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Study on the Factors Affecting the Green Housing Purchase Intention in Urban Residents—Taking the Beijing-Tianjin-Hebei Region as an Example

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Abstract: Green housing has the characteristics of energy saving, environmental protection and comfort. Promoting the development of green housing market is of great significance to accelerate the green transformation of the construction industry and help the construction sector achieve the emission reduction target. This paper takes urban residents in the Beijing-Tianjin-Hebei region as the research object, and based on the theory of planned behavior, identifies five influencing factors such as purchasing attitude, subjective norms, perceived behavior control, environmental concern and green housing product attributes, and builds a model of influencing factors of urban residents' green housing purchase intention in the Beijing-Tianjin-Hebei region. The results show that subjective norms, perceived behavioral control, environmental concerns and green housing product attributes all have positive effects on the purchase intention, and their influence paths and effects on the purchase intention of green housing are different.

Keywords: green housing; purchase intention; the structural equation models



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1. Introduction

Against the background of increasing issues such as climate change, energy shortage and environmental pollution, General Secretary Xi Jinping put forward new requirements for China's carbon emissions at the 75th United Nations General Assembly—to achieve carbon peak in 2030 and carbon neutrality by 2060. Construction is the pillar industry of China's social and economic development, and it is also the main industry of energy consumption and carbon emissions [1–6]. According to the 2021 China Construction Energy Consumption and Carbon Emission Research Report, the total energy consumption of the whole process of construction in 2019 is 2.233 billion tons, accounting for 45.9% of the national energy consumption; the total carbon emissions of the whole process of building in 2019 is 2.77 billion tons, accounting for 50.6% of the total carbon emissions nationwide. Thus, if the construction industry wants to achieve the goal of carbon peak and carbon neutrality, it must change the previous extensive development mode to achieve energy conservation and green sustainable development of the construction industry [7–12]. Therefore, popularizing green housing is the key to the transformation and development of the construction industry [13].

In the 1960s, the concept of ecological architecture proposed by American architect Paul Soleri emerged abroad and developed rapidly. Until the 1992 United Nations Conference on Environment and Development in Rio de Janeiro, Brazil, the concept of green housing is introduced into China and vigorously promoted [14]. In September 2004, the launch of the National Green Building Innovation Award marked that China's green housing market has entered a stage of all-round development. The Beijing-Tianjin-Hebei region, as a region with rapid economic development in China, begins the exploration and application of green housing when the concept of green housing is introduced into China. After more than 20 years of efforts, by the end of 2020, the cumulative construction area of green

housing in the Beijing-Tianjin-Hebei region was about 440 million square meters, and the development of green housing has achieved a huge process. The 2021 China Urban Green Building Development Competition Vitality Index Report objectively evaluates the current situation of green housing in 36 key cities across the country. According to the report, the green housing development competition vitality index in Beijing and Tianjin ranks 3rd and 5th, and Shijiazhuang is also at the middle reaches. In the field of green housing, the Beijing-Tianjin-Hebei region has always been at the forefront of the country.

Throughout the existing literature research, domestic and foreign scholars have achieved certain research results on the purchase intention of green housing. On the one hand, since the proposal of green housing, scholars from different countries have discussed the connotation of green housing from several aspects, such as resource saving and energy utilization, environmental protection and residential comfort. Yang Xiaodong and Wu Yongxiang believe that green housing, on the premise of having the characteristics of high resource utilization rate, energy saving and environmental protection, and low environmental damage rate, can also bring good living experience to residents and have a positive impact on urban residents' purchase of green housing [15]. Guo Bin and Feng Ziyun proposed that green residence is a residential building that penetrates the concept of health and comfort, energy consumption reduction, and environmental damage to the whole life cycle of green residence [16]. Liu Yuezhong and Gu Jie believe that through the application of green technology, green housing can improve the utilization rate of resources, reduce energy consumption, and reduce the rate of environmental damage in the whole life cycle. At the same time, it can provide residents with a healthy and comfortable living environment and realize the harmonious symbiosis between humans and nature [17]. These studies have comprehensively interpreted the connotation of green housing and laid a solid foundation for the subsequent research on the factors influencing the purchase intention of green housing. On the other hand, as for the factors affecting the purchase intention of green housing, the existing research have studied it from the aspects of purchasing attitude, subjective norms, perceived behavior control, environmental concern, buyer's attribute, green housing product attribute, government incentive policy and other aspects at multiple levels and angles. When discussing Chinese residents' green consumption promotion strategies, Angel elaborated that residents' consumption attitude, subjective factors and behavior control are important factors driving the formation of residents' green consumption intention [18]. When Usamah studied the influencing mechanism of electric vehicle purchase intention of consumers in Pakistan, it was found that consumer attitude, subjective norms and perceived behavior control have significant positive effects on consumers' purchase intention [19]. Paul et al., Yang Chen, Zhang Tuo et al. proved in the paper that environmental concern is one of the three main value concepts affecting consumers' purchase of green products, and environmental concern has a positive impact on consumers' purchase behavior and can predict their purchase behavior [20–22]. Yang Chen found that demographic characteristics, economy and other factors are important factors influencing consumers' purchase of green agricultural products [21]. In the process of in-depth interview, Zhao Shiwen and Chen Liwen found that annual household income has a direct impact on consumers' purchasing power and purchasing intention [23]. Li et al. found that obtaining reliable and accurate green housing information can promote homebuyers' investment in green housing, and when green housing information is reduced, urban residents' willingness to pay for green housing is significantly weakened [24]. Yang Jianping et al. analyzed the purchase intention of green housing and found that the characteristic information of green housing has an indirect positive effect on the purchase intention of consumers through the intermediary variables of consumer perceived value and ecological value [25]. When Arian evaluates utilitarian and hedonistic motivations that affect customers' attitude toward green products and purchase intention, he finds that government policies have a positive impact on customers' attitude and purchase intention [26]. These studies have comprehensively explained the factors affecting urban residents' purchase of green houses. There are still the following

shortcomings: First, abundant literatures at home and abroad have conducted in-depth studies on the purchase intention of green houses, but few of them combine environmental concerns with the attributes of green housing products; Second, in the existing literature, most scholars take a national perspective or a specific group as the research object, and few carry out targeted research on the Beijing-Tianjin-Hebei region. As a key area to promote green housing, the Beijing-Tianjin-Hebei region began to explore and apply green housing after the concept of green housing was introduced into China, and has made good achievements in the field of green building. As the end users of green housing, the choice preference of urban residents is very important to the development of green housing. How to predict the choice preference of urban residents to green housing becomes the key to the promotion of green housing, and also the basis of the healthy and stable development of green housing. However, there are few studies on the purchase intention of urban residents in the Beijing-Tianjin-Hebei region. As end users of green housing, urban residents' green housing purchase intention affects the harmonious development of the green housing market in the Beijing-Tianjin-Hebei region [27–29]. At present, there is a deviation in the understanding of green housing among urban residents in the Beijing-Tianjin-Hebei region. There is insufficient understanding of the energy conservation, emission reduction and potential environmental protection value embodied in green housing, resulting in the insufficient willingness of urban residents to buy green housing, and insufficient effective demand for the green housing market in the Beijing-Tianjin-Hebei region. Thus, making the green housing market in the Beijing-Tianjin-Hebei region supply side supply power shortage [30,31]. Therefore, based on the theory of planned behavior, this paper identifies the factors affecting the purchase of green housing by urban residents in Beijing-Tianjin-Hebei region, builds a model of factors affecting the willingness of urban residents to buy green housing in Beijing-Tianjin-Hebei, and explores the effect and path of various factors on the green housing purchase intention of urban residents in Beijing-Tianjin-Hebei region, so as to promote the rapid development of the green housing market in Beijing-Tianjin-Hebei region [32–34].

2. Methods

After more than ten years of exploration and application in the green housing market, the Beijing-Tianjin-Hebei region has built the first ultra-low energy consumption green housing “on the Water Side” in China, the world’s largest ultra-low energy consumption green housing cluster project “Gaobidian · Train New City” and the most implemented green ecological city in China “China-Singapore Tianjin Ecological City” and other projects. It has always been in a leading position in terms of green housing development scale and green housing development competition vitality index. At present, the purchase intention of urban residents in the Beijing-Tianjin-Hebei region for green housing is insufficient, which makes the effective demand of the green housing market in the Beijing-Tianjin-Hebei region insufficient, and then the supply side in the green housing market is insufficient.

As a kind of psychological tendency in the purchase process of urban residents, the purchase attitude is the embodiment of the choice preference of urban residents in the Beijing-Tianjin-Hebei region when they buy green housing. The changes of population and family structure in the Beijing-Tianjin-Hebei region have changed the housing purchase concept of urban residents in the past, which plays an important role in the green housing purchase attitude of urban residents in the Beijing-Tianjin-Hebei region. Subjective norms describe the social perception of the behavior of urban residents in the Beijing-Tianjin-Hebei region to purchase green housing when they purchase green housing. Environmental concern describes the degree of attention urban residents have to the ecological environment in the Beijing-Tianjin-Hebei region. The education level of urban residents in the Beijing-Tianjin-Hebei region affects their attitudes towards the environment and their views on the purchase of green houses. Perceived behavioral control describes the perception of urban residents in the Beijing-Tianjin-Hebei region on the difficulty of their own green housing purchase behavior. The living standard and age structure of urban residents

in the Beijing-Tianjin-Hebei region directly reflect the housing purchase ability of urban residents in the Beijing-Tianjin-Hebei region. The product attributes of green housing describe the basic characteristics of housing such as water, energy and electricity saving effect, comfort level and greening. The investment in real estate in the Beijing-Tianjin-Hebei region directly affects the construction situation and construction level of green housing in the Beijing-Tianjin-Hebei region.

Therefore, this chapter focuses on the analysis of the influence of five factors, including purchasing attitude, subjective norm, perceived behavioral control, environmental concern and green housing product attributes, on the green housing purchase intention of urban residents in the Beijing-Tianjin-Hebei region, providing some reference for the empirical study on the effect and path of the green housing purchase intention of urban residents in the Beijing-Tianjin-Hebei region below.

2.1. Influencing Factor Recognition and Research Hypothesis

2.1.1. Research Hypothesis of Purchasing Attitude

Purchasing attitude, as a psychological tendency, reflects the actor's preference for a specific object, problem or entity [35]. Attitudes towards certain behaviors form a certain will and eventually translate into actual behaviors. The Research Report on the Current Situation of Green Consumption in China (2019 Edition) points out that the public's attention to the environment has increased, the concept of green consumption has been popularized in the daily consumption of the public, and consumers' intention to buy environmentally friendly green and sustainable products has been increasing. Han and Yoon pointed out in their research that willingness is positively influenced by attitudes, and clear attitudes—willingness theory plays a decisive role in green consumption [36]. The concept of buying houses for urban residents in the Beijing-Tianjin-Hebei region has changed. When buying a house, they pay more attention to the quality of houses and the living environment and have a positive attitude towards green housing. Therefore, the following assumptions are put forward:

H1. *Purchasing attitude will positively promote purchasing willingness.*

2.1.2. Research Hypothesis of Subjective Norm

Subjective norm refers to the social pressure that the doer feels when performing an action. The subjective norm describes the views of other people in society when urban residents in Beijing, Tianjin and Hebei carry out an act. On the one hand, the education level of urban residents in the Beijing-Tianjin-Hebei region has improved significantly, the illiteracy rate has steadily decreased, and the understanding of urban residents of green consumption has been significantly improved. The greater the social pressure on urban residents will be, the more active the attitude towards green consumption behavior of urban residents, and the stronger the willingness to adopt green consumption behavior; on the other hand, when the traditional consumption model accelerates the consumption of social resources, the utilization rate of resources continues to decline, the scarcity of resources continues to increase, and the price of resources continues to rise, the consumption cost of urban residents will continue to increase. Affected by subjective norms, the better the attitude towards green consumption of urban residents, the willingness of urban residents to green consumption will increase, and the attention of urban residents to the environment will also increase significantly. Therefore, the following assumptions are put forward:

H2. *Subjective norm will positively promote purchasing attitude.*

H3. *Subjective norm will positively promote purchasing intention.*

H4. *Subjective norm will positively promote environmental concern.*

2.1.3. Research Hypothesis of Perceptual Behavior Control

Perceptual behavior control refers to an individual's perception of the ease of a specific behavior, reflecting the possibility of an individual successfully performing an action. Perceptual behavior control describes the perception of urban residents in the Beijing-Tianjin-Hebei region of the difficulty of buying green housing. The difficulty perceived by urban residents to buy green housing mainly includes three aspects: the perception of green housing, the price of green housing and the popularity of green housing. The perception of green housing mainly includes the economy of green housing, the functions of green housing and other information about green housing. When urban residents in Beijing-Tianjin-Hebei region buy green housing, the more understanding and cognition of green housing, the more positive urban residents' buying attitude towards green housing, the stronger the purchase intention. Compared with ordinary houses, the price of green housing is slightly higher. However, the purchase of green housing has externalities. In order to promote urban residents to buy green housing, the governments of Beijing, Tianjin and Hebei have issued policy decrees to promote green consumption to reduce the purchase cost of green housing for urban residents. At the same time, compared with ordinary housing, green housing can save the resource costs of residents through solar energy and other resources in the later stage, and be more energy-saving and environmentally friendly, which can improve the attention of urban residents to the environment. The lack of popularity of green housing is not only easy to cause urban residents to have insufficient understanding of green housing and ignore green housing when buying houses, but also cause urban residents to buy houses but do not know green houses, want to buy but cannot buy them, affecting the sales of green housing [37,38]. Therefore, the popularity of green housing has a positive effect on perceptual behavior control, and has a positive impact on the purchasing attitude and green housing purchase intention in urban residents. Therefore, the following assumptions are put forward:

H5. *Perceived behavior control will positively promote purchasing attitudes.*

H6. *Perceived behavior control will positively promote purchase intention.*

H7. *Perceived behavior control will positively promote environmental concern.*

2.1.4. Research Hypothesis of Environmental Concern

Environmental concern is one of the important factors affecting sustainable green consumption in the field of green marketing [39]. From another perspective, environmental concern can be an important factor influencing the green consumption behavior of individuals. Wee-Lee Tan regards environmental concern as an influencing the purchase intention, confirming that environmental concern has an impact on the purchase intention [40,41].

In recent years, the education level of residents in the Beijing-Tianjin-Hebei region has increased significantly, and the illiteracy rate has steadily decreased. The per capita disposable income of urban residents in the Beijing-Tianjin-Hebei region has continued to increase, and the per capita consumption expenditure has risen steadily. Urban residents in the Beijing-Tianjin-Hebei region have paid significantly increased attention to the living environment and ecological problems, and green consumption. Preferences for attitudes and green consumption are also increasing. Zhang Duo empirically found that environmental concern has a positive effect on the green consumption behavior of urban residents [42]. Therefore, the following assumptions are put forward:

H8. *Environmental concern will positively promote purchasing attitudes.*

H9. *Environmental concern will positively promote purchase intention.*

2.1.5. Research Hypothesis of Green House Product Attributes

The green house product attributes reflect the basic characteristics of houses and are traditional information that urban residents pay attention to in the process of buying houses [43]. The green house product attributes reflect the core value of green housing,

and they are also fundamental attributes that distinguish green housing from other houses. In the process of buying houses, it affects the purchasing attitude and intention of urban residents in the Beijing-Tianjin-Hebei region. The research of Wang Weimin and Liu Andong shows that the green house product attributes can promote the purchasing attitude and intention of urban residents [44]. Therefore, the following assumptions are put forward:

H10. Green house product attributes will positively promote the purchasing attitude.

H11. Green house product attributes will positively promote the purchase intention.

2.2. Structure Equation Model Construction

Based on the theory of planned behavior, two influencing factors: environmental concern and green house product attributes are added to build a model of the structure equation of green housing purchase intention of urban residents in Beijing, Tianjin and Hebei. The initial path diagram of the model is shown in Figure 1:

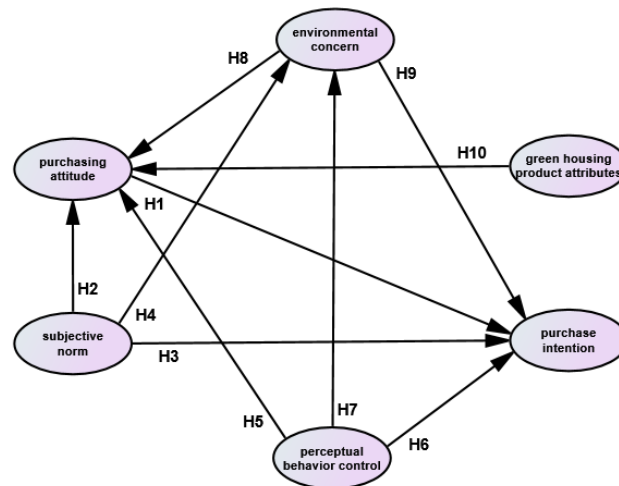


Figure 1. Initial model path diagram.

2.3. Design and Development of Research Scale

The data required for empirical evidence are collected through the research scale, which is distributed to urban residents who are preparing to buy green housing in the Beijing-Tianjin-Hebei region. In the process of scale design, regional restrictions are set, and only urban residents living in the Beijing-Tianjin-Hebei region can fill in the questionnaire. At the same time, set test questions in the questionnaire and eliminate random or serious questionnaires to ensure the validity of the questionnaire data.

The scale indicator evaluation plate is developed and designed, and each potential variable is quantified through at least three observational variables. The specific questions are as follows: Table 1.

Table 1. Potential variables and measurement projects.

Potential Variable	Measurement Project
Purchasing Attitude (PA)	I think it is wise to buy a green housing (PA1) I think it is beneficial to buy a green housing (PA2) I think it is a good idea to buy a green housing (PA3) I think it is pleasant to buy a green housing (PA4) I think it is very important to buy a green housing (PA5)
Subjective Norm (SN)	The people who are important to me think I should buy a green housing (SN1) Under social pressure, I think I should buy a green housing (SN2) Under social pressure, I think many people will buy green housing (SN3). If I buy a green housing, those who are important to me will fully agree (SN4)

Table 1. Cont.

Potential Variable	Measurement Project
Perceptual Behavior Control (PBC)	I think I have a lot of control over buying a green housing (PBC1) If I want to, it is easy for me to buy a green housing (PBC2) Whether to buy a green housing or not mainly depends on myself (PBC3)
Environmental Concern (EC)	I often pay attention to environmental information and reports and advertisements related to green products (EC1) I often talk to others about environmental problems or green products (EC2) I think I am an environmentally friendly consumer (EC3) I think I am a person who is very concerned about environmental issues (EC4)
Green House Product Attributes (GPA)	I think green housing has better water-saving and energy-saving performance than ordinary housing (GPA1) I think green housing are more comfortable than ordinary housing (GPA2) I think green housing has better greening effect than ordinary housing (GPA3) I think the development of green housing is conducive to the overall improvement of the current social environment (GPA4) I think the development of green housing can improve the overall public's awareness of environmental protection (GPA5)
Purchase Intention (PI)	I want to live in a green housing (PI1) I am willing to buy a green housing in the future (PI2) I would consider a green house for my next home purchase (PI3) I plan to buy a green housing (PI4)

2.4. Sample Data Collection

The sample data collection stage is divided into two stages: pre-investigation and formal investigation. In the pre-survey stage, the theoretical hypothesis is preliminarily explored, while in the formal survey stage, more emphasis is placed on the scientificity and rigor of the survey work. Therefore, compared with the initial scale, the formal scale requires the sample size.

Compared with other models, structural equation model is more suitable for large sample analysis. The larger the number of samples, the better the stability of statistical analysis and the applicability of various indicators. It is generally believed that the sample size of structural equation model test should exceed 200. However, if the sample size is too large, the absolute fit index is more likely to reach a significant level in structural equation fittest, that is, the probability of the hypothesis model and the actual data being inconsistent will increase, which will increase the possibility of model rejection. Therefore, most scholars believe that the sample size should be between 200 and 500 is appropriate, but more than 500 is also acceptable in behavioral and social science studies. Some scholars believe that the sample size depends on the number of scale items and observed variables. Chin believes that the sample size should be 10–15 times of observed variables [45].

This scale includes 6 latent variables, including purchasing attitude, subjective norms, perceived behavior control, environmental concern, green housing product attributes and purchase intention, and 25 measurement items. A total of 325 valid questionnaires were obtained, and the effective rate of the questionnaires was 92.85%. No matter which viewpoint is referred to above, the sample size meets the requirements and can meet the requirements of structural equation model analysis.

3. Results

3.1. Reliability Test

Resonance refers to the stability or consistency of the results obtained by repeatedly measuring the same object with the same measurement method, which reflects the accuracy of the measurement. The higher the reliability, the more reliable the measurement results, the better the stability, and the higher the accuracy. In this paper, Cronbach's alpha coefficient is selected to test whether the scale has a high degree of internal consistency.

The higher the Cronbach's alpha coefficient, the higher the reliability of each component table. In order to improve the quality of the questionnaire, the reliability test is bounded by 0.5, which should be accepted when the Cronbach's alpha coefficient is not less than 0.5, and the questionnaire should be modified when it is less than 0.5.

Resonance analysis is carried out through SPSS26.0 statistical analysis software, and the reliability analysis test results are shown in Table 2 above. It can be found in the table that the Cronbach's alpha coefficient of six potential variables, such as purchasing attitude, subjective norm, perceptual behavior control, environmental concern, green housing product attributes, and purchase intention, is greater than 0.5. Therefore, it can be considered that the scale has a relatively high reliability. After passing the reliability test, the next research can be carried out.

Table 2. Reliability test and analysis results.

Potential Variables	Standardized Cronbach's α	Number of Measurement Questions
Purchasing Attitude (PA)	0.601	5
Subjective Norm (SN)	0.661	4
Perceptual Behavior Control (PBC)	0.580	3
Environmental Concern (EC)	0.690	4
Green Housing Product Attributes (GPA)	0.624	5
Purchase Intention (PI)	0.606	4
Total	0.818	25

Source: authors' own analysis.

3.2. Validity Test

Validity is the degree to which the measurement method measures the characteristics of the measurement index, which is generally tested by factor analysis. The higher the validity, the more effective the measurement method can reflect the characteristics of the measured variable. Even if the reliability test is passed, if the validity test fails, the model still needs to be adjusted.

The paper analyzes validity through SPSS26.0 software, and the validity analysis test results are shown in Table 3 below.

Table 3. Measurement variable validity test table.

Potential Variables	KMO Value	Bartlett Sphere Test		
		Approximate Champion	Degree of Freedom	Significant Level
Purchasing Attitude (PA)	0.714	113.043	10	0.000
Subjective Norm (SN)	0.686	156.213	6	0.000
Perceptual Behavior Control (PBC)	0.619	74.854	3	0.000
Environmental Concern (EC)	0.727	165.979	6	0.000
Green Housing Product Attributes (GPA)	0.681	152.800	10	0.000
Purchase intention (PI)	0.628	128.437	6	0.000
Total	0.790	1516.807	300	0.000

Source: authors' own analysis.

From the data in the table, it can be found that the KMO value of the six research variables and the questionnaire as a whole is greater than 0.5, and the significant level of the model is less than 0.001, indicating that the statistics recovered from the questionnaire can be analyzed in the next step.

3.3. Exploratory Factor Analysis

The paper uses the principal component analysis method of SPSS26.0 software to analyze six control variables: purchase attitude, subjective norm, perceptual behavior control, environmental concern, green housing product attributes and purchase intention. It is forcibly divided into six principal component factors and analyzed by variance maximization orthogonal rotation. After PA2, GPA2, GPA4 and PW4 that are not distributed in

the same principal component were deleted, the exploratory factor analysis is carried out again. The analysis results are shown in Table 4.

Table 4. Exploratory factor analysis results.

Research Variables	Measurement Items	Factor Load Coefficient					
		1	2	3	4	5	6
Purchasing Attitude (PA)	PA1				0.495	0.580	
	PA3					0.670	
	PA4					0.514	
	PA5					0.676	
Subjective Norm (SN)	SN 1		0.515				
	SN 2		0.813				
	SN 3		0.783				
	SN 4		0.522			0.310	
Perceptual Behavior Control (PBC)	PBC1						0.609
	PBC2						0.737
	PBC3						0.715
Environmental Concern (EC)	EC1	0.741					
	EC2	0.628					
	EC3	0.675					
	EC4	0.689					
Green House Product Attributes (GPA)	GPA1				0.748		
	GPA3			0.411	0.619		
	GPA5				0.618		
Purchase Intention (PI)	PI 1			0.517	0.388		
	PI 2			0.765			
	PI 3			0.668			
Variance Interpretation Rate (%)		10.310%	9.628%	9.139%	9.136%	8.502%	8.300%
Cumulative Variance Interpretation Rate (%)		10.310%	19.938%	29.077%	38.214%	46.716%	55.016%

Source: authors' own analysis (Only values with factor load coefficient greater than 0.30 are shown).

The analysis results in Table 4 show that the variables in the model are aggregated in six dimensions, indicating that all the measurement variables involved in the model can be classified into six categories, the same as expected. The table shows that the factor load coefficient of each measurement variable on its respective research variables is greater than 0.5, indicating that the questionnaire has a good convergence validity; the factor load coefficient of each measurement variable on other research variables is less than 0.5, indicating that the questionnaire has a good differentiated validity. The interpretation rate values of the variance of the six factors are 10.310%, 9.628%, 9.139%, 9.136%, 8.502% and 8.300%, respectively, and the cumulative variance interpretation rate after rotation is 55.016% > 50%, indicating that the amount of information of the research item can be effectively extracted.

3.4. Verification Factor Analysis

AMOS 24.0 statistical software is used to analyze the survey data of purchase attitude, subjective norm, perceptual behavior control, environmental concern, green housing product attributes and purchase intention, respectively, to test the validity of the measurement scale. The analysis results are shown in Table 5.

From Table 5, it can be found that the standardized factor load value of the purchase attitude, subjective norm, perceptual behavior control, environmental concern, green housing product attributes and purchase intention are basically between 0.50 and 0.95, indicating that the basic suitability of the model is good. In addition, C.R. of all variables the value is greater than 2.58, indicating that the estimated value of each parameter has reached a significant level of significant probability $p = 0.01$.

Table 5. Verification factor analysis results.

Research Variables	Measurement Items	Standardized Factor Load	Standard Error (S.E.)	Critical Ratio (C.R.)
Purchasing Attitude (PA)	PA1	0.627	–	–
	PA3	0.456	0.147	5.319
	PA4	0.447	0.137	5.224
	PA5	0.437	0.176	4.965
Subjective Norm (SN)	NA1	0.434	–	–
	NA2	0.745	0.368	5.337
	NA3	0.625	0.313	5.248
	NA4	0.504	0.224	5.110
Perceptual Behavior Control (PBC)	PBC1	0.492	–	–
	PBC2	0.498	0.348	4.798
	PBC3	0.707	0.350	4.523
Environmental Concern (EC)	EC1	0.615	–	–
	EC2	0.549	0.149	6.620
	EC3	0.626	0.145	6.891
	EC4	0.581	0.138	6.695
Green House Product Attributes (GPA)	GPA1	0.592	–	–
	GPA3	0.605	0.178	5.958
	GPA5	0.489	0.159	5.492
Purchase Intention (PI)	PW1	0.743	–	–
	PW2	0.493	0.108	6.077
	PW3	0.518	0.104	6.400

Source: authors' own analysis.

3.5. Model Adaptability Test

The study selected the seven indicators of X^2/df , GFI, RMSEA, RMR, CFI, PGFI and NNFI proposed by Hu and Bentler to test the fit effect of the overall model [46,47]. The fitting index calculated using AMOS 24.0 statistical analysis software is shown in Table 6. X^2/df , GFI, RMSEA, RMR, CFI, PGFI and NNFI all meet the relevant evaluation indicators. The overall model fitting of the green housing purchase intention model basically meets the adaptation standard.

Table 6. Analysis of the overall fitting degree of the initial model.

Fitting Index	X^2/df	GFI	RMSEA	RMR	CFI	PGFI	NNFI
Adaptation Critical Value	<3	>0.80	<0.08	<0.10	>0.80	>0.50	>0.80
Verify the Model	1.923	0.892	0.059	0.086	0.832	0.687	0.802

Source: authors' own analysis.

3.6. Model Hypothesis Test

The results of the initial model are calculated using AMOS 24.0, and the overall result path diagram of the model is obtained, as shown in Figure 2.

Among them, “purchase intention ← purchase attitude”, “purchase attitude ← subjective norm”, “purchase intention ← subjective norm”, “environmental concern ← subjective norm”, “purchase attitude ← perceived behavior control”, “purchase intention ← perceived behavior control”, “environmental concern ← perceived behavior control”, “purchase attitude ← environmental concern”, “purchase intention ← environmental concern”, “purchase attitude ← green housing product attribute” and “purchase intention ← green housing product attributes” are 0.228, 0.350, −0.040, 0.350, 0.147, −0.071, 0.446, −0.022, 0.270, 0.562, 0.601.

The hypothesis test of the model is shown in Table 7. At the significant level of 0.05, the hypothesis that H1, H5, H6 and H8 are rejected means that the hypothesis that the purchasing attitude has a positive effect on the purchase intention is not valid, the hypothesis that the subjective norm has a positive effect on the purchase intention is not valid, the hypothesis that perceptual behavior control has a positive effect on the purchase attitude is not

valid, the hypothesis that perceptual behavior control has a positive effect on the purchase intention is not valid, and the hypothesis that environmental concern has a positive effect on the purchase intention is not valid; the hypothesis that H2, H4, H7, H9, H10, and H11 are true means that the hypothesis that subjective norm has a positive effect on purchasing attitude is valid, the hypothesis that subjective norm has a positive effect on environmental concerns is valid, the hypothesis that perceived behavioral control has a positive effect on environmental attention is valid, the hypothesis that environmental concern has a positive effect on purchase intention is valid, the hypothesis that green housing product attributes have a positive effect on purchasing attitude is valid, the hypothesis that green housing product attributes have a positive effect on purchase intention is valid.

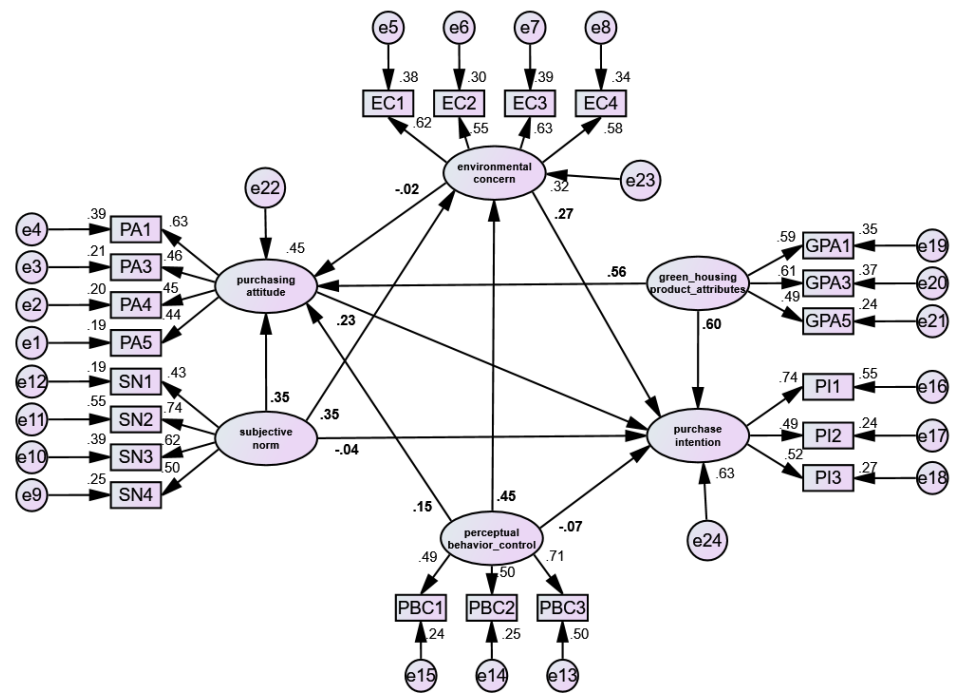


Figure 2. Green housing purchase intention model path coefficient diagram.

Table 7. Assumption Results.

Hypothesis	Path Coefficient	C.R.	p	Hypothetical Conclusions
H1: Purchasing Intention ← Purchasing Attitude	0.228	1.430	0.153	Rejection
H2: Purchasing Attitude ← Subjective Norm	0.350	2.994	0.003	Support
H3: Purchasing Intention ← Subjective Norm	−0.040	−0.359	0.720	Rejection
H4: Environmental Concern ← Subjective Norm	0.350	3.345	***	Support
H5: Purchasing Attitude ← Perceptual Behavior Control	0.147	1.234	0.217	Rejection
H6: Purchase Intention ← Perceived Behavior Control	−0.071	−0.626	0.531	Rejection
H7: Environmental Concern ← Perceptual Behavior Control	0.446	3.931	***	Support
H8: Purchasing Attitude ← Environmental Concern	−0.022	−0.168	0.867	Rejection
H9: Purchasing Intention ← Environmental Concerns	0.270	2.318	0.020	Support
H10: Purchasing Attitude ← Green Housing Product Attributes	0.562	4.375	***	Support
H11: Purchasing Intention ← Green Housing Product Attributes	0.601	3.646	***	Support

Source: authors’ own analysis. *** in the table means $p < 0.001$.

There is an impact effect between each variable in the model. According to the relationship strength between variables, it is divided into direct effect and indirect effect. Direct impact effect refers to the direct influence of variable a on variable b, which can be expressed by path coefficients; indirect effect refers to the indirect influence of variable a on variable b through one or more intermediate variables, which can be expressed by the product of the coefficients of two paths. The total effect is the sum of direct effect and indirect effect. Calculate the impact coefficient between the purchase attitude, subjective

norm, perceptual behavior control, environmental concern, and green housing product attributes on the purchase intention according to the path diagram of the optimal model. The calculation results are shown in Table 8.

Table 8. Effect Coefficient of Potential Variables on Purchase Intention.

Potential Variables	Direct Influence Effect	Indirect Influence Effect	Total Effect
Purchasing Attitude	0.00	0.00	0.00
Subjective Norm	0.00	0.09	0.09
Perceptual Behavior Control	0.00	0.11	0.11
Environmental Concern	0.25	0.00	0.25
Green Housing Product Attribute	0.78	0.00	0.78

Source: authors' own analysis.

The results show that the impact coefficient of green housing product attribute variables on urban residents' green housing purchase intention is the largest, with a total effect coefficient of 0.78, followed by environmental concern and perceptual behavior control variables, with total effect coefficients of 0.25 and 0.11, respectively. Among them, the purchase attitude variable has no significant effect on the green housing purchase intention.

4. Research Results and Discussion

Using the structural equation model, this paper builds a model of factors affecting the green housing purchase intention of urban residents in Beijing, Tianjin and Hebei. Through empirical research, the influence path and effect of factors such as purchase attitude, subjective norm, perceptual behavior control, environmental concern and green housing product attribute on the green housing purchase intention are obtained. The main content of this section is to summarize the research results of this paper and put forward the research discussion.

4.1. Results

4.1.1. Impact Path

Empirical results show that the influence path of potential variables on the green housing purchase intention of urban residents in the Beijing-Tianjin-Hebei region mainly includes three paths: subjective norm → environmental concern → green housing purchase intention, perceptual behavior control → environmental concern → green housing purchase intention and green housing product attributes → green housing purchase intention.

The subjective norm describes how urban residents in the Beijing-Tianjin-Hebei region view green housing when they buy it. On the one hand, the high education level of urban residents in the Beijing-Tianjin-Hebei region means that they have a high awareness of ecological and environmental protection and environmental attention, and the concept of green consumption is popularized in the daily life of the general public. On the other hand, in the context of the increasingly serious shortage of social resources and the increasing scarcity of resources, the Beijing-Tianjin-Hebei region, as a relatively rapid economic development area, has serious environmental pollution leads to a stronger yearning for a good living environment and a higher green housing purchase intention for urban residents. Based on this, subjective normative factors indirectly affect urban residents' purchase intention of green housing in the Beijing-Tianjin-Hebei region through environmental concerns.

Perceptual behavior control describes the perception of urban residents of the ease of purchasing green housing. On the one hand, the labor force accounts for nearly 70% of the total population among urban residents in Beijing, Tianjin and Hebei, and the per capita disposable income has increased steadily. They have a certain ability to buy a house now or in the future. On the other hand, the improvement of the living standard of residents in the Beijing-Tianjin-Hebei region has put forward new requirements for the living environment in addition to meeting the basic living needs of human beings. Compared with the past, we pay more attention to ecological and environmental issues, and have a stronger green

housing purchase intention with the characteristics of energy conservation, environmental protection and comfort. Based on this, perceptual behavior control factors indirectly affect urban residents' purchase intention of green housing in Beijing, Tianjin and Hebei through environmental concerns.

Green housing has the characteristics of energy saving, environmental protection and comfort. Different from traditional housing, it can attract the attention of residents and stimulate their purchase intention. The water-saving and energy-saving effect, comfort and greening of green housing are all important aspects that urban residents need to consider when buying green housing. These factors will directly affect urban residents' purchase intention of green housing in the Beijing-Tianjin-Hebei region.

4.1.2. Influencing Effect

The green housing product attributes have the greatest impact on urban residents' purchase intention of green housing in Beijing, Tianjin and Hebei, with a total effect coefficient of 0.78. The water-saving, energy-saving and power-saving effect, comfort, greening level and other factors are the main concerns of residents when buying houses, which directly affect urban residents' purchase intention of green housing in Beijing, Tianjin and Hebei.

Environmental concerns have an impact on urban residents' purchase intention of green housing in Beijing, Tianjin and Hebei, with a total effect coefficient of 0.25. At present, problems such as climate change, energy shortage and environmental degradation are becoming increasingly prominent, which have seriously affected the living space and quality of life of residents. Environmental problems have attracted the attention of all countries around the world and has become one of the major problems in today's society. The educational level of urban residents in the Beijing-Tianjin-Hebei region is higher than that of other regions, pays more attention to the ecological environment, and is more inclined to green consumption. Therefore, the attention of urban residents to the environment in the Beijing-Tianjin-Hebei region directly affects their housing purchase intention.

Subjective norms and perceptual behavior control indirectly affect urban residents' purchase intention of green housing in Beijing, Tianjin and Hebei through environmental concern, with indirect impact coefficients of 0.09 and 0.11, respectively. Green housing is an inevitable trend of urban housing development in the 21st century, an inevitable product to cater to the changes in residents' housing demand in the 21st century, and also an inevitable result of saving resources and protecting the environment. However, green housing appeared late, the concept of green housing has not been fully popularized, and urban residents in Beijing-Tianjin-Hebei region have a low degree of recognition of green housing. Therefore, subjective normative factors and perceptual behavior control factors have an impact on urban residents' purchase intention of green housing in Beijing, Tianjin and Hebei through environmental concern, but the impact is relatively small.

The purchasing attitude has no significant impact on urban residents' purchase intention of green housing in the Beijing-Tianjin-Hebei region, and its overall effect coefficient on the green housing purchase intention is 0. Residents' purchasing attitude is an expression of residents' purchase intention, which is related to residents' purchase intention to a certain extent. However, as an emerging residential product, green housing is still in the stage of exploration and improvement. Most urban residents in the Beijing-Tianjin-Hebei region still have a superficial understanding of green housing, and their understanding of green housing is not deep enough. As a large consumer good, although residents have a positive attitude towards green housing, it is not enough to turn the buying attitude into the purchase intention.

4.2. Discussion

The influencing factor model of green housing purchase intention of urban residents in the Beijing-Tianjin-Hebei region constructed in this paper not only enriches the theoretical research on influencing factors of green housing purchase intention of urban residents

in the Beijing-Tianjin-Hebei region, but also speeds up the green transformation of the construction industry and helps the construction sector achieve the goal of carbon peak and carbon neutrality. At the same time, it also provides a reference basis for guiding urban residents to actively buy green housing and formulating relevant policies, so as to help the orderly development of the green housing market in the Beijing-Tianjin-Hebei region. Over time, in other parts of China, there will be more areas to build green homes. At that time, by effectively grasping the factors affecting urban residents' willingness to buy green housing, relevant policies can be formulated more efficiently and accurately, and the direction of future development of the green housing market can be better grasped, so as to promote the healthy and orderly development of the green housing market and bring large-scale economic benefits to the society. At the same time, green housing suppliers can more accurately grasp the choice preferences of urban residents, provide urban residents with green housing projects more adaptable to the characteristics of demand, and achieve a win-win situation of economic benefits, ecological benefits and social benefits.

5. Research Conclusions and Limitation

This paper takes urban residents in the Beijing-Tianjin-Hebei region as the research object and uses the theory of planned behavior to study the green housing purchase intention of urban residents in the Beijing-Tianjin-Hebei region. Among the influencing factors of urban residents' green housing purchase intention, this paper identifies five influencing factors, including purchasing attitude, subjective norms, perceived behavior control, environmental concern and green housing product attributes, and builds a model of influencing factors of urban residents' green housing purchase intention in the Beijing-Tianjin-Hebei region. In the study of purchasing intention measurement, it is found that: Subjective norms, perceived behavioral control, environmental concerns and green housing product attributes have a positive impact on purchase intention, among which the influence coefficient of green housing product attributes on purchase intention is the largest, 0.78, mainly because green housing product attributes are the main concern factor of urban residents when buying houses, and directly affect the purchase intention of urban residents. However, due to the limitations of various factors in reality, there are still the following deficiencies:

(1) The exploration of driving factors and the limitations of scale development. In view of the fact that the purchase of green housing by urban residents is a complex process affected by many factors, although this paper explores the influencing factors on the basis of literature research and theoretical analysis, and develops a survey scale in line with the reality of the Beijing-Tianjin-Hebei region of China on this basis, and tests the effectiveness of the scale through pre-investigation and formal investigation, it is difficult to avoid subjective factors. Nor can it fully cover all the influencing factors. In the follow-up study, behavioral experiments and other research methods can be considered for further research.

(2) Limitations of research samples. Due to the limitation of investigation conditions and time, 250 valid questionnaires were collected through the network in the study of influencing factors. Although it can better represent the sample situation of residents in the Beijing-Tianjin-Hebei region and meet the basic requirements of the statistical research methods for samples, there are still some deficiencies in the regional distribution of the survey samples. Follow-up research can further expand the survey samples.

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References

1. Wang, H.Q.; Guo, Q.J.; Li, S.L. Research on the Measurement of the Coordinated Development of Construction Industry-Urbanization-Economy—Based on the Empirical Analysis of 31 Provinces of China. *Mod. Manag.* **2022**, *2*, 9.
2. Li, H.Y.; Chen, X.H. Research on Urbanization and Ecological Environment Coupling Development Based on SD Model: A Case in Eastern Coal-Electricity Base of Heilongjiang Province. *Ecol. Econ.* **2014**, *12*, 109.
3. Shi, T.T.; Xu, H.Q.; Tang, F.F. Built-up land change and its impact on ecological quality in a fast-growing economic zone: Jinjiang County, Fujian Province, China. *Chin. J. Appl. Ecol.* **2017**, *4*, 1317.
4. Lu, N.; Zhang, Z.F.; Liang, Y.Z.; Huang, Y.F. Assessing the Impact of Urbanization and Eco-Environmental Quality on Regional Carbon Storage: A Multiscale Spatio-Temporal Analysis Framework. *Remote Sens.* **2022**, *16*, 4007.
5. Zhang, J.J.; Zhou, Q.; Cao, M.; Liu, H. Spatiotemporal Change of Eco-Environmental Quality in the Oasis City and Its Correlation with Urbanization Based on RSEI: A Case Study of Urumqi, China. *Sustainability* **2022**, *15*, 9227. [[CrossRef](#)]
6. Xu, D. Understanding the Relationship between China's Eco-Environmental Quality and Urbanization Using Multisource Remote Sensing Data. *Remote Sens.* **2022**, *1*, 198. [[CrossRef](#)]
7. Wu, X.L.; Wang, D.; Chao, J.F. Energy Efficiency, Economic Growth and Ecological Environment Quality: Based on the DSGE Model Containing Carbon Emissions. *J. Technical Econ. Manag.* **2022**, *10*, 28.
8. Sun, Q.; Chen, Y.C.; Lu, J.M.; Zhao, Y.L. Spatiotemporal evolution of urban green space and ecological quality in Beijing-Tianjin-Hebei region. *J. Taiyuan Univ. Technol.* **2023**, *1*, 1.
9. Jing, M.D.; Zhou, H.; Wang, Q. The impact of eco-environmental quality on urban economic efficiency. *Urban Probl.* **2022**, *1*, 15.
10. Deng, L.J. Carbon neutral green transition, green investment and ecological environment quality. *Stat. Decis.* **2021**, *18*, 55.
11. Zhang, F.Y.; Zhou, M.; Li, Y.L.; Lin, L.Y.; Ma, G.W.; He, L.H.; Chen, S.R. Characteristics of Eco-environmental Quality Changes in China During the 13th Five-Year Plan Period. *Environ. Monit. China* **2021**, *3*, 1.
12. Xing, Y.C.; Guo, Y.F.; Wang, L. Dynamic measurement of eco-environmental quality in our country. *Stat. Decis.* **2021**, *3*, 81.
13. Qiu, B.X. Urban Carbon Neutralization and Green Building. *Urban Dev. Stud.* **2021**, *7*, 1.
14. Zhou, H.; Wang, W.; Wei, H.; Chong, M.; Xing, W.; Li, Y. Demand Analysis and Prospect of High-Quality Development of Green Building in China. *Build. Sci.* **2018**, *9*, 148.
15. Yang, X.; Wu, Y.X. Factor analysis and relationship research of green housing choice behavior. *China Soft Sci.* **2017**, *6*, 175–182.
16. Guo, B.; Feng, Z.Y. Study on optimal selection of incentive model of green housing from the perspective of dynamic game. *Ecol. Econ.* **2018**, *34*, 83–88.
17. Liu, Y.Z.; Gu, J. Overview of green housing development research in our country. *Shanghai Real Estate* **2019**, *47*, 29–33.
18. An, Q. Discussion on the strategy of green consumption improvement of Chinese residents under the “dual carbon” goal. *Bus. Econ. Res.* **2022**, *6*, 62–65.
19. Usamah, S. Electric vehicle development in Pakistan: Predicting consumer purchase intention. *Clean. Resp. Consump.* **2022**, *5*, 100065.
20. Paul, J.; Modi, A.; Patel, J. Predicting green product consumption using theory of planned behavior and reasoned action. *J. Retail. Consum. Serv.* **2016**, *29*, 123–134. [[CrossRef](#)]
21. Yang, C. Theoretical logic and practical basis of online marketing of eco-green agricultural products in China. *Price Theor. Pract.* **2020**, *27*, 31–34, 134.
22. Zhang, D. Study on consumer behavior of green products from the perspective of environmental Concern. *Price Theor. Pract.* **2021**, *6*, 197–200.
23. Zhao, S.W.; Chen, L.W. Influencing Factors and mechanism of green housing purchase Intention: Based on Grounded theory. *Bus. Econom.* **2020**, *235*, 28–36.
24. Zhang, L.; Sun, C.; Liu, H.Y.; Zheng, S. The role of public information in increasing homebuyers' willingness-to-pay for green housing: Evidence from Beijing. *Ecol. Econ.* **2016**, *129*, 40–49. [[CrossRef](#)]
25. Yang, J.P.; Wang, D.F.; Song, J.Z.; Shi, X. Study on the influence mechanism of green housing purchase intention considering information asymmetry. *Ecol. Econ.* **2019**, *35*, 74–79+85.
26. Matin, A.; Khoshtaria, T.; Marcan, M.; Datuashvili, D. The roles of hedonistic, utilitarian incentives and government policies affecting customer attitudes and purchase intention towards green products. *Int. Rev. Public Nonprofit Market.* **2021**, *22*, 27. [[CrossRef](#)]
27. Amos, D.; Chan, A.P.C. Review of Barriers to Green Building Adoption. *Sustain. Dev.* **2017**, *25*, 167–179.
28. Amos, D.; Zhang, C.Z.; Chan, A.P.C. Drivers for green building: A review of empirical studies. *Habitat Int.* **2017**, *60*, 34.
29. Teng, J.; Mu, X.; Wang, W.; Xu, C.; Liu, W. Strategies for Sustainable Development of Green Buildings. *Sustain. Cities Soc.* **2018**, *44*, 215. [[CrossRef](#)]

30. Li, Z.Y.; Liu, J.S. Research on the Development and Countermeasures of Green Building under the Goal of “Carbon Peak and Carbon Neutrality”. *Southwest Finan.* **2021**, *10*, 55.
31. Narin, G. Real example analysis of housing consumption of dweller of our country town. *Sci. Technol. Innov.* **2017**, *13*, 294.
32. Zhao, N.; Zhang, J.W.; Zhao, Y.L.; Chen, Y.T. Some thoughts on promoting the healthy development of residential housing consumption. *Price Theor. Pract.* **2023**, *1*, 1.
33. Yu, J.; Yang, H.H.; Chen, R.R.; Ding, Z. Temporal and spatial differentiation of the coupling coordination between eco-city urbanization and ecological environment. *J. Shand. Univ. Nat. Sci.* **2022**, *11*, 102.
34. Xu, D.; Yang, F.; Yu, L.; Zhou, Y.Y.; Li, H.X.; Ma, J.J.; Huang, J.C.; Wei, J.; Xu, Y.; Zhang, C.; et al. Quantization of the coupling mechanism between eco-environmental quality and urbanization from multisource remote sensing data. *J. Clean. Prod.* **2021**, *321*, 128948. [[CrossRef](#)]
35. Perloff, R.M. *The Dynamics of Persuasion*, 7th ed.; Routledge: New York, NY, USA, 2020.
36. Han, H.; Yoon, H.J. Hotel customers’ environmentally responsible behavioral intention: Impact of key constructs on decision in green consumerism. *Int. J. Hosp. Manag.* **2015**, *45*, 22. [[CrossRef](#)]
37. Liu, Y.; Hong, Z.; Zhu, J.; Yan, J.; Qi, J.; Liu, P. Promoting green residential buildings: Residents’ environmental attitude, subjective knowledge, and social trust matter. *Energy Policy* **2018**, *112*, 152. [[CrossRef](#)]
38. Melika, R.; Seyed, M.H.; Iraj, M.M. Proposing a socio-psychological model for adopting green building technologies: A case study from Iran. *Sustain. Cities Soc.* **2019**, *45*, 657.
39. Brenton, M.W.; Deniz, S.O.; Stephan, D. Age and environmental sustainability: A meta-analysis. *J. Manag. Psychol.* **2013**, *7/8*, 826.
40. Ning, R.Y.M. Research on the influence mechanism of customer perception Externalities on green purchasing behavior. *Enterp. Econ.* **2020**, *3*, 59.
41. Yang, X.D.; Wu, Y.X. Choice Behavior for Green Residential Building: Factors and Relationships. *China Soft Sci.* **2017**, *1*, 175.
42. Tanw, L.; Goh, Y.N. The role of psychological factors in influencing consumer purchase intention towards green residential building. *Int. J. Hous. Mark. Anal.* **2018**, *5*, 788. [[CrossRef](#)]
43. Zhang, D. Research on Consumers’ Behavior of Green Products from the Perspective of Environmental Concern. *Price Theory Pract.* **2021**, *5*, 9197.
44. Wang, W.M.; Liu, A.D. Empirical study on influencing factors of consumers’ green house purchase behavior. *J. Xi’an Univ. Archit. Technol. Nat. Sci. Edit.* **2018**, *3*, 454.
45. Gefen, S.B.M. Structural Equation Modeling and Regression: Gridlines for Research Practice. *Commun. Assoc. Inf. Syst.* **2000**, *4*, 7. [[CrossRef](#)]
46. Hu, L.; Bentler, P.M. Fit indices in covariance structure modeling. *Psychol. Methods* **1998**, *3*, 424. [[CrossRef](#)]
47. Hu, L.; Bentler, P.M. Cutoff criteria for fit indices in covariance structure analysis: Conventional criteria versus new alternatives. *Struct. Equ. Model.* **1999**, *6*, 1. [[CrossRef](#)]

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