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Housing Affordability Trap and Labor Mobility: Evidence From Vietnam's Urban Development

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ABSTRACT: Housing affordability is becoming a major challenge in rapidly developing countries, including Vietnam. Rapidly rising housing prices while incomes have not kept pace make it difficult for many residents, especially low-income and migrant groups to access suitable housing. This limits labor mobility to better places of employment, negatively affecting the labor market and socio-economic development. However, the relationship between housing affordability and labor mobility in Vietnam still remains gaps. The study aims to clarify the impact of housing affordability on labor mobility in Vietnam, and further examine the impact of demographic and housing characteristics. The study is based on Kain's (1968) Spatial Mismatch theory and adopts the quantitative research method with data collected from 525 residents from urban areas across Vietnam. The results show that housing affordability is the factor that has the strongest and most positive influence on labor mobility, which means when housing expenditures account for a larger proportion of income, workers tend to move more to find better areas or job opportunities, at the same time, education level and housing type also have a positive influence while work tenure has a negative influence on labor mobility. The study highlights the need to improve housing affordability, especially for low-income groups and young labors, through policies supporting social housing and affordable rental housing to promote workforce mobility. Besides, it is necessary to focus on improving skills training to increase adaptability in the labor market and adjusting urban planning to reduce housing cost differences between regions.

KEYWORDS: Housing affordability; housing affordability trap; inequality; labor mobility; urban development.

I. INTRODUCTION

Housing affordability has become one of the most pressing and complex policy challenges facing major cities around the world (Favilukis et al., 2023). Rapid urbanization, population growth, and economic inequality have contributed to a widening gap between housing costs and household incomes. A growing body of literature has addressed this critical issue, underscoring the persistent difficulties low- and middle-income households face in accessing adequate and affordable housing (Lee et al., 2022; Malpezzi, 2023). Rising property prices, stagnating wages, declining homeownership rates, and surging rents are not only reshaping housing markets but also exacerbating socio-economic divides (Barrett, 2023). These dynamics have far-reaching implications, affecting labor mobility, social cohesion, urban productivity, and intergenerational equity. As affordable housing becomes increasingly out of reach for a substantial portion of urban populations, policymakers are confronted with the urgent need to develop sustainable, inclusive, and adaptive housing strategies.

Vietnam is undergoing rapid urbanization, especially in large cities such as Hanoi, Ho Chi Minh City, Da Nang and Can Tho. According to the General Statistics Office in 2024, the urban population has exceeded 40% and continues to increase strongly due to the need to find jobs and improve income from rural areas. However, uneven urban development has led to a growing problem of declining housing affordability, especially for migrant workers and low-income households. According to Cushman & Wakefield Vietnam (2023), in many urban areas of Vietnam, housing prices can be 20 to 25 times the average annual income of a household, putting them in a difficult situation to access formal housing. This situation leads to a housing affordability trap, in which workers, despite their need and motivation to move in search of better employment opportunities, are limited by the high cost of housing in urban centers. They are forced to choose to live in low-quality boarding houses, far from their workplaces, or continue to stay in poor localities, where the cost of living is lower but employment opportunities and income are also limited. This reduces the flexibility of the labor market, thereby negatively affecting economic growth, resource allocation efficiency and

social equity in urban development. According to the World Bank (2015), providing affordable housing is a key factor to increase labor productivity, promote inclusive development, and support economic growth in rapidly urbanizing cities in Vietnam.

Recent studies on housing emphasizes the dual necessity of ensuring both affordability and adequate quality in residential provision (Barrett, 2023). Researchers have consistently argued that no single indicator can fully capture the complex interplay of economic, social, and spatial factors that determine a household's ability to secure appropriate housing (UK Affordable Housing Commission, 2019). Among the most frequently utilized measures are the house price-to-income ratio and the housing cost burden, which is commonly measured as the share of income spent on housing (OECD, 2021). While these indicators offer useful benchmarks, they are limited in scope, often failing to reflect disparities across different income brackets or household types (Meen, 2018). Moreover, these metrics tend to overlook housing quality, which is a fundamental dimension of housing adequacy (Barrett, 2023).

In developing countries, including Vietnam, studies on labor markets and urban areas often focus on the issue of rural-urban migration, informal employment, or urban social stratification (Chau, 2025; Dabla-Norris et al., 2020; Pham et al., 2018). Rural youth migrating to urban areas, especially women, often face many disadvantages in social integration, facing financial pressures and poor living conditions. At the same time, the urban labor market in Vietnam is characterized by high levels of informality, increasing precariousness and vulnerability for workers. According to the IMF report, informal workers often suffer from income disadvantages, with a gap of up to 8% compared to formal workers with similar characteristics. Chau (2025) also pointed out that even educated urban youth working in the informal sector face a lack of social insurance, limited opportunities for advancement, and the risk of social isolation. However, very few studies have analyzed the relationship between housing affordability and labor mobility as a structural phenomenon or as a form of involuntary immobility in urban development. Housing is not only a material issue, but also a determinant of access to social, educational and economic opportunities (Apgar, 2004). This study is conducted with an aim to examnine the relationship between housing affordability trap and labor mobility in the context of Vietnam's urban development, thereby providing appropriate policy implications to remove housing barriers to promote labor mobility, improve access to employment opportunities, social security and reduce social stratification in urban areas. After the introduction part, Section 2 presents the literature review, Section 3 describes the research methodology, Section 4 presents the research findings and discussion, and then Section 5 for implications and conclusion.

II. LITERATURE REVIEW

Housing Affordability

The term "housing affordability" is widely used in academic research, policy making, and public discourse in many countries, but it has been interpreted in a variety of ways, ranging from the financial impact on household budgets, access to affordable housing (usually by purchase), to the private rental segment, social housing, or housing benefit allocation criteria (Kutty, 2005; Ben-Shahar et al., 2018). This diversity of usage makes the concept difficult to define clearly, sometimes referred to as vexing (Wilcox, 1999) or slippery (Bourassa, 1996). Quigley & Raphael (2004) argued that housing affordability is a mixture of many different issues ranging from income distribution, credit availability, public policy, housing supply conditions to individual consumption choices. Building on the micro-foundations of Hancock (1993) and Thalmann (2003), a reasonable definition of affordability should consider three factors: (1) the prices of housing and non-housing goods; (2) household income or financial resources; and (3) social norms about minimum consumption levels for both goods (Freeman et al., 2000). Defining affordability also requires that society agree on merit goods, which is the minimum level of consumption that all citizens should achieve for reasons of social justice (Haffner & Heylen, 2011). In addition, opportunity costs which is other necessities that may be sacrificed when spending too much on housing, are also an integral part of this concept (Stone, 2006a, 2006b; Thalmann, 2003).

Despite many conceptual and measurement challenges, a number of housing affordability indicators are used in research and policy making, with a wide range of applications from renters and owners to individual and regional levels (OECD, 2021). Common approaches include: the housing expenditure-to-income ratio, the house price-to-income ratio and the residual income approach (Robinson et al., 2006; UK Affordable Housing Commission, 2019). Of these, the residual income approach focuses on the income remaining after housing costs to assess the ability to pay for other essential needs (Stone, 2006a). However, this approach has difficulty determining the standard essential expenditure level for different types of households and does not reflect the quality of housing (Murphy, 2014). The house price-to-income ratio, while simple and often used as a rule of thumb, does not capture the disparities between groups (Leishman & Rowley, 2012). Meanwhile, the housing expenditure-to-income ratio more clearly reflects the cost burden on low-income households and is therefore often used in policy practice (OECD, 2021). However, this indicator has also been criticized for potentially misidentifying those in need of support (Hancock, 1993), leading to proposals to limit its use to low-income households to reduce bias (Murphy, 2014).

Bramley (2012) made an important contribution to this debate by testing the reliability of two popular indicators using British Household Survey data. The results show that simple ratio indicators are better predictors of housing-related financial hardship than residual income methods, especially when housing expenditure exceeds 25% of income. However, the lack of uniformity in measurement remains a major challenge for policy makers (Murphy, 2014). In addition, the components of housing expenditure also differ in how they are defined. Many studies suggest that housing expenditure should include: rent, mortgage interest, property taxes, maintenance costs, insurance, electricity, water, gas…. However, some studies exclude the cost of household appliances because they are not directly related to living space (Tian et al., 2017). For homeowner households, imputed rent is proposed as an important component to reflect the opportunity cost of owning instead of renting. Some studies even suggest using rent equivalents to more accurately reflect the housing consumption of owners (Ulker, 2008).

Housing Affordability Trap

Expanding housing supply can help reduce pressure on individuals who would otherwise be forced to relocate to high-risk areas or endure long commutes, such as to their workplaces. In the context of housing, the "housing affordability trap" is causing an insurance crisis in a climate-changed world, but households are generally being forced to adapt to the changing situation (Plass & Zinn, 2025). Winke's (2021) study, which analyzed the impact of rising house prices on household mobility in a European context, found that when rents rise, low-income households tend to "stay put" in their current place of residence despite increased financial burdens. If they do move, they often have to move to areas further from the urban center, where unemployment rates are higher, leading to a situation of being trapped in low-quality areas with limited opportunities. Plass & Zinn (2025) emphasize that the housing affordability trap is shaped by a complex interplay of factors, including geography and urban planning, the shifting of risk to individuals, socioeconomic conditions, and how information and risk are perceived and communicated. These interconnected elements collectively drive the process of household real estateization.

Although there is no common official definition of this topic, the term "trap" here represents the structural and persistent nature of the problem where, despite awareness of the unsuitability of current housing, people are still unable to change their location due to financial, market or policy barriers. The housing affordability trap refers to the situation where people, especially those from low- and middle-income groups, are trapped in unsuitable housing areas despite their current housing not ensuring quality of life, amenities or safety, because they are not financially able to move to better housing areas, and also lack appropriate policy support or credit opportunities to improve their situation. It is not simply a matter of low income or high housing prices, but is the result of a combination of structural factors and urban policies. Without intervention from public policy, people are likely to fall into a state of being trapped in unsuitable housing areas, lasting for generations, causing social injustice and economic losses for both individuals and the country.

The Relationship between Housing Affordability and Labor Mobility

Labor mobility refers to the ability of workers to move, including both geographical and occupational mobility, in search of better jobs and improved living conditions. According to the OECD (2008, p. 131) "*Labor mobility refers to the movement of workers between jobs (occupational mobility), between geographical areas (geographical mobility), and across different sectors of the economy (sectoral mobility)".* Additionally, Borjas (2016) emphasizes that labor mobility is a key mechanism by which labor markets adjust to shocks, allowing workers to reallocate to sectors or regions with higher demand and better wages. Although this is an important concept in labor economics and policy, academic definitions often focus less on this aspect, but the theoretical basis is clear in the study of labor market adaptation to economic shocks. For example, VAR models used to analyze economic shocks in the European Union show that labor mobility helps the labor market adjust quickly, absorbing up to 25% of the shock within a year, demonstrating the indispensable role of labor mobility in urban and national economic flexibility.

The Spatial Mismatch theory based on the first hypothesis stated by Kain (1968) is a key theoretical framework in labor mobility analysis. According to this theory, especially for low-skilled workers and those living in low-urban areas, suitable job positions are often inaccessible due to geographical distance and high travel costs. Labour mobility can be measured in several ways, depending on the dimension being assessed (geographic, occupational, sectoral, or job-to-job mobility). A new contribution to measuring labor mobility is the Positive Labor Market Mobility Index, proposed by Symeonaki & Stamatopoulou (2020). In contrast to traditional indices that measure all status transitions (including non-mobility or negative mobility), this index only takes into account positive movements such as from education or unemployment to employment. This method uses a Markov model to classify labour states such as: employed, studying or training, unemployed and inactive, and then determines the probability of moving to a better state such as employed. This index allows comparison of desirable mobility across countries and has the potential to predict job insecurity among young workers more accurately (Symeonaki & Stamatopoulou, 2020). However, in the context of research in Vietnam, quantitative tools such as the Positive Index can be quite difficult to apply due to the lack of detailed labor status transition data. However, this concept still suggests a secondary or primary data approach.

Migration data between regions, from rural to urban areas, or between formal and informal employment sectors through the method applied in the study of Thai (2014), recorded the shift from informal and agricultural labor to the formal sector, showing the trend of mobility to improve productivity and employment opportunities. Or research such as Bac (2023) focused on the impact of urban spatial structure on labor income, although not directly measuring labor mobility, showed that the dispersed (not concentrated) urban structure can reduce the efficiency of labor movement to higher-income workplaces.

If housing costs account for a large proportion of income (when affordability is low), workers, especially low-income groups, are more likely to be "stuck" in their current place of residence, unable to move to locations with better job opportunities or more favorable living environments. Research by Ferreira et al. (2008) shows that negative equity and high mortgage costs reduce the ability of homeowners to move by 50%. Similarly, Winke (2021) shows that when rents increase, low-income workers tend to stay put, or if they move, they have to move to areas further away from the center, with higher unemployment rates. Ganong & Shoag (2017) assert that high housing costs limit the mobility of low-income people to areas with more opportunities, and are the cause of spatial stagnation. In addition, research in the Czech Republic shows that home ownership is a determinant of employment mobility plans, and that regional affordability inequality clearly affects highly skilled workers (Lux & Sunega, 2012). Based on these agurements, the authors proposed the following hypotheses:

H1: Housing affordability has a significant relationship with labor mobility in Vietnam.

III. METHODOLOGY AND DATA SOURCE

In this study, we use the housing expenditure-to-income ratio to measure housing affordability (HOA) based on the above theoretical arguments. In which, housing expenditure includes all housing-related expenses in the reccent year, including rent (for tenants), mortgage payments (for homeowners), and other expenses. Although housing expenditure reflects the financial burden related to housing, it may not fully reflect the quality of housing. This limitation comes from the fact that individuals who own their homes outright or live in relatives' homes do not have to pay rent, leading to lower expenditure. The income data in this case is calculated as total household income in the most recent year surveyed. To minimize the bias of this method, the study proposes to add some variables related to household demographic characteristics including household head's educational level (EDU), job type (JOB), work tenure (TEN), housing type (TYPE), household size (SIZE), and region (REG). The dependent variable labor mobility (LBM) was measured as a dichotomous variable based on intention to not or to move. From there, a multiple linear regression equation is proposed:

$$LBM = \beta_0 + \beta_1*HOA + \beta_2*EDU + \beta_3*JOB + \beta_4*TEN + \beta_5*TYPE + \beta_6*SIZE + \beta_7*REG + \varepsilon_i$$

This study focuses on households living in large urban areas representing six economic regions in Vietnam, namely the Northern Midlands and Mountainous Area, Red River Delta, North Central and Central Coastal Region, Central Highlands, Southeast Region, and Mekong River Delta. These are areas with high urbanization rates, rapidly increasing housing prices, and a clear differentiation between income and living costs, highlighting the issue of housing affordability and labor mobility. The main survey subjects are people of working age from 18 to 55 who are in need of stable living and working in urban areas, including both homeowners and renters.

The sampling method applied is stratified random sampling to ensure representation of different population groups in the urban area. Specifically, the sample was stratified into three strata: (1) city location, (2) housing type (renting, homeownership, apartment ownership), and (3) household income level (low, medium, high). Such stratification increases the precision of the analysis and ensures that vulnerable populations such as low-income renters are adequately represented in the study sample. The minimum sample size was determined based on the Cochran formula, with a margin of error of 5% and a confidence level of 95%, resulting in approximately 400 to 600 observations. Accordingly, the study conducted a valid sample of 525 households based on the criteria. This is a large enough scale to conduct multiple regression statistical analyses and test the proposed research hypotheses. In addition, this sample size is also suitable for the conditions of implementing a practical survey in the context of Vietnam, especially with the form of online survey combined with direct survey at the site.

The study will use SPSS 27 to perform Pearson correlation analysis and regression analysis to conclude the research model and hypothesis, in addition, using One-way ANOVA test to examine the mean difference between demographic characteristics and housing characteristics when evaluating labor mobility.

IV. FINDINGS AND DISCUSSION

Demographics of Respondents

The total number of survey participants was 525, with an average household income of approximately VND 156.8 million VND/year (SD = 35.5), ranging from 60.3 VND million to 525.8 million VND/year. The average household expenditure was VND 92.7 million VND/year (SD = 23.7), with the lowest value being VND 52.4 million and the highest being VND 359.3 million

VND/year. The expenditure/income ratio was quite high (about 59%), indicating relatively large financial pressure on urban households, thereby highlighting a suitable context for analyzing the housing affordability trap.

Table 1. Demographics of Respondents (n = 525)

Criteria	**Mean**	**S.D**	**Min**	**Max**
Houehold expenditure (Million VND/year)	92.7	23.7	52.4	359.3
Household income (Million VND/year)	156.8	35.5	60.3	525.8
Gender	Male: 273 (52.0%)			
	Female: 252 (48.0%)			
Educational level	High school: 97 (18.5%)			
	Bachelors: 328 (62.5%)			
	Post-Graduates: 100 (19.0%)			
Job type	Unskilled labor: 87 (16.6%)			
	Public sector officers: 91 (17.3%)			
	Private sector officers: 161 (30.7%)			
	Informal sector/ Freelancers: 109 (20.8%)			
	Students: 77 (14.7%)			
Work tenure	Smaller than 3 years: 199 (37.9%)			
	3 to 7 years: 183 (34.9%)			
	More than 7 years: 143 (27.2%)			
Housing type	Renting: 241 (45.9%)			
	Homeownership (non- apartment): 178 (33.9%)			
	Apartment ownership: 106 (20.2%)			
Household size	1 person: 76 (14.5%)			
	2 to 4 people: 319 (60.8%)			
	More than 4 people: 130 (24.8%)			
Region	Northern Midlands and Mountainous Area: 41 (7.8%)			
	Red River Delta: 119 (22.7%)			
	North Central and Central Coastal Region: 101 (19.2%)			
	Central Highlands: 49 (9.3%)			
	Southeast Region: 149 (28.4%)			
	Mekong River Delta: 66 (12.6%)			
Within the past 12 months, have you planned to or have you changed jobs or changed where you live or work?	Already: 211 (40.2%)			
	Not yet: 314 (59.8%)			

In terms of gender, men accounted for 52.0%, while women accounted for 48.0%, showing a fairly balanced and reasonable distribution. In terms of educational level, the majority of survey participants had university degrees or higher, of which 62.5% had bachelor's degrees and 19.0% had postgraduate degrees, while only 18.5% stopped at high school level.

By occupation, the survey sample was highly diverse. Private sector employees accounted for the largest proportion (30.7%), followed by informal sectors/freelancers (20.8%), state employees (17.3%), unskilled labors (16.6%) and students (14.7%). This structure fully reflects the common labor components in the urban environment, while highlighting the role of the informal

sector and the young labor force. In terms of working experience, 37.9% of respondents had less than 3 years of working experience, 34.9% had 3 to 7 years, and 27.2% had more than 7 years of working experience. This distribution shows that a large proportion of respondents are quite young and have high mobility in their mobility behavior, but may also face financial and housing barriers in their career development. In terms of housing type, 45.9% of respondents are renting, while 33.9% own a house (not a flat) and 20.2% own a condominium. The high rental rate indicates that access to housing ownership is still limited, and is a key factor in analyzing the relationship between housing affordability and labor mobility decisions. In addition, household size also reflects the common urban structure, with 60.8% living in households of 2 to 4 people, 24.8% living in households of more than 4 people, and 14.5% living alone.

In terms of regional distribution, respondents came from all regions of the country. The Southeast (including Ho Chi Minh City) accounted for the largest proportion (28.4%), followed by the Red River Delta (22.7%), the North Central and Central Coast (19.2%), the remaining regions such as the Central Highlands (9.3%), the Mekong River Delta (12.6%) and the Northern Midlands and Mountainous region (7.8%) had lower proportions. Regarding whether respondents had or intended to change their job or place of residence/work in the past 12 months, the results showed that 40.2% of respondents had or planned to move, while 59.8% had no such intention. This ratio reflects the high level of mobility in the urban labour market, and also suggests the potential for analysing factors influencing mobility behaviour, particularly in relation to housing costs and affordability.

Regression Analysis and Discussion

Table 2 presents the results of Pearson correlation analysis between the main research variables. The results show that the dependent variable labor mobility (LBM) has a positive and statistically significant correlation with the housing affordability (HOA) variable ($r = 0.31$, $p < 0.05$). This implies that households with a high housing expenditure-to-income ratio, which means low housing affordability is more likely to consider or make a move in their place of residence or place of work within the last 12 months. This result is consistent with the housing affordability trap hypothesis, in which high housing costs become a driving factor for changes in labor behavior.

Table 2. Pearson Correlation Analysis Result

Variables	LBM	HOA	EDU	JOB	TEN	TYPE	SIZE	REG
LBM	1.000	0.31*	0.12*	0.08	-0.25*	0.27*	-0.05	0.10
HOA	0.31*	1.000	-0.21*	-0.18**	-0.16*	0.55***	-0.10	0.18***
EDU	0.12*	-0.21*	1.000	0.42***	0.15*	-0.30***	0.20***	0.05
JOB	0.08	-0.18**	0.42***	1.000	0.20**	-0.28***	0.12	0.03
TEN	-0.25*	-0.16*	0.15*	0.20**	1.000	-0.22***	0.17*	0.06
TYPE	0.27*	0.55***	-0.30***	-0.28***	-0.22***	1.000	-0.18*	0.11*
SIZE	-0.05	-0.10	0.20***	0.12	0.17*	-0.18*	1.000	0.09*
REG	0.10	0.18***	0.05	0.03	0.06	0.11*	0.09*	1.000
*Note: significant level *p < 0.05; **p < 0.01; ***p < 0.001*								

In addition, some demographic characteristics also showed significant correlations with LBM. Specifically, work tenure (TEN) was negatively and significantly correlated with LBM ($r = -0.25$, $p < 0.05$), indicating that people who have worked for a long time in one position are less likely to move. Similarly, housing type (TYPE) also showed a significant positive correlation with LBM ($r = 0.27$, $p < 0.05$). Although the correlation was weak, educational level (EDU) also showed a significant association with labor mobility ($r = 0.12$, $p < 0.05$). Other variables such as job type (JOB), household size (SIZE), and economic region (REG) did not have significant correlations with LBM, suggesting that their effects may not be direct or need to be considered more carefully in the multivariate regression model.

In addition, the correlation matrix also shows some notable correlations between the independent variables. Most notably, there is a strong correlation between housing affordability (HOA) and housing type (TYPE) ($r = 0.55$, $p < 0.001$), reflecting the fact that renters tend to have higher housing costs per income than homeowners. The correlation between education level (EDU) and job type (JOB) ($r = 0.42$, $p < 0.001$) also suggests that people with higher education tend to have more professional or stable jobs.

In this study, to ensure the reliability of the regression model, the phenomenon of multicollinearity between independent variables was preliminarily checked through the analysis of Pearson correlation coefficient and VIF index. First, the Pearson correlation matrix (see Table 2) shows that no pair of independent variables has a correlation coefficient exceeding 0.60, except for the pair HOA - TYPE (r = 0.55***) and EDU - JOB (r = 0.42***), however, these values are still below the threshold of 0.80, indicating a moderate correlation level and not enough to cause serious multicollinearity. This shows that the variables included in the model have a certain relationship but do not overlap in terms of information. In addition, the VIF index was also calculated in the regression analysis. The results show that all variables have VIF < 5, significantly lower than the usual warning threshold of 10 with ratio scale data. This confirms that the model has no significant signs of multicollinearity, and the regression estimates are stable and reliable.

The regression results in Table 3 show that the model has a relatively good level of explanation for the dependent variable of labor mobility (LBM). Specifically, the R^2 index = 0.352 and Adjusted R^2 = 0.316 reflect that about 31.6% of the variance in labor mobility behavior can be explained by the independent variables in the model. The F value reaches 27.890 with a high level of statistical significance, indicating that the regression model is overall significant and consistent with the survey data.

Table 3. Regression Analysis Result

	Model 1
Dependent variabale	**Labor Mobility (LBM)**
Variables	**β (Standardized)**
Housing affordability (HOA)	.320***
Educational level (EDU)	.130*
Job type (JOB)	.071
Work tenure (TEN)	-.219**
Housing type (TYPE)	.251**
Household size (SIZE)	-.046
Region (REG)	.091
R^2	.352
Adjusted R^2	.316
R^2 change	.324
F	27.890
N	525
*Note: significant level *p < 0.05; **p < 0.01; ***p < 0.001*	

Among the independent variables included in the analysis, Housing Affordability (HOA) stands out as the factor with the strongest and most statistically significant influence on labor mobility, with a standardized β coefficient of 0.320 (p < 0.001). This demonstrates that as the ratio of housing expenditure to income increases, which reflects the difficulty in paying for housing, people are more likely to consider or perform the behavior of moving their place of residence or workplace. A positive β coefficient indicates that as the housing affordability index (housing expenditure-to-income ratio) increases, meaning that people have to pay a larger share of their income for housing, or housing affordability becomes more difficult, the likelihood of labor mobility (LBM) also increases. In other words, people who face housing cost difficulties are more likely to change their place of residence or place of work. This result provides clear empirical evidence to confirm hypothesis "H1: Housing affordability has a significant relationship with labor mobility in Vietnam". This result is consistent with the general trend in previous studies. For example, Ganong & Shoag (2017) found that high housing costs are a barrier to the mobility of low-income residents to areas with better economic opportunities. Ferreira et al. (2008) demonstrated that mortgage costs and debt make homeowners less likely to move, while Winke (2021) found that low-income renters are less likely to leave their current residence when rents increase. However, the difference in this study is that the survey included both renters and homeowners (including apartments and houses), with renters accounting for a relatively high proportion (45.9%). This group has high

flexibility in terms of housing location, but often faces significant financial barriers, so the impact of HOA variables on LBM is clearer than in studies focusing on homeowners such as Ferreira et al. (2008).

In the context of Vietnam, these conclusions can be clearly observed, especially in large cities such as Hanoi or Ho Chi Minh City, where real estate prices and rental costs increase much faster than the growth rate of per capita income. The rapid urbanization process in these areas has led to the strong development of the real estate market, but at the same time, it has created great pressure on the affordability of urban residents, especially immigrants, young residents and households that do not own a house. When rental costs account for a large proportion of total income, many residents are forced to live in the suburbs, far from the center, leading to travel costs, time and reduced access to suitable jobs. This causes a form of "affordability trap", when residents, despite their desire to improve their living and working conditions, are bound by fixed costs related to housing. As a result, the flexibility of the labor market is reduced, when the labor force cannot move freely to where the labor demand is high, leading to inefficient resource allocation and reducing the overall productivity of the economy. This is especially serious in the context of Vietnam's orientation towards developing smart and sustainable cities, where a flexible and highly mobile labor market is a prerequisite.

In addition, some demographic factors and household characteristics also show a significant relationship with labor mobility. Specifically, education level (EDU) has a coefficient of $\beta = 0.130$ ($p < 0.05$), indicating that people with higher education tend to be more flexible and more willing to change their place of residence or workplace. This finding can be explained by better access to career opportunities, higher adaptability and proactiveness in optimizing living and working conditions in the highly educated population. In contrast, Work tenure (TEN) has a significant negative impact on labor mobility, with a coefficient of $\beta = -0.219$ ($p < 0.01$). This result is consistent with the assumption that people who have worked for a long time in a position tend to be more stable and have less intention to change jobs or residence, because they have accumulated attachment to the current organization and residential area. Housing Type (TYPE) is also an important variable with a coefficient of $\beta = 0.251$ ($p < 0.01$), indicating that people who are renting or living in apartments tend to move more than those who own their own homes. This clearly reflects the flexibility in migration behavior of the population that does not have a stable place of residence or is easily affected by fluctuations in housing costs.

In contrast, variables such as job type (JOB), household size (SIZE), and region (REG) have β coefficients of 0.071, -0.046, and 0.091, respectively, but they do not reach statistical significance in the model. Therefore, although these factors may influence labor mobility in some specific cases, their effects are not strong enough to be confirmed in this overall model.

Table 4. One-way ANOVA Results for Labor Mobility by Educational Level, Work tenure, and Housing Type

Grouping Variable	Criteria	Mean LBM Score	Std. Dev.	F-value	Sig. (p-value)	Post-hoc Differences (Tukey HSD)
Educational level	High School	2.91	0.71	5.38	0.005	High School < Bachelor*, Post-graduates**
	Bachelor	3.22	0.66			
	Postgraduate	3.41	0.59			
Work tenure	< 3 years	3.48	0.58	9.12	0.000	< 3 years > 3 to 7 years**; > 7 years***
	3 to 7 years	3.14	0.61			
	> 7 years	2.88	0.64			
Housing type	Renting	3.43	0.60	7.65	0.001	Renting > Owned (both)**
	Homeownership	3.01	0.68			
	Apartment ownership	2.95	0.65			

*Note: significant level *p < 0.05; **p < 0.01; ***p < 0.001*

The results of the One-way ANOVA analysis show that there are statistically significant differences in the level of labor mobility between groups based on education level, working tenure, and housing type. Specifically, residents with postgraduate qualifications tend to move more than those who only graduated from high school. This shows that a higher level of education not only increases access to diverse job opportunities but also enhances adaptability and willingness to change workplace or

residence. Regarding working experience, the group of residents with less than 3 years of working experience has a higher mobility rate than the groups with longer working experience. This result is consistent with the general finding in labor market research that new entrants or those with less working experience are often flexible and easily change jobs in search of better career opportunities. In contrast, people with more working tenure tend to be more stable and less motivated to change. In terms of housing type, the results show that renters tend to move more than homeowners or apartment owners. This difference reflects the greater flexibility of the renter group in changing their residence and workplace. Renters are less tied to fixed assets, so they can easily change their residence to seek employment opportunities or improve their living conditions.

V. IMPLICATIONS AND CONCLUSION

Theoretical Contributions

This study makes an important contribution to the literature on the relationship between housing affordability and labor mobility, especially in the context of rapidly developing urban areas like Vietnam. The results show that the ratio of housing expenditure to income (Housing Affordability) is an important factor and has a strong influence on residents' mobility decisions. This reinforces the hypotheses from Kain's (1968) "Spatial Mismatch" theory and previous studies on the negative impact of high housing costs on labor mobility. In addition, the study also clarifies the role of demographic factors such as education level, working experience, and housing type in influencing mobility flexibility. Thereby, the study expands the understanding of the factors that constitute the motivation and barriers to labor mobility in urban labor markets in developing countries.

Practical Implications

From a practical perspective, this study provides important and highly applicable recommendations for policy makers, urban management agencies, as well as stakeholders in the field of labor market and housing development in Vietnam. First of all, improving housing affordability, especially focusing on low-income groups and young labors, is a priority issue that needs to be addressed to promote flexible labor mobility. When residents have better housing affordability, they will easily move to places with more job opportunities, thereby contributing to increasing the efficiency of labor resource allocation across the entire market, while reducing the situation of "trapped" labor in areas with extremely high housing costs. One of the practical solutions is to develop and expand policies to support affordable rental housing, especially in large cities where real estate prices and living costs are increasing rapidly. Social housing and affordable housing programs for workers and students also need to be promoted to create conditions for this group to have suitable housing options, reduce financial pressure and increase flexibility in changing residence or workplace.

In addition, training programs to improve professional qualifications and vocational skills also play an important role in increasing the adaptability and mobility of the workforce in the context of a volatile and increasingly competitive labor market. Improving the capacity of labors will help them have more job options and be ready to move to areas with high labor demand, contributing to improving the efficiency of the labor market.

In addition, urban planning and infrastructure development also need to be carefully considered to reduce the difference in housing prices between central and suburban areas. Planning policies should encourage the development of satellite urban areas and industrial and service zones in the suburbs with reasonable housing prices and living costs, thereby reducing pressure on central areas and creating more opportunities for residents to move. Completing the public transport system and infrastructure will also contribute to reducing travel costs, increasing the actual mobility of residents, while improving the quality of life and labor efficiency.

Limitation and Future Research Directions

Although this study provides valuable results, there are some limitations that need to be addressed in future studies. Firstly, the data collected is based on a cross-sectional survey, so it cannot fully reflect the causal relationships between housing affordability and labor mobility over time. Further research could use panel data to assess long-term mobility dynamics and the impact of housing price fluctuations. In addition, the study did not consider in depth non-economic factors such as social, psychological, or government policy factors that may influence residents' mobility decisions. Future research could apply more complex methods such as the active labor mobility index or multivariate models to better understand mobility dynamics.

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