A Preliminary Study of Housing Satisfaction, Mobility, and Adaptation of the Jakartans in 2020-2021

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ABSTRACT

This study investigates the factors of housing satisfaction, mobility, and adaptation for providing suitable housing quality to the needs of Jakarta residents. Although many housing provision programs are delivered in the capital city to accommodate the housing needs of the Jakartans, its result remains unsuccessful in attracting interest from the designated homebuyers in the capital city, especially the middle and low-income groups, due to its unaffordable housing price and potentially unmeet housing preferences and satisfaction. According to the quantitative analysis of 400 respondents, age and marital status are the prominent socio-demographic factors of housing satisfaction, mobility, and adaptation of the Jakartans, followed by various attributes of housing norms. This study encourages the city authority, planners, and architects to thoroughly plan the location of housing with sufficient proximity to the public amenities, which also implicates investment opportunities, land, and building taxes. In contrast, adaptable housing design is suggested to enable self-help development by the residents for coping with unforeseen needs in the future according to their life cycle stages.

Keywords: Housing norms, Housing satisfaction, Housing mobility, Housing adaptation, Jakarta

1. Introduction

Although it is considered the most populated city with the highest urbanization rate in Indonesia, Jakarta city experiences a modest population growth compared to its surrounding cities and regencies in Greater Jakarta Metropolitan Area (GJMA). A BPS report in 2021 notes the capital city has experienced 1.16-1.35% since 2019-2021, compared to Bekasi city and regency (3.42-3.74%), Tangerang city and regency (2.48-2.61%), Depok city (4.03-4.47%), also Bogor city regency (1.97-2.02%) in the same period. According to the same report, the unaffordable housing market is one of the prominent factors of the declining population growth in the Indonesian capital city and housing mobility in the surrounding cities and regencies.

Many housing provision programs are delivered in the capital city to accommodate the housing needs of the Jakartans, as written in Provincial Regulation 1/2018 on Midterm Development Plan 2017-2022. One of the salient programs is the Zero Down Payment (ZDP) program for homeownership in affordable vertical housing. However, its result still needs to be successful in attracting interest from the designated homebuyers in the capital city, especially the middle and low-income groups, due to its unaffordable housing price and potentially unmeet housing preferences and satisfaction. It indicates the housing provision program depends on the affordability and land availability approach, which still disregards the homebuyers' housing preferences and satisfaction approach. In comparison, studies on housing satisfaction have been widely acknowledged as a pivotal

basis for formulating housing policy and design [28], as it provides a housing design guideline for planners or architects to meet the needs of future residents [39].

This study investigates the factors of housing satisfaction, mobility, and adaptation for providing suitable housing quality to the needs of Jakarta residents. It contributes to the academic conversation on this limited topic, especially in the housing and settlement knowledge field. It is a preliminary reference for planners and architects to formulate the appropriate housing planning and design. The investigation begins with the theoretical exploration of significant concepts such as housing norms, satisfaction, and mobility to obtain a profound understanding and formulate the decisive variables in the operated quantitative method. The result is analyzed critically and concluded in the final part of this paper.

2. Material and Methods

2.1. Material

2.1.1. Housing Norms

Several authors discussed the formulation of housing cultural norms by observing the everyday life of the residents [54] [75]. They attempted to understand and identify the preferable physical and social characteristics of housing for the residents. Later, Morris and Winter [61] postulate that housing adjustment (mobility or adaptation) is delivered by the family or household when the experienced current housing condition fails to meet their cultural housing norms. They generalize housing cultural norms such as space, tenure, structure, and neighborhood.

Space norms relate to the adequacy of quantity and quality of housing to accommodate the needs of residents [1]. Study shows space norms are influenced by socio-demographic

characteristics such as age, sex, family composition, or marital status [34]. Tenure norms correspond to the homeownership status, which implicates tenure security and household expenditure in the form of tax [9]. Type of structure norms connotes the housing types such as detached or vertical housing, which implicate the suitability with the residents' lifestyle [59] [60]. Similar to space norms, neighborhood norms refer to the quantity and quality of neighborhood features that suit to accommodate the needs of the residents according to their socio-demographic characteristics [49]. Furthermore, the neighborhood norms expand to the location norms for examining the residents' preferences of their housing location towards the proximity to the supporting amenities in the city [40]. Later, the expenditure norms, which relate to the financial capacity of the residents, emerge as the housing cultural norms because of their pivotal role in financing the living or moving of the residents [68].

2.1.2. Housing Satisfaction

Francescato and Weidemann [31] define housing satisfaction as the response of an individual or household to the experienced current housing condition as it represents the experienced contentment of an individual or a household towards the current housing condition [57]. Later, Galster [32] postulates it is achieved when the current housing condition meets the housing aspirations, including the neighborhood's physical housing and social attributes. Nowadays, it is defined by many authors as the conformity degree between the ideal and actual housing conditions of the residents [6] [10] [42] [43] [62] [67] [69]. Nonetheless, studies show that the subjective perception of the residents prevails over the objective housing condition to determine their housing satisfaction [4] [48].

Myriad studies inquiry the degree of housing satisfaction such as space norms including

housing size [5], housing appearance [23], and quality of its features [26], tenure norms [36] [41], neighborhood norms such as safety [8] [66], the neighborhood maintenance [2] [44] availability of amenities [50], cleanliness [16], and social cohesiveness with the surrounding neighbors [63] [72], expenditure norms [11] [48] [73], also location norms such as proximity to workplace, public transportation, or other facilities [2] [24] [38].

However, galore studies assert the socio-demographic characteristics of the residents contribute significantly to housing satisfaction [56] [76], such as sex [58], age [73], levels of education [15] [45], marital status [25] [67], household composition [21], types of employment [15], and length of residence [15].

2.1.3. Housing Mobility

Housing dissatisfaction is also regarded as the trigger of housing mobility or adaptation [3]. Several studies conclude housing mobility is negatively correlated and influenced by age, family composition, length of residence, and homeownership but positively correlated and influenced by monthly income and levels of education [8] [17] [20] [22] [33] [41] [52] [53] [74].

Age has been examined as one of the essential socio-demographic characteristics for housing mobility, as increasing age tends to decrease the desire to move [64] [65]. The neighborhood attributes such as race, ethnicity, monthly income, and the physical quality of the neighborhood are considered the main factors of housing mobility [29] [35] [71]. Later, those who obtain freehold homeownership tend to settle with less desire to move compared to the renters [70].

Further, copious studies combine the implication of the residents' socio-demographic characteristics and perceived housing satisfaction with their housing mobility [18] [19] [22] [46] [51].

However, a study by Basolo and Yerena [7] asserts that housing dissatisfaction plays a pivotal role in housing mobility, the life-cycle stage of individuals or households, and the availability of suitable housing in the market. Therefore, Jansen [47] argues the residents remain to reside despite experiencing uncanny housing conditions because of the adjusted housing aspirations, due to the unaffordable housing market, or unavailable suitable housing to their preferences. It occurs in the form of housing adaptation.

2.2. Methods

Several approaches have been introduced by authors to measure the housing satisfaction of the individual or household, such as measuring the satisfaction degree of residents towards their surrounding environment [12], the discrepancies between the actual and aspired needs of the residents [32], and the probability of residents' response according to the experienced current housing condition [30].

Li and Wu [55] typify three significant determinants in the inquiry of housing satisfaction such as 1) socio-demographic characteristics, 2) physical attributes, and 3) neighborhood physical features and socio-spatial characteristics. However, according to the aforementioned literature reviews, this study is divided into 3 (three) sections, which are:

1. The characteristics of respondents.
2. The socio-demographic factors of housing satisfaction, mobility, and adaptation.
3. The factors of housing satisfaction, mobility, and adaptation according to the housing norms.

Following Morris and Winter, the selected housing norms are location, neighborhood, space, and expenditure [61].

Several studies employ an explanatory approach with convenient sampling to deliver efficient and effective primary data [13] [14], which is also applied in this study. The number of collected respondents is 400, which is adequate to meet the confidence ratio of 95%, according to the Slovin formula. The Cronbach's Alpha test is 0.7231 ($\alpha > .7000$), which indicates sufficient reliability of the collected data [27] [37]. The descriptive analysis of the characteristics of respondents is applied to understand the demographic composition of respondents, while regression analysis is employed to obtain the significant factors of housing satisfaction, mobility, and adaptation, according to socio-demographic and housing norms.

3.   Results and Discussions

3.1.   The Characteristics of Respondents

Generally, most of the respondents work as private employees (42.25%), followed by students (20.00%), self-employed (13.50%), unemployed (13.25%), civil servants (10.25%), and retirees (0.75%), as Table-1 shows.

Most of the male respondents work in the private sector as an employee (45.76%), followed by students (21.47%), self-employed (16.95%), and civil servants (9.04%). Few respondents do not work such as unemployed (5.65%) and retired (1.13%). It illustrates the diversity of the employment types of respondents, which may represent the diversity of employment types in society.

While in the female respondent group, the private employee is the dominant type of employment (39.46%), followed by unemployed (19.28%), student (18.83%), self-employed (10.76%), civil servant (10.25%), and retiree (0.45%). This composition shares a similar composition with its male counterparts.

Table-1: The composition of employment types according to sex and age group

Sex	Age (yrs.-old)	Types of employment						Total	
		Civil servant	Private employee	Self-employed	Retiree	Student	Unemployed*	(n)	(%)
Male	<25	1	7	7	1	24	7	*47*	*26.55*
	25-45	14	73	23		14	3	*127*	*71.75*
	46-65	1	1		1			*3*	*1.69*
	(n)	*16*	*81*	*30*	*2*	*38*	*10*	*177*	*44.25*
	(%)	*9.04%*	*45.76%*	*16.95%*	*1.13%*	*21.47%*	*5.65%*		
Female	<25	2	23	2		28	4	*59*	*26.46*
	25-45	21	65	22		14	35	*157*	*70.40*
	46-65	2			1		4	*7*	*3.14*
	(n)	*25*	*88*	*24*	*1*	*42*	*43*	*223*	*55.75*
	(%)	*11.21*	*39.46*	*10.76*	*0.45*	*18.83*	*19.28*		
Total	*(n)*	*41*	*169*	*54*	*3*	*80*	*53*	*400*	
	(%)	*10.25*	*42.25*	*13.50*	*0.75*	*20.00*	*13.25*		
Age (yrs.-old)	<25	3	30	9	1	52	11	*106*	*26.50*
	25-45	35	138	45	-	28	38	*284*	*71.00*
	46-65	3	1	-	2	-	4	*10*	*2.50*

* for female respondents, it stands for housewife

Source: (Khalis & Adianto, 2022)

According to age group, generally, most of the respondents are aged 25-45 years old (71.00%), followed by younger than 25 years old (26.50%), and 46-65 years old (2.50%).

The male respondent group shares a similar composition, as the 25-45 years old group is the dominant (71.75%), followed by those younger than 25 years old (26.55%) and 46-65

years old (1.69%). While in the female respondent group, 25-45 years old is also the dominant respondent group (70.40%), followed by those younger than 25 years old

(3.14%). This composition indicates the participated respondents are included potential homebuyers with most of them owning formal types of employment at the productive age.

Table-2: The composition of marital status, housing types, and homeownership according to sex and age group

Sex	Age (yrs.-old)	Marital status			Housing type		Homeownership				Total	
		Single	Married	Separated	Apartment	Detached house	Parental	Official	Rent	Free hold	(n)	(%)
Male	<25	47				47	38		7	2	47	26.55
	25-45	76	51		5	122	83	1	25	18	127	71.75
	46-65		3			3		1		2	3	1.69
	(n)	123	54		5	172	121	2	32	22	177	44.25
	(%)	69.49	30.51	0.00	2.82	97.18	68.36	1.13	18.08	12.43		
Female	<25	58	1			59	47		11	1	59	26.46
	25-45	78	77	2	5	152	76	1	49	31	157	70.40
	46-65		7			7	2			5	7	3.14
	(n)	136	85	2	5	218	125	1	60	37	223	55.75
	(%)	60.99	38.12	0.90	2.24	97.76	56.05	0.45	26.91	16.59		
Total	(n)	259	139	2	10	390	246	3	92	59	400	
	(%)	64.75	34.75	0.50	2.50	97.50	61.50	0.75	23.00	14.75		
Age (yrs.-old)	<25	105	1	-	-	106	85	-	18	3	106	26.50
	25-45	154	128	2	10	274	159	2	74	49	284	71.00
	46-65	-	10	-	-	10	2	1	-	7	10	2.50

Source: (Khalis & Adianto, 2022)

Most of the respondents have not entered marriage (64.75%), followed by married (34.75%) and separated (0.50%). This composition is similar to the male and female respondent groups. In the male respondent group, single is the dominant marital status (69.49%), followed by married (30.51%), and separated (0.00%). While in the female counterparts, the single is also the dominant group (60.99%), followed by married (38.12%), and separated (0.90%). This composition depicts most of the respondents are potential homebuyers in the future when entering the next life-cycle.

The marital status of respondents potentially relates to the current homeownership. Most of them still live in the parental house (61.50%), followed by rent (23.00%), freehold (14.75%), and official housing (0.75%). It shares a similar composition to both respondent groups, as most male respondents still live in the parental house (68.36%), followed by rent

(18.08%), freehold (12.43%), and official houses (1.13%). While in the female respondent group, most respondents still share space in their parental houses (56.05%), rent (26.91%), freehold (16.59%), and official houses (1.13%). This composition hints at the result that exemplify the future homebuyers.

Most of the respondents are currently living in a detached house (97.50%), and only a small number live in an apartment (2.50%). This composition is similar to the male and female respondent groups. In the male respondent groups, most of the respondents are currently living in a detached house (97.18%), and a small number live in an apartment (2.82%). While in the female counterparts, most of the respondents are living currently in a detached house (97.76%), which is dominant compared to an apartment (2.24%). This composition suggests the result represents the subjective assessment of housing satisfaction and mobility from the dwellers of detached houses.

International Journal of Built Environment and Scientific Research
Volume 06 Number 02 | December 2022
p-issn: 2581-1347 | e-issn: 2580-2607 | Pg. 111-126

3.2. *Factors of Housing Satisfaction, Mobility, and Adaptation*

Table-3 shows age (ρ-value=.0443<.05), marital status (ρ-value=.0339<.05), and tenure/ homeownership (ρ-value=.0407<.05) are the prominent factors of housing satisfaction. It indicates a low degree of housing satisfaction is more likely experienced by the younger respondents and its degree tends to be higher as the respondents become older. This finding shares a similar result with a study by Wang et al. [73], who argues age is a pivotal factor in housing satisfaction.

Those who have not entered marriage are inclined to experience housing dissatisfaction, while those who have entered marriage tend to be more satisfied with their current housing condition. This finding confirms several prior studies that pose marital status as the crucial demographic factor of housing satisfaction [25] [67].

However, this study finds the lack of homeownership also contributes to a low degree of housing satisfaction, and it is increasing when the respondents obtain homeownership. Homeownership guarantees tenure security for the respondents and its absence fails to provide their sense of security, which leads to housing dissatisfaction.

Those factors also contribute to housing mobility, such as age (ρ-value=.0282<.05), marital status (ρ-value=.0363<.05), and tenure/ homeownership (ρ-value=.0186<.05). The younger respondents tend to move out for finding more suitable housing condition which meets their needs, rather than the older respondents, who tend to more feel settled to deal with their current housing condition. It upholds the result of several prior studies [64] [65].

The increasing age may relate to the changing life-cycle, such as entering a marriage. The marital status change frequently results in housing mobility to find privacy and independent living from the parental nest to new houses, as several studies affirm [8] [33] [41]. Changing marital status such as separation also drives housing mobility, as mentioned in several previous studies [22] [52].

Table-3: The demographic factors of housing satisfaction, mobility, and adaptation

Attributes/ norms	Regression Statistics	Housing		
		Satisfaction	**Mobility**	**Adaptation**
Demographic	Multiple R	.7438	.6031	.7984
	R Square	.4017	.3219	.4079
	Adjusted R Square	.2406	.3044	.3009
	Standard Error	.3107	.2554	.1832
	Observations	400	400	400
	ANOVA	**Significance F**		
	Regression	.0186	0.0023	0.0071
	Variables	**ρ-value**		
	Intercept	.0000	.0000	.0000
	Sex	.0792	.0792	.0695
	Age	***.0443***	***.0282***	***.0306***
	Types of employment	.0706	.0659	.0613
	Marital status	***.0339***	***.0363***	***.0155***
	Levels of education	.0578	.0663	.0955
	Tenure/ homeownership	***.0407***	***.0186***	.0601

Source: (Khalis & Adianto, 2022)

Changes in marital status and age according to the respondents' life cycle contributes to the change in tenure/ homeownership. Entering marriage, as the respondents grow older, drives them to leave their parental house to their new house, which changes their tenure/ homeownership. Those who are already married and still do not obtain homeownership, tend to move to another house with freehold homeownership to acquire tenure security. This finding affirms the result of many previous studies, which highlight homeownership as the prominent factor in housing mobility [17] [20] [36] [41] [53] [74].

However, as Jansen [47] mentions, housing dissatisfaction does not necessarily drive housing mobility, as residents are capable to adapt with their current experienced housing conditions. This study acquires age (ρ-value=.0306<.05) and marital status (ρ-value=.0155<.05) are the significant factors of housing adaptation. Housing mobility, according to Jansen [47], involves a complicated deliberation among household members, especially those who have entered marriage and parenthood.

Therefore, age and marital status are the prominent factors of housing satisfaction, mobility, and adaptation of the Jakartans, as they are the most significant and consistent factors compared to others. Tenure/ homeownership becomes one of the significant factors of housing satisfaction and mobility, but not housing adaptation. It shows this factor can only be obtained housing mobility by purchasing a house with freehold homeownership. Furthermore, it presages the potential housing mobility from Jakarta city to the surrounding city/ regency, when the respondents experience the changing life cycle, such as entering marriage, according to their increasing age.

3.3. Factors of Housing Satisfaction, Mobility, and Adaptation According to Location Norms

Table-4 shows proximity to workplace (ρ-value=.0000<.05), public transportation (ρ-value=.0004<.05), shopping mall (ρ-value=.0454<.05), education facilities (ρ-value=.0370<.05), entertainment centers (ρ-value=.0236<.05), health facilities (ρ-value=.0000<.05), and kin/ relatives (ρ-value=.0072<.05). This finding shares a similar result with the myriad prior studies, which explain the proximity to the workplace, public transportation, and other amenities [2] [24] [38]. However, this study highlights the proximity to kin/ relatives as one of the important factors for the respondents to achieve a high degree of housing satisfaction, as it provides social support for them to cope with everyday adversities.

Table-4: The factors of housing satisfaction, mobility, and adaptation according to location norms

Attributes/ norms	Regression Statistics	Housing		
		Satisfaction	Mobility	Adaptation
	Multiple R	. 8053	.7480	.8128
	R Square	.5533	.2507	.3094
	Adjusted R Square	.5418	.2007	.4071
	Standard Error	.2043	.2577	.1931
	Observations	400	400	400
	ANOVA	Significance F		
	Regression	.0000	.0005	.0061
	Variables	ρ-value		
	Intercept	.5626	.0000	.0000
Location	Proximity to workplace	*.0000*	.0623	.0614
	Proximity to public transportation	*.0004*	*.0388*	.0954
	Proximity to shopping malls	*.0454*	*.0185*	.0562
	Proximity to education facilities	*.0370*	.0732	.0897
	Proximity to highway	.0935	.0633	.0689
	Proximity to government offices	.0677	.0759	.0526
	Proximity to entertainment center	*.0236*	.0641	.0588
	Proximity to sport facilities	.0982	.0510	.0863
	Proximity to health facilities	*.0000*	.0655	.0715
	Proximity to kin/ relatives	*.0072*	*.0479*	.0569

Source: (Khalis & Adianto, 2022)

This study finds proximity to public transportation (ρ-value=.0388<.05), shopping malls (ρ-value=.0185<.05), and kin/ relatives (ρ-value=.0479<.05) are the main driver of housing mobility for the respondents. It depicts the crucial role of a public transportation hub for the respondents to reach other public amenities, including shopping malls, as one of them to meet their daily needs. Surprisingly, the proximity to kin/ relatives also plays a pivotal role in housing mobility, as an indication of the importance of social support to live in a big city like Jakarta.

However, this study does not find any significant contributing factors to housing adaptation. It is understandable because the attributes of location norms cannot be delivered individually by respondents, but by government or private sectors. When the respondents experience housing dissatisfaction with location norms, they tend to perform housing mobility, because they cannot adjust them accordingly.

3.4. Factor of Housing Satisfaction, Mobility, and Adaptation According to Neighborhood Norms

As shown in Table-5, security/ safety (ρ-value=.0009<.05), community park (ρ-value=.0223<.05), hazard-free (ρ-value=.0167<.05), crime-free (ρ-value=.0478<.05), cleanliness (ρ-value=.0000<.05), neighborliness (ρ-value=.0075<.05), and calm environment (ρ-value=.0000<.05) are the prominent contributing factors in neighborhood norms. It bespeaks the respondents are prioritizing their physical and social well-being to meet sufficient housing satisfaction according to neighborhood norms, which shares a similar result of prior studies [8] [63] [66] [72].

Table-5: The factors of housing satisfaction, mobility, and adaptation according to neighborhood norms

Attributes/ norms	Regression Statistics	Housing		
		Satisfaction	Mobility	Adaptation
	Multiple R	.8341	.2423	.2082
	R Square	.6957	.0540	.0434
	Adjusted R Square	.6879	.0297	.0188
	Standard Error	.6565	.2393	.1906
	Observations	400	400	400
	ANOVA	**Significance F**		
	Regression	.0000	.0160	.0657
	Variables	**ρ-value**		
	Intercept	.1222	.0000	.0000
Neighborhood	Security/ safety	***.0009***	***.0115***	***.0279***
	Community park	***.0223***	.0820	.0611
	Worship facilities	.0544	.0602	.0649
	Playground facilities	.0528	.0830	.0608
	Mini market	.0522	.0734	.0603
	Hazard-free	***.0167***	***.0259***	***.0437***
	Crime-free	***.0478***	***.0283***	***.0194***
	Cleanliness	***.0000***	***.0158***	***.0263***
	Neighborliness	***.0075***	***.0355***	***.0385***
	Calm environment	***.0000***	.0541	.0623

Source: (Khalis & Adianto, 2022)

The contributing factors of housing mobility share a similar result, such as security/ safety (ρ-value=.0115<.05), hazard-free (ρ-value=.0259<.05), crime-free (ρ-value=.0283<.05), cleanliness (ρ-value=.0158<.05), and neighborliness (ρ-value=.0355<.05). These factors are the crucial drivers of housing mobility as mentioned in various studies [29] [35] [71].

However, most driving factors of housing mobility play a pivotal role in housing adaptation, such as security/ safety (ρ-value=.0279<.05), hazard-free (ρ-value=.0437<.05), crime-free (ρ-value=.0194<.05), cleanliness (ρ-value=.0263<.05), and neighborliness (ρ-value=.0385<.05). It illustrates the respondents are capable to adjust these attributes of neighborhood norms for coping with the current experienced housing condition and delaying/ eliminating the potential of housing mobility. It follows a similar suggestion by Jansen [47], who asserts the ability of residents to adjust their current housing conditions for meeting their needs according to their life cycle stage.

These attributes of neighborhood norms are the most significant and consistent factors of housing satisfaction, mobility, and adaptation, which indicates the direct contribution to the enhancement of their physical and social well-being.

3.5. Factors of Housing Satisfaction, Mobility, and Adaptation According to Space Norms

According to space norms, the housing satisfaction of the respondents is highly influenced by the number of bedrooms (ρ-value=.0005<.05), garden (ρ-value=.0184<.05), appearance (ρ-

value=.0004<.05), low-energy (ρ-value=.0000<.05), living room (ρ-value=.0027<.05), and house size (ρ-value=.0126<.05), as shown in Table-6. It affirms several findings from the abundance studies, such as housing size [5], housing appearance [23], and quality of its features [26].

Table-6: The factors of housing satisfaction, mobility, and adaptation according to space norms

Attributes/ norms	Regression Statistics	Housing		
		Satisfaction	Mobility	Adaptation
	Multiple R	.8264	.2282	.7551
	R Square	.6829	.0521	.2408
	Adjusted R Square	.6747	.0277	.2003
	Standard Error	.6946	.2406	.2021
	Observations	400	400	400
	ANOVA	**Significance F**		
	Regression	.0000	.0021	.0015
	Variables	**ρ-value**		
Space	Intercept	.3358	.0000	.0000
	Land size	.0733	.0739	.0640
	Numbers of bedroom	*.0005*	.0866	*.0188*
	Kitchen	.0533	.0893	*.0446*
	Garden	*.0184*	.0776	.0608
	Appearance	*.0004*	.0511	*.0479*
	Low-energy	*.0000*	.0700	.0999
	View	.0989	.0609	.0806
	Interior quality	.0599	.0793	*.0162*
	Living room	*.0027*	.0774	*.0494*
	House size	*.0126*	.0818	*.0353*

Source: (Khalis & Adianto, 2022)

However, only some of the attributes of space norms significantly contribute to housing mobility, resulting from the existing body of literature. Relating to Jansen [47], these attributes are the most adjustable housing norms to meet the ever-changing needs of the respondents, as shown in Table 6. The numbers of the bedroom (ρ-value=.0188<.05), kitchen (ρ-value=.0446<.05), appearance (ρ-value=.0479<.05), interior quality (ρ-value=.0162<.05), living room (ρ-value=.0494<.05), and house size (ρ-value=.0353<.05) are the adaptable attributes of housing norms through the process of housing adaptations. These attributes, presumably, are adjustable to meet the ever-changing needs according to the experienced life cycle, such as entering parenthood or changing family or household composition in the future.

3.6. Factors of Housing Satisfaction, Mobility, and Adaptation According to Expenditure Norms

Many studies assert expenditure norms contribute to housing satisfaction [11] [48] [73]. Table-7 shows house price and installment (ρ-value=.0119<.05), operational (ρ-value=.0008<.05) and maintenance cost (ρ-value=.0000<.05), also investment opportunities (ρ-value=.0000<.05) are the contributing factors of housing satisfaction, which serve as the similar result.

Table-7: The factors of housing satisfaction, mobility, and adaptation according to expenditure norms

Attributes/ norms	Regression Statistics	Housing		
		Satisfaction	Mobility	Adaptation
Expenditure	Multiple R	.8494	.8192	.7138
	R Square	.7215	.4083	. 2701
	Adjusted R Square	.7180	.3602	. 1029
	Standard Error	.6057	.2351	.2017
	Observations	400	400	400
	ANOVA	Significance F		
	Regression	.0000	.0015	.0074
	Variables	ρ-value		
	Intercept	.0767	.0000	.0000
	House price & installment	*.0119*	.0591	.0762
	Operational cost	*.0008*	.0944	*.0371*
	Land & housing tax	.0723	*.0359*	.0614
	Maintenance cost	*.0000*	.0934	*.0277*
	Investment opportunities	*.0000*	*.0259*	.0513

Source: (Khalis & Adianto, 2022)

However, only investment opportunities (ρ-value=.0359<.05) with land and housing taxes (ρ-value=.0259<.05) play a pivotal role in housing mobility. Presumptively, these attributes of expenditure norms cannot be adjusted by the respondents, because of their dependency on the city planning policy, relating to the land price, city zoning, and infrastructure plan. Therefore, if these attributes fail to meet their needs, then housing mobility becomes the plausible option.

It relates to the significant attributes of housing adaptation. As shown in Table-7, operational (ρ-value=.0371<.05) and maintenance costs (ρ-value=.0277<.05) are the most tenable attributes of expenditure norms for housing adaptation. These are the most reasonably adjusted attributes to adapt to the ever changing financial capacity and needs according to the life cycle of the respondents, which shares a similar thought with Jansen [47].

4. Conclusion

Based on the results of this study, it can be concluded that age and marital status are the prominent factors of housing satisfaction, mobility, and adaptation of the Jakartans. Tenure/ homeownership becomes one of the significant factors of housing satisfaction and mobility, but not housing adaptation. It also indicates the potential housing mobility from Jakarta city to the surrounding city/ regency, when the respondents experience the changing life cycle, such as entering marriage, according to their increasing age.

Living in the city, which is close to the workplace, public transportation, and other amenities contributes significantly to increasing their degree of housing satisfaction. This study supplements the proximity to kin/ relatives as a significant additional factor in housing satisfaction. The prominent attributes such as security/ safety, hazard-free, crime-free, neighborliness, and cleanliness are manageable for improvement to enhance the quality of well-being through communal activities, which prevent them to move from the current neighborhood.

However, none of the unsatisfactory attributes of space norms drive the respondents to housing mobility. House size, number of

bedrooms, or living room are adjustable attributes of space norms to meet the ever changing needs of the respondents, according to their life cycle stage. While land and building taxes, also investment opportunities are the un-adjustable factors in the expenditure norms, because of their dependency on city planning and regulations. Nonetheless, the respondents have opportunities to cope with housing dissatisfaction by adjusting the operational and maintenance costs to cope with the current housing conditions.

Conclusively, the city authority, planners, and architects must thoroughly plan the location of housing planning with sufficient proximity to the most significant and consistent factors, such as public transportation, education, and health facilities. Although the proximity to kin/ relatives is considerably important to fulfill housing satisfaction, the housing allocation in the city planning should be connected with decent public transportation to foster the social support of the citizens. However, the location and the connectedness with the public amenities are potentially increasing the investment opportunities, land, and housing taxes, which implicate housing satisfaction by the expenditure norms. Therefore, housing planning must be meticulously enacted and delivered. While physical housing attributes should be designed adaptively to accommodate the ever changing needs of the respondents according to their life cycle stage.

Acknowledgement

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International Journal of Built Environment and Scientific Research
p-issn: 2581-1347 | e-issn: 2580-2607 | Pg. 111-126

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