The Purchase of Museum Cultural Creative Products and Intercultural Communication

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Abstract. The research delves into how museum cultural and creative products contribute to intercultural dialogue. It focuses on Chinese youth consumers and their interactions with the products of the Louvre Museum. Using the Theory of Planned Behavior (TPB) and the Stimulus-Organism-Response (S-O-R) model, the research examines how perceived value (functional, emotional, and social) impacts consumer behavior. To explore the influence of attitudes, subjective norms, and perceived behavioral control on purchase intention, utilizing a questionnaire survey and structural equation modeling (SEM).The findings highlight that museum products serve as effective tools for cross-cultural communication, with emotional value and subjective norms playing a critical role. This study offers insights into how museums can leverage cultural products and digital platforms to foster deeper cross-cultural engagement.

Keywords: museum, cultural products, intercultural communication, purchase behavior

1 Introduction

Globalization and advances in information technology have made intercultural communication essential for fostering cultural diversity and international exchange[1]. Museums play a key role in this by preserving and showcasing cultural heritage, helping bridge cultural gaps through creative products[2]. These products not only serve economic purposes but also enhance public engagement and cultural understanding[3].Digital technologies further extend this influence by allowing museums to reach global audiences. Social media, e-commerce, and other platforms enable museums to share their cultural heritage with wider, more diverse groups, regardless of geographical barriers[4].This digital shift is transforming how consumers interact with museum cultural products, making intercultural communication more accessible than ever before[5].

This paper uses the Louvre, the world's most-visited art museum[6], as a case study to explore the practical implications of intercultural communication. By applying the Theory of Planned Behavior (TPB) as the core structure[7], combined with the S-O-R model[8] and Customer Value Theory[9], this study examines the purchasing inten-

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tions of Chinese youth toward the Louvre's cultural products. Analyzing the effectiveness of these products in cross-cultural communication and provides recommendations for optimization. The findings offer theoretical and practical insights into how museums can enhance intercultural communication in the era of Intelligent Media, contributing new perspectives to the field of cultural exchange.

2 Literature Review

2.1 Museum Cultural and Creative Products

Museum cultural products are developed from museum heritage and utilize creative design to spread cultural value [10]. By engaging with these products, consumers can experience the cultural charm of the museum while using or appreciating them. As a core component of the creative industries, museum cultural products include physical or digital goods and services based on cultural elements, artistic design, and innovative thinking[11][12].

2.2 Museums and Intercultural Communications

Through their cultural offerings, museums help visitors connect with different cultures[13].According to Aririguzoh S, globalization has made it crucial for individuals from various cultures and countries to interact and collaborate[14].Intercultural communication effectively reshapes how information is conveyed and exchanged between individuals from diverse cultural contexts, enhancing the presentation and sharing process across diverse cultures.Chen, Xu and Xiao state that museum products promote cultural consumption and increase public interest and involvement in museums[15].

2.3 Dissemination Methods of Museum Cultural and Creative Products

The application of modern and advanced media technologies enables museums to disseminate their cultural offerings through personalized and multi-channel platforms, including social media, e-commerce and virtual reality.These technological advancements facilitate the overcoming of geographical barriers.[16].These technological advancements enable consumers to engage with museum products in innovative ways, combining cultural heritage with modern markets and fostering cross-cultural communication[17][18].

2.4 Development of Louvre's Cultural and Creative Products

The Louvre has focused on expanding its digital presence to showcase its collections and events. Instagram takeovers by artists and have helped create buzz around the museum's offerings[19].

Brand Expansion and Merchandising: The museum has engaged in cultural partnerships and alliances, sharing exhibits with other institutions and creating exclusive

branded collections[20].The Louvre has extended its cultural reach through strategic partnerships. Collaborations with UNIQLO and M/M (Paris) combined historic art with modern fashion, while the 2024 partnership with POP MART introduced toy collections inspired by classical art. These efforts aim to engage a younger, global audience and enhance the museum's cultural presence.

2.5 Research Gaps

Current literature on museum cultural and creative products focuses on marketing strategies, branding, and enhancing consumer experiences.[21]. A study of China's museum industry indicates that effective marketing tactics, such as social media and e-commerce, have played a role in shaping cultural and creative sectors by harmonizing products with consumer anticipations and contemporary technology[22].

Researches have explored how cultural and creative product design conveys cultural signs and symbolism.[23]. Nonetheless, there is a notable scarcity of studies regarding the distinct function of museum cultural and artistic outputs in intercultural dialogue and their influence on the comprehension and exchange of culture among groups from varied cultural origins. These creative items in museums are vital for cross-cultural communication, fostering comprehension and esteem for different cultures. Understanding consumer motivations and factors like cultural differences and pricing is vital for museums to enhance their product design and competitiveness. By aligning design with the museum's image and leveraging innovative approaches, museums can develop culturally significant products with market appeal, contributing meaningfully to cross-cultural communication and exchange.

3 Methodology

3.1 Theoretical Framework

3.1.1 Theory of Planned Behavior (TPB).

Ajzen's Theory of Planned Behavior delves into the driving forces and determinants of consumer buying patterns for cultural items from international museums, elucidating the impact of consumer perspectives, personal standards, and perceived behavioral regulation on the intent to purchase these cultural items[7]. This theoretical model sheds light on how these elements affect consumer actions in the realm of cultural consumption.

3.1.2 Customer Value Theory.

While TPB explains how intentions form, it lacks in-depth analysis of why consumers evaluate products positively or negatively. This gap is filled by introducing Customer Value Theory, which provides insights into perceived value from multiple dimensions: functional, emotional, and social values[9].This theory underscores the influence of functional, emotional, and social value on consumer evaluations of cultural products. From a perspective based on the customer-product relationship we can ac-

quire a deeper insight into the role of various value types in shaping consumer buying decisions. It more effectively uncovers the layered assessment of cultural and creative products by consumers and their decision-making processes in purchasing.

3.1.3 Stimulus-Organism-Response (S-O-R) Model.

S-O-R model was originally proposed by Mehrabian and Russell[8]. This elucidates the influence of external environmental factors (S) on a person's inner emotional and cognitive conditions (O), subsequently triggering distinct behavioral reactions (R).The model emphasizes that the individual's organism mediates the relationship between external stimuli and behavioral outcomes. The model illustrates how external stimuli (e.g., museum products) trigger consumers' emotional and cognitive responses, which in turn influence their purchasing behavior. Merging TPB (Theory of Planned Behaviour) with S-O-R (Stimulus-Organisation-Response) frameworks more effectively elucidates the way museum cultural items serve as catalysts for eliciting emotional and cognitive reactions in consumers, thereby shaping purchase intentions.

The theoretical framework is shown in Figure 1.

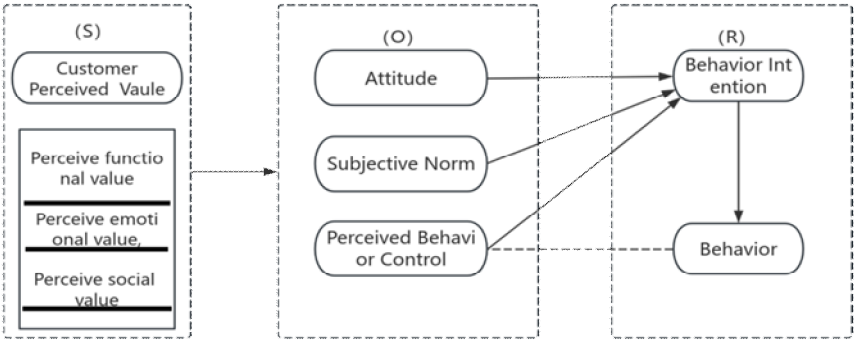

Fig. 1. Theoretical Framework Diagram

3.2 Hypothesis

H1a:Functional value positively influences behavior attitude
H1b:Functional value positively influences subjective norm
H1c:Functional value positively influences perceived behavioral control
H2a: Emotional value positively influences behavior attitude
H2b:Emotional value positively influences subjective norm
H2c:Emotional value positively influences perceived behavioral control
H3a:Social value positively influences behavior attitude
H3b:Social value positively influences subjective norm
H3c:Social value positively influences perceived behavioral control
H4a:Attitude positively influences purchase intention

H4b:Subjective norms positively influence purchase intention
H4c:Perceived behavioral control positively influences purchase intention

3.3 Method

A structured questionnaire was utilized to evaluate pertinent variables, while structural equation modeling (SEM) was deployed to assess relationships between these variables.

4 Reliability and Validity

4.1 Reliability

Cronbach's Alpha coefficients: the seven variables are presented here with 0.885, 0.877, 0.944, 0.921, 0.872, 0.867, and 0.909, which were all above 0.8. This indicates that the questionnaire used in this study has a high reliability.

4.2 Validity

To validate the scale, exploratory and confirmatory factor analyses were conducted. The KMO test and Bartlett's test indicated that the data were suitable for factor analysis, with a KMO value > 0.7 and $p < 0.05$.

4.2.1 Exploratory Factor Analysis (EFA).

As shown in Table 1, factor analysis validated the scale, with a KMO > 0.8 and Bartlett's test yielding $p < 0.001$, confirming the data's suitability for further analysis.

Table 1. KMO and Bartlett's Test

KMO value		0.897
Bartlett Sphericity Check	approximate chi-square (math.)	7709.686
	df	325
	p-value	0.000

Common factors were pinpointed using principal component analysis. The rotated variance explained rate was 78.864%, exceeding the 70% threshold, with the first factor explaining 12.776%, indicating no significant common method bias. All factor loadings for the seven constructs were above 0.7, demonstrating good structural validity.

4.2.2 Confirmatory Factor Analysis (CFA).

Confirmatory factor analysis (AMOS 26.0) confirmed the accuracy of the scale's framework. Each of the seven variables demonstrated combined dependability (CR > 0.7) and mean variance (AVE > 0.5), affirming their robust convergent validity.

4.2.3 Model Results.

The model fit indices indicated good validity, with a chi-square/df ratio of 2.703 (< 3), CFI, IFI, TLI, and NNFI all above 0.9, and RMSEA at 0.066 (< 0.10), confirming that the factor analysis model fits the data well.

4.3 Correlation Analysis

As shown in Table 2, correlation analysis indicated significant positive relationships between functional value ($\beta = 0.471$, $p < 0.01$), emotional value ($\beta = 0.441$, $p < 0.01$), social value ($\beta = 0.400$, $p < 0.01$), and purchase intention. Additionally, behavioral attitude ($\beta = 0.449$, $p < 0.01$), subjective norms ($\beta = 0.483$, $p < 0.01$), and perceived behavioral control ($\beta = 0.500$, $p < 0.01$) strongly influenced purchase intention, showing that both value perceptions and psychological factors affect purchasing decisions.

Table 2. Pearson Related

	FV	EV	SV	BA	SN	PBC	PI
FV	1						
EV	0.551**	1					
SV	0.268**	0.300**	1				
BA	0.426**	0.494**	0.354**	1			
SN	0.365**	0.380**	0.302**	0.397**	1		
PBC	0.327**	0.363**	0.226**	0.293**	0.349**	1	
PI	0.471**	0.441**	0.400	0.449**	0.483**	0.500**	1

*p<0.05 p<0.01

5 Results

5.1 Demographics

The sample consisted primarily of young adults aged 22-27, with an even gender distribution. Most participants held a bachelor's degree and expressed a strong interest in cultural products, particularly those related to museums.

5.2 Structural Equation Modeling (SEM) for Hypothesis Testing

A structural equation model was constructed using AMOS 26.0 to test the causal relationships between the variables based on the correlation analysis. The model is shown in Figure 2.

In terms of external stimuli, functional, emotional, and social values significantly influenced behavioral attitude (H1a: $\beta = 0.180$, $p < 0.004$; H2a: $\beta = 0.374$, $p < 0.000$; H3a: $\beta = 0.182$, $p < 0.000$), subjective norms (H1b: $\beta = 0.219$, $p < 0.001$; H2b: $\beta = 0.272$, $p < 0.000$; H3b: $\beta = 0.182$, $p < 0.000$), and perceived behavioral control (H1c: $\beta = 0.179$, $p < 0.011$; H2c: $\beta = 0.277$, $p < 0.000$; H3c: $\beta = 0.119$, $p < 0.029$).

For internal factors affecting purchase intention, behavioral attitude ($\beta = 0.264$, $p < 0.000$), subjective norms ($\beta = 0.304$, $p < 0.000$), perceived behavioral control ($\beta = 0.398$, $p < 0.000$) significantly impacted the purchase intention, supporting hypotheses 4a, 4b, and 4c.

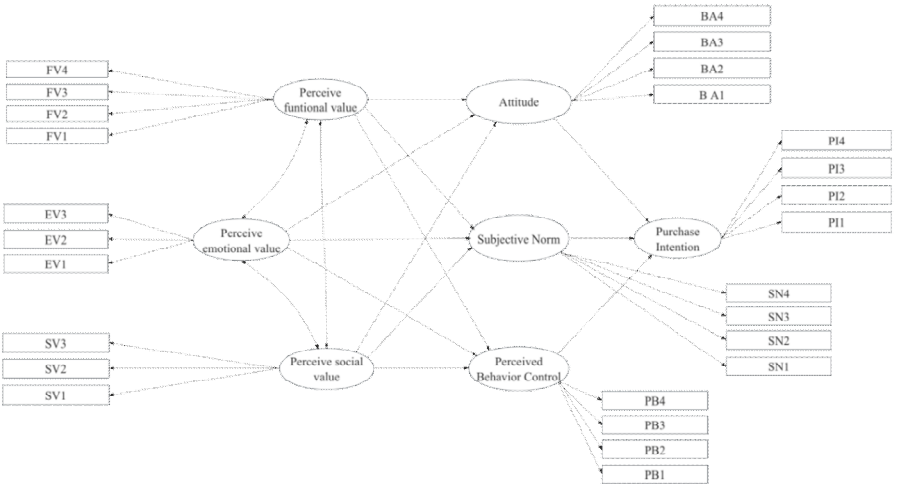

Fig. 2. Model Diagram

5.3 Model Results

As shown in Table 3, the model fit analysis showed a chi-square/df ratio of 2.703 (<3), with CFI, IFI, TLI, and NNFI all above 0.9, and RMSEA at 0.066 (<0.10), indicating the factor analytic model demonstrates strong validity and fit. Figure 3 shows the model validation diagram

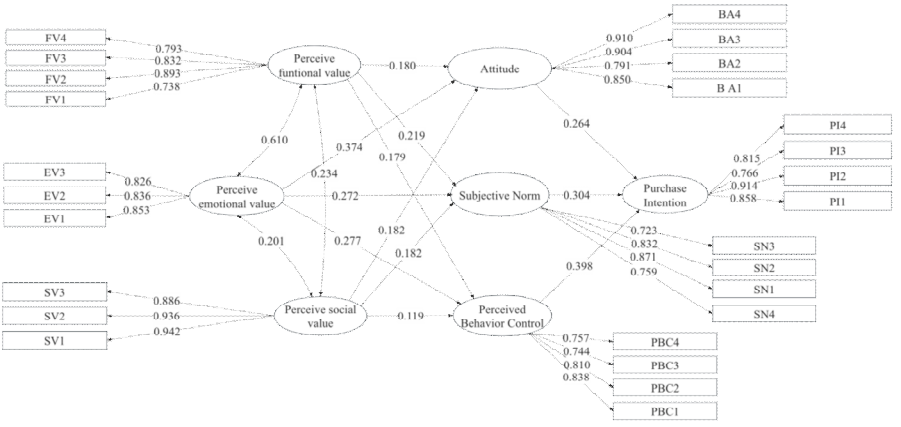

Fig. 3. Model Verification Diagram

Table 3. Structural Equation Model Fit Index Analysis

Model Index	Criterion	Value	Result
x 2	—	824.850	fit
x 2/df	< 3	2.904	fit
CFI	> 0.9	0.929	fit
IFI	> 0.9	0.929	fit
TLI	> 0.9	0.919	fit
NNFI	> 0.9	0.919	fit
RMSEA	< 0.10	0.070	fit

5.4 Mediation Test

Table 4. Results of intermediation analyses

	Purchase intention					Attitude					Subjective norm					Perceived behavioral control					Purchase intention				
	B	SE	t	p	β	B	SE	t	p	β	B	SE	t	p	β	B	SE	t	p	β	B	SE	t	p	β
a constant (math.)	0.833	0.173	4.824	0.000		1.670	0.124	13.450	0.000		1.365	0.168	8.140	0.000		-1.640	0.180	-9.093	0.000		-0.254	0.200	-1.269	0.205	
Functional value	0.297	0.052	5.747	0.000	0.289	0.139	0.037	3.754	0.000	0.191	0.180	0.050	3.589	0.000	0.196	0.159	0.054	2.953	0.003	0.160	0.185	0.048	3.859	0.000	0.180
Emotional value	0.201	0.050	4.000	0.000	0.203	0.230	0.036	6.375	0.000	0.327	0.194	0.049	3.928	0.000	0.217	0.220	0.052	4.203	0.000	0.232	0.052	0.048	1.076	0.282	0.053
Social value	0.250	0.042	5.963	0.000	0.262	0.139	0.030	4.609	0.000	0.205	0.157	0.041	3.860	0.000	0.184	0.098 *	0.044	2.249	0.025	0.110	0.161	0.039	4.121	0.000	0.169
Attitude																					0.177	0.065	2.741	0.006	0.126
Subjective norm																					0.224	0.049	4.595	0.000	0.200
Perceived behavioral control																					0.296	0.045	6.644	0.000	0.277
R2	0.331					0.315					0.210					0.166					0.467				
Adjust-ment R2	0.325					0.310					0.203					0.159					0.459				
F Value	F(3,387)=63.706, p=0.000					F (3,387)=59.458, p=0.000					F(3,387)=34.204,p=0.000					F (3,387)=25.590, p=0.000					F (6,384)=56.071, p=0.000				

* p<0.05 p<0.01

To validate the mediating roles of behavioral attitude, subjective norms, and perceived behavioral control between perceived value and purchase intention, the relationships were tested and the mediation effect was analyzed using SPSS Process 3.5 with Model

4 and Bootstrapping (5000 resamples) to evaluate the mediation effect. Results are shown in Table 4.

5.5 Mediation Test Results Summary

Functional value's indirect impact on buying intentions evidenced by behavioral attitude (0.025, 95% CI [0.004, 0.050]), subjective norms (0.040, 95% CI [0.009, 0.080]), and perceived behavioral control (0.047, 95% CI [0.011, 0.088]), confirming H5a, H5b, and H5c.

emotional value influenced purchase intention via behavioral attitude (0.041, 95% CI [0.007, 0.078]), subjective norms (0.043, 95% CI [0.013, 0.082]), and perceived behavioral control (0.065, 95% CI [0.028, 0.106]), supporting H6a, H6b, and H6c.

social value had significant indirect effects through behavioral attitude (0.025, 95% CI [0.004, 0.052]), subjective norms (0.035, 95% CI [0.011, 0.072]), and perceived behavioral control (0.029, 95% CI [0.002, 0.061]), confirming H7a, H7b, and H7c.

The results of the mediation test are summarized in Table 5:

Table 5. Mediation analysis

Mediation Path	Indirect Effect		Direct Effect		Total Effect	
	Effect Value	Confidence Interval	Effect Value	Confidence Interval	Effect Value	Confidence Interval
Functional Value→Behavioral Attitude → Purchase Intention	0.025	[0.004,0.050]	0.185	[0.091,0.278]	0.297	[0.196,0.398]
Functional Value→ Subjective Norms→ Purchase Intention	0.040	[0.009,0.080]	0.185	[0.091,0.278]	0.297	[0.196,0.398]
Functional Value→Perceived Behavioral Control→Purchase Intention	0.047	[0.011,0.088]	0.185	[0.091,0.278]	0.297	[0.196,0.398]
Emotional Value→Behavioral Attitude → Purchase Intention	0.041	[0.007, 0.078]	0.052	[-0.043,0.146]	0.201	[0.102,0.299]
Emotional Value→Subjective Norms→Purchase Intention	0.043	[0.013,0.082]	0.052	[-0.043,0.146]	0.201	[0.102,0.299]
Emotional Value→Perceived Behavioral Control→Purchase Intention	0.065	[0.028,0.106]	0.052	[-0.043,0.146]	0.201	[0.102,0.299]
Social Value→Behavioral Attitude→ Purchase Intention	0.025	[0.004, 0.052]	0.161	[0.084,0.238]	0.250	[0.168,0.332]
Social Value→Subjective Norms →Purchase Intention	0.035	[0.011,0.072]	0.161	[0.084,0.238]	0.250	[0.168,0.332]
Social Value→Perceived Behavioral Control→Purchase Intention	0.029	[0.002,0.061]	0.161	[0.084,0.238]	0.250	[0.168,0.332]

6 Conclusion

The structural equation modeling (SEM) analysis reveals that functional, emotional, and social values play a crucial role in influencing consumer buying patterns and participation across different cultures. The perception of behavioral control emerged as the key determinant of buying intentions, indicating the importance of simplifying and making the buying process accessible for consumers.

Mediation analysis reveals that Emotional value exerts the most significant indirect influence on purchase intention through the mediators of behavioral attitude, subjective norms, and perceived value. Its impact on behavioral attitude is the strongest, highlighting the importance of emotional experiences in shaping purchase behavior. Museums can focus on creating products that evoke strong emotional connections. This could include products that tap into universal themes, such as heritage, nostalgia, or cultural pride, which resonate emotionally with consumers from different cultures. Functional value and social value also have significant effects on the mediators, but their influence is weaker compared to emotional value. These values primarily affect purchase intention indirectly through behavioral attitude and subjective norms.

References

1. Aririguzoh, S. (2022). Communication competencies, culture, and SDGs: Effective processes to cross-cultural communication. *Humanities and Social Sciences Communications, 9*(1), 1-11.
2. Grincheva, N. (2020). *Museum diplomacy in the digital age*. Routledge.
3. He, Y. (2023). The economic and cultural impact of museum cultural products: Enhancing public engagement and understanding. *Journal of Museum Studies, 18*(2), 45-60.
4. Zhao, L., & Zhang, Y. (2020). Leveraging social media and e-commerce to expand museum outreach: Overcoming geographical barriers. *Journal of Digital Cultural Heritage, 7*(3), 98-115.
5. Chen, Z., Xu, J., & Xiao, B. (2022). Research on consumers' decision-making factors of cultural and creative products of the Palace Museum under the background of new media. *SpringerLink*.
6. Britannica. (2010). *Louvre*. In *The New Encyclopaedia Britannica*. Encyclopaedia Britannica Inc.
7. Ajzen, I. (1991). The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes, 50*(2), 179-211.
8. Mehrabian, A., & Russell, J. A. (1974). *An approach to environmental psychology*. MIT Press.
9. Sweeney, J. C., & Soutar, G. N. (2001). Consumer perceived value: The development of a multiple-item scale. Journal of Retailing, 77(2), 203-220.
10. Song, Y., & Li, H. (2018). Museum creative products: Definition, characteristics, and development. *Journal of Cultural Heritage Management and Sustainable Development, 8*(1), 12-25.
11. Huang, H., Chen, H., & Zhan, Y. (2023). A Study on Consumers' Perceptions of Museum Cultural and Creative Products through Online Textual Reviews: An Example from Palace Museum's Cultural and Creative Flagship Store. *Behavioral Sciences,* 13(4), 318.

12. Zhang, Z., & Li, W. (2022). Customer Engagement Around Cultural and Creative Products: The Role of Social Identity. *Frontiers in Psychology,* 13, 874851.
13. Cachia, F. (1987). The museum as a medium of cross-cultural communication. *Museum International, 39*(3), 146-149.
14. Aririguzoh, S. (2020). Globalization and intercultural communication: The role of effective communication in promoting mutual understanding and cultural diversity.
15. Chen, Z., Xu, J., & Xiao, B. (2023). Museum products promote cultural consumption: Increasing public interest and engagement with museums. Journal of Cultural Heritage and Museum Studies, 12(3), 45-67.
16. Zheng, Y., Li, Q., & Zhao, X. (2024). Enhancing cultural communication in museum products through digital integration. Proceedings of the International Conference on Artificial Intelligence and Digital Technologies, 240, 101-110.
17. Li, J. (2020). The Evolution of Museum Cultural Products in the Digital Age. *Digital Scholarship in the Humanities,* 35(4), 456-472.
18. Wang, W. (2021). Marketing Strategies of Museum Culture and Creative Industry in China. E*uropean Proceedings of Social and Behavioural Sciences.*
19. C'est La Vie. (2024, March 27). Unlocking the mystery of the Louvre collection: Expert marketing strategies for arts and culture. C'est La Vie. https://www.smarts-buy.com
20. C'est La Vie. (2020). The Louvre's cultural partnerships and exclusive branded collections. *C'est La Vie*. https://www.smarts-buy.com
21. Lin, X. (2022). Marketing strategies, branding, and optimizing consumer experience of museum cultural and creative products. *Journal of Cultural Heritage Marketing, 9*(2), 101-119.
22. Wang, Y. (2021). The role of social media and e-commerce in the development of China's museum sector and cultural creative industries. *Journal of Cultural Industry Development, 15*(3), 58-75.
23. Li, X. (2019). The design of cultural and creative products: Conveying cultural signs and symbolism. *Journal of Design and Cultural Studies, 7*(4), 112-129.