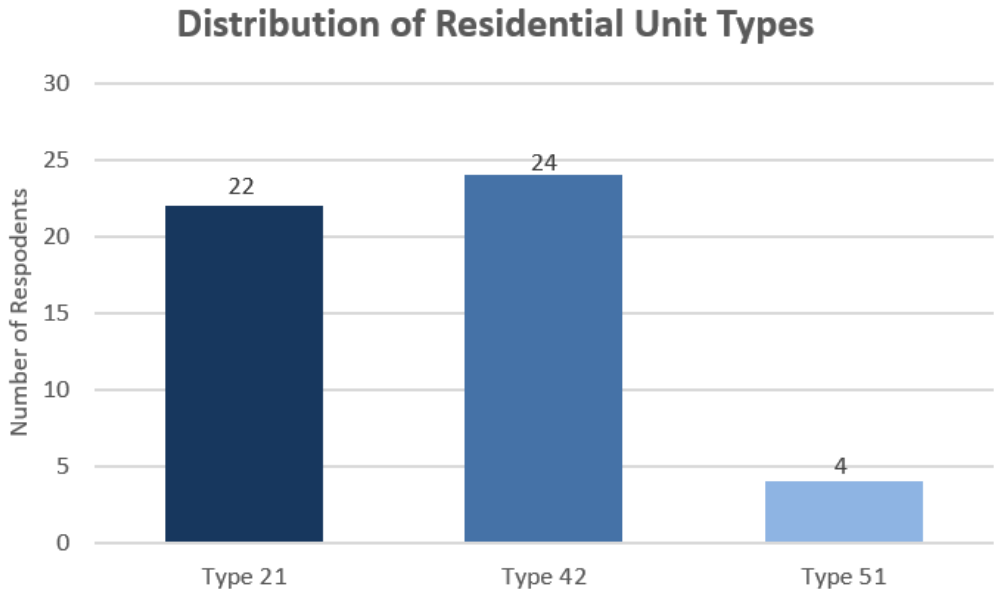

Figure 4. Survey Results of the Number of Respondents in the Kebon Kacang Flats Residential Unit, Central Jakarta

(Source: Results of Researcher Survey, 2026)

2. The number of respondents from block 1 is 6, the number of respondents from block 2 is 6, the number of respondents from block 3 is 6, the number of respondents from block 4 is 6, the number of respondents from block 5 is 7, the number of respondents from block 6 is 6, the number of respondents from block 7 is 6, the number of respondents from block 8 is 7.

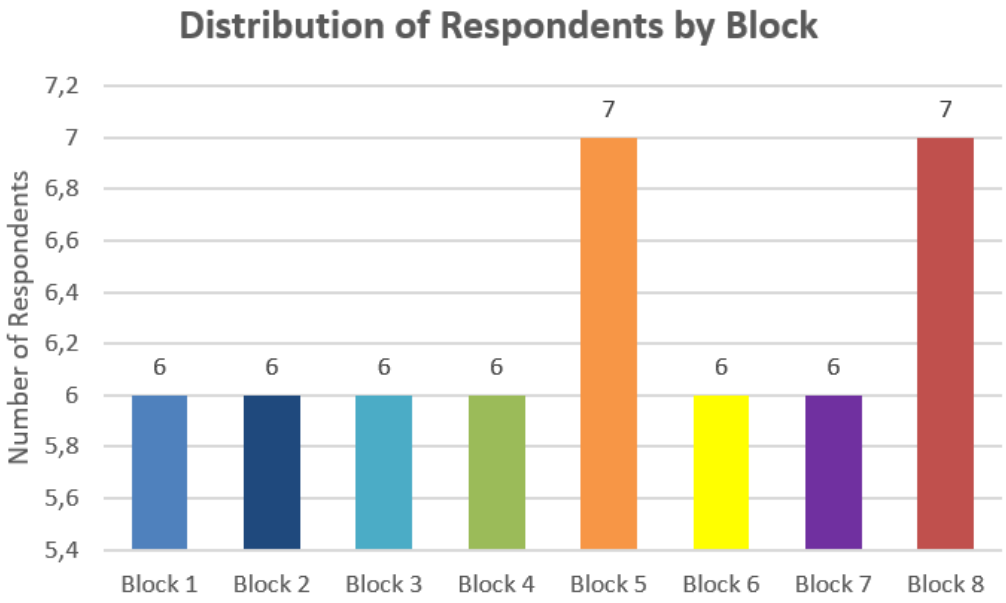

Figure 5. Survey Results of the Number of Respondents by Block in the Residential Unit of Kebon Kacang Flats, Central Jakarta

Source: Results of Researcher Survey (2026)

3. Number of households in 1 residential unit: 1 household: 39, 2 households: 9, 3-4 households: 2

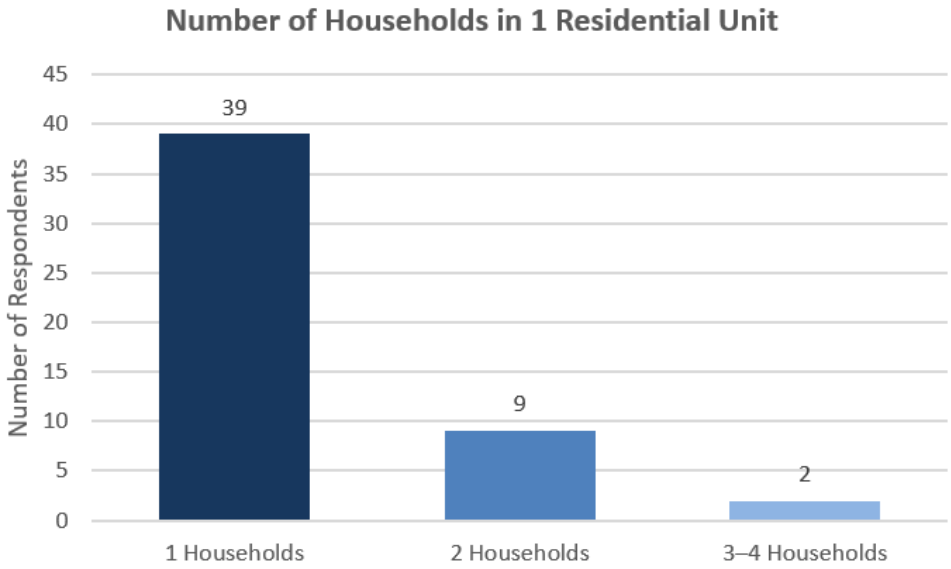

Figure 6. Survey Results of the Number of Households in the Residential Unit of Kebon Kacang Flats, Central Jakarta

Source: Results of Researcher Survey (2026)

4. The number of residents in 1 residential unit of 1 occupant is 6; 2 inhabitants totaling 7; 3 residents totaling 13; 4 residents totaling 15; 5-8 residents totaling 9.

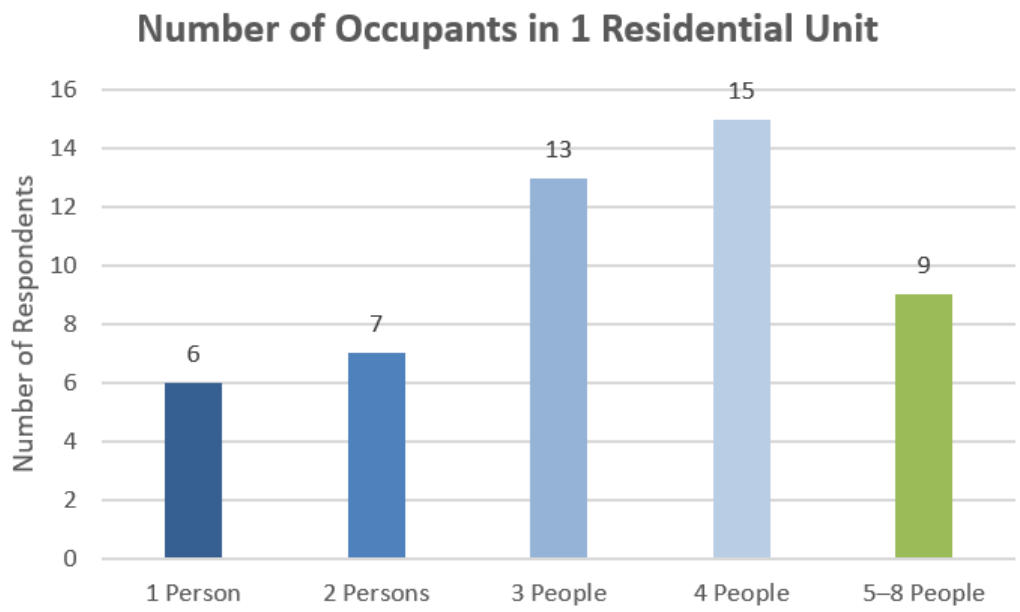

Figure 7. Survey Results of the Number of Residents in 1 Residential Unit of Kebon Kacang Flats, Central Jakarta

Source: Results of Researcher Survey (2026)

5. The jobs of the interviewees were 17 housewives, 1 online motorcycle taxi, 3 students, 1 newspaper agent, 1 civil servant, 6 retirees, 4 freelancers, 2 merchants, 2 security, 7 self-employed and 7 employees.
6. The length of stay in the flats is 0-10 years = 6 residents, 11-20 years = 6 residents, 21-30 years = 11 residents, 31-40 years = 14 residents, 41-50 years = 13 residents.
7. Function/Activity used in residential units for residential and selling/working: 10 residents, for residential only (eating, cooking, sleeping, bathing, etc.): 40 residents

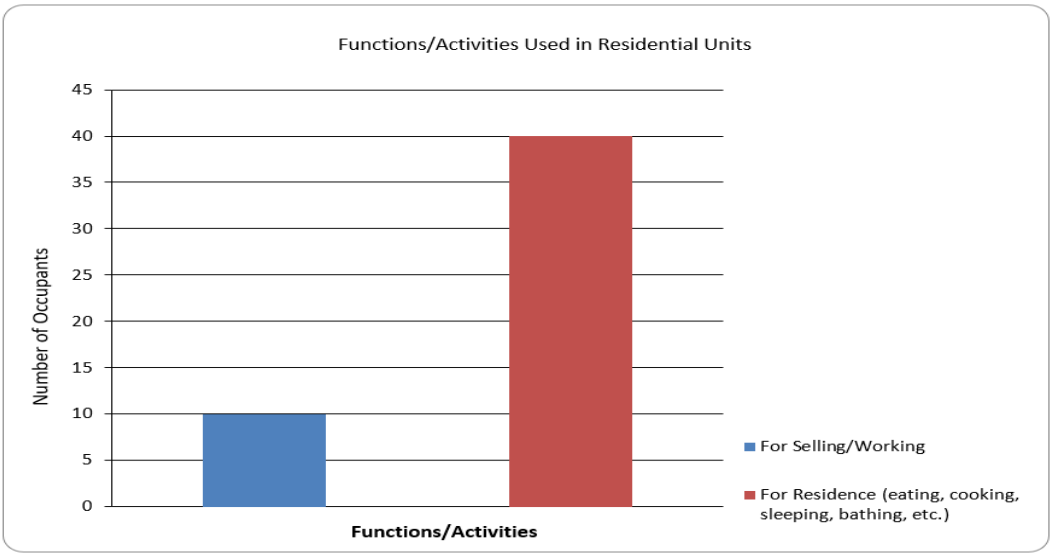

Figure 8. Survey Results on the Number of Residents who use the Kebon Kacang Flats Residential Unit, Central Jakarta, for more than 1 Function

Kebon Kacang Flats in Central Jakarta is a category of simple and medium-sized flats, with residential units ranging from 21 to 54 m2.

E. CONCLUSION

Based on the survey results, the maximum number of residents per residential unit is 5-8, accounting for 18%. Based on the standards of the Jakarta Department of Public Works (DPU), the amount of Residential Unit Space considered ideal for 1 (one) unit is 5 people, with 1 person = 7 m². The standard space for 5-8 people is considered too small for the flat. It is recommended that it be conceptualized for residential units with a capacity of 5-8 people, so that they are not too narrow by increasing the area and the number of rooms. The survey results also show that 80% of residential units are used for more than 1 function other than housing, namely, selling and working (newspaper age), so that residential units are considered less accommodating to their residents' additional needs. It is recommended to provide additional facilities for its residents, such as additional business units. Some of the next inputs related to facilities to be added to the Kebon Kacang Flats in Central Jakarta include RPTRA/parks, trails, parking and outdoor sports venues.

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