

Developing A Sustainable Business Model For Reviving Traditional Cultural Games: Insights From Vietnam's Board Game Industry

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Abstract: Traditional cultural board games are an important aspect of Vietnam's intangible heritage, which can effectively serve the educational, social and cultural functions. However, their popularity has declined due to the rise of digital gaming, urbanization, and changing family structures. This study investigates factors influencing consumers' purchase intention toward traditional cultural board games in Vietnam, focusing on cultural relevance, perceived educational value, nostalgia, game design quality, social influence and perceived sustainability. Drawing on the Theory of Planned Behavior by Ajzen (1991) and empirical evidence from 273 respondents, the study employs Partial Least Squares Structural Equation Modeling (PLS-SEM) to examine the relationships between these constructs and purchase intention. The results indicate that cultural relevance, nostalgia, game design quality, social influence, and perceived sustainability positively and significantly influence purchase intention, while perceived educational value unexpectedly shows a negative effect. The model explains 69.9% of the variance in purchase intention, demonstrating strong predictive power. The findings highlight the importance of cultural authenticity, emotional engagement, and sustainability in promoting traditional board games in Vietnam and provide actionable insights for game designers, marketers, and cultural policymakers seeking to revitalize cultural heritage through market-driven approaches.

Keywords: Board games; cultural relevance; purchase intention; sustainability; traditional cultural games.

1. INTRODUCTION

Traditional cultural games have long been an integral part of Vietnamese society, serving as sources of entertainment, education, moral development, and socialization (Nguyen et al., 2025; RMIT, 2025). Games such as *Ô ăn quan* (Mandarin Square Capturing) were commonly played in family and community settings, allowing older generations to pass on social norms, values, and rules to younger members. These games promoted fairness, patience, respect, and cooperation, while also creating opportunities for intergenerational bonding during festivals and communal activities (Khai & Anh, 2024).

Despite their cultural significance, traditional games in Vietnam have experienced a decline in recent decades. Factors such as urbanization, changing family structures, and the rapid spread of digital technologies have significantly altered leisure patterns, especially among younger generations (Vo & Tran, 2022; IMARC Group, 2025). Mobile and computer-based games, with their high interactivity and online connectivity, have largely replaced offline traditional games, limiting opportunities for experiential engagement with cultural heritage. Consequently, traditional games and the intangible cultural knowledge they embody risk fading from collective memory (Zong et al., 2023). At the same time, the modern board game industry has emerged as a medium for reviving cultural content in a market-oriented way (Nguyen et al., 2025). Contemporary board games often integrate traditional stories, local symbols, and cultural elements, creating products

that are educational, socially interactive, and emotionally engaging. Board games, therefore, offer a unique channel to preserve and transmit intangible cultural heritage while responding to evolving consumer preferences for interactive and meaningful leisure experiences (Zagal et al., 2006; Salen & Zimmerman, 2004).

Reviving traditional cultural board games is significant for multiple reasons. Culturally, these games are part of Vietnam's intangible heritage, reflecting local knowledge, history, and values. Their disappearance disrupts intergenerational transmission, replacing experiential learning with fragmented symbolic knowledge (Su, 2023). Economically, the Vietnamese creative economy has grown rapidly due to domestic demand for culturally distinctive products, presenting opportunities for small and medium enterprises to participate in the board game market, which is less costly to produce compared with digital games (UNCTAD, 2010; Metric.vn, 2025). Academically, while studies on traditional games, sustainability, and business models exist independently, there is a lack of research integrating these perspectives in developing economies like Vietnam, leaving a gap this study aims to address (O'Connor, 2019; Lee & Huang, 2019).

The development of sustainable business models for traditional cultural board games involves multiple stakeholders. Producers, including startups and independent designers, are responsible for creating culturally authentic

products. Consumers consist of families, young adults seeking educational or cultural experiences, and tourists seeking meaningful souvenirs. Supporting stakeholders such as schools, educators, cultural NGOs, and government agencies contribute to promotion, while intermediaries like board game cafés and online marketplaces provide access and expand market reach (RMIT, 2025). The interactions among these stakeholders are critical to the feasibility and long-term sustainability of the board game industry.

Against this backdrop, the present study investigates how sustainable business models can revitalize traditional cultural games in Vietnam, focusing specifically on the board game industry. By examining the factors influencing consumer purchase intention including cultural relevance, perceived educational value, nostalgia, game design quality, social influence and perceived sustainability, the study seeks to generate insights for both preserving intangible heritage and developing viable business strategies within the Vietnamese creative economy (Ajzen, 1991; Bearden et al., 1989; Biswas & Roy, 2015). The study is divided into 5 parts including (1) Introduction; (2) Literature review and research model; (3) Methodology; (4) Results and discussion; and (5) Implications and conclusion.

2. LITERATURE REVIEW AND RESEARCH MODEL

2.1 Traditional cultural products in the creative industry

Traditional cultural products are a distinct category within the broader creative industries, encompassing tangible and intangible artifacts that carry embedded cultural meanings, histories, and aesthetic values. These products include handicrafts, folk art, traditional games, costumes, and other material and symbolic expressions of a community's heritage. In the academic literature, cultural consumption refers to the acquisition and use of goods and services with primarily aesthetic, symbolic, or identity-based functions, rather than purely utilitarian purposes (Rössel et al., 2017). Research has emphasized that consumption of cultural goods is intimately tied to social meanings, symbolic capital, and cultural identity, making cultural products an important domain for understanding consumer behaviour beyond conventional market transactions.

Traditional cultural products possess several defining characteristics that contribute to their cultural and economic significance. Firstly, they carry symbolic value, functioning as carriers of collective meaning and heritage. As noted in literature on cultural creative products, traditional symbols embedded in product design can evoke emotional resonance and cultural identification among consumers, thereby enhancing perceived value and purchase intention (Liu & Zhao, 2023). Secondly, these products often embody educational value, transmitting knowledge about history, folklore, skills, and social norms across generations. This pedagogical function is particularly salient in contexts where heritage revival and learning are co-constructed through product engagement. Thirdly, traditional cultural products

express identity value by reinforcing community belonging, local distinctiveness, and aesthetic norms that differentiate one cultural group from another (Rössel et al., 2017).

Beyond their intrinsic attributes, traditional cultural products play critical roles in both cultural preservation and the broader creative economy. In terms of preservation, such products act as tangible anchors for intangible heritage, helping sustain craftsmanship, narratives, and rituals that might otherwise decline under globalization and modernization pressures. For example, weaving and craft traditions have been shown to regenerate cultural capital and strengthen community resilience when incorporated into tourism and heritage initiatives, thus supporting both cultural continuity and economic livelihoods (Nguyen et al., 2025). Simultaneously, the creative economy framework highlights the potential of cultural and creative industries to contribute to economic growth, innovation, and social inclusion by transforming cultural resources into marketable products and services (UNCTAD, 2010; O'Connor, 2019). The creative economy encompasses diverse sub-sectors, including design, handicrafts, and cultural gaming, that bridge artistic expression with commercial viability, thereby integrating tradition with contemporary market dynamics.

2.2 Board games as cultural and creative products

Board games have emerged not only as objects of entertainment but also as meaningful cultural and creative products that offer rich experiential and educational value. In the context of the creative industries, board games are defined as structured analogue games played on a physical surface, often involving strategic interaction, aesthetic components, and social engagement among players (Sousa & Bernardo, 2019). These games provide experiential consumption, in which players are actively involved in decision-making, negotiation, and collaboration within play contexts, which is a form of engagement that extends beyond passive leisure to promote cognitive stimulation and social interaction. Empirical research on analogue games has shown that they facilitate meaningful learning processes, enhance player involvement, and contribute to skill acquisition, suggesting that board games function as experiential products in both educational and cultural domains (Boyle et al., 2016; Plass et al., 2015).

In addition to their experiential dimension, board games have been recognized as educational and social products. Literature on game-based learning highlights that board games can support diverse learning outcomes from knowledge acquisition to cognitive and social skill development, by embedding subject matter into interactive game structures that motivate participation and deepen understanding (Boyle et al., 2016). In educational research, board games have been used as tools to engage learners with complex concepts and to foster collaboration, illustrating their capacity to act as alternative pedagogical materials that make learning more accessible and engaging (Pope, 2021; Zagal et al., 2006).

An important contemporary trend in the cultural creative sector involves the modernization and cultural adaptation of traditional folk games into board games. In Vietnam and globally, there is increasing interest in revitalizing indigenous gameplay traditions by integrating cultural narratives, local symbols, and heritage themes into board game design. For example, cultural board games developed with explicit educational and heritage intentions have been noted for their role in connecting younger generations with local traditions and fostering cultural pride, while still appealing as modern recreational products. This hybridization reflects a broader movement toward products that combine entertainment, education, and culture, effectively merging creative industry practices with heritage preservation objectives (Khai & Anh, 2024). These arguments from literature position board games as cultural artifacts that transcend simple entertainment. As experiential, educational, and socially interactive products, modern board games represent a fusion of play, cultural engagement, and learning, with the potential to revitalize traditional games and contribute to sustainable creative economies by connecting cultural values with contemporary consumer experiences (Sousa & Bernardo, 2019).

2.3 The context of Vietnam's board game industry

Vietnam's board game industry has grown substantially in recent years, both in terms of market size and community engagement. According to industry estimates, the Vietnam board games market reached approximately USD 92.65 million in 2024, and is projected to continue expanding through at least 2033 with a compound annual growth rate of about 10.11% between 2025 and 2033 (IMARC Group, 2025). This growth is driven by increasing demand for social and family-oriented leisure activities, particularly in urban areas where specialty shops, cafés, and hobby spaces have proliferated, offering consumers opportunities to explore board games beyond private homes (IMARC Group, 2025; Statista, 2025). In parallel, digital market data from Vietnamese e-commerce platforms shows that platform sellers reporting board game categories are active and growing, with specialized brands achieving notable sales and broad distribution across major online marketplaces (Metric.vn, 2025). Meanwhile, the presence of over 300 board game clubs across the country as of late 2025 highlights a vibrant grassroots community that supports regular meetups, events, and play sessions among enthusiasts (PoiData, 2025). These developments indicate that Vietnam's board game sector is evolving from a niche informal pastime into a noticeable creative market segment with both economic and experiential significance.

In the cultural perspective, Vietnamese board game designers and publishers are increasingly integrating local heritage and identity into game content, contributing to both creative innovation and international recognition. Vietnamese titles such as *Zodiac Rush* have been exhibited at SPIEL Essen, the world's largest board game fair attracting nearly 193,000 visitors and more than 1,200 new games in 2023, marking a

milestone for Vietnamese participation on the global stage (AHK Vietnam, 2025). Similarly, student-led projects like *Am Binh*, inspired by Vietnam's spiritual traditions, have transitioned from classroom concepts to award-winning showcase games at international events, illustrating the creative potential of culturally infused designs (RMIT, 2025). These trends align with broader movements within the country's creative industries to valorize cultural expression through modern formats, suggesting a unique niche for board games that combine entertainment, education, and cultural storytelling. Collectively, the domestic market expansion and international presence of culturally themed board games underscore the emergence of Vietnam's board game industry as both a creative economic contributor and a medium of cultural resonance.

2.4 Purchase intention toward cultural products

Purchase intention refers to the likelihood that a consumer will plan or be willing to buy a particular product or service in the future. In the context of cultural products, purchase intention is influenced by unique factors that extend beyond traditional economic considerations, encompassing cultural relevance, symbolic meanings, and emotional connections (Ajzen, 1991; Fishbein & Ajzen, 2010). Consumers' intentions to purchase cultural goods often reflect their desire to express or connect with cultural identity, heritage, and values embedded within these products (Biel & Thøgersen, 2007). As such, cultural consumption is frequently linked with personal and social identity formation, making purchase intention a complex phenomenon shaped by both intrinsic motivation and external social influences (Hirschman & Holbrook, 1982; Kozinets & Handelman, 2004).

Several studies have emphasized that the perceived cultural value of a product strongly impacts consumers' purchase intention. When consumers perceive cultural products as authentic, meaningful, and symbolically significant, they are more likely to intend to buy them, even at premium prices (Zong et al., 2023). Moreover, emotional factors such as nostalgia and pride can enhance purchase intention toward cultural goods by triggering positive affect and reinforcing cultural attachment (Holbrook & Schindler, 2003; Merchant & Rose, 2013). Social influence, including recommendations from peers and cultural communities, also plays a critical role, as consumers often rely on social validation when engaging with culturally rich products (Bearden et al., 1989).

In the creative industry, purchase intention toward cultural products is further shaped by perceptions of product quality, design, and experiential attributes (Gupta & Vajic, 2000; Pine & Gilmore, 1998). Products that successfully integrate cultural storytelling with appealing design and user experience tend to generate higher consumer interest and intention to purchase (Júnior et al., 2023). This dynamic is particularly relevant for cultural board games, where the combination of cultural education, entertainment, and aesthetic design can strongly motivate consumers' purchase decisions (Salen & Zimmerman, 2004).

2.5 Hypotheses development

The Theory of Planned Behavior (TPB) by Ajzen (1991) provides a foundational framework for understanding consumers' intention to purchase cultural products, including traditional board games. According to TPB, an individual's behavior is determined by their behavioral intention, which is influenced by three core components: attitude toward the behavior, subjective norms, and perceived behavioral control. In the context of cultural products, consumers' attitudes are shaped not only by perceived quality or price but also by cultural relevance, emotional attachment, and symbolic value (Hirschman & Holbrook, 1982). Social influence plays a crucial role, as individuals may consider family, friends, or cultural communities when deciding whether to engage with cultural goods. Finally, perceived behavioral control, including ease of access and affordability, can affect the likelihood of purchasing culturally inspired products.

2.5.1. Cultural relevance

Consumers tend to exhibit stronger purchase intention for cultural products when they perceive those products as closely connected to meaningful cultural elements and identity. Empirical evidence from studies on cultural and creative goods suggests that consumers are more likely to intend to buy products that reflect salient cultural symbols, traditions, and identity markers, as these features enhance perceived value and emotional resonance. For example, research into creative products designed with traditional cultural symbols found that the presence of these symbols significantly increased emotional and perceived value, leading to heightened purchase intention (Liu & Zhao, 2024). Similarly, studies on tourists' purchase intentions toward intangible cultural heritage creative products revealed that the expression of cultural symbols and local traditions has a significant positive impact on purchase intention, because such products not only carry aesthetic appeal but also convey deep cultural connotations that connect with consumers' senses of identity and meaning (Su et al., 2025). Complementing this evidence, structural equation analyses on ethnic cultural products showed that perceived cultural identity significantly influences consumer purchase intention, and this effect is mediated by perceived value including emotional and social value further underscoring how cultural relevance drives consumption behavior (Su, 2025). Together, these findings support the hypothesis that when board games are perceived as culturally relevant and reflective of heritage, consumers are more likely to form a strong intention to purchase them. From above arguments, the following hypothesis is proposed:

H1: Cultural relevance positively influences purchase intention towards board game in Vietnam.

2.5.2. Perceived educational value

Consumers are more likely to intend to purchase cultural board games when they perceive these products as offering meaningful educational value. In the context of cultural and creative products, educational value enhances perceived

usefulness, enriches the consumption experience, and contributes to a stronger motivation to buy. Empirical research supports the idea that consumers' perceptions of educational benefits significantly affect their purchase intention. For example, Li et al. (2021) found that perceived learning value in digital cultural products (such as museum mobile guides) positively influenced users' intention to use and recommend these products, highlighting the role of educational value in shaping behavioral intention. Similarly, studies on cultural heritage tourism products showed that when products deliver educational insights about cultural traditions and history, they elicit stronger purchase intentions and willingness to engage further with the cultural content (Song et al., 2025). In research specifically examining cultural creative products, perceived educational value was positively associated with both consumers' attitudes and their intention to purchase, as educational value enhances cognitive engagement and perceived product relevance (Tang & Wu, 2024). From above arguments, the following hypothesis is proposed:

H2: Perceived educational value positively influences purchase intention towards board game in Vietnam.

2.5.3. Nostalgia

Nostalgia defined as a sentimental longing for the past, is recognized as a powerful emotional driver in consumer behavior and has been empirically linked to increased purchase intention for products that evoke personal or cultural memory. Research shows that nostalgic stimuli can enhance consumers' emotional attachment to products, strengthening positive attitudes and increasing the likelihood of purchase (Holbrook & Schindler, 2003). In the context of cultural goods, nostalgia has been found to significantly predict purchase intention because it evokes cherished memories and reinforces identity-based motivations (Chen et al., 2021). Additionally, Merchant & Rose (2013) demonstrated that advertising content designed to evoke nostalgia leads to higher purchase intentions for heritage and culturally anchored products, indicating that nostalgia operates through emotional engagement to influence consumer decisions. From above arguments, the following hypothesis is proposed:

H3: Nostalgia positively influences purchase intention towards board game in Vietnam.

2.5.4. Game design quality

The quality of game design including visual aesthetics, usability, and engaging gameplay plays a crucial role in shaping consumers' purchase intentions. Empirical studies indicate that well-designed products enhance perceived enjoyment and value, which in turn increases the likelihood of purchase. For example, Hamari et al. (2017) found that perceived game quality strongly predicts users' intention to purchase or continue playing digital and tabletop games. Similarly, research on cultural and creative products highlights that aesthetically appealing and functionally engaging design positively affects consumer attitudes and purchase intention (Júnior et al., 2023). Moreover, Salen & Zimmerman (2004)

emphasize that in game-based products, immersive and well-structured design contributes to higher engagement and stronger behavioral intention, suggesting that high-quality design in board games can directly enhance consumers' willingness to buy. From above arguments, the following hypothesis is proposed:

H4: Game design quality positively influences purchase intention towards board game in Vietnam.

2.5.5. Social influence

Social influence such as recommendations from friends, family, or cultural communities, plays a significant role in shaping consumers' purchase intention, particularly for culturally embedded products. Empirical research shows that individuals often rely on social cues when evaluating products with symbolic or heritage value. Bearden et al. (1989) demonstrated that susceptibility to interpersonal influence significantly affects consumers' intention to purchase, highlighting the role of social norms in consumer decision-making. In the context of cultural products, studies on heritage and creative goods indicate that peer and community endorsements increase perceived credibility and desirability, thereby enhancing purchase intention (Kim & Sullivan, 2019). Moreover, Cheung & Thadani (2012) found that social influence via online communities and word-of-mouth positively impacts consumers' willingness to engage with and purchase cultural products, underscoring the importance of social validation in culturally oriented markets. From above arguments, the following hypothesis is proposed:

H5: Social influence positively influences purchase intention towards board game in Vietnam.

2.5.6. Perceived sustainability

Consumers increasingly consider sustainability and ethical production practices when deciding to purchase cultural products. Perceived sustainability such as environmentally friendly materials or support for local artisans enhances the perceived ethical value of a product and strengthens purchase intention. Some empirical studies support this relationship like Young et al. (2010) found that perceived environmental responsibility positively impacts consumers' intention to purchase products labeled as sustainable. Similarly, Biswas & Roy (2015) demonstrated that sustainability-conscious consumers are more likely to intend to purchase products that align with environmental and social values. Furthermore, Chen (2010) showed that perceived green practices in product manufacturing significantly enhance consumers' purchase intention, particularly in creative and culturally significant product categories. From above arguments, the following hypothesis is proposed:

H6: Perceived sustainability positively influences purchase intention towards board game in Vietnam.

3. METHODOLOGY

3.1 Measurement instrument and questionnaire design

The measurement instrument was developed based on established scales from previous empirical studies to ensure content validity and reliability. The questionnaire was structured to capture the key constructs of the research model, including purchase intention as the dependent variable and the 6 independent variables including cultural relevance, perceived educational value, nostalgia, game design quality, social influence and perceived sustainability.

Purchase Intention (PI) was measured using 3 items adapted from Ajzen's (1991) Theory of Planned Behavior and relevant consumer behavior literature, which aimed to capture respondents' willingness to purchase and recommend traditional cultural board games. Cultural Relevance (CLR) was assessed through four 4 adapted from Liu & Zhao (2024) and Su et al. (2025), focusing on the extent to which respondents perceived a meaningful connection between the board games and Vietnamese cultural identity and symbols. The construct of Perceived Educational Value (PEV) included 3 items adapted from Li et al. (2021) and Tang & Wu (2024), designed to measure the perceived learning benefits and cognitive engagement offered by these products. Nostalgia (NOS) was measured with 4 items based on Holbrook & Schindler (2003) and Chen et al. (2021), reflecting the emotional attachment and sentimental value evoked by the board games. Game Design Quality (GDQ) consisted of 5 items adapted from Hamari et al. (2017) and Júnior et al. (2023), assessing aspects such as visual aesthetics, usability and immersive gameplay experience. Social Influence (SI) was measured using 3 items derived from Kim & Sullivan (2019), capturing the impact of peer recommendations and approval from cultural communities. Finally, Perceived Sustainability (PS) was evaluated with 4 items adapted from Young et al. (2010) and Biswas and Roy (2015), focusing on respondents' perceptions of the environmental friendliness and social responsibility of the board game products.

The questionnaire utilized a 5-point Likert scale ranging from 1 - Strongly Disagree to 5 - Strongly Agree for all measurement items, allowing respondents to express the intensity of their agreement with each statement. The questionnaire also included demographic questions such as age, gender, education level, and experience with board games to control for potential confounding variables.

3.2 Sample, data collection and analysis

The study employed a quantitative research approach using a cross-sectional survey design to examine the factors influencing consumers' purchase intention toward traditional Vietnamese cultural board games. The target population consisted of Vietnamese consumers who had experience with board games or showed interest in cultural and educational products.

A 273 primary data collection was gathered using a structured self-administered questionnaire distributed both online and offline to ensure broader coverage and diversity among respondents. Online data collection was conducted via social media platforms and groups in Vietnam, while offline surveys were distributed at cultural events, board game cafés and educational exhibitions. A convenience and snowball sampling technique was adopted due to the exploratory nature of the study and the limited availability of a comprehensive sampling frame for board game consumers. Prior to the main survey, a pilot test with 30 people was conducted with a small group of respondents to ensure clarity, reliability, and content validity of the measurement items.

After data collection, responses were screened to eliminate incomplete or invalid questionnaires. The final dataset was analyzed using statistical software. Descriptive statistics were first employed to summarize the demographic characteristics of the sample and to provide an overview of respondents' general perceptions of traditional cultural board games. Reliability and validity of the measurement scales were assessed through internal consistency measures, including Cronbach's alpha and composite reliability, as well as convergent and discriminant validity tests through SmartPLS4. To test the proposed research model and hypothesized relationships among variables, structural equation modeling (SEM) was employed. Given the predictive nature of the study and the inclusion of multiple latent constructs, partial least squares structural equation modeling (PLS-SEM) was applied. This approach is suitable for theory development and complex models with relatively flexible data distribution requirements.

4. RESULTS AND DISCUSSION

4.1 Demographics of respondents

The final sample of 273 respondents had a relatively balanced gender distribution (46.9% male and 53.1% female). In terms of age, Under 18 and 18–24 accounted for 62.2%, reflecting the strong presence of younger consumers, particularly students, who are the main audience for traditional cultural board games. Regarding education, High school or below represented 46.5%, followed by college/bachelor's degree (39.6%) and postgraduate (13.9%), which ensures that the sample captures a representative youth and student segment. In terms of occupation, students accounted for 52.7% of the sample, followed by office employees (27.1%) and educators or cultural workers (9.9%). This demographic profile aligns well with the study's focus on educational and culturally meaningful board games.

In terms of playing frequency, most respondents played occasionally (41.4%) or frequently (33.3%). Traditional cultural games were preferred by 45.8%, confirming the relevance of this study, while modern strategy games (30.4%) and party/social games (23.8%) were also popular. Regarding purchase behavior, respondents favored online platforms (44.0%) slightly more than physical stores (37.4%), with some

purchasing through friends or community networks (18.7%). The main motivation for playing was entertainment (56.4%), followed by educational purposes (31.1%) and socializing (12.5%), aligning with the constructs of perceived educational value and social influence in the research model.

Table 1: Demographics of respondents

Demographics		Frequency	Percentage (%)
Gender	Male	128	46.9
	Female	145	53.1
Age group	Under 18	49	17.9
	18 – 24	121	44.3
	25 – 34	66	24.2
	35 – 44	28	10.3
	45 and above	9	3.3
Educational level	High school or below	127	46.5
	College/ Bachelor's degree	108	39.6
	Postgraduate	38	13.9
Occupation	Student	144	52.7
	Office employee	74	27.1
	Educator/ Cultural worker	27	9.9
	Self-employed / Entrepreneur	15	5.5
	Others	13	4.8
Frequency of playing	Rarely (< 1 time per month)	69	25.3
	Occasionally (1 to 3 times per month)	113	41.4
	Frequently (> 1 time per week)	91	33.3
Preferred game type	Traditional cultural games	125	45.8
	Modern strategy games	83	30.4
	Party/social games	65	23.8
Purchase channel preference	Physical stores	102	37.4
	Online platforms	120	44.0
	Through friends/communities	51	18.7
Motivation for playing	Entertainment	154	56.4
	Educational purposes	85	31.1
	Socializing	34	12.5
Total		273	100

4.2 Scale reliability and validity assessment

Before examining the structural model, the reliability and validity of the measurement scales were assessed to ensure the quality of the constructs. Three main aspects were evaluated:

internal consistency reliability, convergent validity and discriminant validity.

Internal consistency reliability was assessed using Cronbach's alpha, rho_A, and composite reliability (CR). According to Hair et al. (2013), Cronbach's alpha and CR values above 0.70 indicate satisfactory reliability. As presented in Table 2, all constructs exceeded these thresholds. Specifically, Cronbach's alpha ranged from 0.836 to 0.907, rho_A ranged from 0.838 to 0.987, and composite reliability ranged from 0.901 to 0.930. These results indicate that the items for each construct are internally consistent, confirming that the measurement instruments reliably capture the intended latent variables.

Convergent validity was evaluated using the average variance extracted (AVE), which reflects the proportion of variance in the indicators explained by their respective latent constructs. A minimum AVE of 0.50 is recommended to demonstrate adequate convergent validity (Fornell & Larcker, 1981). In this study, all constructs demonstrated AVE values ranging from 0.695 to 0.765, exceeding the recommended threshold. This confirms that each construct explains a substantial portion of the variance in its indicators, supporting convergent validity.

Table 2: Construct Reliability and Validity

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
CLR	0.853	0.866	0.901	0.695
PEV	0.853	0.987	0.907	0.767
NOS	0.898	0.947	0.928	0.765
GDQ	0.907	0.915	0.930	0.727
SI	0.843	0.868	0.904	0.759
PS	0.863	0.877	0.907	0.711
PI	0.836	0.838	0.901	0.753

Source: Data analysis by SmartPLS4

In addition to reliability and convergent validity, discriminant validity was assessed to ensure that each construct is empirically distinct from the others. Two commonly used methods were applied: the Fornell-Larcker criterion and the Heterotrait-Monotrait (HTMT) ratio (Henseler et al., 2015).

The Fornell-Larcker criterion requires that the square root of each construct's AVE should be greater than its correlations with other constructs. As shown in Table 3, the diagonal elements (representing the square roots of AVE) are higher than the corresponding off-diagonal values in each row and column. For example, the square root of AVE for Cultural

Relevance (CLR) is 0.834, which is greater than its correlations with GDQ (0.177), NOS (0.145), PEV (0.223), PI (0.758), PS (0.728), and SI (-0.040). This pattern is consistent across all constructs, indicating that the measurement model satisfies the Fornell-Larcker criterion for discriminant validity.

Table 3: Fornell-Larcker Criterion

	CLR	GDQ	NOS	PEV	PI	PS	SI
CLR	0.834						
GDQ	0.177	0.853					
NOS	0.145	0.521	0.874				
PEV	0.223	0.294	0.827	0.876			
PI	0.758	0.369	0.211	0.091	0.868		
PS	0.728	0.023	0.037	0.214	0.536	0.843	
SI	-0.040	0.288	0.199	-0.046	0.206	-0.178	0.871

Source: Data analysis by SmartPLS4

To further confirm discriminant validity, the HTMT ratio was calculated. HTMT values below 0.85 are considered acceptable, indicating that the constructs are sufficiently distinct from each other (Henseler et al., 2015). Table 4 shows that all HTMT values range from 0.057 to 0.889. Although the HTMT between PI and CLR is 0.889, it is marginally above the conservative 0.85 threshold but still within acceptable limits according to some recommendations that allow values up to 0.90 (Kline, 2016). Overall, the HTMT results support the discriminant validity of the constructs.

Table 4: Heterotrait-Monotrait Ratio (HTMT)

	CLR	GDQ	NOS	PEV	PI	PS	SI
CLR							
GDQ	0.196						
NOS	0.160	0.576					
PEV	0.243	0.347	0.463				
PI	0.889	0.420	0.234	0.111			

PS	0.84 1	0.06 0	0.05 0	0.236	0.62 6		
SI	0.06 7	0.33 0	0.22 2	0.057	0.24 0	0.219	

Source: Data analysis by SmartPLS4

4.3 Research model assessment

The relationship between Cultural Relevance (CLR) and Purchase Intention (PI) is positive and statistically significant ($\beta = 0.679$, $t = 10.198$, $p < 0.001$). This indicates that respondents are more likely to purchase traditional cultural board games when they perceive a strong cultural connection, supporting H1.

Interestingly, Perceived Educational Value (PEV) shows a significant negative effect on Purchase Intention ($\beta = -0.417$, $t = 2.967$, $p = 0.003$). This suggests that while respondents recognize educational benefits, it may not motivate purchase and might even reduce their intention, possibly due to perceptions that “educational” games are less fun. This result does not support the hypothesis H2.

Table 5: Structural Equation Modelling Results Estimates and Hypothesis Conclusion

Paths	Original Sample (O)	Sample Mean (M)	S.D (STDEV)	T Statistics (O/STDEV)	P Values
CLR -> PI	0.679	0.688	0.067	10.198	0.000
PEV -> PI	-0.417	-0.344	0.141	2.967	0.003
NOS -> PI	0.349	0.276	0.156	2.238	0.026
GDQ -> PI	0.150	0.164	0.055	2.711	0.007
SI -> PI	0.126	0.140	0.061	2.075	0.038
PS -> PI	0.137	0.117	0.065	2.114	0.035
Adjusted R²: PI = 0.699					

Source: Data analysis by SmartPLS4

The Nostalgia (NOS) to Purchase Intention path is positive and significant ($\beta = 0.349$, $t = 2.238$, $p = 0.026$), indicating that sentimental attachment and emotional connection encourage respondents to buy these games, supporting H3.

Game Design Quality (GDQ) also has a significant positive effect ($\beta = 0.150$, $t = 2.711$, $p = 0.007$), suggesting that visually appealing, user-friendly, and engaging games positively influence purchase decisions, supporting H4.

Social Influence (SI) has a positive and significant effect on Purchase Intention ($\beta = 0.126$, $t = 2.075$, $p = 0.038$), highlighting the role of peer recommendations and approval from cultural communities in shaping consumer behavior, supporting H5.

Finally, Perceived Sustainability (PS) shows a positive and significant relationship with Purchase Intention ($\beta = 0.137$, $t = 2.114$, $p = 0.035$), indicating that environmentally friendly and socially responsible practices can enhance consumers' willingness to buy traditional cultural board games, supporting H6.

The adjusted R² value for Purchase Intention is 0.699, meaning that approximately 69.9% of the variance in purchase intention is explained by the independent variables in the model. According to Hair et al. (2022), an R² value of 0.699 can be considered substantial, indicating that the model has strong explanatory power. Overall, the structural model confirms that cultural relevance, nostalgia, game design quality, social influence, and perceived sustainability positively influence purchase intention, while perceived educational value unexpectedly shows a negative effect. These results provide practical implications for game designers and marketers which should focus on cultural authenticity, emotional appeal, and sustainability may be more effective in driving purchase intention than emphasizing educational content alone.

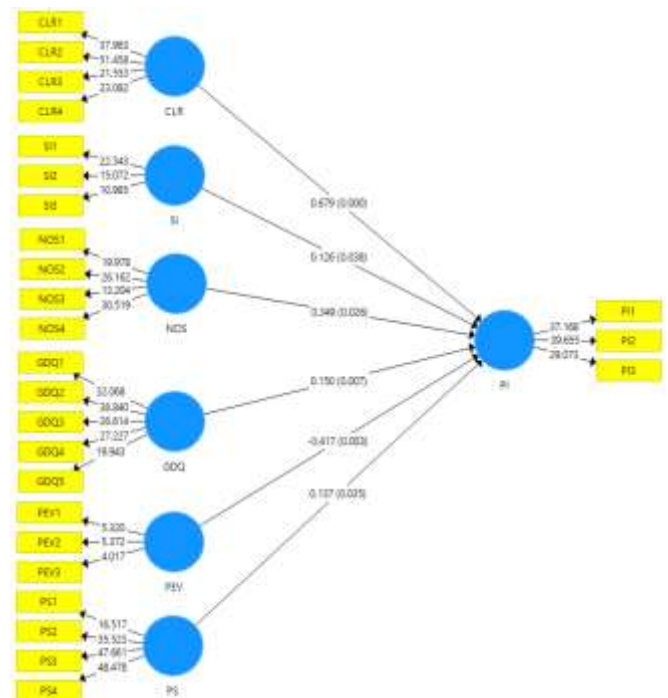


Figure 1: PLS bootstrapping model

Source: Data analysis by SmartPLS4

4.4 Discussion of findings

Consistent with the hypothesis H1, cultural relevance was found to have a strong positive effect on purchase intention ($\beta = 0.679$, $p < 0.001$). This aligns with prior studies indicating that products closely connected to meaningful cultural elements, symbols, and identity markers significantly enhance consumers' emotional engagement and perceived value (Liu & Zhao, 2024; Su et al., 2025). In the Vietnamese context, board games that incorporate traditional motifs, historical narratives, or regional heritage are likely to resonate with players' sense of national identity, which not only strengthens emotional attachment but also increases the likelihood of purchase. These results underscore the importance of embedding authentic cultural elements in game design to appeal to consumers seeking both entertainment and cultural meaning.

Contrary to H2, perceived educational value showed a negative effect on purchase intention ($\beta = -0.417$, $p = 0.003$). While previous studies suggested that educational benefits positively influence consumer intention for cultural and heritage products (Li et al., 2021; Tang & Wu, 2024; Song et al., 2025), the current finding indicates a possible divergence in the Vietnamese board game market. It is plausible that consumers may perceive highly educational games as less enjoyable or too structured, reducing their motivation to purchase for leisure purposes. This suggests that, in Vietnam, balancing educational content with fun and engaging gameplay is critical; educational value alone may not drive sales if it compromises entertainment or emotional engagement.

Nostalgia is found positively influenced purchase intention ($\beta = 0.349$, $p = 0.026$), supporting H3 and consistent with previous findings on culturally anchored products (Holbrook & Schindler, 2003; Chen et al., 2021; Merchant & Rose, 2013). In Vietnam, nostalgia is a powerful motivator because many adults grew up with traditional games, and reviving these games can evoke cherished childhood memories. Emotional attachment generated through nostalgia reinforces consumers' willingness to engage with culturally significant games, suggesting that marketing strategies highlighting heritage, historical stories, and retro aesthetics can effectively stimulate purchase intention.

Game design quality also had a positive and significant impact ($\beta = 0.150$, $p = 0.007$), consistent with prior research emphasizing the importance of usability, visual appeal, and immersive gameplay in influencing consumer behavior (Hamari et al., 2017; Júnior et al., 2023; Salen & Zimmerman, 2004). In practice, Vietnamese consumers appear to value well-crafted and engaging board games that combine cultural content with high-quality design. This highlights the need for developers to invest in professional game design, balancing aesthetics, clarity of rules, and interactive experience to enhance both enjoyment and perceived value.

The positive effect of social influence on purchase intention ($\beta = 0.126$, $p = 0.038$) supports H5 and aligns with previous findings that recommendations from peers, family,

and cultural communities can shape consumer choices (Bearden et al., 1989; Kim & Sullivan, 2019; Cheung & Thadani, 2012). In the Vietnamese context, cultural products are often consumed in social or family settings, and endorsements from respected community members or social groups can legitimize the purchase of culturally significant board games. Marketing efforts leveraging word-of-mouth, social media communities, and peer engagement are therefore likely to enhance consumer adoption.

Finally, perceived sustainability positively influenced purchase intention ($\beta = 0.137$, $p = 0.035$), supporting H6. This finding is consistent with prior research on environmentally and socially responsible products (Young et al., 2010; Biswas & Roy, 2015; Chen, 2010). Vietnamese consumers increasingly consider ethical production, eco-friendly materials, and support for local artisans when making purchasing decisions. Highlighting sustainable practices in board game production can not only enhance perceived ethical value but also differentiate products in a competitive market, appealing to environmentally conscious and socially aware consumers.

5. IMPLICATIONS AND CONCLUSION

This study contributes to the literature on consumer behavior toward cultural and creative products, particularly traditional board games in Vietnam. Firstly, it extends the Theory of Planned Behavior (TPB) by integrating culturally specific constructs such as cultural relevance and nostalgia, demonstrating their significant roles in shaping purchase intention. Secondly, it provides empirical evidence that while traditional TPB predictors (social influence) remain important, other factors like game design quality and perceived sustainability also play a substantial role in the context of culturally embedded leisure products. Thirdly, the unexpected negative impact of perceived educational value highlights the nuanced interplay between cognitive engagement and hedonic motivation, suggesting that educational features may not always enhance purchase intention in culturally oriented games. Overall, the findings enrich our understanding of how cultural, emotional, and ethical factors jointly influence consumer decisions in the emerging market of traditional board games.

The findings of this study provide actionable insights for board game developers, marketers, and cultural product stakeholders in Vietnam. Firstly, cultural relevance emerged as the strongest predictor of purchase intention, suggesting that designers should prioritize embedding authentic Vietnamese cultural elements such as traditional motifs, historical narratives, and regional folklore into gameplay and visual design. Products that resonate with consumers' cultural identity are more likely to evoke emotional attachment and encourage purchase. Secondly, the significant positive effects of nostalgia, game design quality, social influence, and perceived sustainability indicate multiple avenues to enhance consumer engagement. Developers should leverage nostalgia by reviving familiar games or incorporating retro elements that

evoke childhood or cultural memories. At the same time, investing in high-quality game design including aesthetics, usability, and immersive gameplay, is essential to maintain engagement and perceived value. Social influence underscores the importance of community-based promotion. Marketing strategies should harness peer recommendations, social media groups, and cultural communities to increase credibility and adoption. Collaborations with schools, local cultural centers, and hobby clubs can amplify social validation and word-of-mouth impact. The positive impact of perceived sustainability highlights the growing importance of ethical and environmentally conscious production. Using eco-friendly materials, supporting local artisans, or integrating social responsibility messaging can differentiate products and appeal to socially and environmentally conscious consumers. Finally, the negative effect of perceived educational value suggests that educational content should be carefully balanced with fun and engagement. Board games that are overly didactic may reduce perceived enjoyment and hinder purchase intention. Therefore, developers should integrate learning outcomes subtly within gameplay, ensuring that entertainment remains the primary driver of consumer motivation.

This study is subject to several limitations that should be considered when interpreting the findings. The sampling technique used was confined to Vietnamese consumers in a convenient and snowball way, which may limit the generalizability of the results to other cultural or regional contexts. In addition, while key factors such as cultural relevance, nostalgia, and sustainability were analyzed, other potentially influential variables, such as price sensitivity, exposure to digital board games or marketing strategies were not included. Future research could explore these areas by conducting longitudinal studies to assess changes in consumer behavior over time and by extending the study to other countries or regions for cross-cultural comparisons. Investigating additional constructs, including moderating or mediating factors like cultural identity strength, prior gaming experience, or perceived entertainment value, could further enhance understanding of the determinants of purchase intention for traditional cultural board games.

6. ACKNOWLEDGMENT

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7. REFERENCES

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