Blending Tradition with Trend: Heritage-Inspired Elements in Today's Popular Toys

Lei Chang International College, Krirk University, Thailand changleilei18@163.com ORCID: 0009-0007-5170-4103

Abstract: The popularity of mass-produced, technologically advanced alternatives is causing heritage toys, which are rich in cultural and historical importance, to become increasingly rare. The preservation of cultural legacy for future generations depends on efforts to bring antique toys back to life and incorporate them into modern designs. This study investigates how traditional cultural themes coexist with modern styles to explore how heritage-inspired elements could be included in current toy designs. 500 participants' responses are gathered using a survey-based methodology, which focuses on their preferences for toys with heritage themes. 200 toy buyers were excluded, and the final analysis focused on 300 toy buyers, and participants were chosen according to specific exclusion criteria. When using the Semantic Differential Scale (SDS) to measure consumer perceptions of product satisfaction, feedback questions addressed topics such as design, material quality, functionality, cultural heritage, pricing, and future purchasing intent. It analyses the feedback survey data of heritage-inspired toys using three statistical techniques: cluster analysis, correlation analysis, and multivariate analysis of variance (MANOVA). These findings imply that contemporary fused toys perform noticeably better in terms of consumer satisfaction and appeal than traditional-only toys. These findings highlight how fused toys, which combine traditional and modern design features, improve customer preferences, particularly among parents and regular toy purchasers.

Keywords: Heritage Toys, Consumer Preference, Fusion Design, Consumer Satisfaction, Design Evolution, Toy Market

1. INTRODUCTION

Toys have constantly played a significant part in the life of every child; nowadays, it's not only about enjoyment but also serves as a tool for learning, creativity, and development (Khunyakari, 2023). The toy industry has evolved immensely over the past decades, with technological Toys have constantly played a significant part in the life of every child; nowadays, it's not only about enjoyment but also serves as a tool for learning, creativity, and development (Khunyakari, 2023). The toy industry has evolved immensely over the past decades, with technological advancements and good designs that shape the way children play (Kuryanto et al., 2023). However, a recent trend has caught not only the designers' but also

consumers' attention: the fusion of traditional heritage-inspired elements with modern toys (Colla, 2024). Childhood is a time when children have a strong need to explore and learn about their surroundings, and toys serve as their best companions, guardians, and teachers. Toys provide enjoyment, exploration, perception, mental and physical activity, intellectual capacity, and creativity. The fun that comes with growing up can be seen in toys, which shape the reality of life in unique ways (Harris, 2021). During the initial phase, youngsters use toys to create their own rules that are compatible with both established and emerging social systems. Borders are specified, bans are imposed, appropriate behavior is encouraged, and failure to comply with agreements is sanctioned. Childhood stops being just intriguing and carefree when multi-layered communication ties with the outside world emerge (Williams, 2021). As education and study become more vital, there is less time for toys. Children, on the contrary, find solutions within multimedia and computer games, which allow them to remain with them throughout their childhood, as well as their adult and middle-aged years. Despite rapid shifts in consciousness, duties, and consequences, children continue to desire to play, have favourite toys, and conform to social expectations and standards (Gomes et al., 2021). They longingly recall the attractions of their youth, the toys, and games that defined it, and keep the memories of their childhood in a "survival" item or a still-cherished recollection of play and pleasure. Toys have played an important role in people's lives, relationships, and culture throughout history (Rochanavibhata & Marian, 2022). They were built with a variety of factors in mind, including the idea of manufacturing, material and decoration, method, fundamental use, and market rules (Prashar et al., 2023). Toys have occasionally impacted other artistic professions, like jewelry and ornamentation. Toys in jewelry have a historical foundation and continuation, emphasizing the importance of nonverbal interaction and improving personal and societal awareness (Baires et al., 2023). Both are connected to play in their worlds of fantasy and realism. In a time when toys are currently being dominated more and more by digital and technology-driven ones, it makes heritage elements come in as a refreshing balance. These toys not only entertain children but also interact with them to provide lessons in history, culture, and values. This also aligns with a general societal theme of sustainability and conscious consumption. Such heritage-inspired toys are commonly made from natural, biodegradable, or recycled materials, which further reflect the themes about living in harmony with nature often emphasized in broader cultural heritages (Olivadese & Dindo, 2022). This rise demonstrates the true potential of toys as conduits for cultural preservation, education, and connection in this fast-changing world. This research aims to investigate how heritage-inspired features could be included in modern toy designs, examining how traditional cultural themes coexist with contemporary styles. It proposes to evaluate consumer attitudes and preferences for these toys, with a focus on playability, cultural significance, and aesthetic appeal. It also determines that the toy industry is affected by the fusion of traditional and modern design methods.

1.1 Contribution of the Study

The study examines how different groups view the combination of classic and modern toy designs by examining 300 participants from a range of demographics. The main conclusions show that parents and frequent buyers have a greater preference. The study highlights the great attractiveness of combining traditional and modern aspects by using the Semantic Differential Scale (SDS) to measure consumer impressions of heritage-inspired toys across qualities. The study evaluates and validates the importance of elements including design style, cultural relevance, and purchase frequency in influencing toy preferences using a variety of statistical approaches, such as Cluster Analysis, Correlation Analysis, and Multivariate Analysis Of Variance (MANOVA). The study is organized as follows: Part 2 introduces the related work, Part 3 establishes the methodology, Part 4 displays the results and discussion, and Part 5 provides illustrations of the conclusion.

2. RELATED WORK

Using a presentation of rhythmic, shifting music, Bakr and Rashad explored the practical application of ecological concepts in clothing design (Bakr & Rashad, 2021). The show blends Egyptian heritage-inspired hanging textile printing motifs with clothing concepts based on material recycling. The paper's goal was to pass on cultural value and relevance to future generations while emphasizing the need for sustainable design thinking. The study question was how recycling and environmentally friendly ideas can be used to create a green fashion show. Fourth-year students at Damietta University majoring in textile printing and apparel manufacturing were the target audience for the paper. Using post-colonial, feminist, and post-Marxist scientific and technological studies, along with material semiotics, Thalheim et al. suggested environmental consciousness

and dedication to beach clean-ups (Thalheim et al., 2022). It investigated that beach clean-ups improve awareness of marine litter and encourage environmental stewardship via participant observation and interviews. According to the study, participation in clean-ups frequently elicits emotional responses, and individuals consider ways of knowing debris to justify their engagement. The assessment criteria for the effective marketization of dummy puzzle toys were examined by Ling et al. with particular attention to pricing, product, and process (Ling et al., 2023). The results show that these characteristics have a substantial impact on the achievement of this cultural legacy. Fang et al. (2024) examined the usage of SPSS to assess participant responses to identify cultural and artistic items in museums that are appealing to children. It also investigated how these affect children's psychosocial development and development. The study used the infant theory of cognitive development to demonstrate that children's mental and emotional resonance with museum objects grows through association with toys, leading parents to acquire products that improve their children's educational experience and cognitive development. Ideas of imaginary pasts were replacing the concept of history in popular historical culture, as described by Kühberger (Kühberger, 2021). There was little discernible difference between cognitive reconstructions and imaginings in Austrian children's rooms, according to ethnographic studies. Using a randomized controlled study that measures mental capacity and emotional wellness indicators, Cheng et al. examined how training with timber toys affects memory loss in elder adults with intellectual injury (Cheng et al., 2024). The study aimed to ascertain whether the training can slow or reverse the evolution of reasoning failure. The switch to Generation Z consumers and market growth since 2018 were the main topics of the paper published by Ji and Perez, which examined China's designer toy industry (Ji & Perez, 2023). It highlighted the influence of audience behavior and community organization on advertising, marketing, and suggestion systems. Children's cultural and creative products can be scientifically categorized using a 3D clustering diagram described by Tan et al. (Tan et al., 2024). These commodities can be divided into four categories, according to the study: educational interaction, technology integration and popularization of cultural science. The strategy is thought to be dependable and repeatable, assisting designers with the positioning of products, innovation, and satisfying various child demands, as well as promoting marketing and sales. Choosing suitable colors from traditional patterns for children's product design was the aim of the article by Liang and Hangeldiyeva (Lin &

Hangeldiyeva, 2024). Software like Photoshop, Adobe Color, and EasyRGB were used to eliminate five noticeable decorations from Turkmen national carpets. Two different surveys were conducted using the enhanced colors that were recovered. While the second survey revealed 11 extremely popular schemes, the first poll found 25 colors that had a confident, expressive influence on customer favorites. The study offered new color structures for kids' items based on old-style Turkmen designs that are consistent with consumers' psychological views. Through the consideration of novelty and perceived value, Zhang et al. examined that customer innovativeness influences willingness to pay (Zhang et al., 2020). The perceived uniqueness and inventiveness of a product affect consumers' willingness to pay, according to a survey of 399 Chinese individuals. The connection between these characteristics was mediated by perceived social value. As innovation grows, so does its impact on societal value. The study provided advice for researchers as well as practitioners. The longevity of children's toys and the variables influencing green design choices were also examined by Tu et al. (Tu et al., 2022). To learn more about the values and behavior of consumers, it performed surveys, expert interviews, and literature reviews. Utilizing non-toxic materials, preserving toy disassembly, polishing toys for aesthetic appeal, upgrading educational purposes, increasing recycling, emphasizing green packaging, developing a green brand, and pushing for green design value were among the decisionmaking criteria. The insights can help designers and businesses create more sustainable products. Zhang et al. investigated that Yueqing Fine Lines Carved Paper culture may be integrated into children's toys for learning to address the survival issue while also promoting cultural inheritance and creativity (Zhang et al., 2023). It extracts, classifies, deconstructs, and recombines cultural memes to generate a framework of design for cultural products. With an emphasis on pedagogical research, Semiz explored the role that toys play in children's material culture (Semiz, 2022). Toys foster creativity, cognitive abilities, and personality development. Future studies ought to take into account the opinions of both adults and children, as well as social customs and the incorporation of improvised toys into institutional and domestic contexts. Additionally, it suggested that curricula in primary and secondary schools include local customs. Wang and Hu suggested a system for producing innovative strategy schemes for soft toy companies using expansion theory (Wang & Hu, 2024). It introduced the theory of primitive beings, used expansion primitives to build problematic prototypes, employed expansion rhombus intellectuals for brainstorming and divergence, and used expansion analysis to define brand identity

elements. The approach then converted these components over delay change to generate novel brand strategy systems. Through pictorial expression, Hatef Jalil et al. explored the potential of motif design to maintain and advance Orang-Ut Ulu's cultural individuality (Jalil et al., 2024). It highlighted the importance of art in expressing culture by showing the first Orang-Ut Ulu woven fabric in three-dimensional graphic form. The project employed a mixed-methods approach, focusing on study and motivation in the Orang Ulu materialistic market, 2D motif enterprise conceptualization, and 3D artistic formation. The findings indicate that adding Orang-Ut Ulu motifs into garment goods could help maintain and promote the Orang-Ut Ulu heritage of culture while also offering economic benefits to the community.

3. METHODOLOGY

The methodology adopts a survey-based approach in collecting feedback from 500 participants, focusing on preferences related to heritage-inspired toys. Participants were selected based on particular exclusion criteria; the final analysis is on 300 toy buyers. Feedback questions covering areas like design, material quality, functionality, cultural heritage, pricing, and future purchasing intent in gauging consumer perceptions toward the satisfaction of the products are displayed in Figure 1.

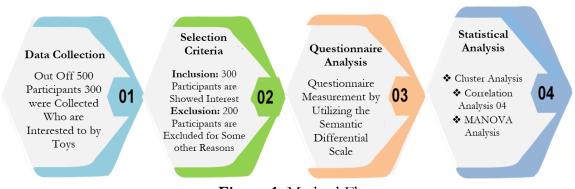


Figure 1: Method Flow

3.1 Data Collection

Under the data collection, 500 participants who expressed interest in toys and 300 toy buyers were targeted based on their purchasing behavior and demographics. The gathered data includes information related to factors such as age and gender, income, and the likes or dislikes towards heritage-inspired toys combining the old into new trends and ways. These participants gave rich data about their attitude toward toys that affect the

current market trend and the designing strategies for heritage-inspired products. The study toys comprise wooden dolls, spinning tops, handcrafted action figures, and other classic board games, all unique with a traditional and innovative feel to them. Toys within the study that combine traditional craftsmanship with modern innovative designs to appeal to diverse consumer tastes are shown in Table 1.

Table 1: Demographic Data

Demographic	Categories	Number of	Percentage	
Factors		Participants	(%)	
Age	25-34 years	170	56.6%	
	35-44 Years	80	26.6%	
	45+ Years	50	16.6%	
Gender	Male	130	43.3%	
	Female	170	56.6%	
Region of Residence	Urban	200	66.7%	
	Suburban	80	26.7%	
	Rural	20	6.7%	
Frequency of Toy	Once a Year	30	10%	
Purchases	Several Times a Year	120	40%	
	Monthly	90	30%	
	Weekly	60	20%	

3.2 Selection Criteria

The inclusion and exclusion criteria are the two types found in the selection criteria. The inclusion criteria include participants with an active interest in heritage-inspired toys; this falls in line with the objective of exploring consumer preference for traditional or modern toy blends depicted in Figure 2.

Inclusion Criteria: The screening included 300 participants who showed interest in toys. They were consumers actively seeking to purchase the product and were chosen based on demographics such as age, sex, income, and the choice of heritage-inspired designs. Participants within this category had a clear interest in traditional and modern-day mixes of toys and were, thus, ideal candidates for conducting this research.

Exclusion criteria: The number of participants excluded from the study was 200. To state this more elaborately, it could include the elderly who could not possibly buy toys, participants who had no interest in heritage-inspired toys, or responses with incomplete or simply irrelevant information. Thirdly, individuals whose buying behavior was not even remotely related to toys or did not participate in the toy market actively were excluded from the study as well.

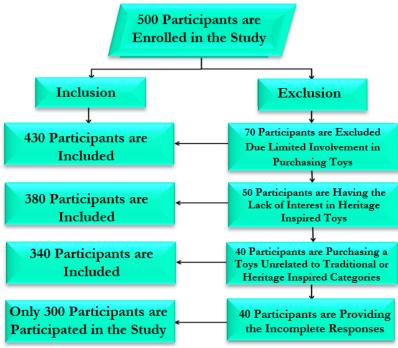


Figure 2: Process of Selection Criteria

3.3 Questionnaire Measurement Utilizing the Semantic Differential Scale (SDS)

Customer attitudes and impressions of heritage-inspired toys are measured using SDS, which captures complex viewpoints spanning bipolar qualities like "Traditional–Modern" and "Affordable–Expensive." For assessing subjective perceptions of design, quality, and cultural relevance, it offers a versatile and comprehensive approach. To enable participants to rank their perceptions over 7-point measures, the scale is usually created using contrasting descriptions to anchor the extremes. While a 7 denotes "very high interest or attractive," a 1 could suggest a preference for "low interest or low attractiveness," and intermediate values would show varied degrees of balance between the two. Table 2 describes a seven-point SDS that is used to evaluate how customers view heritage-inspired toys in terms of design, quality, and value. To get detailed feedback, respondents score their experiences using opposing descriptors.

Table 2: Scale Measurement

Attributes	Measurements
Design Style	Traditional (1) – Modern (7)
Cultural Relevance	Irrelevant (1) – High Relevant (7)
Quality Perception	Low Quality (1) – High Quality (7)
Material Durability	Fragile (1) – Durable (7)
Aesthetic Appeal	Unattractive (1) – Attractive (7)
Playability	Boring (1) – Exciting (7)

3.4 Questionnaire Analysis

The feedback questions are designed to create an understanding of several aspects of heritage-inspired toys, including the coexistence of traditional and modern design elements. The factors assessed include design, material quality, playability, usability, appeal to the target children age group 10-15 years, cultural heritage representation, and uniqueness from alternatives in the market. The study further assessed the perceptions of customers on the value for money, satisfaction regarding their experience with shopping, and the intent to purchase similar toys in the future. Table 3 depicts a sample of survey-based questions.

Table 3: Feedback Questionnaires'

	Table 3. I cedback Questionnaires
Q.NO	Questionaries'
1	How Would You Rate the Overall Design of the Toy (Heritage-Inspired
	and Modern Elements)?
2	How Would You Describe the Blend of Heritage and Modern
	Techniques in the Toy?
3	How Do You Perceive the Quality of Materials Used in the Toy?
4	How Satisfying is the Toy's Functionality (Playability, Usability)?
5	How Would You Rate the Toy's Appeal to the Target Age Group (10-15
	Years)?
6	How Would You Rate the Cultural Heritage Elements in the Toy?
7	How Would You Rate the Uniqueness of this Toy Compared to Other
	Toys in the Market?
8	How Do You Feel About the Toy's Pricing About its Perceived Value?
9	How Would You Describe Your Overall Satisfaction With the Shopping
	Experience?
10	How Likely are You to Purchase Another Toy With Similar Features in
	the Future?

3.5 Statistical Analysis

Using SPSS software, three statistical techniques were employed for analyzing the feedback survey data of heritage-inspired toys: Descriptive analysis summarizes participant demographics and responses, as well as identifies general trends in consumer behavior; cluster analysis segments participants based on their similarities in preferences and could help in inferring that there are different consumer profiles; and correlation analysis digs into the relationship in variables, such as features in design and satisfaction, and helps identify key drivers of consumer perceptions. MANOVA examines the impact of multiple factors, like age and gender, on overall satisfaction, allowing us to understand how these elements influence toy preferences. These analyses support the objective of

improving toy designs by gaining a deeper understanding of consumer preferences and enhancing product offerings tailored to target audiences.

4. RESULT AND DISCUSSION

This study examines how traditional cultural themes interact with modern styles to explore how heritage-inspired elements could be included in current toy designs. With an emphasis on playability, cultural importance, and aesthetic appeal, it aims to assess consumer attitudes and preferences for these toys. It also concludes that the combination of traditional and modern design techniques has an impact on the toy sector.

4.1 Cluster Analysis

Based on customer preferences for toys with a heritage theme, the cluster analysis identifies three different groupings, as presented in Table 4. With the highest overall preference score of 5.2 ± 0.8 , Cluster 1, which includes parents and frequent toy buyers, shows a strong preference for toys that combine classic and modern design principles. These participants exhibit a balanced mix of genders and a strong inclination towards weekly or monthly toy purchases. Cluster 2, which represents infrequent purchasers, has a moderate preference score of 4.1 ± 1.1 . This cluster features a somewhat larger percentage of females, more non-parents, and a more irregular buying behavior. With a score of 3.2 ± 1.3 , Cluster 3, which is primarily made up of non-parents and infrequent consumers, exhibits the lowest preference, suggesting that heritage-modern fusion toys are not as well received. These results highlight how fusing traditional and contemporary design features greatly increases consumer appeal, particularly with parents and regular toy purchasers.

Table 4: (a) Cluster Analysis

Cluster	Age	Gender	Parent status	Frequency	Overall
	Group	(Male/Female)	(Parent/Non-	of Toy	Preference
	(Mean		Parent)	Purchases	Score
	±SD)			(Monthly	(Mean
				/ Weekly)	±SD)
Cluster 1:	35.2 ±	50% Male / 50%	70% Parents /	70%	5.2 ± 0.8
High	8.7	Female	30% Non-	Monthly /	
Preference			Parents	30%	
(Parents &				Weekly	
Frequent					
Buyers)					

Table 4: (b) Cluster Analysis

Cluster	Age Group (Mean	Gender (Male/ Female)	Parent status (Parent/Non- Parent)	Frequency of Toy Purchases	Overall Preference Score
	±SD)			(Monthly / Weekly)	(Mean ±SD)
Cluster 2:	$42.4 \pm$	40% Male /	40% Parents /	50%	4.1 ± 1.1
Moderate	10.1	60% Female	60% Non-	Monthly /	
Preference			Parents	50% Once a	
(Occasional Buyers)				Year	
Cluster 3:	$50.1 \pm$	30% Male /	20% Parents /	20% 2	± 1.3
Low	12.3	70% Female	80% Non-	Monthly /	
Preference			Parents	80% Once a	
(Non-				Year	
Parents &					
Infrequent					
Buyers)					

4.2 Correlation Analysis

Consumer characteristics and preferences for toys with heritage influences are significantly positively correlated, according to the correlation analysis based on demographic data (Table 5). The frequency of toy purchases and overall happiness have the strongest link ($\mathbf{r}=0.81$, $\mathbf{p}<0.001$), suggesting that regular customers are happier with heritage-modern fused toys. Additionally, there is a considerable correlation between parent status and purchase frequency ($\mathbf{r}=0.79$, $\mathbf{p}<0.001$), indicating that parents are more interested in purchasing these items. Additionally, there is a strong correlation between the sense of cultural significance and the region of residence ($\mathbf{r}=0.74$, $\mathbf{p}<0.01$), indicating that urban participants place a higher importance on cultural components. These results confirm that the favorable reception of heritage-modern fused toys is influenced by demographic characteristics, including purchase frequency and parent status.

Table 5: Correlation Analysis

Factors	Correlation	P-
	Coefficient (R)	Value
Age Vs. Preference for Heritage-Modern Toys	0.68	< 0.01
Gender Vs. Likelihood of Purchase	0.62	< 0.05
Region of Residence Vs. Cultural Relevance	0.74	< 0.01
Perception		
Parent Status Vs. Purchase Frequency	0.79	< 0.001
Frequency of Toy Purchases Vs. Overall Satisfaction	0.81	< 0.001

4.3 MANOVA Analysis

Based on several variables, the MANOVA analysis in Table 6 shows notable differences between categories. Responses from different age groups varied more and more, with older groups showing the biggest variance. Differences by gender also surfaced, with women responding more frequently than men. The results were significantly impacted by the kinds of materials used in toys, such as constructing models, with some materials having a greater effect than others. Puppets had the least impact, but wooden toys showed the greatest effects. This investigation shows that combining traditional and contemporary toy design methods improves consumer pleasure and perception.

Table 6: MANOVA Analysis

Variables	Categories	Sum of Squares	Df	Mean Square	F-Value
Age	0-5	50.4	2	25.2	4.6
	6-10	60.2	2	30.1	5.5
	11-15	70.5	2	35.25	6.2
Gender	Male	40	1	40	3.5
	Female	60	1	60	5
Types of	Wooden	65	3	21.67	4.2
Material	Building Model	75	3	25	5
	Musical	50	3	16.67	3
	Instruments				
	Puppets	40	3	13.33	2.5

4.4 Semantic Differential Scale Analysis

Modern approach fused toys score strongly across several qualities, according to the SDS analysis presented in Table 7 and Figure 3. Strong customer preference for the fusion of traditional and modern components is indicated by the 50% rating design style as very high and the 45% rating cultural significance as very high. 48% of participants thought the aesthetic appeal was attractive, and half gave the perception of quality and material durability very good ratings. Furthermore, 50% of respondents gave playability a very high rating, indicating greater interest in contemporary methods fused toys. These findings support the notion that higher customer satisfaction emerges from fusing contemporary methods with traditional components.

70 1 1		ODO	A 1	•
Table	/•	SDS	Anal	WS1S
I abic	/ •		1 MIIAI	. y OIO

Attribute	Score 1-2 (Low) (%)	Score 3-4 (Moderate)	Score 5-6 (High) (%)	Score 7 (Very
		(%)		High) (%)
Design Style	15 (5)	45 (15)	90 (30)	150 (50)
Cultural Relevance	9 (3)	36 (12)	120 (40)	135 (45)
Quality Perception	12 (4)	30 (10)	108 (36)	150 (50)
Material Durability	15 (5)	45 (15)	105 (35)	135 (45)
Aesthetic Appeal	6 (2)	24 (8)	126 (42)	144 (48)
Playability	18 (6)	54 (18)	78 (26)	150 (50)

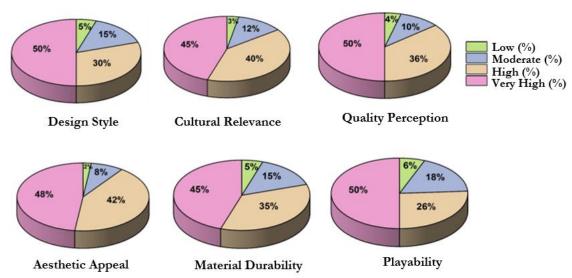


Figure 3: Overall Satisfaction

This study examines consumer preferences for toys that combine elements of contemporary design with heritage inspiration, with an emphasis on playability, cultural significance, and visual appeal. As shown by several analyses, this study shows that toys that combine old heritage features with contemporary design techniques are popular with customers. Three different groups were found using cluster analysis; the highest preference score was 5.2 ± 0.8 for Cluster 1 (parents and frequent toy buyers), followed by 4.1 \pm 1.1 for Cluster 2 (occasional buyers), and 3.2 \pm 1.3 for Cluster 3 (non-parents and infrequent consumers). The popularity of heritage-modern fused toys was further supported by correlation analysis, which revealed a substantial relationship between parent status and purchase frequency (r = 0.79, p < 0.001) and a strong positive relationship between frequency of toy purchases and overall satisfaction (r = 0.81, p < 0.001). With F-values demonstrating considerable differences across age groups and material types, MANOVA analysis demonstrated that the combination of traditional and modern materials, especially wooden toys, had a major impact on customer pleasure. Finally, according to the SDS analysis, 50% of participants gave design style and playability very high ratings, and 45% gave cultural relevance and quality perception similarly high ratings. These findings imply that contemporary fused toys perform noticeably better in terms of consumer satisfaction and appeal than traditional-only toys. These findings highlight how fused toys, which combine traditional and modern design features, improve customer preferences, particularly among parents and regular toy purchasers.

5. CONCLUSION

This study shows that customers, especially parents and regular toy shoppers, prefer toys that combine old heritage aspects with contemporary design techniques. Using both traditional and modern elements in toy design greatly improves appeal, contentment, and perceived value, according to research conducted using cluster, correlation, MANOVA, and SDS approaches. When compared to traditional toys alone, modern technique-fused toys, especially the ones that incorporate high-quality materials like wood, were found to excel in playability, visual appeal, cultural significance, and durability, resulting in a more positive customer response. This demonstrates how crucial it is for the toy industry to combine tradition and contemporary innovation to satisfy changing consumer tastes. This study's utilization of self-reported data, which could induce bias in consumer choices, is one of its limitations. Future studies should examine how certain aspects of heritage influence toy design and evaluate the long-term attraction of heritage-modern fusion toys for different age groups and geographical areas. Deeper insights into global consumer preferences would be obtained by broadening the scope to include cross-cultural comparisons and other toy categories.

References

- Baires, N. A., Cañón, L. F., García-Zambrano, S., Guerrero-Wickham, P., & Castro-Hostetler, M. (2023). A contextual behavioral framework for enhancing cultural responsiveness in behavioral service delivery for Latino families. *Behavior Analysis in Practice*, 16(4), 938-962.
- Bakr, D. K., & Rashad, R. M. (2021). Sustainable thinking in design: An integrated practical approach between fashion design and printed hanging textiles. *Journal of Heritage and Design*, 2(9), 353-375.
- Cheng, Q., Wang, H., Cui, M., Wang, Q., & Li, L. (2024). Efficacy of wooden toy training in alleviating cognitive decline in elderly individuals with cognitive impairment: A cluster randomized controlled study. *Plos one*, 19(10), e0309685.

- Colla, M. (2024). A Monument to Friendship: Socialist Modernity and the Reconstruction of Tashkent, 1966–1975. In Rethinking Socialist Space in the Twentieth Century (pp. 251-282). Springer.
- Gomes, J., Almeida, S. C., Kaveri, G., Mannan, F., Gupta, P., Hu, A., & Sarkar, M. (2021). Early childhood educators as COVID warriors: Adaptations and responsiveness to the pandemic across five countries. *International Journal of Early Childhood*, *53*, 345-366.
- Harris, P. L. (2021). Early constraints on the imagination: The realism of young children. *Child Development*, 92(2), 466-483.
- Jalil, M. H., Abdullah, Q. D.-L., Wong, N. R., Hoon, L. N., & Amaran, M. A. (2024). Art inheritance: Revitalizing traditional material culture motifs through innovative graphic design and artistic expression. *Journal of Graphic Engineering and Design*, 15(4), 5-17.
- Ji, M., & Perez, C. M. (2023). Marketing Strategies of Selected Online Small and Medium-sized Toy Enterprises in Shantou City, Guangdong, China. *International Journal of Education and Humanities*, 11(3), 397-401.
- Khunyakari, R. (2023). Toys, Design and Technology: Intergenerational Connects and Embodied Cultural Practices. In *Indigenous Technology Knowledge Systems:* Decolonizing the Technology Education Curriculum (pp. 103-119). Springer.
- Kühberger, C. (2021). Of dragons and dinosaurs: How children's toys and games create ideas of the past, of history and of fiction. *History Education Research Journal*, 18(2), 183-198.
- Kuryanto, M. S., Hashemi, R. M., & Kironoratri, L. (2023). The Impact of Traditional Toys on the Character Value of Creation of Karsa Children, Karanganyar Village, Jepara. *Journal On Education*, *5*(4), 14307-14313.
- Lin, L. L., & Hangeldiyeva, N. (2024). Harmonizing culture and consumer psychology: optimizing color schemes for children's product design inspired by traditional ornaments. *BMC psychology*, 12(1), 161-161.
- Ling, K., Xi, Z., Xu, X., & Zhong, J. (2023). Research on the Marketing Strategy of POP MART Based on Chinese Market. *Highlights in Business, Economics and Management*, 23, 800-808.
- Olivadese, M., & Dindo, M. L. (2022). Historic and contemporary gardens: a humanistic approach to evaluate their role in enhancing cultural, natural and social heritage. *Land*, 11(12), 2214.
- Prashar, G., Vasudev, H., & Bhuddhi, D. (2023). Additive manufacturing: expanding 3D printing horizon in industry 4.0. *International Journal on Interactive Design and Manufacturing (IJIDeM)*, 17(5), 2221-2235.
- Rochanavibhata, S., & Marian, V. (2022). Culture at play: A cross-cultural comparison of mother-child communication during toy play. *Language Learning and Development*, 18(3), 294-309.
- Semiz, M. Ž. (2022). Toys as Artifacts of the Material Culture of Children and Childhood: Implications for Future Research. *Teme-Časopis za Društvene Nauke*, 46(2), 399-416.
- Tan, Z., Zhou, Y., Lin, S., Deng, M., Yuan, Z., & Tang, S. (2024). Types of children's cultural and creative products based on a card sorting method. In 15th International Conference on Applied Human Factors and Ergonomics (AHFE 2024).

- Thalheim, T., Aust, G., & Galle, J. (2022). Organoid cultures in silico: Tools or toys? *Bioengineering*, 10(1), 50.
- Tu, J.-C., Chu, K.-H., Gao, D.-Z., & Yang, C. (2022). Analyzing decision-making factors of green design for kid's toys based on the concept of product lifecycle. *Processes*, 10(8), 1523.
- Wang, L., & Hu, T. (2024). A Method for Creative Scheme Generation for Brand Design of Plush Toys Based on Extension Theory. *International Journal of Knowledge and Innovation Studies*, 2(1), 1-10.
- Williams, A. (2021). 'My Mother Laughs, but She Never Smiles': Children, Mothers, and Migration in Contemporary Swedish Literature and Life Writing. In *Close Relations: Family, Kinship, and Beyond* (pp. 121-136). Springer.
- Zhang, B., Lu, G., Song, D., & Liu, H. (2023). Research on Children's Educational Toy Design of Yueqing Fine Lines Engraved Paper in the Memetics Perspective. *Journal of Innovation and Development*, 5(3), 58-61.
- Zhang, F., Sun, S., Liu, C., & Chang, V. (2020). Consumer innovativeness, product innovation and smart toys. *Electronic Commerce Research and Applications*, 41, 100974.