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Research paper

Research on Factors Influencing Consumers' Purchase of New Chinese-Style Furniture: A Survey Based on The UTAUT Model

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Abstract

Based on the Unified Theory of Acceptance and Use of Technology (UTAUT), this study integrates the cultural and aesthetic characteristics of New Chinese-style Furniture (NCF) to systematically explore the key factors influencing consumer purchasing behavior and constructs a corresponding research model for empirical analysis. Through structural equation modeling analysis of 467 valid questionnaire responses, the study finds that performance expectancy, social influence, and facilitating conditions have significant positive effects on consumers' purchase intentions, while effort expectancy has no significant impact. The results indicate that, in the context of NCF consumption, consumers place greater importance on product functionality, cultural identity, and external support rather than the perceived ease of use. Moreover, this study validates the applicability of the UTAUT model in the field of culturally oriented products, thereby extending its theoretical boundaries. On a theoretical level, the research fills a gap in empirical studies on user acceptance behavior of NCF and promotes the integration of cultural and technology acceptance models. On a practical level, the findings provide strong guidance for enterprises in product design, user engagement, and market positioning, helping to enhance brand cultural influence and consumer identification.

Keywords: *Technology Acceptance Model, New Chinese-style Furniture (NCF), Consumer Purchasing Behavior, Empirical Study.*

1. Introduction

In recent years, with the evolution of societal aesthetic concepts and the strong resurgence of "Guochao" (national trend) culture, the revival of traditional cultural elements in modern design has received unprecedented attention. New Chinese-style Furniture (NCF), which integrates traditional Chinese aesthetics with modern lifestyles, has gradually emerged as one of the major trends in contemporary furniture design (Hua, 2024). While inheriting the cultural essence of Ming and Qing furniture, such as its distinctive forms, mortise-and-tenon structures, and lacquer techniques, NCF also emphasizes the incorporation of modern materials, functionality, and spatial adaptability. This fusion creates a unique aesthetic characterized by "classical form with contemporary context" (Lu, 2022). This design paradigm not only reflects a localized return to aesthetic preferences but also signifies a parallel rise in cultural consciousness and the pursuit of quality living. Currently, China's home furnishing market is undergoing a dual transformation characterized by consumption upgrading and demand diversification. Consumers are increasingly valuing the cultural symbols, aesthetic experiences, and personalized expressions embodied in furniture choices (Zhao & Huang, 2024). However, despite the continuous growth of NCF within the industry, the underlying mechanisms of user acceptance and usage behavior have not yet been systematically explored (Wang et al., 2022). Especially in today's context, where information technology is deeply integrated and consumer behavior is becoming more rational and diverse, examining the multifaceted factors that influence users' acceptance and use of NCF holds significant theoretical value. Moreover, it carries substantial practical implications for guiding product design, market positioning, and cultural communication strategies for enterprises.

Existing studies have discussed the aesthetic logic and cultural value of New Chinese-style design from perspectives such as the reconstruction of traditional culture and the construction of design imagery. However, empirical analyses focusing on user acceptance behavior remain relatively scarce, lacking support from systematic theoretical models and quantitative validation of underlying mechanisms (Wang, 2025). To address this research gap, this study introduces the Unified Theory of Acceptance and Use of Technology (UTAUT) as the foundational framework. It further expands the model's core variables by incorporating context-specific characteristics of NCF and introducing culturally relevant factors such as perceived cultural value and aesthetic fit, aiming to construct a more contextually adaptive framework for explaining user behavior.

This study aims to adopt the UTAUT as its theoretical foundation (Liu, 2024), systematically identifying the key factors that influence users' acceptance and use of NCF, and empirically testing the applicability and explanatory power of the model in the context of NCF consumption. Given that NCF integrates traditional cultural imagery with modern design concepts, it possesses strong cultural and aesthetic attributes (Guo & Zhou, 2025). Therefore, this study attempts to contextually extend the UTAUT model by exploring how core variables, such as performance expectancy, ease of use, and social influence, affect users' behavioral intentions and usage behavior in the context of

culturally-oriented products. By constructing a user behavior explanatory framework tailored to the characteristics of NCF, the study seeks to enrich the application pathways of user acceptance theories in the domain of cultural products and to provide both theoretical support and practical guidance for design-driven enterprises in product development, user engagement, and market strategy formulation. In line with these objectives, the study focuses on the following two core research questions: In the context of NCF usage, which key factors significantly influence users' acceptance intentions and usage behavior? To what extent is the UTAUT model applicable and effective in explaining users' behavior towards using NCF?

This study focuses on the factors influencing users' adoption of NCF, emphasizing its unique value at the intersection of cultural revitalization and consumption upgrading. It aims to explore the multidimensional influences users encounter when engaging with and selecting this type of furniture and to construct a pathway model between behavioral intention and actual usage behavior based on the UTAUT. By systematically incorporating core UTAUT variables, such as performance expectancy, effort expectancy, and social influence, and integrating culturally specific constructs such as aesthetic fit and cultural identity, this study seeks to reveal the acceptance mechanisms of culturally oriented products in the context of modern consumer behavior. The theoretical significance of this study lies in three main aspects: First, it addresses the current lack of research on user behavior in the field of NCF design and fills a theoretical gap regarding the acceptance mechanisms of cultural products from a consumer perspective. Second, it extends the UTAUT model contextually, providing empirical validation of its applicability to non-technologically oriented, culturally driven products. Third, it promotes the interdisciplinary integration of design research and consumer behavior studies, expanding the role of cultural and cognitive factors within acceptance models. On a practical level, the findings offer theoretical and data-driven support for furniture enterprises in areas such as product development, cultural narrative design, user engagement, and precision marketing. This can help enhance user involvement and brand identification. Additionally, the study provides practical support for related industries in expressing traditional culture through contemporary design, increasing cultural added value, and strengthening national cultural soft power.

2. Theoretical Foundation

2.1 New Chinese-Style Furniture

Research on New Chinese-style furniture (NCF) reveals an increasingly close interaction between traditional aesthetics and modern design principles, reflecting the dynamic evolution of design language against the backdrop of cultural transformation and technological innovation. Shao Yuxin (2025) proposed that "generative design" serves as an important approach to integrating traditional elements with modern lifestyles, highlighting the central role of cultural semantics in contemporary expression (Shao & Zhou, 2025). While this perspective provides theoretical support for design methodology, its implementation remains relatively abstract and lacks a systematic design evaluation mechanism. Lv Jionghang et al. (2025) highlight the historical continuity and symbolic significance of traditional elements in modern design through the contemporary expression of Ming-style furniture and Jinsha gold ornaments. However, their research primarily focuses on formal borrowing and pays limited attention to how these elements can be innovatively transformed in terms of functionality or user experience (Lv & Xiang, 2025). Wang Honglin (2025) approaches the topic from the perspective of playfulness and emotional resonance, proposing that innovative forms and cultural expression can coexist, thus showcasing the potential for integration between design thinking and lifestyle. However, her analysis is limited to a few product case studies and lacks cross-cultural and cross-regional adaptability research (Wang, 2025). On the technical front, Chen (2025) discusses the application of CNC carving and AI-generated content, demonstrating the potential of new technologies to represent the aesthetics of traditional craftsmanship, while Wang Kaitao et al.'s research extends the perspective of sustainable design. Nevertheless, the reliability of artificial intelligence in understanding and generating cultural semantics requires further validation (Chen, 2025). Additionally, Guo and Wu (2024) reflect on design education, offering intellectual and human resource support for the sustainable development of New Chinese-style furniture. However, how to effectively align educational strategies with market demand remains an unresolved issue (Guo & Wu, 2025). In summary, although existing literature showcases the richness of New Chinese-style furniture in terms of design concepts, formal language, technological innovation, and cultural continuity, it still suffers from insufficient empirical foundations, weak theoretical system construction, and a lack of user-focused research. Future studies should emphasize interdisciplinary integration and practical design validation to facilitate the field's transition from stylistic expression to comprehensive innovation. In summary, although existing literature showcases the richness of NCF in terms of design concepts, formal language, technological innovation, and cultural continuity from multiple perspectives, it still suffers from insufficient empirical foundations, weak theoretical system construction, and a lack of user-focused research. Future studies should emphasize interdisciplinary integration and practical design validation to facilitate the field's transition from stylistic expression to comprehensive innovation.

2.2 UTAUT Model

The UTAUT model, proposed by Venkatesh et al. (2003), has demonstrated strong predictive power in numerous technology adoption studies (Venkatesh et al., 2023). Compared with earlier models such as TAM and TRA, UTAUT integrates core elements from eight models and identifies performance expectancy, effort expectancy, social influence, and facilitating conditions as key predictors. This integration significantly enhances the model's ability to explain behavioral intention, increasing its explanatory power from 30% to 40% to approximately 70%. This improvement has not only strengthened UTAUT's theoretical influence but has also led to its widespread application across various fields such as education, finance, e-government, and healthcare. For instance, Abele et al. (2007) and Cuddy et al. (2008) examined UTAUT's applicability in banking and e-government services in the Middle East, confirming the model's cross-domain effectiveness (Abele& Wojciszke, 2007; Cuddy, Fiske & Glick, 2008). Additionally, cross-cultural studies by Venkatesh et al. (2012) have further validated the universality of variables such as social influence across different cultural contexts (Venkatesh et al., 2012). However, these studies have primarily focused on "usage intention" rather than "purchase behavior," thus providing limited insight into the psychological mechanisms driving consumer decisions.

It is worth noting that despite UTAUT's excellent performance in predicting user acceptance within general information systems, its application and explanatory power in the domain of consumer purchasing psychology remain limited. First, the four core variables of UTAUT mainly address "functional" expectations and "technological usage conditions," whereas consumer purchase behavior is often influenced by more complex psychological factors such as emotional attitudes, brand identity, perceived risk, and social symbolism. This limitation was partially addressed in Venkatesh et al.'s (2012) extension of UTAUT to mobile internet consumers, but related research remains scarce (Venkatesh et al., 2012). Second, while preliminary efforts have been made to incorporate cultural and contextual variables into UTAUT, these have mostly focused on moderating effects, lacking deeper modeling of cultural values and consumer cognitive frameworks. For

example, in the context of consumer purchasing, facilitating conditions and effort expectancy may not be significant, whereas factors such as product identification and brand culture may play a more critical role. Therefore, future research needs to reconstruct the UTAUT model within specific contexts and integrate it with psychological mechanisms to explore its adaptability in consumer behavior. In particular, integrating UTAUT with consumer behavior theories, such as the attitude-intention-behavior path from the Theory of Planned Behavior or brand loyalty models, can help bridge the current theoretical gap "from acceptance to purchase" and promote the evolution of UTAUT into the domain of consumer psychology research.

2.3 New Chinese-Style Furniture and Consumer Purchase Intention

In recent years, the growing interest in Chinese-style furniture is not merely an aesthetic preference but reflects a deeper consumer trend of integrating cultural identity with modern design (Jiang, 2025). Studies have shown that traditional materials and cultural symbolism continue to exert significant appeal in contemporary consumer decision-making, indicating that cultural resonance has become a major driving force influencing consumer behavior. However, while existing research has often explored the connection between cultural elements and consumer emotions (Qin et al., 2025), there remains a lack of systematic analysis on how this connection specifically translates into actual purchase intention, particularly within the specific context of NCF. From aesthetic design and sustainable practices to individual decision-making styles and the influence of digital information channels (Xue, 2025), scholars have emphasized the role of diverse variables in shaping the consumption process. Nonetheless, most of the literature tends to examine the impact of individual factors in isolation, such as design aesthetics (Wang, 2025), environmental awareness (Xu et al., 2023), or price sensitivity (Wang et al., 2025), without adequately exploring how these variables interact in the case of NCF, a category that blends traditional and modernity. Moreover, institutional (non-individual) purchasing behavior has been noted for its role in legitimizing cultural products (Dong, 2025), but in the context of Chinese-style furniture, the mechanisms of dissemination and actual impact pathways remain unclear. Therefore, despite the valuable insights existing studies have offered into consumer preferences, there is a significant gap in the literature concerning NCF: a lack of systematic research into how multiple factors, such as cultural identity, aesthetic design, sustainability concepts, and price perception, jointly influence consumer purchase intention. Future research should further investigate the interaction mechanisms among these variables. Under the growing trends of digital marketing and personalized consumption, exploring how cultural narratives and design innovation can enhance the market appeal of NCF is a key direction for addressing current research gaps.

3. Research Model and Hypotheses

3.1 Research Model

In the field of emerging technology adoption research, the Unified Theory of Acceptance and Use of Technology (UTAUT) is an authoritative model that integrates eight classical theories: the Theory of Reasoned Action (TRA), the Motivational Model (MM), the Model of PC Utilization (MPCU), the Theory of Planned Behavior (TPB), the Technology Acceptance Model (TAM), the Combined TAM and TPB (C-TAM-TPB), the Innovation Diffusion Theory (IDT), and Social Cognitive Theory (SCT). UTAUT identifies four core determinants influencing user adoption behavior: performance expectancy, effort expectancy, social influence, and facilitating conditions. Performance expectancy incorporates concepts such as perceived usefulness (from TAM) and extrinsic motivation (from MM). Effort expectancy reflects constructs like perceived ease of use (from TAM). Social influence includes factors such as subjective norms (from TRA, TAM2, and TPB), while facilitating conditions derive from the integration of perceived behavioral control (from TPB) and related theories (Davis, 1989). Given the strong adaptability and explanatory power of the UTAUT model in consumer behavior research, this study adopts its four core variables to analyze the key factors influencing consumers' purchase behavior of NCF. Based on this, a corresponding research model is developed to reveal the mechanisms through which different factors impact consumers' purchase intentions and actual behaviors. The research model is shown in Figure 1.

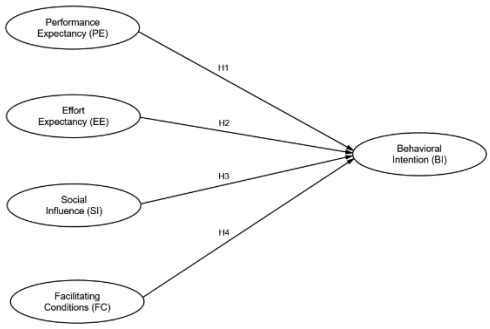

Fig. 1: Research Hypothesis Model

3.2 Research Hypotheses

When promoting the New Chinese-style Furniture trend, various factors influence consumers' engagement with this style, including online purchasing behavior, aesthetic evaluation, consumer experience, demographic influences, customization preferences, and cultural cognition. Understanding these factors is crucial for stakeholders in the furniture industry to effectively cater to the evolving tastes and preferences of consumers.

Based on the UTAUT model, several key factors influence users' choice of NCF, including performance expectancy, effort expectancy, social influence, and facilitating conditions.

Hypothesis H1: Performance expectancy has a positive impact on consumers' intention to purchase NCF. In the context of NCF consumption, performance expectancy primarily reflects consumers' belief that such furniture is highly functional and practical in daily use, contributing to an improved quality of home life. While aesthetic appeal is crucial for consumers, functionality should not be overlooked. With the evolution of consumer mindsets, users increasingly favor furniture products that combine both aesthetic and functional value. The balance between beauty and utility has become a key determinant in purchasing decisions. For example, Li (2013) found that in sustainable furniture design, users show a growing demand for functionality and usability, highlighting contemporary consumers' strong preference for home products that integrate practical use and design appeal. As a fusion of traditional culture and modern lifestyle, NCF that excels in performance, such as offering ample storage, ergonomic design, or strong spatial adaptability, can significantly enhance user satisfaction and consequently strengthen purchase intention. Therefore, it can be hypothesized that the higher the performance expectancy, the more likely consumers are to purchase NCF.

Hypothesis H2: Effort expectancy has a positive impact on consumers' intention to purchase NCF. In the context of using NCF, effort expectancy mainly reflects consumers' belief that such furniture is easy to use, simple to operate, and requires no complex learning process. When users perceive that the furniture is intuitive, easy to install, and user-friendly in daily life, it reduces their psychological burden during use, thereby increasing their acceptance. NCF is typically characterized by well-considered design and clear structure, aligning with modern consumers' expectations for convenience and comfort (Wang, 2024). When consumers believe they can easily use this type of furniture without expending excessive time or effort, their intention to purchase is significantly strengthened. Therefore, effort expectancy positively influences consumers' behavioral intention to purchase NCF.

Hypothesis H3: Social influence has a positive impact on consumers' intention to purchase NCF. In the consumer decision-making process, social influence refers to the impact of expectations and values from family, peers, and social groups on an individual's behavior. In the adoption of New Chinese-style furniture, the preferences of family members, recommendations from friends, and prevailing trends within social networks can significantly affect consumer behavior (Li, 2013). Consumers often seek affirmation or inspiration from their social circles before making a purchase, and particularly when a specific style or brand receives positive evaluations within a group, it tends to reinforce individual purchasing intentions. Moreover, the resonance of community values can spark consumer interest in New Chinese-style furniture that embodies cultural meaning and aesthetic appeal. Therefore, social influence plays a positive role in shaping consumers' purchase intentions and has a favorable effect on their behavioral tendencies.

Hypothesis H4: Facilitating conditions have a positive impact on consumers' intention to purchase NCF. During the process of purchasing and using NCF, facilitating conditions, as external support factors, significantly influence consumers' behavioral intentions. When evaluating whether to purchase such furniture, consumers often consider the availability of comprehensive delivery and installation services, clear product instructions, prompt after-sales support, and compatibility with their living spaces. These organizational and technical resources can effectively reduce usage barriers and enhance consumers' confidence and sense of convenience (Liu, 2024). Especially as New Chinese-style furniture evolves with more modern structures and functional designs, the absence of corresponding support may lead consumers to hesitate due to concerns about complex installation or inconvenient use. Therefore, when consumers perceive that sufficient facilitating conditions are in place, their willingness to purchase and behavioral inclination are significantly strengthened.

3.3 Empirical Study

3.3.1 Research Design

Following the establishment of the research model and hypotheses, this study employs confirmatory factor analysis (CFA) to test the model and hypotheses. Data were collected through a questionnaire survey, which consists of two parts: the first part gathers basic information of the respondents, and the second part assesses respondents' evaluations of performance expectancy, effort expectancy, social influence, facilitating conditions, and behavioral intention toward NCF. For data analysis, SPSS 26.0 and AMOS 24.0 software were used to test the reliability and validity of the measurement model. Structural Equation Modeling (SEM) was applied to validate the structural model and research hypotheses. To explore the path relationships in the model based on consumers' actual purchasing behavior, respondents were grouped into those who have purchased NCF and those who have not. The group of respondents who have purchased NCF was selected as the sample for analysis.

3.3.2 Questionnaire Design

The questionnaire for this study was designed with two main sections. The first section collects basic background information from respondents, such as gender, age, and education level. The second section includes a total of 32 items designed to evaluate the key factors influencing consumers' purchase of NCF. These factors are categorized into five dimensions: performance expectancy (4 items), effort expectancy (4 items), social influence (4 items), facilitating conditions (4 items), and behavioral intention (4 items). To ensure acceptable model fit during validation, each dimension was later reduced to three items. Given that the UTAUT model has been extensively validated in both domestic and international studies on technology adoption, with an explanatory power for technology adoption behavior reaching 72%, mature measurement items from relevant literature were fully referenced during the questionnaire development process to enhance the reliability and validity of the scale. All measurement variables were rated using a 5-point Likert scale, where "1" indicates "strongly disagree" and "5" represents "strongly agree."

3.3.3 Questionnaire Distribution and Collection

The target population for this questionnaire survey was consumers of NCF. The questionnaire was distributed using the Wenjuanxing (Questionnaire Star) platform, with no restrictions on the overall sample size. To ensure that respondents had a certain level of product awareness and usage experience, the survey was conducted after consumers had used or experienced the product. The online questionnaire was distributed through partnered furniture brands and e-commerce platforms. With permission from the platform operators, the questionnaire was sent to target consumers via online channels on March 1, 2025. The data collection period lasted until April 15, 2025, spanning approximately one and a half months. A total of 500 questionnaires were collected, of which 467 were valid, resulting in a validity rate of 93.4%.

4. Results

4.1 Descriptive Statistical Analysis

A total of 467 valid responses were collected in this survey, focusing on the demographic characteristics of consumers who have purchased NCF. The data covered three aspects: gender, age, and education. In terms of gender distribution, male consumers accounted for 60.39% (282 respondents), while females comprised 39.61% (185 respondents), indicating that males slightly dominate the consumer group purchasing NCF. Regarding age structure, the majority of consumers were between the ages of 21–30 and 31–40, representing 51.61% (241 respondents) and 42.18% (197 respondents) respectively. Together, they comprised 93.79% of the total respondents, suggesting that the primary consumer group for NCF is concentrated among young and middle-aged adults. Other age groups, such as 18–20, 41–50, 51–60, and those over 60 years old, had significantly lower proportions, totaling less than 7%. In terms of education, the majority of respondents held a bachelor's degree, accounting for 50.96% (238 respondents), followed by those with an associate degree at 28.27% (132 respondents). Respondents with a high school education or below and those with a postgraduate degree or above represented 11.99% (56 respondents) and 8.78% (41 respondents), respectively, as shown in Table 1. Overall, the consumer group purchasing NCF is predominantly young and middle-aged, highly educated, and slightly more male-dominated. These characteristics provide valuable insights for subsequent market positioning and marketing strategy.

Table 1: Descriptive Statistics Table

Basic Information	Demograhics	Frequency	Pct (%)	Cum.Pct(%)
Gender	Male	282	60.39	60.39
	Female	185	39.61	100
Age	18-20	12	2.57	2.57
	21-30	241	51.61	54.18
	31-40	197	42.18	96.36
	41-50	11	2.36	98.72
	50-60	5	1.07	99.79
	≥60	1	0.21	100
Education	High School	56	11.99	11.99
	Associate Degree	132	28.27	40.26
	Bachelor Degree	238	50.96	91.22
	Postgraduate Degree	41	8.78	100
Total		467	100	100

4.2 Measurement Model Testing

Before testing the structural model and research hypotheses, it is necessary to first assess the measurement model. Only when the measurement model demonstrates good reliability and validity can the analysis of the structural model and hypothesis testing be considered reasonable and effective. Therefore, the testing process of the research model typically consists of three parts: measurement model testing, structural model testing, and hypothesis testing. The measurement model testing primarily includes reliability and validity assessments to ensure that the scales or measurement instruments used are both stable and accurate. This study conducted reliability and validity tests on the measurement models of five latent variables: Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI), Facilitating Conditions (FC), and Behavioral Intention (BI). As shown in Table 2, the factor loadings of all variables reached significant levels (Z-values all greater than 8, p-values all less than 0.001), indicating strong explanatory power of the measurement items within the model. In terms of reliability, the Cronbach's α values for all five latent variables ranged from 0.737 to 0.811, and the Composite Reliability (CR) values were all above 0.73, demonstrating good internal consistency and suggesting that the scale has high reliability. Regarding convergent validity, except for Facilitating Conditions (AVE = 0.418), which was slightly below the threshold of 0.50, the Average Variance Extracted (AVE) values of the other variables met or exceeded 0.50, indicating that most constructs possess good convergent validity. Notably, the standardized factor loadings for Behavioral Intention, Performance Expectancy, and Social Influence were relatively high, further strengthening the stability and validity of the measurement model. Overall, the measurement model demonstrated good reliability and validity, providing a solid foundation for the subsequent structural model analysis and hypothesis testing.

Table 2: Reliability and Validity

Latent Variable	Ustd.	S.E.	Z-Value	P-Value	Std.	Cronbach's α	CR-Value	AVE
Performance Expectancy (PE)	1.000				0.560	0.811	0.821	0.539
	1.628	0.141	11.517	*	0.797			
	1.819	0.166	10.969	*	0.887			
Effort Expectancy (EE)	1.000				0.864	0.801	0.809	0.529
	0.570	0.054	10.508	*	0.547			
	0.933	0.076	12.348	*	0.797			
Social Influence (SI)	1.000				0.521	0.789	0.791	0.500
	1.690	0.187	9.057	*	0.725			
	1.623	0.188	8.651	*	0.795			
Facilitating Conditions (FC)	1.000				0.713	0.737	0.738	0.418
	0.956	0.103	9.268	*	0.731			
	0.742	0.080	9.238	*	0.582			
Behavioral Intention (BI)	1.000				0.748	0.762	0.766	0.521
	1.061	0.086	12.357	*	0.692			
	1.146	0.091	12.558	*	0.784			

Note: PE stands for Performance Expectancy, EE stands for Effort Expectancy, SI stands for Social Influence, FC stands for Facilitating Conditions, and BI stands for Behavioral Intention. The same abbreviations apply hereinafter.

To further verify the discriminant validity of the measurement model, this study employed the Fornell-Larcker criterion to examine the discriminant validity among the latent variables. The values on the diagonal in the table represent the square roots of the Average Variance Extracted (AVE) for each latent variable, all of which are greater than their corresponding correlation coefficients with other variables.

This meets the Fornell-Larcker discriminant validity standard, indicating that the model possesses good discriminant validity. Specifically, the square roots of the AVE values for Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI), Facilitating Conditions (FC), and Behavioral Intention (BI) are 0.762, 0.749, 0.687, 0.678, and 0.742, each exceeding their correlation coefficients with other latent variables. For example, the correlation coefficient between PE and BI is 0.560, which is lower than the square root of PE's AVE (0.762); similarly, the correlation coefficient between SI and FC is 0.549, which is less than the AVE square roots (0.687 for SI and 0.678 for FC), as shown in Table 3. Therefore, all constructs demonstrate good discriminant validity, indicating that the variables in the model are statistically independent and capable of effectively distinguishing between different latent structures, thus laying a solid foundation for the subsequent structural model analysis.

Table 3: Discriminant Validity

Constructs	PE	EE	SI	FC	BI
Performance Expectancy (PE)	0.762				
Effort Expectancy (EE)	0.269	0.749			
Social Influence (SI)	0.591	0.397	0.687		
Facilitating Conditions (FC)	0.447	0.400	0.549	0.678	
Behavioral Intention (BI)	0.560	0.358	0.579	0.509	0.742

4.3 Structural Model Testing

To evaluate the overall fit of the structural equation model, this study reports multiple model fit indices and compares them with reference standards. As shown in Table 4, the chi-square to degrees of freedom ratio (χ^2/df) is 2.038, which is below the critical value of 3, indicating a good model fit. The Standardized Root Mean Square Residual (SRMR) is 0.050, and the Root Mean Square Error of Approximation (RMSEA) is 0.047, both of which are less than the threshold of 0.080, further supporting a satisfactory model fit. In addition, other fit indices, including the Goodness-of-Fit Index (GFI = 0.940), Adjusted Goodness-of-Fit Index (AGFI = 0.901), Incremental Fit Index (IFI = 0.941), Comparative Fit Index (CFI = 0.940), and Tucker-Lewis Index (TLI = 0.927), all exceed the reference value of 0.900. These results demonstrate that the model performs well across various fit dimensions. In summary, the structural model exhibits good overall fit, meets the statistical requirements for structural equation modeling, and is suitable for subsequent path analysis and hypothesis testing.

Table 4: Model Fit

Fit Index	X^2/df	SRMR	RMSEA	GFI	AGFI	IFI	CFI	TLI
Reference Value	<3	<0.080	<0.080	>0.900	>0.900	>0.900	>0.900	>0.900
F-test	2.038	0.050	0.047	0.940	0.901	0.941	0.940	0.927

This study tested four hypothesized paths within the structural model, with the results presented in the table. Performance Expectancy (PE) had a significant impact on Behavioral Intention (BI) (H1), with a standardized path coefficient of 0.210, a Z-value of 4.151, and a p-value less than 0.001, thus supporting the hypothesis. Social Influence (SI) also showed a significant positive effect on Behavioral Intention (H3), with a standardized path coefficient of 0.390, a Z-value of 6.224, and a p-value less than 0.001, confirming the hypothesis. Facilitating Conditions (FC) significantly influenced Behavioral Intention as well (H4), with a standardized path coefficient of 0.223, a Z-value of 2.421, and a p-value of 0.015, supporting the hypothesis. In contrast, Effort Expectancy (EE) did not have a significant impact on Behavioral Intention (H2), with a standardized path coefficient of only 0.010, a Z-value of 0.240, and a p-value of 0.810, indicating that the hypothesis was not supported. In summary, hypotheses H1, H3, and H4 were supported, whereas H2 was not. This suggests that Performance Expectancy, Social Influence, and Facilitating Conditions play critical roles in shaping the behavioral intentions of consumers regarding NCF, while the effect of Effort Expectancy is relatively weak.

Table 5: Path Hypothesis Testing

Hypothesis items	Hypothesis path	Unstd.	S.E.	Z-value	P-value	Std.	Supported?
H1	PE→BI	0.251	0.061	4.151	*	0.210	Yes
H2	EE→BI	0.008	0.032	0.240	0.810	0.010	No
H3	SI→BI	0.316	0.051	6.224	*	0.390	Yes
H4	FC→BI	0.199	0.082	2.421	0.015	0.223	Yes

5. Conclusion

This study focuses on consumers who purchase NCF and adopts the integrated perspective of user technology acceptance (UTAUT model) to explore the key factors influencing their intention to purchase such furniture through online platforms. Research hypotheses were proposed, and a research model was constructed. Data was collected through a questionnaire survey, and an empirical analysis was conducted on the factors influencing consumer behavioral intention. Based on the analysis, the following research conclusions were drawn.

(1) The results of this study indicate that performance expectancy has a significant positive impact on consumers' behavioral intention to purchase NCF. This finding is highly consistent with previous research and further confirms the critical role of performance expectancy in the consumer decision-making process. For example, research by Li Linqi and Wang Kaitao on sustainable furniture design suggests that consumers are increasingly concerned with the functionality and usability of furniture, especially in terms of improving space utilization and ergonomic structural design, which are widely recognized. By introducing performance expectancy into the context of NCF consumption, this study emphasizes that while such furniture combines aesthetics with practicality, the stronger its functional performance, the more it enhances consumer satisfaction and behavioral intention. Compared to traditional furniture, NCF integrates cultural aesthetics with modern practical design. Consumers not only recognize its cultural value but also expect a high-quality user experience. Therefore, this study not only enriches the application of the UTAUT model in the context of home furnishing consumption but also provides valuable insights for enterprises in promoting NCF. Specifically, it suggests that in addition to highlighting cultural aesthetics, enterprises should also enhance the functional value of their products to more effectively stimulate consumer purchase intention.

Hypothesis H2 of this study posits that effort expectancy should have a positive impact on consumers' behavioral intention to purchase NCF. However, the empirical results show that this path is not significant, and the hypothesis is not supported. This finding differs from

some previous research conclusions in the field of technology acceptance. In many studies on the use of information systems or smart products, such as the Technology Acceptance Model (TAM) proposed by Davis (1989) and the subsequent UTAUT model, effort expectancy is typically considered a significant factor influencing users' behavioral intention. However, in the furniture consumption context of this study, the influence of this variable was relatively diminished. A possible reason is that NCF, as a product that integrates traditional culture with modern design, is relatively intuitive to use and does not involve complex operations or cognitive burdens. When purchasing furniture, consumers tend to focus more on style, functionality, and spatial compatibility rather than ease of use, since most furniture products generally have low usage barriers. Moreover, with the increasing standardization in the furniture industry, simplified installation procedures and well-established service systems have made "ease of use" an expected baseline rather than a critical factor influencing decision-making. Therefore, effort expectancy does not significantly impact consumers' behavioral intention, suggesting that in the context of NCF, its influence may be overshadowed by other more distinctive factors such as performance expectancy or social influence.

(3) This study confirmed Hypothesis H3, revealing that social influence has a significant positive effect on consumers' behavioral intention to purchase NCF. This finding aligns closely with previous research results. for example, Venkatesh et al. in the UTAUT model emphasized that social influence plays a key role in users' adoption of new technologies or products, particularly when the product possesses cultural attributes or symbolic meaning. NCF is not only a household item but also carries aesthetic expression and cultural identity, thus easily resonating within social circles. When consumers' family, friends, colleagues, or online communities generally hold favorable attitudes toward a certain style or brand of NCF, individuals are more likely to be positively influenced, thereby enhancing their purchase intention. Especially in today's consumption environment with high social media penetration, users are sensitive to popular home furnishing styles shared by friends, interior bloggers, or through short-video platforms. Social evaluations and public opinion have increasingly become significant forces shaping purchasing behavior. Therefore, social influence is not only manifested in the traditional sense of seeking approval from others, but also, under the dissemination mechanisms of contemporary social platforms, amplifies the trendiness of NCF and the dissemination of its cultural value, thereby playing a more prominent role in shaping consumer behavior.

(4) The results of this study support Hypothesis H4, indicating that facilitating conditions have a significant positive impact on consumers' behavioral intention to purchase NCF. This finding aligns with the UTAUT model, regarding the influence of external support factors on behavioral intention, emphasizing that the availability of environmental resources and technical support plays a crucial role in shaping consumer behavior during the purchasing and usage process. Similar to previous studies, such as those by Venkatesh et al., which demonstrate that facilitating conditions can reduce operational barriers and boost behavioral confidence in the context of technology adoption, in the furniture consumption context, facilitating conditions are manifested in aspects such as logistics and delivery, installation services, after-sales support, and product information transparency. Especially with the increasing integration of modern structural design in NCF, the absence of corresponding support services may reduce consumers' willingness to purchase due to concerns about complex installation, spatial mismatches, or maintenance issues. Compared with traditional furniture, consumers have higher expectations for NCF to be supported by a comprehensive service system and clear usage guidance. Therefore, the perception of facilitating conditions not only lowers the threshold for product use but also enhances consumer trust and purchasing confidence. This study further confirms the critical role of facilitating conditions in strengthening behavioral intention and suggests that companies should enhance full-process service support and improve the user experience in their product marketing strategies, thereby more effectively promoting the market acceptance of NCF.

This study utilized the UTAUT model to analyze consumers' behavioral intention to purchase NCF and its influencing factors, and further explored the moderating effects of gender and consumption experience on the model's path relationships. The research yielded four important conclusions, providing both theoretical support and practical guidance for companies to develop more targeted marketing strategies and optimize product design. However, this study still has several limitations.First, the data were mainly collected through self-reported questionnaires, which may introduce subjective bias. Some respondents might have provided more positive answers than their actual sentiments due to social expectations or personal inclinations, thus affecting the objectivity of the data. Second, the sample was mainly drawn from consumer groups recommended by dealers. This sampling method may involve certain biases, as most of the respondents likely had a clear purchase intention or preference, which could result in a skewed representation of overall consumer behavioral intention. Third, the study mainly focused on the direct influence relationships among key path variables, without deeply exploring the underlying mechanisms of mediating or moderating variables in the model. For instance, whether social influence indirectly affects behavioral intention by enhancing performance expectancy, or whether gender and cultural identity play moderating roles in specific paths was not discussed in this study. Future research could expand the sample sources to improve representativeness, incorporate mediation and moderation analyses, and employ methods such as structural equation modeling or multi-group comparisons to deepen the understanding of consumer behavioral mechanisms.

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