Factors Influencing House Purchasing Decision of Customers in Zhoukou City Henan Province

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Abstract

This study reveals the factors influencing house purchasing decision of customers in Zhoukou City Henan Province. The descriptive results show that respondents married buyers basically occupied the whole Zhoukou real estate market, indicating that the demand for the purpose of purchasing marriage houses led to the purchasing decision; gender is dominated by men; the age structure is younger; the education level is generally high; the occupational status is dominated by enterprise employees; the proportion of house purchase varies greatly because the different monthly income of families; the marriage structure is dominated by married people; the largest proportion of home buyers in a family of three. Social factor has the highest average value in the independent variables. The customers' intention of the house type of "small high-rise", the house layout type of "three rooms with two halls", the house area of "larger than $60\ m^2$ but equal or lesser than $80\ m^2$", and the house price of "over 500,000 Yuan up to 800,000 Yuan" is the strongest.

Keywords: Factors Influencing, Purchasing Decision, Customers

INTRODUCTION

Background of the Study

At present, China's domestic housing supply far exceeds the demand of residents, and the vacancy rate of housing is relatively high (Feng Furong, 2022). On the other hand, residents' demand for housing will no longer be limited to the traditional just have a house, but put forward higher requirements for housing. Chinese home buyers not only have the need to live, but also have the need to maintain and increase the value of their assets.

In the future, real estate should provide home buyers with housing allocation solutions, housing investment solutions, and provide real estate value preservation and appreciation services. Therefore, it is significant to have a good understanding of the house purchasing decision in Zhoukou City, Henan Province to expanding the market, expanding domestic demand, and stimulating local economic growth.

Objectives and Hypotheses

The general objective of this study was to identify the variables that influence the house purchasing decision of customers in Zhoukou City. This study focused on the following specific objectives:

1. Describe the customer's profile in terms of sex, age, civil status, income, education, job position, and family size.

2. Determine the personal, psychological, cultural, economic, and social factors that influence customers' house purchasing decision.

3. Determine the customers' house purchasing decision in terms of house type, house layout, house area, and house price.

4. Determine the relationship between personal, psychological, cultural, economic, and social factors and customers' profile in terms of sex, age, civil status, income, education, job position, and family size.

5. Determine the relationship between the customers' house purchasing decision and customers' profile in terms of sex, age, civil status, income, education, job position, and family size.

6. Determine the relationship between the customers' house purchasing decision and the personal, psychological, cultural, economic, and social factors.

Based on the specific objectives, these are the hypotheses of the study:

1. There is no significant relationship between the personal, psychological, social, cultural, and economic factors and the customers' profile in terms of sex, age, civil status, income, education, job position, and family size.

2. There is no significant relationship between the customers' house purchasing decision and customers' profile in terms of sex, age, civil status, income, education, job position, and family size.

3. There is no significant relationship between customers' house purchasing decision and the

personal, psychological, cultural, social, and economic factors.

Theoretical Framework, Conceptual Framework and Significance of the Study

Theoretical Framework

As far as consumer behavior definitions and perspectives are concerned, and the focus and the view of the research, Engel et al. (cited in Twenefour, 2017) indicated that consumer behaviors include both the act of purchasing and using goods and services. The American Marketing Association (AMA) said that consumer behavior involves factors such as perception, cognition, behavior, and environment, which constitute an explanation of public social behavior (cited in Yang Shuqing, 2009). According to Solomon et al. (cited in Nolcheska, 2017), consumption was analyzed as a process and as an object.

Modigliani, Brumberg, and Ando (cited in Caspari, 2019) jointly proposed the consumption and savings life cycle hypothesis. A theory of consumer behavior in microeconomics states that the individual current consumption depends on personal income, including the current income and expected income, age and assets (Modigliani & Brumberg as cited in Caspari, 2019). Similarly, Friedman (1957) proposed that income determines consumption, since lasting income is the source and guarantee of consumption for people.

On the same note, Duesenberry (1949) and Keynes (1936) both assumed that current income is the primary factor influencing consumer spending. The two scholars believed that the current absolute income level and the current level of relative income, and the budget constraints are phases. Under the assumption of consumption irreversibility, when income drops, consumers will maintain their current consumption level by reducing part of their savings. In Duesenberry's consumption function, consumer consumption and budget constraints are also a period.

There are many theories about consumption decision, and for the purposes of this paper, the following are the theoretical cornerstones of this research: consumer decision-making theory, Keneysian theory, Kotler's theory of four factors influencing consumer behavior, three-factor theory of consumer behavior, and Hawkin's two-factor theory of consumer behavior.

In consumer decision-making theory, consumer behavior is primarily concerned with the consumer's decision to purchase. Decisions regarding purchases is a key component of consumption behavior, and without the purchase decision, consumption behavior cannot be discussed. Thus, the current consumer behavior theory also seeks to understand what factors influence purchase decision (Wu Linhai et al., 2010). A consumer's decision can be divided into problem identification, gathering pre-purchase information, evaluating alternatives, choosing products, and evaluating their behavior afterwards (Solomon et al. as cited in Nolcheska, 2017).

According to Keynesuan theory, the macroeconomic trends are the major factors in restricting specific behaviors. In Keynes' consumption theory, residents' consumption strongly correlates with their current income. Keynes further argued that public administration should increase demand in order to increase economic growth (Muñoz-Bandala, 2022).

While economists believed that consumer behavior is a function of income and budget, for Kotler and Armstrong, the factors that influence consumer behavior can be divided into four groups. These are the personal, social, psychological and cultural factors (Yayla, 2019). Included in the personal factors are personality and self-concept, age and life cycle stage, occupation, economic environment, and lifestyle. For social factor, this includes the reference group, family, role and status; while motivation, perception, learning, belief and attitude are included in the psychological factor. However, in the three-factor theory on consumer behavior, marketing is regarded as another important factor influencing consumer behavior, and it can be impacted from three aspects of internal factors, environmental factors and marketing factors.

In another perspective, Hawkin's two-factor theory of consumer behavior posits that factors influencing consumer behavior can be divided into two types, the factors inside the consumer, and those outside of the consumer. According to Hawkin's model, consumers build up their self-concept (image) and lifestyle according to the influence of internal and external factors. These influences then lead consumers to establish consistent needs and desires, the majority of which must be satisfied and encountered through consumption behavior (purchasing products). These will also have an influence on consumer psychology and behavior in the future, particularly with regard to self-concept adjustment and lifestyle transformation.

The following categories can be used to broadly classify the theories developed by foreign researchers who study consumer behavior: the theory of influencing factors, the theory of demand from consumers' inspiration and value, the theory of self-image and lifestyle, the theory of consumer processing of information and making decisions, and the theory of the final purchasing behaviors.

Factors influencing consumer behavior can be classified into two, three, and four levels. The two-factor theory categorizes influencing variables into two groups: those that exist within the consumers and those that exist outside of the consumers. The two factor theory is also known as the "external /internal factors" theory or the

"personal/environmental factors" theory. The three-component theory considers "marketing" to be another essential element that impacts customers and isolates the three factors (internal, environmental, and marketing) in order to examine the overall influence of customer behavior. Kotler suggested a four-level theory which discusses the four layers of consumer behavior influencing factors such as cultural, social, personal, and psychological.

After analyzing the related theories and factors which influence the consumer behavior, the author found that the house purchasing decision should be evaluated by the customers, as they are the ones who have the firsthand experience and have the most accurate judgment on this matter.

Several factors may influence the decision to purchase a house, including the personal factor, psychological factor, cultural factor, social factor, and economic factor. Studying the influences of these factors on the house purchasing decision contributes greatly to decision makers assess the influence level of each factor, thereby proposing appropriate policies to promote economic development of the City.

Conceptual Framework

There have been no studies conducted on the factors influencing the decision to purchase a house in Zhoukou City, as indicated in the theoretical framework above. There may also be differences in the influencing factors of the house purchasing decision due to the characteristics of the surveyed persons (customers). Anchored on the theories presented, the following conceptual framework was developed for this study.

In this study, how personal, psychological, cultural, social, and economic factors influence house purchasing decision of customers were examined. Variables were identified and categorized into antecedent, independent, and dependent variables.

Sex, age, civil status, income, education, job position, and family size are the antecedent variables; personal, psychological, cultural, social, and economic factors are the independent variables; and the customer house purchasing decision as the dependent variable. Customers' house purchasing decision is in terms of the house type, house layout, house area, and house price, while the purchasing channels of these customers can be directly from the housing marketing center, through an agent, or through the internet. Houses for purchasing decision refer to residential houses for real estate sales, including only urban houses and excluding land.

Apart from the factors identified as independent variables, the profile of the customers in terms of sex, age, civil status, income, education, job position, and family size may influence the customer's house purchasing decision.

It is also possible that the variations in the purchase decision of the customer in terms of house type, layout, area and price can be explained by their differences in sex, age, civil status, income, education, job position, and family size. Female house buyers may have different choice for houses than the males. Younger buyers may have different house preferences than the older buyers. Married couples, singles, and those with children and parents living with them may also have different house requirements. Customers with higher income and with higher job position will definitely have different house requirements and specifications than those with lower income and job position. Varying level of education and family size can also result to differences in house purchasing decision.

Furthermore, it was conceptualized that there are relationships between the customer's sex, age, civil status, income, education, job position, family size and house purchasing decision. The author asserts that the personal, psychological, cultural, social, and economic factors influence customer house purchasing decision. These factors are essential issues in customer purchasing decision for housing and directly influence customer house purchasing decision.

In sum, the author believes that the antecedent variables (sex, age, civil status, income, education, job position, and family size) and the independent variables (personal, psychological, cultural, social, and economic factors) are correlated to house purchasing decision of customers.

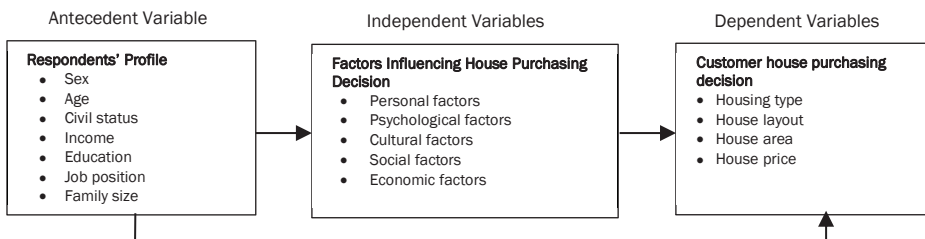Figure 1 summarizes these possible relationships and differences.

Antecedent Variable | Independent Variables | Dependent Variables

Respondents' Profile
- Sex
- Age
- Civil status
- Income
- Education
- Job position
- Family size

Factors Influencing House Purchasing Decision
- Personal factors
- Psychological factors
- Cultural factors
- Social factors
- Economic factors

Customer house purchasing decision
- Housing type
- House layout
- House area
- House price

Figure 1. The Flow of the Relationship of the Variables of the study

Significance of the Study

A certain group of people may benefit from the results of the study. These group of people are the following:

Real estate marketers. The real estate marketers in China focus on the distribution of consumers and demand levels to design and plan sales strategies to fulfill the specific requirements of buyers. The findings of this study will be useful to them in the development of appropriate marketing strategies suitable for Zhoukou residents.

Real estate practitioners, enterprises and organizations. These group of people are the ones responsible in the selection of suitable place for their development. They may set up agencies for real estate, work in real estate agencies and projects tailored to the local market in accordance with the main factors influencing consumer housing consumption decision. The results of this study will be beneficial for them especially the insights on the factors that influence the house purchase decision of consumers in China as these may be used in the kind of real estate development projects they may engaged in. They may be able to pay attention to consumers' consumption decision and adjust their commodity production and marketing based on the findings of the study.

Customers. Customers of real estate companies in China can benefit from this study. Using this study's results, they will be able to identify the factors that influence house purchasing decision. The information they may get from the study will provide them with awareness and guidance when buying houses that will give them satisfaction.

Buyers with investment needs. House buyers for investment purposes may use the results of this study as reference when making house purchase decision. The knowledge they can get regarding the factors that influence house purchase decision can help them predict and make informed decision on the future property needs in different locations.

Local Government Unit in Zhoukou City. The city government can use the results of this study to establish a functional development office. Through the observation of the housing consumption market, the office can timely provide relevant government departments with information and suggestions on urban planning and the housing market.

Real Estate Development Offices. They may take into account the consumer consumption decision as a factor, to promote the harmony of real estate development and the needs of buyers, and the healthy and sound development of the real estate market.

Government Agencies. This study can provide government agencies with new theoretical reference on social security housing accurately and effectively. In a harmonious market under the requirements, the government should formulate and implement reasonable land policies according to its own functional positioning, tax policy, financial policy, safeguard policy, trading policy, information policy and cultural and education policies.

Other Local Government Units. Using the results of this study, they can establish a functional development office. Through observation of the housing market, the office can provide timely information and advice to government departments about the housing market.

Non-governmental Organizations (NGOs). This study can give non-governmental organizations with new theoretical reference on social house purchasing decision accurately and effectively.

Future Researchers. The future researchers who will study similar topic in the future may rely on the findings of the study as their reference material. It can provide them insights on the research methods and ideas relevant to regional and other researches related to factors influencing house purchases.

Students. For the students who are committed to studying the factors influencing local house purchases, this study may provide them with some research perspectives, ideas and methods, help them understand and find the factors that influence the consumption decision of local house buyers.

Scope and Limitation

This study on the factors influencing the house purchasing decision of real estate customers was conducted in Zhoukou City. The predetermined factors influencing the customers' house purchasing decision are the personal factor, psychological factor, cultural factor, social factor, and economic factor.

The study was confined to Zhoukou City. It involved 400 local customers selected using stratified random sampling who were profiled in terms of sex, age, civil status, income, education, job position, and family size.

The primary data were collected from November to December 2022 using a researcher-made questionnaire which was pre-tested for validation and reliability; while the secondary data gathered covered the period 2018 to 2021. The data were processed using SPSS16.0 and STATA16.0. Descriptive and inferential statistics were used to analyze the data at 5% level of significance.

On the basis of these analyses, the paper has come up with some meaningful recommendations to improve the house purchasing decision and hopefully attract customers to put their resources into the city. The results may be not the same with other cities. The limitations of both time and funding in the implementation of the study led the researcher to examine the factors influencing the house purchasing decision of Zhoukou City only. The analysis was limited to consumer purchasing decision of Zhoukou City real estate housing market and its relationship to the customers' profile and personal, psychological, cultural, social, and economic factors.

Related Literature/Studies

According to the "seven" data the National Bureau of statistics of China released in 2020, China's housing problem has changed from total shortage to structural supply. (Sun Weifeng, Feng Mengqian, Chen Qifan, 2021)

It is expected that the overall sales area of China's commercial residential market will still be considerable in the next five years (China Index Academy, 2021)

Huang Guan (2020) thinks that the demand for housing is significantly positively correlated with population aging.

Li Lulu (2022) proposed relevant suggestions: real estate developers should grasp the changes in consumer perceived value of housing under the influence of the epidemic.

Yan Nana, Hang Bin (2020) believe that housing demand is influenced by the social status of families with the increase of average housing areas in each province.

Shao Yongchun (2022) believes there is a significant negative correlation between down payment ratio and household purchasing decision.

Wang Yatong (2021) believe that the reasons that influence consumer purchasing decision are caused by customer attributes, personal characteristics, personal preferences, and other factors.

Zhu Fei (2020) believes that improving the usefulness of houses, such as increasing the supporting infrastructure of education, healthcare, and other facilities around the houses, improving the working environment around the houses, allocating employment resources reasonably, and improving the convenience of the houses, such as increasing the construction of living infrastructure and improving the living environment around the houses to improve their living quality, will promote the willingness of the improvement oriented group to purchase houses.

Kotler (2003) established four layers of elements that impact consumer behavior: social, cultural, personal, and psychological. The family is considered to be society, the culture to be mainstream culture, subculture, and social culture, and the personal factors to be consumer age, occupation, lifestyle, and psychological factors to be consumers' actions and reactions.

According to Keynes's(1936) economic theory, macroeconomic trends are a major factor in restricting specific behaviors. In Keynes' consumption theory,residents' consumption strongly correlates with their current income.

METHODOLOGY

This paper has used a descriptive- correlation method to analyze the factors that influence house purchasing decision in Zhoukou city.

Quantitative research

This is the main research process of data collection by interviewing 400 customers of Zhoukou city. The data collected has been processed using STATA 16.0 software.

Data Gathering Procedure

In the selection of the participants, the researcher adhered to a set of inclusion-exclusion criteria. Customers who have already bought a house in the past year using any of the three identified channels of purchase in Zhoukou City were included, while those who purchased a house in the City before or after the specified period, and have not used any of the three channels of purchase were excluded.

The survey period has been carried out from November to December 2022.

Data-Processing Procedure

This paper uses multiple linear regression model, as well as multi-nominal logistic model to explore the influencing factors of house purchasing decision in Zhoukou city.

RESULTS AND DISCUSSION

The author defines and examines the antecedents, independent variables, dependent variables by using descriptive analysis of data received from respondents.

Descriptive Data Analysis

This paper first makes a descriptive statistical analysis of the main variables (antecedents, independent variables and dependent variables) involved in the model setting section. Tables 1, 2, and 3 illustrate the results.

Descriptive Data Analysis for the antecedent variables

Here is the table of personal characteristics of participants.

1. Gender is dominated by men

Table 1 shows that 203 male customers participated in the survey out of 400 valid

questionnaires, accounting for 50.75% of the sample size; female customers make up 197 of the entire sample size, accounting for 49.25% of the overall sample size. Among the surveyed consumers, male house-purchasing groups have become the main participants in house-purchasing, with a larger proportion than female home-purchasing groups.

2. The age structure is younger

It can be seen from Table 1 that the group of age from over 25 years of age up to 35 years of age is the main group of people who buy houses, accounting for 39.50% of the total, nearly 40% of the total. The second is the population over 35 years of age up to 45 years of age representing 29.75% of the total. Thirdly, the proportion of people up to 25 years of age is 18.25%, and the proportion of people over 45 years of age is the least, accounting for only 12.50% of the total. In general, the age structure of house buyers in Zhoukou is becoming younger and younger, which is consistent with how the Zhoukou real estate market is now performing.

Because most of the local people in Zhoukou have two houses, the current purchase is mainly for the migrant population and the local young people who are eager to buy a house and get married, so the age structure of the whole house buyers is younger.

3. The education level is generally high

Table 1 demonstrates that among the respondents of the house-purchasing consumers, the people with bachelor's degree or above account for 43% of the total, and become the mainstream crowd of house-purchasing. The second is the purchase consumers with college education, accounting for 37% of the total. However, it cannot be ignored that the proportion of home buyers below

college education is 20%. In recent years, due to a large number of land demolition in Zhoukou, some local farmers in Zhoukou have suddenly become "nouveau riche". This part of home buyers have low education background and large demand for housing, and the survey results show that 20% of home buyers have low education background.

4. Occupational status is dominated by enterprise employees

As shown in Table 1, among the surveyed consumers, enterprise employees are the main group, accounting for 57.75% of the total, followed by the service workers, accounting for 22%, civil servants and public institutions, accounting for 16.5%, and freelancers, accounting for 3.75%.

5. The proportion of house purchase varies greatly due to the different monthly income of families

As shown in Table 1, the majority, or 43.75% of all home purchasers, are those whose monthly family income is greater than 7000 Yuan. The proportion of home buyers with household income of greater than 7000 Yuan is greater than that with household income of greater than 5000 Yuan equal or lesser than7000 Yuan. The proportion of home buyers with a monthly household income larger than 2000 Yuan equal or lesser than 3000 Yuan and larger than 3000 Yuan equal or lesser than4000 Yuan respectively accounted for 1.5% and 6.75% of the total. The average house price of Zhoukou in 2021 is about 5000 Yuan, and the survey results are in line with the market level of Zhoukou. On the whole, the proportion of high-income and low-income consumers who buy houses varies greatly.

Table 1
Descriptive statistics of antecedent variables

Categories of variables	f	%
Sex		
Male	203	50.75
Female	197	49.25
Age		
Up to 25 years of age	73	18.25
Over 25 years of age up to 35 years of age	158	39.5
Over 35 years of age up to 45 years of age	119	29.75
Over 45 years of age	50	12.5
Educational background		
Junior college is below	80	20.0
Junior college	148	37.0
Undergraduate degree	159	39.75
Master's degree and above	13	3.25
Job position		
Civil servants or public institution personnel	25	6.25
Enterprise operator or senior managers	11	2.75
Enterprise employees	220	55.0
Service workers	88	22.0
Freelancer	15	3.75
The teacher	41	10.25

Table 1 Continued

Income level	f	%
larger than2000 Yuan equal or lesser than3000 Yuan	6	1.5
larger than3000 Yuan equal or lesser than4000 Yuan	27	6.75
larger than4000 Yuan equal or lesser than5000 Yuan	61	15.25
larger than5000 Yuan equal or lesser than7000 Yuan	131	32.75
larger than7000 Yuan	175	43.75
Civil status		
Single person	16	4.0
Married, with no young children	75	19.75
Married and living with a small child	166	41.5
Married and living with her parents	23	5.75
Married and living with their parents and children	79	19.75
Single, and live with your parents	41	10.25
Family size		
One	16	4.0
Two	75	19.75
Three	207	51.75
Four	23	5.75
Five	79	9.75

6. The marriage structure is dominated by married people

As shown in Table 1, among the surveyed house-buyer consumers, married with one child is the main house-buying group, accounting for 41.5% of the total. The second is the family of married and living with their parents and children, accounting for 19.75% of the total. Moreover, newly married couples account for 18.75% of the total. It shows that in the current real estate market of Zhoukou City, the majority of married consumers with children have bought houses. Therefore, consumer groups with the purpose of purchasing wedding houses have become the mainstream consumer groups.

7. The largest proportion of home buyers in a family of three

As shown in Table 1, among the surveyed house-buyer consumers, the proportion of house-buyers who are married with one child in a family of three is the largest, accounting for 51.75% of the total. Secondly, 19.75% of married buyers with children living with their parents, and 18.75% of married buyers with young couples, and married buyers living with their parents accounted for 5.75%, and single buyers accounted for 4%. In general, among the surveyed buyers, married buyers basically occupied the whole Zhoukou real estate market, indicating that the demand for the purpose of purchasing marriage houses led to the purchasing decision.

Descriptive Data Analysis for independent variables

Here is a table with the descriptive statistics for independent variables broken down into personal, psychological, cultural, social, and economic factors.

The mean difference of each independent variable is not obvious. As shown in Table2, among them, SF (social factor) has the highest average value, with an average value of 4.07. This shows that most of the current buyers in Zhoukou City are interested in "the convenience of public transportation near the community", "the strength of the real estate developer and the popularity in the society", "the housing sales price is reasonable", "the real estate has great potential for value addition", and "the quality of the house's construction." The level of concern of the aforementioned five problems ranges between "somewhat important" and "very important". Among the other independent variables, PSYF (psychological factor) has the smallest mean value, which is only 4.04, which means that most buyers are interested in "property management service quality", "property management fees are reasonable", and "sales staff's attitude is warm and sincere", "Occupation and class of the neighbor", "Intelligent information management of the residence", "The overall layout of the community where the house is located is reasonable", "The community has a high degree of landscaping", "There are clubs in the community", and "Is there any convenient facilities for the elderly and children". The self-assessment importance of these above nine questions is relatively low. The mean values of the remaining three independent variables, PF (personal factor), CF (cultural factor) and EF (economic factor) are all 4.05, which are between the above two independent variables.

Table 2
Descriptive statistics of independent variables

Categories of variables	Mean	Standard Deviation
PF (Personal factor): The respondents' answers to five questions are calculated by the method of equal weight average, the answers to the follow five questions are assigned by the interviewees according to their importance.		
1. It is convenient to take the bus near the neighborhood. 2. There is a park or river in the neighborhood. 3. There is well-known primary and middle schools near the community. 4. There is a large supermarket near the neighborhood. 5. The location of the house make the house more valuable in the future.	4.05	0.89
PSYF (Psychological factor): The respondents' answers to nine questions are calculated by the method of equal weight average, the answers to the above nine questions are assigned by the interviewees according to their importance.		
1. Property Management Service Quality Requirements. 2. Property charges reasonable. 3. The attitude of the sales staff is warm and sincere. 4. Consider the neighborhood occupation and class. 5. Self-energy, information management of the community. 6. The overall layout of the community reasonable. 7. Degree of landscaping in the community. 8. There is a club in the community. 9. There are convenient facilities for the elderly and children in the community.	4.04	0.84
PSYF(Psychological factor) **CF (Cultural factor):** The respondents' answers to six questions are calculated by the method of equal weight average, the answers to the above six questions are assigned by the interviewees according to their importance.		
1. Architectural style, Form of the house. 2. The house type design reasonable. 3. Direction, spacing of the house. 4. The lighting of the house is sufficient, the ventilation is smooth. 5. The house being renovated. 6. Distance from the workplace.	4.05	0.88
SF (Social factor): The respondents' answers to four questions are calculated by the method of equal weight average, the answers to the above four questions are assigned by the interviewees according to their importance.		
1. The strength of real estate developers, well-known in the society. 2. Home Sale Price. 3. Value potential of buildings. 4. Building Quality of Houses.	4.07	0.88
EF (Economic factor): The respondents' answers to five questions are calculated by the method of equal weight average, the answers to the above five questions are assigned by the interviewees according to their importance.		
1. Down-payment ratio. 2. Mortgage Interest Rates. 3. National Purchase Limit Policy. 4. Recent Development Trends in the Real Estate Market. 5. Inflation Rate (The rise of the price index and the decline of the purchasing power of money).	4.05	0.89

Descriptive Data Analysis for the dependent variables

Here is the table of descriptive statistics of dependent variables by the type of house, the layout of a house, purchase area, and purchase price.

As shown in Table 3, "Small high-rise" are the most desirable housing type for Zhoukou respondents, and 33.75% of respondents said they would like to purchase such housing type; however, the purchase intention of "villa" type houses is the lowest, and only 4.75% of respondents consider buying such houses. The purchase proportion of "multi-tier" and "high-rise" houses is 32.75% and 28.75% respectively. In terms of house layout type, the purchase intention of "three rooms with two halls" is the strongest, with 43.25% of respondents saying that they are most willing to purchase this type of house layout; However, the purchase intention of "one room with one hall" was the lowest, and only 10.25% of respondents said they would like to buy such a type of house layout. The purchase proportions of "two rooms with one hall", "two rooms with two halls", "three rooms with one hall" and "four rooms with two halls" are respectively 17%, 31.75%, 29.25% and 35%. In terms of house area, the purchase intention of "larger than $60 m^2$ but equal or lesser than $80 m^2$ " is the strongest, with 25.5% of respondents saying that they are most willing to purchase this area of house; however, the purchase intention of "larger than $100 m^2$ but equal or lesser than $120 m^2$ " was the lowest, and only 17% of respondents said they would like to buy such an area of house.

Table 3
Descriptive statistics of dependent variables

Categories of variables	f	%
The type of house: (The type of house that respondents want to buy)		
Multi-tier (below 7 layers)	131	32.75
Small high-rise (8-15)	135	33.75
High-rise(above16 floors)	115	28.75
Villas	19	4.75
The layout of a house:(multi-choice, Layout of a house that respondents want to buy)		
One room with one hall	41	10.25
Two Rooms with one hall	68	17.0
Two Rooms with two halls	127	31.75
Three Rooms with one hall	117	29.25
Three Rooms with two halls	173	43.25
Four Rooms with two halls	140	35.0
Purchase area:(House type area purchased by respondents (unit: m^2)		
larger than 40 m^2 but equal or lesser than 60 m^2	70	17.5
larger than 60 m^2 but equal or lesser than 80 m^2	102	25.5
larger than 80 m^2 but less than or equal to100 m^2	88	22.0
larger than100 m^2 but equal or lesser than120 m^2	68	17.0
larger than120 m^2	72	18.0
Purchase price:(House purchase price of respondents (unit: 10000 Yuan))		
Up to 300, 000 Yuan	39	9.75
Over 300,000 up to 500,000 Yuan	121	30.25
Over 500,000 Yuan up to 800,000 Yuan	128	32.0
Over 800,000 Yuan	112	28.0

The purchase proportions of "larger than 40 m^2 but equal or lesser than 60 m^2 ", "larger than 80 m^2 but less than or equal to100 m^2 ", and "larger than120 m^2 " are respectively 17.5%, 22% and 18%.In terms of house price, the purchase intention of "over 500,000 Yuan up to 800,000 Yuan" is the strongest, with 32% of respondents saying that they are most willing to purchase this price of house; however, the purchase intention of "up to 300, 000 Yuan" was the lowest, and only 9.75% of respondents said they would like to buy such a price of house. The purchase proportions of "over 300,000 up to 500,000 Yuan", and "over 800,000 Yuan" are respectively 30.25% and 28%.

Discussion

The market for housing industry in Zhoukou City is characteristically dominated by men, of younger age structure, and enterprise employees. In addition, the market is mostly married couples with small number of family members (three at the most) and with high income earnings.

The personal, psychological, cultural, social, and economic factors have a modest level of influence on the house purchase decision of customers. This may imply that there could be other factors that customers consider when making house purchase decision apart from these five factors identified.

The market for housing in Zhoukou City has specific requirements in selecting houses for purchase. There is a market for houses that are "small high-rise", with "three rooms and 2 halls" and a house area "larger than 60m2 but equal to or less than 80m2", at a price "over 500,000 Yuan up to 800,000 Yuan".

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

These are the salient findings of the study:

1. The profile of the participants revealed that majority of them are male, enterprise employees, and with three people in the family. As to age, civil status, income and education, most of the participants are over 25 years old up to 35 years old, married with a small child, earn larger than 7000 Yuan a month, and have bachelor's degree, respectively.

2. The personal, psychological, cultural, social, and economic factors influencing the house purchasing decision were found to be moderately influential.

3. In terms of house purchasing decision, most of the participants would intend to buy a house that

is "small high-rise", with "three rooms and 2 halls" and a house area "larger than 60m^2 but equal to or less than 80m^{2}", at a price "over 500,000 Yuan up to 800,000 Yuan".

Recommendations

The findings and conclusions presented served as the bases for the following recommended actions:

1. Real estate marketers should focus on the distribution of customers and demand levels to design and plan sales strategies to satisfy each customer's particular demands. They may employ target marketing according to the profile of the Zhoukou City residents.

2. Real estate organizations, enterprises and practitioners should need to focus on the convenience of life and travel, the natural environment around the house, educational facilities, consumer comfort, the location of the house and other aspects, so as to meet the personal needs of property buyers in the City. In addition, they need to cater to and meet the psychological needs of consumers by providing garden greening of the residential area, community clubs, facilities for the elderly and children, and the occupation and class of the neighborhood. They should ensure that their sales personnel possess enthusiasm and sincerity. Service quality of property management, property service charges, intelligent information management of the residential area where the house is located, and the overall layout of the residential area must also be considered. At the same time, they should also address the social needs of the house buyers by developing house areas that are convenience for public transportation with reasonable price and great value-added potential. They should also maximize the strength of the real estate developers they are engaged with including the social popularity to market their real estate products and services.

3. For the different institutions and leaders, this paper reflects the importance of consumer market research and suggests that they should pay attention to consumers' consumption decision and factors of purchasing decision in time and adjust their commodity production and marketing in time.

4. For the Zhoukou City local residents who need to buy houses, they have to search for information that can help them choose a suitable house that will meet their needs in terms of convenience, availability of community facilities, building quality, price, among others.

5. For the house buyers with investment needs, they have to fully consider the personal factor, psychological factor and social factor of local residents in Zhoukou City. On the one hand, buyers who invest in buying houses will cater to the needs of local residents in ZhouKou City, making the houses easy to sell. On the other hand, even if they do not sell, because of the location of the houses purchased for investment purposes, they should

consider the supporting facilities around the area, and the rental value of the houses.

6. For the government, it can use the results of this study to establish a functional development office. Through the observation of the housing consumption market, the office can timely provide relevant government departments with information and suggestions on urban planning and the housing market. For example, increase the planning of living circles around residents, plan and layout supporting facilities to meet the needs of residents' life and education, and plan schools, community hospitals, business circles, parks, etc. near the residential areas. At the same time, it may can provide policy support and measures to ensure protection to both the house sellers and buyers.

7. For the real estate development office, it is suggested that the direction of real estate development should be taken from the perspective of consumer consumption decision. In future real estate projects and activities, while studying the real estate market in terms of real estate policies, bank interest rates and financial instruments, consumer consumption decision and factors of house purchasing decision should also be taken into account so as to promote the harmonious unity of real estate development and keep a sound development of the real estate market.

8. For the government agencies, when strengthening and expanding their projects and services in the field of real estate, government agencies can consider linking the consumption decision factors of property buyers with their projects and services, and give guidance and help to real estate developers and property buyers in the planning of the external environment of real estate, and the designation of house purchasing financial policies.

9. For the other local government units, they can establish a functional Development Office that will provide timely information and advice to government departments about the housing market.

10. For the Non-governmental Organizations, they may use this study to develop new theoretical reference indicators on social house purchasing decision accurately and effectively. This study can provide a new perspective to focus on the housing needs of people in the community, establish a comprehensive support policy to guarantee people's housing needs, formulate housing improvement policies, and improve people's happiness index in life.

11. For the researchers who are or will be studying similar topics, they can use the results of this study as reference to help them have a clearer understanding of the factors influencing customers' decisions in the real estate industry, and other related topics on property buyers.

12. For the students who are committed to studying the factors influencing the decision of local house purchasing, they can use this study to provide

them with some research perspectives, ideas and methods, help them understand and find the factors that influence the consumption decision of local house buyers, and provide further detailed references.

REFERENCES

China Index Academy, (2021). https:// baijiahao.baidu.com/s?id=168538 1254615350551&wfr=spider&for=pc

Caspari, V. (2019). Consumption and saving. In The Elgar Companion to John Maynard Keynes (pp. 242-245). Edward Elgar Publishing.

Duesenberry, J. S. (1949). Income, saving, and the theory of consumer behavior.

Feng Furong. (2022). The development status and development trend of real estate economy in China. Time-honored brand marketing (22), 52-54.

Friedman, M. (1957). A theory of the consumption function. Princeton University Press. https://wiki.mbalib. com/wiki/%E5%BA%93% E5%85%B9%E6%B6%85%E8%8C%A8%E7%9A %84%E9%95%BF%E6%9C%9F%E6%B6%88%E 8%B4%B9%E5%87%BD%E6%95%B0z

Huang Guan. (2020). Research on Population Structure, Fertility Policy Adjustment, and Housing Demand (Doctoral Dissertation, Huazhong Normal University) https://kns.cnki. net/KCMS/detail/detail.aspx?dbname= CDFDLAST2020&filename=1020128618.nh

Keynes, J.M. (1936). The general theory of employment interest and money. New York and London: Harcourt Brace and Co.

Kom, Z., Nethengwe, N. S., Mpandeli, N. S., & Chikoore, H. (2020). Determinants of small-scale farmers' choice and adaptive strategies in response to climatic shocks in Vhembe District, South Africa. GeoJournal, 1-24.

Kotler, P. (2003). Marketing Management (11th Ed.). New Jersey: Prentice-Hall.

Li Lulu (2022). Research on Consumer Purchase Intention Based on Perceived Value in the Context of the Epidemic (Master's Thesis, Huazhong Agricultural

Muñoz-Bandala, J. (2022). Keynes's lakatosian scientific research program (SRP) as outlined in the general theory of employment, interest and money (1936). In Keynes's Evolutionary Spirit: A Philosophical Journey through His

Work (pp. 15-34). Cham: Springer International Publishing. https://link.springer.com/chapter/ 10.1007/978-3-030-90150-9_2.

Nolcheska, V. (2017). The influence of social networks on consumer behavior. Cataloging-In-Publication Data, 95.

Shao, Y. C.. (2022). Research on the impact of housing finance policy on household home purchase behavior (Doctoral dissertation, Southwest University of Finance and Economics). https://kns.cnki.net/ KCMS/ detail/detail.aspx?dbname=CDFDLAST2023&fi lename=1022560067.nh

Shuqing, Y. (2009). Consumer Behavior. Sun Yat-sen University Press.

Sun Weifeng, Feng Mengqian, Chen Qifan, (2021). https://new.qq.com/ omn/20211217 /20211217A01WM800.html

Tian Ge & Zhang Xun. (2022). The digital economy, nonfarm employment and the social division of labor. Management World (05), 72-84. doi:10.19744/j.cnki. 11-1235/f.2022.0069.

Twenefour, F. B. K. (2017). Major determinants that influence the choice of brand of mobile phone. Open Journal of Statistics, 07(04), 663–675. https:// doi.org/10.4236/ ojs.2017.74046.

Wang Yatong (2021). Analysis and Prediction of Residential Housing Purchase Behavior (Master's Thesis, Northeastern University of Finance and Economics)

Wang Liping&Li Ru (2018). Research on Marketing Strategies of Real Estate Enterprises Based on Consumer Buying Behavior Journal of Taiyuan Normal University (Natural Science Edition) (01), 67-72

Yayla, Ö. (2019). Factors affecting the tourist purchase behavior. Theory and Practice in Social Sciences, 580.

Yan Nana, & hang bin (2020). Social status concern and housing demand: an empirical study from the perspective of income gap Statistics and decision making (5), 4

Zhu Fei (2020). Research on the influencing factors of housing purchase intention among improved groups in Jinan City (Master's thesis, Tianjin Normal University). https://kns.cnki.net/KCMS/detail/detail.aspx?dbname=CMFD202101&filename=1021547484.nh