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FACTORS AFFECTING HOUSING PURCHASE DECISIONS IN VIETNAM

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ABSTRACT

Housing is an essential asset for households, and owning a home is a dream of many people, For a country with one of the largest populations in the world such as Vietnam, owning a house for low-income employees is even more desirable to low-income people. Many low-income people are disadvantaged groups in society, so building houses that meet the needs of disadvantaged groups always has a positive impact on socio-economic development. The article uses a survey method combined with regression analysis to identify factors affecting the decision to buy housing in Vietnam, including income, location, quality of work, living environment, prices, and references. These are factors associated with the character and local characteristics of Vietnamese people.

1. Introduction

The real estate market plays a crucial role in the socioeconomic development of nations, providing the foundation for industrialization and creating favorable living and working conditions for people. However, the housing market in Vietnam has faced various challenges that hinder its growth. These challenges arise from objective factors, such as the global economic crisis, instability in gold prices, and tightening of real estate credit. Furthermore, the outbreak of the Covid-19 pandemic has further exacerbated the situation, leading to a decline in the service and tourism sectors. Moreover, the Covid-19 pandemic has had a profound impact on the functioning of the housing market in Vietnam, as it has caused increased unemployment rates and decreased wages (Hozer & Gdakowicz, 2014). This scenario is not unique to Vietnam, as it has been observed globally. The mismatch between real estate prices and people's income levels has made it increasingly difficult for the majority of individuals to purchase suitable houses. This

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issue has become even more pronounced during the Covid-19 pandemic, which has resulted in higher unemployment rates and reduced wages for many individuals (Vu, 2020). Recognizing the aspirations of the Vietnamese people, the government has prioritized the development of housing funds for middle and low-income individuals as part of the national housing development strategy until 2030.

However, in addition to the objective factors affecting the housing market in Vietnam, subjective reasons related to homebuyers also contribute to the challenges. Although housing is a fundamental necessity, only a small fraction of households can afford to purchase homes that meet their requirements. Previous studies have explored purchasing decisions in various regions and socio-economic conditions. Some studies have focused on assessing the impact of financial factors, real estate specificity, customer personality, and location factors on purchasing decisions (Grum & Grum, 2015; Lei, 2017). Additionally, buyer habits have been identified as playing a role in housing purchase decisions, as highlighted by Kamal & Pramanik (2015), and Grum & Grum (2015). Other studies have examined the influence of demographic factors, housing characteristics, housing design, environmental factors, and infrastructure on housing purchase decisions (Chen, 2018; Kamal & Pramanik, 2015). However, these previous studies have not provided a comprehensive understanding of the impact levels of these factors on home-buying decisions in the specific context of Vietnam.

This study aims to fill this gap by presenting a method to determine the factors and their impact rates on customers' decision-making processes in the housing market. The findings of this research will provide a foundation for proposing solutions that ensure the steady development of the housing market, meet the increasing demand for housing, and enhance the operational efficiency of housing companies. By understanding the specific factors and their respective influence levels, policy-makers and industry stakeholders can make informed decisions to address the challenges faced by the housing market in Vietnam and create a more sustainable and accessible housing market for the population.

2. Literature review

2.1. Theoretical basic

Consumer behavior refers to the exploration of how individuals make choices, acquire, utilize, and dispose of various goods, experiences, concepts, and services to fulfill their needs while also considering the consequences of these actions on both the consumer and society. According to Anderson & Golden (1984), consumer behavior encompasses the psychological processes that consumers undergo when identifying their desires, searching for solutions, making purchase decisions, evaluating information, devising plans, and executing those plans. The culmination of a consumer's preferences, perspectives, objectives, and decisions determines their buying behavior in the market. Schiffman & Kanuk (2006) define "consumer behavior" as the conduct exhibited by consumers in their quest for obtaining, utilizing, evaluating, and rejecting products, services, and ideas. When it comes to consumer products, consumer behavior primarily revolves around the choices individuals and families make regarding resource utilization (Priyabrata, 2022).

However, housing is a significant asset for households. Their house purchase decision is one of the most crucial things to citizens that can change their life (Wells, 1993). When intending to buy a house, buyers often have to collect and synthesize enough information about location, price, quality, design, living environment, etc. Salleh (2008) investigated the factors that influence individual satisfaction with affordable private housing in Malaysia, such as housing units, housing services, facilities, and neighborhood environment neighboring area. The data is taken from random samples of 795 households living in affordable housing projects

developed by private housing developers in Penang and Terengganu. The results indicated that the neighborhood factors are the dominant factors determining the level of people's satisfaction. Next are the accommodation units and services provided by the investor. Low satisfaction level factors are poor public transport and lack of playgrounds for children, community halls, parking lots, secure facilities, and people with disabilities. The study proposes that the government should closely monitor the implementation of the affordable housing policy to improve the quality of housing for the people. Dananjoyo et al. (2020) examine the impacts of financial considerations on house purchase decisions by housing investors in Auckland, New Zealand. In this study, Structural Equation Modelling (SEM) was used with 110 completed questionnaires. The results showed that house prices, income, and credit accessibility significantly influence housing investors' purchase decisions in a positive direction. Adamkiewicz & Radziszewska-Zielina (2019) conducted an online survey on a group of 104 persons who were currently searching for an apartment. Based on the outcomes, they concluded that the perceived need for persons to have their apartment is the most common reason for purchasing a house. The empirical research of Hei & Dastane (2017) used a questionnaire to discover the factors that affect the housing purchase decision in Malaysia. They found a strong link of the top three factors for buyers to make decisions: finance, neighborhood, and location. In addition, the study also suggested that demographic factors (including gender, age, marital status, financial ability, and education level) also affect the housing purchase decision.

Agreeing with Hei & Dastane (2017), Ismail & Shaari (2019) stated that differences in attitudes and values between generations will lead to differences in housing choice decisions. While the elderly often pay attention to their neighbors and surroundings, young people prefer the structure and design of the house. On the other hand, in terms of gender, men are often attracted to the location of the house, but women give priority to the characteristics of the house itself and the private living space in that house. Demographic factors are also presented in the studies of Trojanek (2014), and Foryś (2015). In a broader study of factors affecting real estate buying behavior, Kumar & Khandelwal (2018) outlines nearly 20 factors, including location, proximity to amenities, appearance, interior, well built, locality, ventilation, price range, availability of loan, accessible garage, fire-resistant, power supply, water supply, maintenance cost, developer's reputation, vastu compliance, house number, and view from the house. Research shows that financial factors such as price range and availability of home loans were found to be most important by home buyers. However, the financial factor always comes with the construction quality. Homebuyers are also interested in the developer's reputation, geographical location, ventilation, and proximity to amenities.

In Vietnam, there have been research on the factors affecting the decision to buy a house. Xi (2017) surveyed factors affecting the intention to buy an apartment. Survey results show that there are 4 groups of factors affecting customers' housing purchase intention, including cultural changes, land issues, urbanization and population pressure, service quality, environment, and price. Hiep and Hong (2020) examines the impact of loss aversion on homebuyer behavior. The results showed that when the housing market grows or only slightly declines, the behavior of home buyers is not affected by the psychological factor of fear of loss. On the contrary, when the market plummets, buyers are more lenient in buying a house and shortening the search time. Therefore, the study concludes that the fear of loss is not the cause of the decline in transaction volume in the housing market when house prices fall during the housing market downturn.

Research on housing development solutions for low-income people, Bakhtyar et al. (2012) indicated that low-income people do not have

the alternatives to choose for a quality house, and they do not have many options to rent or buy an affordable house in the center of town eitherdue to financial constraints. When their home is too far from the workplace, they face many problems, such as air and noise pollution, and traffic congestion every day. To overcome this drawback, Bakhtyar et al. (2012) introduce a financial model that enables the low-income people to live near their workstations based on Smart Growth principles. By making new extra value with the introduction of new aspects for density and estimating the saving of Smart Growth can provide the opportunity to shift from low-income housing to affordable quality housing. Bakhtyar et al. (2012) believe that projects like the Gasing Indah project, which includes a mixed development on the border between Kuala Lumpur and Petaling Jaya in Malaysia, will cn improve the quality of life and housing efficiency of low-income people who are working in city centers.

2.2. Research Hypothesis

Based on previous studies, combined with specific factors of psychology, culture, customs and habits of Vietnamese people, the study aims to test several research hypotheses about the factors affecting the housing purchase decision in Vietnam, as follows:

Income

As mentioned, housing is a huge asset for every household. Housing is reported to provide an excellent risk-return trade-off and is a good alternative to stock and bond portfolios (Hoda et al., 2020). To get a house, consumers have to save for a fairly long time or have to borrow large amounts of money and therefore the burden of monthly interest payments is not easy for low-income households because housing is not only a place for people to live but also affects their morale, quality of life, and economic development (Nguyen & Do, 2020). According to the statistics from Vietnam Real Estate Association, house prices in the city are always 20–25 times higher than the average income of people. This creates a greater barrier for low-income people who want to build a house, and income becomes the first factor in home-buying decisions. The income factor is reflected in the current budget that the person intends to buy, the ability to arrange payment, the ability to borrow,or support from the seller, etc. From the argument above, we hypothesize as follows:

Hypothesis H_1: Income has a positive impact on the home-buying decision.

Location

According to Kurniawan et al. (2020), the concept of a location refers to a place that fulfills expectations of comfort and convenient accessibility, satisfying individual preferences. Put simply, it is a significant factor to consider when deciding about purchasing a property. Additionally, Daly et al. (2003) have corroborated that location has emerged as a primary consideration in housing purchase decisions across Australia, the UK, and Ireland. In Vietnam, the house's geographical location is often one of the top criteria for residents. While public transport in Vietnam is underdeveloped and infrastructure is still weak, the choice of housing location must ensure convenience for the whole family. Well-situated property tends to have higher value and offers more significant potential for future profitability (Kurniawan, 2020). Therefore, the is the next hypothesis is as follows:

Hypothesis H_2: Location has a positive impact on home-buying decision.

Construction quality

Construction quality is the tangible characteristics of the house such as structure, design, size, construction materials, and so on.Depending on the financial ability, the home buyer considers the house in such conditions as the apartment system; apartments with separate walls or shared walls; the number of bedrooms, living rooms, bathrooms, and so on.However, any customer wants the construction quality after handover to be commensurate with the price they pay. Construction quality includes

but is not limited to plumbing, lines, walls, and water permeability.

According to Opoku & Abdul Muhmin (2010), the term "structural" refers to the features of private residential spaces, encompassing the size of the family room, kitchen, number of bathrooms, and additional rooms. Additionally, Saw & Tan (2014) emphasize that structural factors also encompass the quality and physical condition of the property. Saw & Tan (2014) define structural factors as the size of the family room, dining room, building, and the number of bathrooms and rooms. Similarly, Kurniawan et al. (2020) state that structural attributes include the property's physical appearance, condition, functionality, characteristics, and quality, which its age can determine. Any customer wants the construction quality after handover to be commensurate with the price they pay, as its price equals its quality. Therefore, hypothesis H_3 is as follows:

Hypothesis H_3: Construction quality has a positive impact on home-buying decision

Living Environment

At all time, humans have needed to be sensitive to their surroundings to survive, which means that we have an innate awareness of our environment and seek out environments with certain qualities. The living environment mentioned here is the safety, convenience with accompanying convenient services, and integrated coexistence with the residential community. The rapid but unsustainable rate of urbanization makes the "green lungs" in big cities become smaller. This situation is a great concern for people with a weak immune system to . Therefore, the need to live in projects that focus on green campuses and have playgrounds for children is the desire of many households. To meet this demand, on the one hand, policy-makers are interested in cost-effective and socially acceptable ways of encouraging the public to adopt more environmentally-friendly lifestyles (Whitmarsh & O'Neill, 2010). On the other hand, many real estate investors in Vietnam have focused on apartment projects with civilized, modern living space, energy-saving, and environmental protection. Therefore, hypothesis H_4 is as follows:

Hypothesis H_4: Living environment has an positive impact on home-buying decision.

Price

Price is the prime mover of the wheels of the economy. All consumer purchase decisions are influenced by production, consumption, distribution, and exchange price. In essence, every facet of the economic life is directly or indirectly governed by pricing. There have been many studies dedicated to analyzing house prices or real estate price such as Debrezion et al. (2007), Kuşan et al. (2010), Diao & Ferreira Jr (2010), Sunding & Swoboda (2010), Li et al. (2015), Randeniya et al. (2017), Sunak & Madlener (2017), Pace & Zhu (2017), and Lisi (2019). Price expectations have always been an interesting topic for households' buying decisions. From the above argument, we makes the following hypothesis:

Hypothesis H_5: The price factor has an impact on the home-buying decision.

Investor reputation

The reputation of an investor is a crucial factor that influences consumers' perception of the company's credibility and ability to fulfill their needs. Fombrun (1996) conducted a survey and found that real estate development companies with a strong reputation in the market have the advantage of attracting more buyers and investors and commanding higher prices. Lafferty & Goldsmith (1999) emphasized that a real estate development company with a good reputation instills confidence in consumers regarding the quality of their residential products, promotions, and services. This, in turn, fosters a positive inclination and actual buying behavior among consumers. Roberts & Dowling (2002) noted that consumers are more inclined to engage with companies with a higher reputation when making purchasing decisions. Nguyen & Leblanc (2001) established a strong positive correlation between a real

estate development company's reputation and customer purchase willingness and loyalty. Customers are more inclined to buy products from companies with a higher reputation. Milgom & Roberts (2007) highlighted that a company with a strong reputation enjoys benefits such as higher purchase willingness, customer loyalty, repeat purchases, and the ability to command higher prices compared to investors with a relatively poor reputation. Wang & Nie (2008) combined the Barro and Vickers models and employed game theory to analyze the relationship between the reputation of real estate agents and consumer behavior, particularly in terms of purchase expectations and refund behavior. Their empirical findings revealed that a good corporate reputation generates high purchase expectations while minimizing refund behavior. Therefore, the sixth hypothesis is as follows.

Hypothesis H_6: Investor reputation has a positive impact on home-buying decision.

Reference group

Stafford (1966) highlighted the significant influence of reference groups on consumers' evaluation of residential goods, purchase willingness, and behavior. These reference groups, which consumers compare themselves to, can be social groups based on factors like social class and occupation. Bearden (2001) emphasized the importance of interpersonal influence in the real estate sales industry as a marketing tool. Celebrities and opinion leaders, for instance, have a substantial impact on consumers' purchasing decisions. Balancing consumers' psychological states and utilizing interpersonal reference groups are crucial sales strategies in real estate marketing activities. Li et al. (2010) delved into the Chinese traditional culture and conducted research using trust and commitment as intermediary variables to examine the interpersonal relationship between consumers' purchase willingness and behavior. Ma & Chao (2011) incorporated the innovation diffusion theory and consumer behavior analysis to construct an interpersonal diffusion model of consumer purchase behavior, exploring the relationship between interpersonal impact and purchase willingness. Their model provided insights into the intricate dynamics of interpersonal influence. Yang (2014) conducted corresponding research from the perspective of online interpersonal interaction, thoroughly analyzing the impact of interpersonal interaction on consumer perception and purchase intention. The results demonstrated that interpersonal interaction directly affects consumer perception and purchase intention, with acquaintances playing a particularly significant role in the interaction process. Therefore, we make the 7th hypothesis as follows.

Hypothesis H_7: The reference group has a positive impact on home-buying decision.

Promotion strategy

Zhou & Zhang (2009) discovered that price discounts and consumer incentives had the most significant impact on consumers' purchase willingness among various promotional tactics. Regardless of their specific purchase needs, consumers are primarily influenced by the reduction of purchase costs. Property developers can effectively leverage sales promotion programs by offering attractive bundled gifts or programs that align closely with lifestyle-related products and services. These could include travel tickets, concert tickets, culinary and cafe vouchers, and the latest gadget series (Gao, 2016). Therefore, our last hypothesis is as follows.

Hypothesis H_8: A promotion strategy has a positive impact on home-buying decision.

3. Reseach methodology

Research model

From the theoretical basis and hypothesis presented above, the model of factors that affect housing purchase decision in Vietnam is as follows:

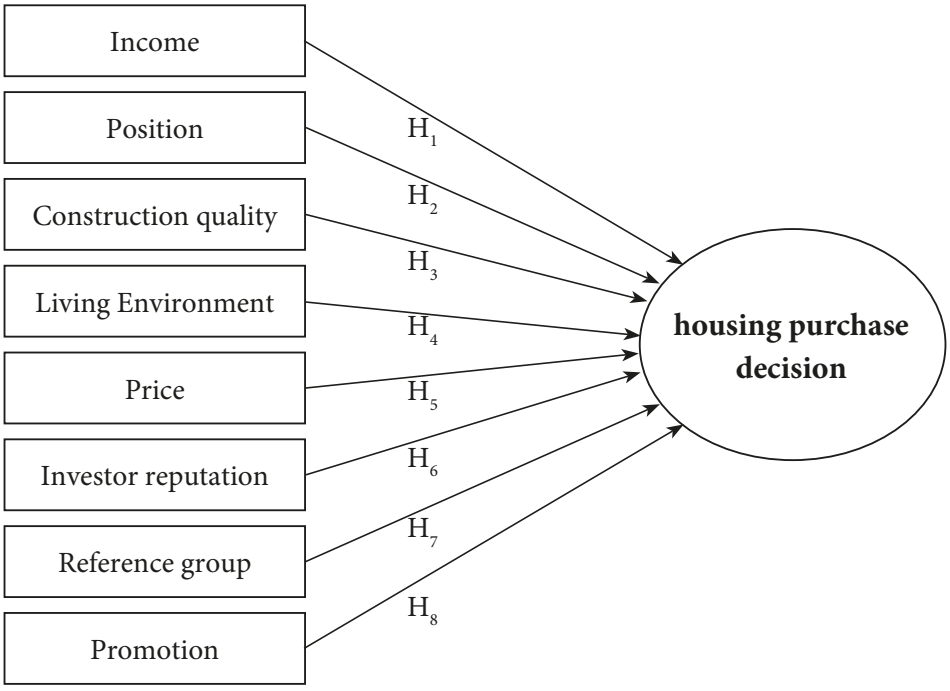

Figure 1. Proposed research model of factors affecting the housing purchase decision

Research methodology

To evaluate the factors affecting the decision to buy housing in Vietnam, the study was conducted in two steps: Qualitative research to build survey questionnaires; quantitative research to collect, analyze survey data, and estimate and test the research model. The study used questionnaire-based data from 253 respondents with a response rate of 62.95%. The scale and reliability of the observed variable were evaluated by Cronbach's Alpha coefficient and exploratory factor analysis (EFA). The last step is to test the model by multivariate regression with a significance level from 1% to 10%. SPSS was used. The Likert scale with a range of values 1÷5 was used to measure the respondents' feelings about the factors that affect their home buying decision. The proposed regression model is:

$$QD = \beta_0 + \beta_1 TN + \beta_2 VT + \beta_3 CL + \beta_4 MT + \beta_5 GC + \beta_6 UT + \beta_7 TK + \beta_8 CT$$

Where,

QD is the dependent variable, representing the ability to make a housing purchase decision;

TN, VT, CL, MT, GC, UT, TK, and CT are the factors affect purchase decision

β_0 is the interceptelement

$\beta_1 \rightarrow \beta_5$ are the regression coefficients.

4. Empirical results

4.1. Descriptive statistics

Among 253 respondents, women accounted for 54.9%. The survey age ranged from 20 to 55, in which, the age group 20-30 accounted for 11.9%; 68% were aged 31–40 and 20.2% were 41–55. Out of the 253 respondents, 31.2% of the interviewees were married, 15.4% were divorced and 53.4% were not married. Regarding the standard of house area, there are 33.2% of customers with a need for a house area of 40–60 m^2, 38.3% prefer an area of 60–80 m^2, and the remaining percentage prefer an area of 80–100 m^2. Regarding support from banks, 19% of customers choose 30% support level, 4.7% customers choose 40% support level, 28.5% customers choose 50% support level, 9.5% of customers choose 60% support and the remaining 38.3% choose 70% support.

At the same time, when asked about the form of mortgage, customers choose to mortgage a house that they have just bought is quite high, accounting for 71.5% (*See Appendix online 1*).

4.2. Test reliability of the scales (Cronbach's Alpha)

Test reliability of the scales by analyzing the reliability of Cronbach's Alpha coefficient is to determine the correlation of variables. The requirement for the scale to be accepted is that the variables have an item-total correlation greater than 0.3 and the Cronbach Alpha coefficient is greater than 0.6 (Tavakol & Dennick, 2011).

The scale Living environment has the value of Cronbach's Alpha as 0.7 after removing observed variable MT1 due to the Corrected Item-Total Correlation is smaller than 0.3; the Cronbach's Alpha value of scale Income, Location, Construction quality, Price, Investor reputation, Reference group, Promotion strategy and Purchase decision respectively as 0.877, 0.903, 0.704, 0.611, 0.702, 0.796, 0.775, and 0.837. It means that they are all suitable for running exploratory factor analysis (EFA) (*See Appendix online 2*).

4.3. Exploratory factor analysis (EFA)

For EFA analysis, to meet the criteria of exploratory factor analysis, the sample size should be at least 5 times larger than the number of observations (Fabrigar & Wegener, 2011). In this study, the sample size used was larger than the required sample size. Exploratory factor analysis (EFA) was performed with Principal Component extraction, using Varimax rotation. However, prior to the extraction of the factors, several tests should be used to assess the suitability of the respondent data for factor analysis. These tests include Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's Test of Sphericity (Williams et al., 2010). The KMO index ranges from 0 to 1, with 0.50 considered suitable for factor analysis. The Bartlett's Test of Sphericity should be significant ($p < .05$) for factor analysis to be suitable (Hair, 2009). The analysis results show that KMO = 0.743 and Sig. = 0.000 <0.01. Thus, the observed variable of purchase decision is suitable for the next analysis. Analyzing EFA with the Varimax factor rotation method, the study identified 8 factors affecting the housing purchase decision, these factors explained 66.29% of the purchase decision (*See Appendix online 3*).

4.4. Correlation and regression results

Before analyzing linear regression, we need to consider the degree of correlation between observed variables to check for multicollinearity. Therefore, the correlation matrix is calculated (*See Appendix online 4*). Pearson correlation results will be shown in the Correlations table. Accordingly, Sig. (2-tailed) is the t-test value, assessing whether the Pearson correlation coefficient is statistically significant or not.

The results indicate that the t-test of the Pearson correlation between the 6 independent variables TN, VT, CL, MT, GC, TK with the dependent variable QD is all less than 0.05. This means that the independent and dependent variables have a linear relationship. Together, the correlation coefficient between pairs of independent variables is less than 0.5, showing that the possibility of multicollinearity is very low.

Regression analysis is a statistical tool for the investigation of correlations between variables. Regression analysis is also used to understand which among the independent variables are related to the dependent variable, and to explore the forms of these relationships. In this study, regression analysis will be used to test 8 hypotheses, including income (TN), location (VT), construction quality (CL), living environment (MT), price (GC), investor reputation (UT), reference group (TK) and promotion strategy (CT). Regression analysis is carried out by the ENTER method with Software SPSS 22. Results of Regression as below.

Table 1. Results of Regression

Variables	Unstandardized Coefficients		Standardized Coefficients	t	Collinearity Statistics	
	B	Std.Error	Beta		Sig.	VIF
Constant	0.430	0.222		1.939	0.054	
Income (TN)	0.131	0.020	0.283	6.505	0.000	1.021
Location (VT)	0.244	0.020	0.525	12.098	0.000	1.018
Construction quality (CL)	0.119	0.033	0.157	3.556	0.000	1.054
Living Environment (MT)	0.186	0.032	0.253	5.809	0.000	1.027
Price (GC)	0.124	0.027	0.207	4.622	0.000	1.087
Investor reputation (UT)	0.041	0.027	0.072	1.521	0.130	1.200
Reference group (TK)	0.080	0.026	0.141	3.089	0.002	1.127
Promotion strategy (CT)	0.026	0.026	0.045	0.995	0.320	1.110
Dependent Variable:	Purchase Decision (QD)					
R^2	0.548					
Adjusted R^2	0.533					
Durbin - Waston	1.806					

Regression results show that 6 out of 8 variables are statistically significant at a 5% level. The factors of investor reputation (UT) and promotion strategy (CT) are not statistically significant in reflecting their influence on customers' decision to buy housing. All the remaining variables have a positive relationship with the dependent variable. The geographical location shows the strongest impact on the decision to buy a house. When the location factor increases by one unit and other factors remain unchanged, the decision to buy a house increases by 0.525 units. The influence of income is only ranked third, after the living environment factor. This proves that home buyers have had a pretty good financial preparation for their home buying decision, so they lean against other factors rather than income. In addition, the adjusted R^2 is 0.53, showing that the model's variables explain 53% of customers' purchase decisions. The Durbin Watson coefficient = 1.8 and the VIF coefficient is small, indicating that the model does not have autocorrelation and multicollinearity.

4.5. Discussion

The research results showed that 6 out of 8 factors proposed by the model have positively impacted the purchase decision in Vietnam, including home location, income, living environment, price, construction quality and reference group. Thus, the factors affecting the purchase decision in this study are similar to previous studies. However, there are some particularly noteworthy points in this study as follows.

First, the findings of this present study corresponded with previous studies by several researchers such as Nasar & Manoj (2015), Hei & Dastane (2017), Kumar & Khandelwal (2018), Mariadas et al. (2019). These studies have proven that location is an important criteria that consumers observe upon their house purchase decision. However, this study highlighted that home location has the strongest impact on home buying decisions. It is possible that the home location that low-income households need is not in the city center, but closer to their children's school and their workplace.

In particular, in the context that the transport infrastructure in Vietnam has not been fully developed, along with public transportation is not really convenient, the location factor still plays a vital role for a housing product.

Second, while many previous studies have suggested that price has a great influence on home buying decisions (Chia et al., 2016; Chong & Omkar, 2017; Kurniawan et al., 2020; Mariadas et al., 2019), in this study, price is a less important factor than location, income, and living environment. It is possible that during the study period, housing prices for low-income employees fluctuated slightly. At the same time, the price difference between housing locations is small, so the survey respondents did not pay too much attention to house prices.

Third, this study finds that the investor's reputation and promotion strategy do not affect the housing purchase decision of low-income employees. This result may be reasonable, because the survey subjects in this study are mostly low-income people, so their financial capacity is limited. Meanwhile, housing is often invested by the state or with state intervention, so they trust the state without worrying about theinvestor's reputation. Moreover, at present, the supply of housing is excceded by demand, so forms of promotion are rarely used; therefore,buyers do not pay too much attention to this factor.

5. Conclusions and implications

Housing is a specific product, so the behavior of home consumers will also have many differences compared to other common goods. Through regression analysis with primary data, the study showed that six factors strongly influence the customers' housing purchase decision. These include income, location, construction quality, living environment, price, and reference group. Therefore, in addition to the issues of capital, land, and legal, investors who want to participate in the low-income housing market segment need to learn about the behavior of housing consumers to make investment and construction plans, specifically as follows.

First, they should invest in houses whose prices must match income. Currently, the average income in Vietnam is about 6000 USD/person/year. With this level of income, it is very unaffordable to own a house for most people. Besides, the economic situation in the coming time will be depressed because the Covid-19 pandemic makes people more cautious in spending. Thus, on the one hand, real estate businesses should strictly manage the investment process; On the other hand, they should introduce a full range of home loan solutions to customers to achieve the simplification of procedures as well as loan documents so that they can be sure of their ability to repay the home loan.

Second, choose good locations. Choosing a land location to build a project is always a dilemma for anyone who wants to invest in real estate. Therefore, investors need to be proactive in applying for planning policies. At the same time, they should focus on building factors that contribute to the project's location, such as building roads connecting urban areas, and planning green infrastructure systems for the project campus.

Third, building apartments must ensure quality. Product quality includes construction quality, interior quality, and design quality. Product quality must go hand in hand with aesthetics. Thus, the investors need to diversify in the design of houses and types of houses to develop compartments with beautiful designs, making the most of space and convenience.

Fourth, investors should build a healthy living environment in residential areas. Building a high-quality habitatis creating a friendly behavioristic, creating harmony

between people living in the same apartment building,increasing sense of security, and increasing satisfaction with accompanying utilities. To do that, it is necessary to promote the role of the Residential Area Management Board to become the unit that maintains the spiritual life of the residential community.

Limitations of the research

With the adjusted R^2 coefficient = 53.3%, the research model can only explain 53.3% of the variation of the housing purchase decision. Therefore, the model omits some important factors that influence the buying decision. This is a limitation that the author needs to have further studies to add factors that have not been found in this study.

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