

Integrating Traditional Akha Embroidery Motifs into Contemporary Souvenir Product Design: Development and Consumer Evaluation

Wachiraporn Ratsamee¹, Artit Mongkoldee², Wilaiphorn Tajasuwan³, Oraya Namvong⁴, Noratthep Phothisong^{5,*}

¹ Master of Fine and Applied Arts Program in Art, Design and Creative Economy, Thammasat University, Pathum Thani, Thailand
99 Moo 18, Paholyothin Road, Khlong Nueng, Khlong Luang, Pathum Thani 12121, Thailand

² School of Business and Communication Arts, Master of Arts Program in Tourism and Hotel Management, University of Phayao, Phayao, Thailand

19 Moo 2, Mae Ka Subdistrict, Mueang Phayao District, Phayao 56000, Thailand

³ School of Liberal Arts, Master's Program in English, University of Phayao, Phayao, Thailand

19 Moo 2, Mae Ka Subdistrict, Mueang Phayao District, Phayao 56000, Thailand

⁴ Industrial Textiles and fashion Design, Master of Technology (Textile, Clothing and Fashion Technology), Rajamangala University of Technology Phra Nakhon, Bangkok, Thailand

399 Samsen Road, Wachira Phayaban Subdistrict, Dusit District, Bangkok 10300, Thailand

⁵ Faculty of Home Economics Technology, Master of Home Economics Program in Home Economics Technology (Textiles and Clothing), Rajamangala University of Technology Thanyaburi, Pathum Thani, Thailand

39 Moo 1, Rangsit-Nakhon Nayok Road, Khlong Hok, Thanyaburi District, Pathum Thani 12110, Thailand

Email: ¹wachiraporn@cvc.ac.th, ²aratismong@cvc.ac.th, ³wilaiphorn.taj@cvc.ac.th, ⁴oraya.namvong@gmail.com,

^{5,*}noratthep@cvc.ac.th

Correspondence Author Email: noratthep@cvc.ac.th

Submitted: 04/06/2026; Accepted: 12/06/2026; Published: 30/06/2026

Abstract—This research investigated the design of cultural souvenir products based on traditional Akha embroidery motifs and examined consumer satisfaction toward the developed products. The study employed a Research and Development (R&D) methodology consisting of four phases: the study of traditional Akha embroidery motifs, expert evaluation of motif designs, product prototype development, and consumer satisfaction assessment. The sample group consisted of seven product design experts and 100 consumers in Chiang Rai Province who were interested in or had experience purchasing souvenir products. Data were collected through consumer satisfaction questionnaires and analyzed using descriptive statistics, including percentage, mean, and standard deviation. The findings revealed that Design Sketch 6 received the highest evaluation score (85.7%) and was selected for product development. Overall consumer satisfaction toward the developed cultural souvenir products was rated at the highest level ($M = 4.63$). The findings suggest that traditional Akha embroidery motifs have the potential to be applied in contemporary souvenir product design while supporting cultural representation and enhancing the attractiveness of tourism-related products.

Keywords: Cultural Heritage Integration; Contemporary Souvenir Product Design; Akha Embroidery Motifs; Cultural Product Design; Traditional Textile Motifs

1. INTRODUCTION

In the context of increasingly competitive global markets and rapidly evolving consumer preferences, the continuous development of innovative products has become essential for sustaining market competitiveness and effectively responding to changing consumer demands. Contemporary consumers increasingly seek products that not only fulfill functional needs but also communicate cultural meaning, aesthetic value, and distinctive identity. Consequently, product innovation has expanded beyond functional improvement toward the integration of cultural narratives, local identity, and creative design strategies capable of generating both economic and sociocultural value (Kraikew et al., 2019; Ministry of Culture & Chulalongkorn University, 2022). Within this context, the development of culturally inspired products has emerged as a significant approach for enhancing product differentiation, supporting cultural representation and cultural product innovation (Puntasri, 2025; Srisormueang & Chantaree, 2025). Recent international studies have further emphasized that cultural souvenir products can strengthen heritage interpretation, cultural identity, and tourism value through contemporary design adaptation and culturally meaningful product development (Qiu et al., 2024; Zhu et al., 2023). Previous studies have emphasized that products incorporating cultural identity and local wisdom possess considerable potential to strengthen market value while simultaneously supporting cultural representation and local identity communication (Komolvanij et al., 2023).

The Akha ethnic group, one of the prominent indigenous communities in Northern Thailand, possesses a rich cultural heritage reflected through traditional embroidery practices that have been transmitted across generations (Intaphakdi, 2015). Traditionally, Akha embroidery was produced primarily for personal and ceremonial use rather than commercial distribution due to the intricate craftsmanship and labor-intensive processes involved. The visual language of Akha embroidery motifs is deeply inspired by natural surroundings, including birds, butterflies, flowers, trees, and mountainous landscapes, all of which symbolically represent the relationship between the Akha people and their environment (Intaphakdi, 2015). Distinctive motifs such as butterfly patterns and the “A Lu Meh La” motif are created through specialized embroidery and stitching techniques, whereas other patterns commonly employ cross-stitch methods characterized by intersecting geometric forms. Traditional embroidery materials include fine wool yarn, Toray fabric thread, and colored fabrics, with red serving as the dominant color symbolizing cultural identity and spiritual beliefs. Existing classifications categorize Akha embroidery motifs into three principal groups: basic motifs, traditional motifs, and adapted motifs (Intaphakdi, 2015).

In recent years, local wisdom and indigenous cultural identities have increasingly been incorporated into contemporary product design as part of broader efforts to preserve cultural heritage and enhance the value of community-based products within the creative economy (Puntasri, 2025; Srisormueang & Chantaree, 2025). Previous research has demonstrated the application of Akha embroidery identity in the design of decorative household and dining products, including vases, candle holders, tissue boxes, table linens, placemats, and coasters inspired by Akha lifestyles and cultural traditions (Soongsankhet, 2016).

Similar studies have also explored the adaptation of ethnic textile identity into contemporary product development and tourism-oriented souvenir design. Pothipeng (2024) examined the application of Hmong embroidery identity in contemporary bag design, while (Sathiankhomsorakrai & Suwan, 2023) investigated tourism souvenir innovation for increasing the value of local cultural resources. In addition, community identity-based souvenir design and cultural branding have increasingly been recognized as effective approaches for strengthening local identity and artistic innovation in cultural product development (Komolvani et al., 2023). These studies demonstrate the growing importance of integrating indigenous cultural identity into product development within the context of cultural tourism and creative industries. Similarly, recent international studies have highlighted the importance of adapting indigenous textiles and regional cultural elements into tourism-oriented product design in order to preserve intangible cultural heritage and strengthen sustainable tourism development (Çavuş & Kırmacı, 2025).

Nevertheless, despite the growing recognition of cultural products within tourism and creative industry sectors, limited studies have systematically examined the integration of traditional Akha embroidery motifs into contemporary souvenir product design within the context of cultural identity representation and consumer-oriented product development. Most previous studies have primarily focused on textile preservation, ethnic identity studies, or handicraft adaptation without extensively investigating the transformation of Akha embroidery motifs into contemporary souvenir products suitable for tourism-related markets and current consumer preferences.

Furthermore, limited research has examined consumers' satisfaction toward souvenir products developed from traditional Akha embroidery motifs. This research gap highlights the need for product development approaches that preserve indigenous cultural identity while responding to contemporary consumer preferences and tourism-related market demands.

Tourism souvenir products constitute an important component of cultural tourism and the creative economy, particularly in destinations characterized by strong local identities and distinctive cultural assets (Ministry of Culture & Chulalongkorn University, 2022; Puntasri, 2025). Consumers' purchasing decisions regarding souvenir products are frequently influenced by packaging aesthetics, visual uniqueness, cultural representation, convenience, and perceived authenticity (Sathiankhomsorakrai & Suwan, 2023).

Visually distinctive products featuring innovative forms, attractive color schemes, and culturally meaningful motifs are more likely to attract tourist attention and stimulate purchasing behavior. Thailand has also been internationally recognized for its artistic craftsmanship and rich traditions in textile arts, embroidery, weaving, and handicraft production. Such products are widely appreciated for their artistic sophistication, cultural significance, and craftsmanship, thereby positioning Thai handicrafts as valuable cultural souvenirs within both domestic and international markets (Chailor & Songpra, 2017).

Consequently, the development of culturally meaningful souvenir products that effectively respond to contemporary consumer expectations has become increasingly significant within the context of cultural tourism and creative economic development.

Recent studies have highlighted the growing importance of adapting intangible cultural heritage into contemporary souvenir products that communicate cultural identity and cultural meaning through innovative design approaches (Li Shuyang & Shao Libing, 2025; Zhu & Rahman, 2025a). Therefore, this study investigates the integration of traditional Akha embroidery motifs into contemporary souvenir product design and examines consumers' satisfaction toward the developed products.

The study seeks to develop aesthetically appealing and culturally meaningful souvenir products that reflect and communicate indigenous cultural identity through contemporary design approaches (Pothipeng, 2024). Furthermore, the research aims to explore the application of traditional Akha embroidery motifs in contemporary souvenir product development and examine consumer perceptions toward the developed products. The findings are expected to provide design guidelines for incorporating indigenous cultural identity into tourism-related souvenir products and contemporary cultural product innovation (Puntasri, 2025; Srisormueang & Chantaree, 2025).

2. RESEARCH METHODS

2.1 Basic Research Framework

This study employed a Research and Development (R&D) methodology to investigate the integration of traditional Akha embroidery motifs into contemporary cultural souvenir product design and to examine consumer satisfaction toward the developed products. The research process consisted of four sequential phases, including literature review and conceptual development, expert evaluation of design concepts, prototype development, and consumer satisfaction assessment. The conceptual framework of the study is presented in Figure 1.

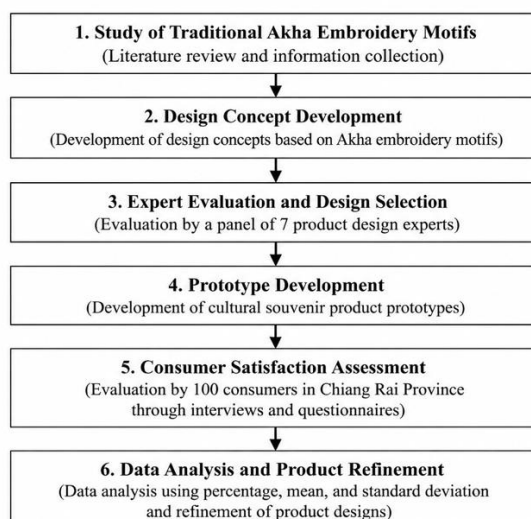


Figure 1. Research Framework

2.2 Research Procedures

Phase 1 (Research: R1) involved an extensive review of related literature, academic documents, textbooks, journal articles, and previous studies concerning cultural souvenir products, product design, traditional Akha embroidery motifs, color schemes, and production techniques. Particular emphasis was placed on design concepts characterized by simplicity, functionality, craftsmanship, aesthetic refinement, uniqueness, and creativity rather than purely commercial considerations. The investigation also focused on the historical background, characteristics, and distinctive identity of traditional Akha embroidery motifs, together with contemporary production technologies and design approaches capable of enhancing product quality and diversifying product forms. The findings from this phase served as conceptual guidelines for developing six design concepts inspired by the distinctive identity of Akha embroidery motifs.

Phase 2 (Research: R2) involved the evaluation and selection of the developed design concepts by a panel of seven product design experts in order to further develop preliminary product prototypes. The participants were selected through purposive sampling based on the criterion of having at least 10 years of professional experience in product design. The expert panel was employed to provide specialized professional judgments regarding cultural representation, aesthetic quality, and design applicability. The purpose of the expert evaluation was not statistical generalization but the refinement and selection of design alternatives within the R&D process. The research instruments consisted of expert evaluation forms developed in accordance with the research objectives. The instruments were reviewed by specialists for content validity prior to data collection.

Phase 3 (Development: D1) involved the development of prototype designs for contemporary cultural souvenir products based on traditional Akha embroidery motifs. The selected design concept was subsequently applied to the development of various souvenir product categories, including umbrellas, cushions, tote bags, scarves, and decorative lamps, in order to examine the applicability of Akha embroidery motifs within contemporary product contexts.

Phase 4 (Development: D2) involved the evaluation and refinement of the developed cultural souvenir products through consumer satisfaction assessment. The sample group consisted of 100 consumers in Chiang Rai Province who were interested in or had experience purchasing souvenir products. The participants were selected through purposive sampling. The respondents were selected because they represented potential consumers of cultural souvenir products and were able to provide preliminary evaluations of the developed designs. Therefore, the findings should be interpreted within the context of the selected consumer group and should not be generalized to broader tourism markets. Data were collected through consumer satisfaction questionnaires developed in accordance with the research objectives and based on consumer behavior concepts proposed by Kotler and Keller (2016). Prior to data collection, the questionnaire was reviewed by specialists for content validity, item relevance, and clarity of wording. The questionnaire items were developed based on consumer behavior concepts proposed by Kotler and Keller (2016), and revisions were made according to expert recommendations. The collected data were analyzed using descriptive statistics, including percentage, mean, and standard deviation. The findings were subsequently utilized to refine and finalize the product designs for dissemination and further development.

3. RESULTS AND DISCUSSION

This study employed a Research and Development (R&D) methodology consisting of four sequential phases, including the study of traditional Akha embroidery motifs, the development of design concepts, expert evaluation and selection, prototype development, and consumer satisfaction assessment. The findings are presented in the following sections.

3.1 Traditional Akha Embroidery Motifs

Traditional Akha embroidery motifs reflect the preservation and continuation of indigenous wisdom and cultural heritage. In addition to serving as traditional ethnic attire representing Akha identity, Akha embroidered textiles also embody the conservation and transmission of traditional embroidery patterns, as illustrated in Figure 2. The motifs demonstrate the relationship between the Akha people, their beliefs, natural surroundings, and traditional lifestyles through symbolic geometric forms, color arrangements, and embroidery techniques. The embroidery patterns are recognized as important components of indigenous cultural identity and local wisdom inherited across generations. These traditional motifs also represent the artistic craftsmanship and aesthetic characteristics unique to the Akha ethnic community.



Figure 2. Traditional Akha embroidery motifs: (A) Drum motif, (B) Butterfly tongue motif, (C) Pathway motif, (D) Half-diagonal motif, (E) Serrated stripe motif, (F) Dice motif, (G) Connected colored fabric strip motif, (H) Ue Nu leaf motif, and (I) Grass flower motif.

3.2 Motif Design Inspired by Traditional Akha Embroidery Identity

The design of cultural souvenir products based on traditional Akha embroidery motifs was inspired by the intricate embroidery patterns traditionally created on textiles to represent cultural identity, beliefs, and ways of life. Akha embroidery holds cultural significance not only as traditional ethnic attire but also as a source of inspiration for contemporary product applications, as illustrated in Figure 3. The developed design concepts emphasized simplicity, aesthetic refinement, cultural representation, and contemporary usability while maintaining the distinctive identity of traditional Akha embroidery motifs. Six design concepts were developed through the adaptation of traditional motifs, colors, and geometric arrangements into contemporary visual compositions suitable for souvenir product applications.





Figure 3. Motif design concepts inspired by traditional Akha embroidery identity: (A) Design Sketch 1, (B) Design Sketch 2, (C) Design Sketch 3, (D) Design Sketch 4, (E) Design Sketch 5, and (F) Design Sketch 6.

3.3 Expert Evaluation of Motif Design Concepts

The motif designs inspired by traditional Akha embroidery identity were analyzed and selected based on evaluations conducted by seven experts in product design. A total of six design concepts were assessed, as presented in Tables 1 and 2.

Table 1. Evaluation Results of Motif Design Concepts (Design Sketches 1–3)

No.	Design Sketch 1		Design Sketch 2		Design Sketch 3	
						
	Selected	Rejected	Selected	Rejected	Selected	Rejected
1	✓			✓		✓
2		✓	✓			✓
3		✓	✓			✓
4	✓			✓	✓	
5	✓			✓		✓
6		✓		✓		✓
7	✓		✓			✓
Percentage	57.1		42.8		14.2	

Table 2. Evaluation Results of Motif Design Concepts (Design Sketches 4–6)

No.	Design Sketch 4		Design Sketch 5		Design Sketch 6	
						
	Selected	Rejected	Selected	Rejected	Selected	Rejected
1	✓			✓	✓	
2		✓	✓			✓
3	✓		✓		✓	
4	✓			✓	✓	
5	✓		✓		✓	
6		✓		✓	✓	
7	✓			✓	✓	
Percentage	71.4		42.8		85.7	

According to the expert evaluations presented in Tables 1 and 2, Design Sketch 6 achieved the highest evaluation percentage (85.7%) and was selected for the development of cultural souvenir product prototypes. In contrast, Design Sketch 3 received the lowest level of selection (14.2%).

The findings indicate that Design Sketch 6 received the highest level of preference among the participating experts and was therefore selected for prototype development. The design was perceived by the experts as demonstrating a balance between cultural representation, visual attractiveness, and suitability for contemporary souvenir product applications. Furthermore, the selected design incorporated traditional Akha embroidery motifs within contemporary design characteristics that aligned with the objectives of the study. The high evaluation percentage received by Design Sketch 6 may be attributed to its effective integration of traditional Akha embroidery motifs with contemporary visual characteristics. Compared with the other design alternatives, the selected design demonstrated a stronger balance between cultural representation, visual composition, aesthetic attractiveness, and contemporary usability. The inclusion of distinctive Akha cultural elements together with a contemporary design arrangement may have contributed to its favorable evaluation among the experts. The findings are consistent with previous studies emphasizing that indigenous cultural identity can be successfully adapted into contemporary product design while preserving the symbolic and aesthetic characteristics of traditional cultural elements (Pothipeng, 2024; Soongsankhet, 2016).

3.4 Cultural Souvenir Product Designs Based on Traditional Akha Embroidery Motifs

The developed cultural souvenir product designs based on traditional Akha embroidery motifs consisted of five product categories: a parasol, a cushion, a fabric bag, a scarf, and a lamp, as illustrated in Figure 4. The products were designed by integrating traditional Akha embroidery motifs with contemporary forms, colors, and functional characteristics suitable for practical use and tourism-related souvenir markets.

The product development process emphasized the preservation of cultural identity while simultaneously adapting traditional motifs into contemporary product applications. This approach is consistent with recent studies highlighting the importance of integrating intangible cultural heritage into contemporary souvenir product design in order to communicate cultural meaning and strengthen product distinctiveness (Li Shuyang & Shao Libing, 2025; Qiu et al., 2024). The selected products were intended to represent both aesthetic and functional values. In addition, the integration of traditional Akha embroidery identity into contemporary souvenir products reflects the potential of indigenous cultural resources for creative product development and cultural representation through contemporary souvenir design.



(A)



(B)



Figure 4. Cultural souvenir product designs based on traditional Akha embroidery motifs: (A) Product Design 1, (B) Product Design 2, (C) Product Design 3, (D) Product Design 4, and (E) Product Design 5.

The findings correspond with previous studies indicating that the integration of local cultural identity into souvenir product development can enhance cultural representation and product distinctiveness (Kuntaros et al., 2025; Sornnoey & Kaewsritong, 2025). Similar studies have also emphasized the role of cultural heritage elements in creating innovative souvenir products that communicate local identity through contemporary design adaptation (Kuntaros et al., 2025; Sornnoey & Kaewsritong, 2025). Similarly, previous research has emphasized that culturally embedded products can communicate cultural meaning and support cultural representation through contemporary design adaptation (Srisormueang & Chantaree, 2025). International studies have also demonstrated that culturally meaningful souvenir products can communicate cultural narratives and strengthen the cultural identity of heritage destinations through contemporary product innovation (Zhu et al., 2023; Zhu & Rahman, 2025a).

3.5 Demographic Characteristics of Respondents

The demographic characteristics of the respondents were analyzed using frequency distribution and percentage and are presented in Table 3.

Table 3. Demographic Characteristics of Respondents (n = 100)

Variables	Frequency (n = 100)	Percentage
1. Age		
20 – 29 years	12	12.0
30 – 39 years	23	23.0
40 – 49 years	43	43.0
50 years and above	22	22.0
Total	100	100.0
2. Occupation		
Government officer	29	29.0
State enterprise employee	27	27.0
Private business owner	36	36.0
General employee	8	8.0
Others	0	0.0
Total	100	100.0
3. Educational Level		
Lower than bachelor's degree	14	14.0
Bachelor's degree	71	71.0
Master's degree	13	13.0
Higher than master's degree	2	2.0
Total	100	100.0
4. Monthly Income		

Variables	Frequency (n = 100)	Percentage
Less than 10,000 Baht	8	8.0
10,001 – 20,000 Baht	61	61.0
20,001 – 30,000 Baht	19	19.0
More than 30,001 Baht	12	12.0
Total	100	100.0

According to Table 3, the majority of respondents were aged between 40–49 years (43.0%), followed by those aged 30–39 years (23.0%), 50 years and above (22.0%), and 20–29 years (12.0%), respectively. Regarding occupation, most respondents were engaged in private business (36.0%), followed by government officers (29.0%), state enterprise employees (27.0%), and general employees (8.0%). In terms of educational background, the majority held a bachelor's degree (71.0%), followed by lower than bachelor's degree (14.0%), master's degree (13.0%), and higher than master's degree (2.0%). Regarding monthly income, most respondents earned between 10,001–20,000 THB per month (61.0%), followed by 20,001–30,000 THB (19.0%), more than 30,001 THB (12.0%), and less than 10,000 THB (8.0%), respectively.

3.6 Consumers' Satisfaction Toward Cultural Souvenir Product Designs Based on Traditional Akha Embroidery Motifs

Overall consumer satisfaction toward the design of cultural souvenir products based on traditional Akha embroidery motifs was evaluated and analyzed, as presented in Table 4.

Table 4. Overall Satisfaction Toward the Design of Cultural Souvenir Products Based on Traditional Akha Embroidery Motifs

Items	Level of Satisfaction		
	Mean	S.D	Interpretation
1. The products clearly reflected the identity of traditional Akha embroidery motifs.	4.65	0.52	Highest
2. The integration of Akha embroidery motifs into the product designs demonstrated a contemporary aesthetic.	4.70	0.48	Highest
3. The forms, colors, and sizes of the products were visually attractive.	4.58	0.60	Highest
4. The decorative application of Akha embroidery motifs demonstrated refinement and craftsmanship.	4.75	0.45	Highest
5. The materials used in combination with Akha embroidery motifs were appropriate and harmonious.	4.62	0.55	Highest
6. The products were designed to be durable, safe, and practical for use.	4.45	0.68	High
7. The products were easy to maintain and clean.	4.38	0.71	High
8. The products could be practically produced according to the objectives of souvenir product development.	4.60	0.58	Highest
9. The products were appropriate as souvenirs for promoting cultural tourism.	4.80	0.42	Highest
10. The product designs demonstrated potential for reproduction, investment value, and community income generation.	4.78	0.45	Highest
Overall	4.63	0.54	Highest

According to Table 4, the overall satisfaction toward the design of cultural souvenir products based on traditional Akha embroidery motifs was rated at the highest level, with an overall mean score of 4.63. Among the evaluated items, the appropriateness of the products as souvenirs for promoting cultural tourism achieved the highest mean score ($M = 4.80$), followed by the potential of the product designs for reproduction, investment value, and community income generation ($M = 4.78$), the refinement and craftsmanship of the applied Akha embroidery motifs ($M = 4.75$), and the contemporary integration of Akha embroidery motifs into product design ($M = 4.70$). In addition, the products clearly reflected the identity of traditional Akha embroidery motifs ($M = 4.65$), while the materials used in combination with the motifs were considered appropriate and harmonious ($M = 4.62$). The practicality of the products for actual souvenir production received a mean score of 4.60, followed by the visual attractiveness of the product forms, colors, and sizes ($M = 4.58$). Furthermore, the products were evaluated positively in terms of durability, safety, and usability ($M = 4.45$), as well as ease of maintenance and cleaning ($M = 4.38$), respectively.

The high level of consumer satisfaction may reflect the effectiveness of integrating culturally recognizable Akha embroidery motifs into contemporary souvenir product design, particularly in terms of aesthetic attractiveness, cultural representation, and practical usability. The findings suggest that consumers positively perceived products capable of communicating cultural identity while simultaneously responding to contemporary lifestyle preferences and tourism-

related purchasing behaviors. The integration of traditional embroidery motifs into modern product forms may also contribute to increasing the perceived value and uniqueness of cultural souvenir products. Previous international studies have also suggested that culturally meaningful souvenir products can support the preservation of cultural integrity and strengthen heritage interpretation through ethical and culturally sensitive design approaches (Zhu, 2025; Zhu & Rahman, 2025b).

The findings are consistent with previous studies emphasizing that culturally embedded product design can strengthen consumer perception toward authenticity, uniqueness, and tourism value. Previous research has similarly demonstrated that the application of ethnic identity and local wisdom in contemporary product development can enhance cultural representation and product differentiation (Ministry of Culture & Chulalongkorn University, 2022; Srisormueang & Chantaree, 2025). Moreover, the present findings support the potential of indigenous cultural resources to be adapted into contemporary creative products that communicate cultural identity through meaningful design approaches (Puntasri, 2025). Similar findings were reported in studies examining the adaptation of indigenous textile heritage into tourism-related product development, which emphasized the importance of preserving traditional cultural identity while simultaneously responding to contemporary consumer preferences (Çavuş & Kırmacı, 2025).

ACKNOWLEDGMENT

This study has several limitations. The expert evaluation involved a relatively small panel of seven product design specialists, and the consumer assessment was conducted with purposively selected respondents in Chiang Rai Province. Consequently, the findings should be interpreted within the context of the selected participants and may not be generalized to broader consumer populations or tourism markets. Future studies should involve larger and more diverse samples, apply additional statistical analyses, and investigate consumer perceptions in wider tourism contexts to strengthen the generalizability of the findings.

4. CONCLUSION

This study investigated the design of cultural souvenir products based on traditional Akha embroidery motifs and examined consumers' satisfaction toward the developed product designs. The research process consisted of four phases, including the study and development of design concepts inspired by traditional Akha embroidery motifs, expert evaluation and selection of motif designs, prototype development, and consumer satisfaction assessment. The findings revealed that Design Sketch 6 received the highest evaluation percentage (85.7%) and was therefore selected for the development of cultural souvenir product prototypes. The selected design was subsequently applied to five product categories, including a parasol, cushion, fabric bag, scarf, and decorative lamp. These products integrated traditional Akha embroidery motifs with contemporary design characteristics suitable for modern consumer preferences. Overall consumer satisfaction toward the developed products was rated at the highest level ($M = 4.63$). The highest-rated aspects were the suitability of the products as cultural souvenir products ($M = 4.80$), the potential of the products for future reproduction and application ($M = 4.78$), and the refinement and craftsmanship reflected in the application of Akha embroidery motifs ($M = 4.75$). These findings indicate positive consumer perceptions toward the aesthetic, cultural, and functional characteristics of the developed products. The findings suggest that traditional Akha embroidery motifs can be adapted into contemporary souvenir product designs while maintaining recognizable cultural characteristics. The developed products were positively evaluated by consumers, suggesting the potential of culturally inspired design approaches in contemporary souvenir product development. Nevertheless, this study was limited to consumers in Chiang Rai Province and focused on selected souvenir product categories. Therefore, the findings should be interpreted within the context of the selected sample and should not be generalized to broader consumer populations or tourism markets. Future research should investigate broader consumer groups and additional product categories, as well as employ more diverse research methods to further examine consumer perceptions and the application of indigenous cultural motifs in contemporary product development contexts.

REFERENCES

- Çavuş, A., & Kırmacı, E. (2025). The Examination of Ehram Fabric as Intangible Cultural Heritage and a Touristic Product. *Heritage*, 8(6), 277.
- Chailor, C., & Songpra, J. (2017). *Development of souvenir and gift products from Ko Yo handwoven textiles, Songkhla Province*.
- Intaphakdi, C. (2015). Akha's Embroidery Designs: A case Study of the Akha Ethnic Group at Huay Pong Village, Mae Taeng District, Chiang Mai Province. *Research and Development Journal Suan Sunandha Rajabhat University*, 7(1), 6–15.
- Komolvani, T., Wongmuck, K., Doungat, P., Khantachawana, N., & Jungdamrongkit, T. (2023). Community identity design through souvenir products and public relations media for tourism in Bang Muang Subdistrict Municipality, Bang Yai District, Nonthaburi Province. *Journal of Fine and Applied Arts Thammasat University*, 16(2), 1–32.
- Kraikew, P., Namkang, T., Saebae, P., & Suemklang, P. (2019). *Product Design for Creating Identity for the Thai Song Dam Community*.
- Kuntaros, S., Suwannasri, R., & Soponsakunwong, S. (2025). The Identity of Sabai Mon Cultural Capital for Designing Patterns on Souvenir Products of the Mon Community in Bangluang, Pathum Thani Province. *Asian Creative Architecture, Art and Design*, 38(1), 1–27. <https://doi.org/10.55003/acaad.2025.274890>

- Li Shuyang, & Shao Libing. (2025). Discussion on innovative design ideas of souvenir packaging based on intangible cultural heritage perspective. *Frontiers in Art Research*, 7(4). <https://doi.org/10.25236/FAR.2025.070408>
- Ministry of Culture, & Chulalongkorn University. (2022). *A Study of Consumer Demand for Thai Cultural Products*.
- Pothipeng, N. (2024). Product Design of Lanna Lantern-Shaped Bags inspired by Hmong Embroidered Textiles. *Fiber Fabric & Fashion Research Journal*, 4(2), 1–13.
- Puntasri, P. (2025). Souvenir Product Design inspired by Fossil Characteristics to promote Cultural Tourism, Tourism Value Enhancement, and Community Economic Development: A Case Study of Satun Geopark Coastal and Island Areas. *Journal of Art and Architecture, Naresuan University*, 16(1), 17–31.
- Qiu, L., Rahman, A. R. A., & Dolah, M. S. bin. (2024). The Role of Souvenirs in Enhancing Local Cultural Sustainability: A Systematic Literature Review. *Sustainability*, 16(10), 3893. <https://doi.org/10.3390/su16103893>
- Sathiankhomsorakrai, T., & Suwan, P. (2023). Development of tourism souvenir products through innovation to increase the value of local resources. *Journal of Roi Kaensarn Academi*, 8(2), 411–432.
- Soongsankhet, D. (2016). *The Study Akha Tribe to design a Series of Decorative Tableware Products (Case Study of the Akha Tribe Group Law Mir Chiang Rai Province)* [Master's thesis]. Silpakorn University.
- Sornnoey, K., & Kaewsritong, J. (2025). A Design Thinking Process of Developing Souvenir Products from Cultural Capital of the Tai Yuan Ethnic Group in Phitsanulok Province. *Arts and Culture Journal of the Lower Moon River*, 14(1), 195–207.
- Srisormueang, K., & Chantaree, T. (2025, June 5). Contemporary Handicraft Product Design: Extending Sticky Rice Basketry and Textile Products from Waste Kla fibers for Sustainability. *The 1st EN Sustainable Development National Conference*.
- Zhu, Q. (2025). Designing Ethical Souvenirs to Sustain the Cultural Integrity of Heritage Sites. *Heritage Science*, 13(1).
- Zhu, Q., & Rahman, R. (2025a). Authenticity in souvenir design integrating cultural features of Dunhuang's mural heritage: a qualitative inquiry. *Humanities and Social Sciences Communications*, 12(1), 403. <https://doi.org/10.1057/s41599-025-04710-5>
- Zhu, Q., & Rahman, R. (2025b). Designing ethical souvenirs to sustain the cultural integrity of Dunhuang heritage. *PLOS One*, 20(12), e0338506. <https://doi.org/10.1371/journal.pone.0338506>
- Zhu, Q., Rahman, R., Alli, H., & Effendi, R. A. A. R. A. (2023). Souvenirs Development Related to Cultural Heritage: A Thematic Review. *Sustainability*, 15(4), 2918. <https://doi.org/10.3390/su15042918>