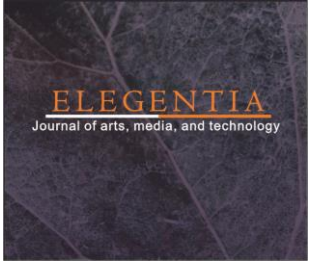
Selian, A. N, et al, 2025). Elegentia: Journal of Arts, Media, and Technology
https://doi.org/10.62033/elegentia.v2i2.214
ISSN (Online):XXX-XXXX



RESEARCH ARTICLE

Acehnese embroidery innovations in contemporary fashion design

Al Nora Selian1*, Resti Wulan Dari[2], Marfida Yeti[3]

Received: 27 Desember 2025
Accepted: 30 December 2025

***Corresponding author:**
Al Nora Selian, Acehnese embroidery innovation in contemporary fashion design
Email:
alnoraselian34@gmail.com

Abstract: This study discusses the phenomenon of Acehnese embroidery innovations in contemporary fashion design in response to social changes, technological developments, and the demands of the modern fashion industry that have the potential to shift the meaning of tradition. The purpose of this research is to analyze the form of innovation that occurs, the reasons for its emergence, and its implications for the sustainability of Aceh's embroidery cultural identity. The research uses a qualitative method with a descriptive-analytical approach through in-depth interviews, field observations, and literature studies. The results show that Acehnese embroidery innovations are reflected in the development of motifs from simple to more complex shapes, the shift of techniques from manual to digital, and the exploration of new materials that are more varied and functional. This transformation not only increases the efficiency and competitiveness of products, but also becomes an adaptive strategy for artisans in maintaining cultural relevance in the midst of modernity. This study concludes that Aceh's distinctive embroidery innovation is a reflective and sustainable cultural process, so it is recommended that there be a collaborative policy between craftsmen, designers, academics, and the government to maintain a balance between innovation, preservation of traditional values, and strengthening the creative industry based on local culture.

Keywords: Embroidery Innovation, Contemporary Fashion Design, Cultural Transformation, Creative Industry, Sustainability of Cultural Heritage

***Abstract**:* Penelitian ini membahas fenomena inovasi bordir khas Aceh dalam desain busana kontemporer sebagai respons terhadap perubahan sosial, perkembangan teknologi, dan tuntutan industri fashion modern yang berpotensi menggeser makna tradisi. Tujuan penelitian ini adalah menganalisis bentuk inovasi yang terjadi, alasan kemunculannya, serta implikasinya terhadap keberlanjutan identitas budaya bordir Aceh. Penelitian menggunakan metode kualitatif dengan pendekatan deskriptif-analitis melalui wawancara mendalam, observasi lapangan, dan studi literatur. Hasil penelitian menunjukkan bahwa inovasi bordir Aceh tercermin dalam pengembangan motif dari bentuk sederhana menjadi lebih kompleks, peralihan teknik dari manual ke digital, serta eksplorasi material baru yang lebih variatif dan fungsional. Transformasi ini tidak hanya meningkatkan efisiensi dan daya saing produk, tetapi juga menjadi strategi adaptif pengrajin dalam mempertahankan relevansi budaya di tengah modernitas. Penelitian ini menyimpulkan bahwa inovasi bordir khas Aceh merupakan proses kultural yang reflektif dan berkelanjutan, sehingga direkomendasikan adanya kebijakan kolaboratif antara pengrajin, desainer, akademisi, dan pemerintah untuk menjaga keseimbangan antara inovasi, pelestarian nilai tradisional, dan penguatan industri kreatif berbasis budaya lokal.
.

***Keywords**:* Inovasi Bordir, Desain busana kontemporer, Transformasi budaya, Industri kreatif, Keberlanjutan warisan budaya

About Author
Al Nora Selian, Institut Seni Budaya Indonesia Aceh; Resti Wulan Dari, Universitas Nurul Hasanah Kuta Cane; Marfida Yeti, UIN Ar-Raniry

To cite this article: Selian, A. N, et al, (2025), Acehnese embroidery innovations in contemporary fashion design, *Elegentia: Journal of Arts, Media, and Technology*, 2(2), DOI:10.62033/elegentia.v2i2.214

Copyright © 2023 The Author(s). This is an open access article is distributed under the terms of the Creative Commons Attribution (CC-BY) 4.0 international license. (http://creativecommons.org/licenses/by/4.0/)

https://doi.org/10.62033/elegentia.v2i2.214
ISSN (Online): XXXX-XXX

1. Introduction

The phenomenon of Acehnese embroidery innovation is an important social fact to study because it is at the intersection between the preservation of cultural heritage and the pressure of socio-economic change due to globalization. Acehnese embroidery not only functions as an aesthetic product, but also as a marker of identity, collective memory, and the value system of the Acehnese people that are inherited across generations. However, the development of the fashion industry, production technology, and global market tastes are driving a transformation that has the potential to shift the symbolic meaning and traditional practices of embroidery if not critically understood. This issue is crucial because, as stated by Rosenmann et al., (2016), cultural globalization creates a flow of exchange that can reinforce as well as erode local identity. In this context, Acehnese embroidery innovations reflect the so-called Granqvist & Siltaoja (2020) as a reflexivity of modernity, namely the ability of society to reinterpret traditions in new social situations. Therefore, examining this phenomenon is important to understand how local cultural practices negotiate with market logic and modernity without losing their cultural legitimacy (Feldman & Wunderlich, 2023).

Literature review shows that previous studies on traditional crafts and embroidery in Indonesia generally focused on descriptive aspects of motifs, symbolic meanings, or normative cultural preservation efforts, without discussing in depth the dynamics of innovation in the context of the contemporary creative industry. A number of studies focus more on the visual and historical documentation of embroidery as cultural artifacts, so it does not examine the relationship between engineering transformation, material exploration, and changes in market orientation in an integrated manner (Loita & Husen, 2018; Prihatina, 2009; Yulimarni & Rahmanita, 2018). In addition, research on the digitalization of crafts is often positioned within the framework of production efficiency alone, without examining its ideological and cultural implications for local identity. Global studies on cultural hybridization have indeed been carried out a lot, but they tend to be macro and have not touched on the micro practices of artisans as cultural agents (Crane, 2016; Kim, 2017). Therefore, there is a significant research gap in understanding traditional embroidery innovation as an integrative, reflective, and sustainable cultural process in the local context of Aceh.

The purpose of this paper is to complement the shortcomings of previous studies that have not looked at the issue of traditional embroidery innovation from an integrative perspective between cultural transformation, production practices, and its long-term implications for the sustainability of local identity. Previous research tends to stop at aesthetic descriptions or technical efficiency, without examining the long-term consequences of shifting motifs, digitization of techniques, and material exploration on cultural meaning, traditional knowledge, and the position of artisans in the creative industry ecosystem. In line with that, this paper answers three main questions: (1) how to innovate Acehnese motifs and embroidery materials in contemporary fashion design; (2) why the innovation emerged and was negotiated by the craftsmen; and (3) what are the cultural, social, and economic implications of such innovations in the long run. Answering these three questions will provide a comprehensive understanding of Acehnese embroidery as a dynamic, reflective, and sustainable cultural practice in the midst of social change and globalization.

The main argument tested in this study is that Acehnese embroidery innovations that include the development of motifs, the transition of techniques from manual to digital, and the exploration of new materials are adaptive strategies that simultaneously function as an effort to preserve culture and increase economic competitiveness. This research departs from the hypothesis that these innovations do not necessarily eliminate the identity and symbolic meaning of Acehnese embroidery, but rather reconstruct it to remain relevant in the context of contemporary fashion design. In addition, it is assumed that the success of innovation is largely determined by the ability of artisans to negotiate traditional values with the logic of the creative industry and the demands of the global market. Thus, the provisional answer to this research question states that Acehnese embroidery can survive and develop sustainably if innovation is placed as a reflective cultural process, not just a technical or commercial change, so that tradition and modernity can run in parallel and reinforce each other.

https://doi.org/10.62033/elegentia.v2i2.214
ISSN (Online): XXXX-XXX

2. Literature review

2.1. Embroidery Innovation

In the literature of craft arts and cultural studies, innovation is understood as a creative process that involves the renewal of forms, techniques, and materials without breaking the continuity of cultural meaning inherent in a tradition. De Vries et al (2016) defines innovation as an idea or practice that is perceived as something new and adopted in a particular social system, including in the context of traditional art. In the study of crafts, Liu et al (2024) emphasizing that innovation does not always mean replacing old skills, but rather developing new ways of working that are still rooted in craft knowledge. Meanwhile, Szromek & Bugdol (2024) Views innovation in intangible cultural heritage as an adaptive strategy to keep traditional practices alive, relevant, and sustainable. Thus, embroidery innovation can be understood as a process of creative transformation that includes the development of motifs, the adoption of technology, and the exploration of new materials, which are carried out reflexively to maintain a balance between aesthetic values, economic function, and cultural identity.

Various studies show that traditional embroidery and textile innovations have become common practice in many cultural contexts in response to modernization and globalization. Research by Chutia & Sarma (2016) Southeast Asian textile crafts show that the development of motifs and materials is the main strategy of artisans to adapt traditional products to the tastes of the contemporary market. Similar studies have shown that the digitization of embroidery can improve production efficiency while opening up more complex design spaces without completely eliminating the symbolic value of tradition (Anik & Tabassum, 2024). In a global context, Battilana et al (2017) describes this practice as a form of cultural hybridization, in which local and modern elements meet to create new contextual expressions. These cases show that embroidery innovation is not a mere technical phenomenon, but a cultural process that allows traditions to adapt, survive, and acquire new meanings in the contemporary creative industry ecosystem in line with the context of Acehnese embroidery studied in this article.

2.2. Fashion Design

In academic studies, fashion design is understood as a creative practice that integrates aesthetic, function, material, and social meaning aspects in the creation of clothing. Kodžoman (2023) defines fashion as a cultural system that reflects the values, ideology, and social structure of a society, so that fashion design cannot be separated from its social and cultural context. Zou et al (2022) emphasizing that fashion design is a "situated bodily practice" that connects textile materials, clothing construction, and the identity of the wearer. Meanwhile, Nobile et al (2021) Seeing fashion design as a visual communication medium that conveys symbols, identities, and cultural narratives through shapes, colors, and ornaments. Thus, fashion design in the context of this study is understood as a space of dialogue between tradition and modernity, where Acehnese embroidery elements function not only as decorations, but as markers of cultural identity that are reinterpreted within the framework of aesthetics and contemporary fashion needs.

Various studies show that contemporary fashion design often uses traditional elements as a source of inspiration to create a unique and globally competitive visual identity. Study by Canavan (2015) shows how designers use local textile motifs and techniques to build cultural narratives in modern fashion collections. In the context of Southeast Asia, research by Chutia & Sarma (2016) emphasizing that the integration of traditional crafts into fashion design plays an important role in strengthening local identity while responding to the tastes of the global market. Meanwhile, Todeschini et al (2017) Highlighting sustainable fashion design practices that combine traditional values, production ethics, and material innovation as a strategy to deal with the crisis of the modern fashion industry. These cases show that fashion design is not just an aesthetic activity, but rather a cultural and strategic practice that allows traditions such as Acehnese embroidery to be revived in a new, contextual, and relevant format to contemporary social dynamics.

https://doi.org/10.62033/elegentia.v2i2.214
ISSN (Online): XXXX-XXX

2.3. Kontemporer

In the study of art and culture, the term contemporary refers to creative practices that are present and developing in the context of the present time, and are responsive to social, technological, and ideological changes. Creese & Blackledge (2015) defines contemporary as a cultural condition characterized by a diversity of practices, hybridity, and openness to the negotiation of meaning between the past and the present. In an art perspective, Cornish et al (2023) explains that contemporary is not just a chronological marker, but a frame of thought that places the work as a critical reflection on the conditions of the times. Meanwhile, Crane (2016) views the contemporary as an expression of global culture that allows for the encounter between locality and global currents through a process of appropriation and reinterpretation. Thus, the contemporary concept in this study is understood as a dynamic dialogue space, where the Acehnese embroidery tradition is not abandoned, but is reinterpreted through fashion design that is adaptive, reflective, and relevant to today's social and aesthetic conditions.

Studies show that contemporary practices in art and design often use tradition as a primary source of new meaning. Research by Ding & Liang (2024) Global textile art shows how traditional techniques and motifs are reconstructed in contemporary contexts to respond to issues of identity and globalization. In the field of fashion, Deldjoo et al (2024) Exemplify how contemporary fashion adopts local elements as a visual differentiation strategy as well as a cultural statement. Meanwhile, Results (2017) explains this phenomenon as a form of cultural hybridization, where tradition and modernity meet to produce new contextual expressions. These cases confirm that contemporary is not a form of disconnection from the past, but rather a creative process that allows traditions such as Acehnese embroidery to transform, acquire new relevance, and serve as a medium of identity articulation in today's global cultural landscape.

3. Method

The unit of analysis in this study is the practice of Acehnese embroidery innovation in contemporary fashion design, which includes the development of motifs, transformation of craftsmanship techniques, and exploration of materials as a unit of cultural processes. The focus of the analysis is directed at the concrete practices carried out by artisans and embroidery industry players in responding to changing market tastes, technological developments, and the demands of the modern fashion industry. This unit was chosen because it represents a meeting point between tradition and modernity, where cultural values, technical skills, and economic strategies interact with each other. Through this unit of analysis, this study traces the dynamics of the changes that occur, the reasons behind the emergence of innovations, and how these innovations are implemented in the context of fashion production and design. Thus, this unit of analysis allows a comprehensive understanding of how Acehnese embroidery is transformed adaptively without losing the cultural identity inherent in it.

This research uses qualitative design to examine in depth Acehnese embroidery innovations in contemporary fashion design as a dynamic cultural practice. This design was chosen because it allows the exploration of meaning, value, and creative process behind the transformation of embroidery motifs, techniques, and materials, which cannot be adequately explained through a quantitative approach. Research data was obtained through in-depth interviews with artisans, designers, and embroidery business actors, observation of the production process and work, and visual documentation as support for analysis. This approach is used to understand patterns of change, adaptation strategies, and how actors negotiate traditional values with the demands of the modern fashion industry. With a qualitative design, this research is able to capture the complexity of the relationship between tradition, technology, and creativity, thus resulting in a contextual and comprehensive understanding of the sustainability of Acehnese embroidery in the contemporary cultural landscape.

The sources of information in this study are based on primary data and secondary data relevant to the practice of Acehnese embroidery innovation in contemporary fashion design. Primary data was obtained from key informants consisting of embroidery craftsmen, fashion designers, and creative business actors who are directly involved in the production

https://doi.org/10.62033/elegentia.v2i2.214
ISSN (Online): XXXX-XXX

and development process of Acehnese embroidery. This information was collected through in-depth interviews and field observations to capture the actors' experiences, views, and adaptation strategies. In addition, visual data in the form of photo documentation and recordings of the embroidery process were used to strengthen the analysis. Secondary data is sourced from supporting texts such as journal articles, books, cultural policy reports, and online news that discuss traditional crafts, fashion, and the creative industry. The combination of these various sources of information allows for data triangulation, thus providing a more complete, valid, and contextual picture of the dynamics of Acehnese embroidery innovations.

Data collection in this study was carried out through a combination of desk-review methods, field observations, and in-depth interviews to gain a comprehensive understanding of Acehnese embroidery innovations in contemporary fashion design. Desk-review is used to review academic literature, policy documents, and other relevant written sources to build a conceptual framework and research context. Observations were made directly on the embroidery production process, the use of manual and digital techniques, and the application of motifs and materials in fashion products to capture real practices in the field. In-depth interviews are conducted with semi-structured interview guides to artisans, designers, and business actors to explore their experiences, creative considerations, and adaptation strategies. This combination of methods allows for the collection of complementary and validated data through triangulation, resulting in contextual, in-depth, and scientifically accountable analysis.

Data analysis in this study was carried out through an interpretive method with a descriptive-analytical approach to the data from interviews, observations, and visual documentation. The analysis stage begins with data reduction, which is the process of sorting, grouping, and sharpening information that is relevant to the focus on innovation in Acehnese motifs, techniques, and embroidery materials. Furthermore, the disaggregated data is presented in the form of analytical narratives, tables, and visualizations to make it easier to read patterns and relationships between findings. The final stage is carried out through verification and interpretation by linking field findings to a broader conceptual framework and socio-cultural context. The analysis method used is descriptive-analytical with an emphasis on the analysis of cultural meaning and practice, thus allowing the interpretation of the dynamics of innovation as a cultural process. This approach was chosen to produce an in-depth, contextual, and reflective understanding of the transformation of Acehnese embroidery in contemporary fashion design.

4. Results

4.1. There is a development of motifs used from simple forms to varied forms

Acehnese embroidery innovations in contemporary fashion design reflect creative efforts to preserve cultural heritage while adapting to the demands of modern times. Acehnese embroidery motifs, which initially carried simple geometric patterns and basic flora, have now undergone significant development into more complex, diverse, and aesthetic designs. This development involves the exploration of more dynamic elements of color, texture, and design composition, resulting in fashion works and craft products that are not only rooted in tradition, but also relevant to global trends. This innovation effort aims to enrich the aesthetic value of Acehnese embroidery and expand its acceptance and attractiveness in the national and international fashion markets. The following section shows a visualization of the development of Acehnese embroidery motifs from simple shapes to more complex and diverse shapes

Table 1. Visualization of the Development of Typical Aceh Embroidery Motifs

https://doi.org/10.62033/elegentia.v2i2.214
ISSN (Online): XXXX-XXX



Figure 1. Simple Motifs of Typical Aceh Embroidery

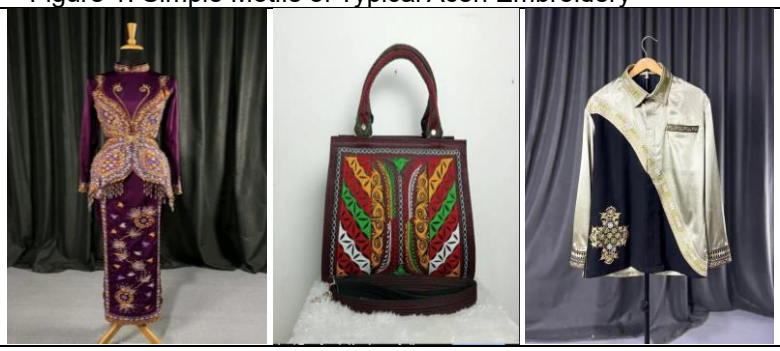


Figure 2. Development of Acehnese Embroidery Motifs

Source: Research Data, 2025

The data in Table 1 shows the visual evolution of Acehnese embroidery motifs. Figure 1 shows simple motifs applied in modern fashion and accessories, such as bags and casual clothes. These motifs are dominated by geometric shapes and minimalist patterns that use limited color combinations. The simplicity of this motif aims to maintain the traditional uniqueness of Acehnese embroidery, but is adapted to the needs of contemporary fashion that is more practical and adaptive.

Meanwhile, figure 2 illustrates how Acehnese embroidery motifs developed in a more complex and creative direction. The design displayed combines various new elements, such as a variety of flora, fauna, and freer geometric shapes. The use of colors also becomes bolder and more contrasting, creating a stronger and more attractive visual impression. In addition, the texture of embroidery is also increasingly diverse with the application of relief embroidery techniques, layering, and combinations of additional materials, enriching the artistic value and exclusivity of the product.

This transformation shows that Acehnese embroidery artisans are not only passively preserving cultural heritage, but also actively innovating to maintain the relevance of their products in the modern market. The selection of more diverse motifs and updated aesthetics adds value to the products, increases competitiveness in the fashion industry, and expands market segmentation, especially among young consumers and international markets. This overall visualization indicates that the development of Acehnese embroidery motifs is an important adaptive strategy in dealing with changing global fashion trends. By combining traditional embroidery techniques and modern design creativity, Acehnese embroidery products are able to maintain a local identity while offering dynamic, aesthetic, and functional innovations. This is clear evidence that local culture not only survives, but also thrives through continuous innovation.

4.2. The use of new techniques in the process of making Aceh's signature embroidery (from manual to digital)

The development of Acehnese embroidery techniques from manual to digital processes reflects a significant transformation in the production process of local handicrafts. This innovation not only affects the efficiency and quality of embroidery, but also shows the

https://doi.org/10.62033/elegentia.v2i2.214
ISSN (Online): XXXX-XXX

adaptability of craftsmen to technological developments. This change is a strategic step in maintaining the existence of Acehnese embroidery as a cultural heritage that remains relevant in the midst of modernization, especially in the context of contemporary fashion design that demands production speed and high precision. To understand the dynamics of these changes, interviews were conducted with several informants who are directly involved in the typical Aceh embroidery industry, both from craftsmen, designers, and business actors.

Table. 2. Changes in Aceh's typical embroidery techniques (manual to digital)

No	Informant	Statement	Coding
1	Aini Safitri, 30 years old	Aini said that at first she worked on embroidery with manual techniques, using traditional tools and hand skills. However, after the development of digital embroidery machine technology, he began to switch to using the machine because it was able to speed up the production process and produce neater and more uniform embroidery. According to him, with digitalization, his embroidery business is able to receive more orders in a shorter time without sacrificing quality	Technique changes
2	Stuart, 41st Infantry Regiment	Budi said that the presence of digital embroidery machines is very helpful in increasing production time efficiency. He revealed that with manual techniques, the processing of a single order takes days, while with digital machines, large orders can be completed in just a matter of hours. This makes his business more competitive amid high market demand.	Time efficiency
3	Lilis, 37 years old	Lilis revealed that the use of digital technology provides convenience in creating more complicated and complex embroidery motifs, which were previously difficult to do with manual techniques. He also feels more free to create and follow today's fashion trends, because digital machines make it easier for new designs to be implemented quickly and precisely.	Ease of design
4	Rahman,40 th	Rahman stated that after using a digital machine, the resulting embroidery results are much more consistent, both in terms of the neatness of the stitches and the thickness of the embroidery. He added that the work became more efficient, production costs were more controlled, and the production error rate was drastically reduced compared to when it was still using fully manual techniques.	Quality of results

https://doi.org/10.62033/elegentia.v2i2.214
ISSN (Online): XXXX-XXX

5	Yanti Putri,35 years old	Yanti explained that she still uses manual techniques for certain traditional motifs that are considered to have high cultural value. However, in mass production, it relies more on digital machines to fulfill large orders. According to him, the combination of the use of manual and digital techniques allows cultural preservation to be maintained while responding to the demands of the modern market.	Combination of techniques

Table 2 above shows that the development of Acehnese embroidery techniques is not only a change in the way of working from manual to digital, but also a form of strategic adaptation to the challenges of the times. The informant said that digitalization makes it easier to mass production without reducing the aesthetic value and cultural significance of embroidery motifs. Digital technology allows for faster and more consistent workmanship, thereby expanding production capacity to meet the growing market demand. On the other hand, even though traditional techniques are starting to be abandoned, the craftsmen still try to maintain the aesthetic elements and philosophy of Acehnese motifs in modern design. By combining local wisdom in the use of motifs and digital technology in craftsmanship, Acehnese embroidery now appears more flexible in following contemporary fashion trends. This is proof that cultural preservation can go hand in hand with innovation, making local products not only highly competitive economically, but also still contain historical value and strong cultural identity.

4.3. The exploration of new materials in Acehnese embroidery

Along with the development of the times and the increasing market demand for innovative handicraft products, the exploration of new materials in the manufacture of Acehnese embroidery has become one of the adaptive strategies applied by artisans. Embroiderers are no longer limited to using conventional materials such as ordinary cotton, but have begun to adopt a variety of new and more varied materials, such as satin fabrics, organza, imported linen, to the use of modern accessories such as sequins and beads. This exploration aims to improve aesthetic quality, selling value, and expand the marketing reach of Aceh's signature embroidery to a wider segment, both nationally and internationally. On the other hand, this material innovation is also an effort to maintain the relevance of Acehnese embroidery to contemporary fashion trends, without eliminating the local cultural values that are strongly embedded in every motif and technique used. This adaptation effort is proof that Acehnese embroidery is able to transform according to the dynamics of the needs of the times, while maintaining the cultural identity that is its main strength.

Table 3. There is a new maritime exploration in Acehnese embroidery

No	Informant	Statement	Coding
1	Fatimah, 36 years old	Fatimah revealed that currently many Acehnese embroidery artisans are starting to explore the use of new materials such as satin fabrics, organza, and imported linen to replace traditional materials such as ordinary cotton. According to him, the use of this new material is able to improve the appearance of embroidery to be more elegant, luxurious, and in accordance with the demands of the modern fashion market, without leaving cultural value in the embroidery motifs used.	Exploration of new fabric materials.

https://doi.org/10.62033/elegentia.v2i2.214
ISSN (Online): XXXX-XXX

2.	Zulfikar, 45 years old	Zulfikar explained that in addition to fabric, currently the thread used in the embroidery process has also undergone changes. If in the past only relying on local cotton yarns, now many artisans use rayon, polyester, and even synthetic gold yarns to create a more shiny and attractive visual effect. He assessed that this innovation makes Aceh's embroidery more competitive in the international market.	Embroidery thread innovation
3.	Mutia, 32 years old	Mutia said that technological developments also allow the use of a combination of traditional materials with modern materials such as sequins, beads, and embroidery made of lightweight plastic that is durable. He emphasized that even though new materials are used, artisans still try to maintain the authenticity of Acehnese motifs and cultural philosophies in every work produced.	Use of modern accessories
4.	Rahmat, 39 years old	Rahmat said that the exploration of new materials is not only to improve aesthetics, but also to meet functional needs such as waterproof embroidery or wrinkle-resistant embroidery. He said that this is an important adaptation for Acehnese embroidery products which are now widely used in contemporary fashion, including for formal and casual events.	Adaptation to functional needs
5.	Siti Rahma, 34 years old	Siti Rahma explained that consumer demand for embroidery variations that are lighter and more comfortable to wear encourages artisans to use mixed fabrics and synthetic materials. According to him, this material innovation provides a great opportunity to expand the Aceh embroidery market, both domestically and abroad, without losing the typical regional identity.	Development of embroidery products

Table 3 above illustrates the strong tendency of Acehnese embroidery craftsmen to undertake various forms of exploration of new materials in response to market demands and the dynamics of the development of the creative industry. Fatimah and Zulfikar, for example, emphasized the importance of utilizing new materials such as satin fabric, organza, and innovations in beuang tools to increase the visual appeal of embroidery products. Meanwhile, Mutia highlighted the role of technological developments in opening up opportunities for the use of modern accessories without leaving the roots of local culture. Furthermore, Rahmi pointed out that material adaptation is also directed to meet functional needs, such as resistance to wrinkles and water, so that Acehnese embroidery products can be more accepted in various market segments. This is reinforced by Siti Rahma's statement which emphasizes the importance of using synthetic materials to maintain the flexibility, practicality, and aesthetics of embroidery products in the context of the modern market. Overall, this data shows that the exploration of new materials is not only seen as a form of technical innovation, but also as a cultural strategy to maintain the continuity of tradition in the context of modernity. Acehnese embroidery actors are able to maintain local values while remaining open to global developments, which ultimately strengthens the position of Acehnese embroidery as one of the dynamic and highly competitive cultural heritage in the current era of globalization.

https://doi.org/10.62033/elegentia.v2i2.214
ISSN (Online): XXXX-XXX

5. Discussion

This study examines Acehnese embroidery innovations in the context of contemporary fashion design with an emphasis on motif transformation, craftsmanship techniques, and material exploration. The results show that Acehnese embroidery has experienced a significant development from simple motifs to more complex, varied, and aesthetic designs without losing local cultural identity. In addition, there is a shift in production techniques from manual work to the use of digital embroidery technology that increases efficiency, quality consistency, and production capacity, but still makes room for manual techniques on motifs of high symbolic value. This research also found the exploration of new materials, both fabrics, threads, and accessories as an adaptive strategy to answer the demands of the modern fashion market. Overall, this study confirms that Acehnese embroidery is not static, but dynamic and adaptive, able to transform through sustainable innovation while maintaining cultural values and competitiveness in the global era.

The findings of this study show that Acehnese embroidery innovations occur due to the need to negotiate the sustainability of traditions with the demands of modernity. The transformation of motifs from simple forms to more complex designs emerged in response to changing market tastes and the expansion of the fashion industry that demanded visual differentiation as well as higher aesthetic value. The shift from manual to digital techniques occurred due to the pressures of production efficiency, quality consistency, and economic competitiveness, in line with the view that technology plays a role as a medium of cultural adaptation, not a threat to tradition (Crane, 2016). Meanwhile, the exploration of new materials reflects creative strategies to expand the function, convenience and symbolic value of products in the context of global consumption (Luchs et al., 2016). Thus, innovation in Acehnese embroidery can be understood as a process of tradition that moves (Zhong & Chudasri, 2019), where cultural identity is not abandoned, but rather consciously reconstructed to remain relevant, competitive, and meaningful in contemporary cultural spaces.

The results of this study can be interpreted as a representation of the dynamics of the relationship between Aceh's embroidery cultural heritage and the social, historical, and ideological changes that accompany it. Historically, Acehnese embroidery was born from a community value system that upheld symbolism, religiosity, and local identity; But in the contemporary social context, the practice is now confronted with the logic of the creative industry and the market economy. The transformation of motifs, techniques, and materials indicates an ideological shift from static preservation to productive, sustainability-oriented preservation, where tradition is understood as a practice that is constantly negotiated (Song et al., 2024). In the framework of globalization, Acehnese embroidery innovations also reflect the process of cultural hybridization, which is the meeting between local values and global aesthetics without losing their original meaning (Bhandari, 2022). Thus, the results of this study confirm that Acehnese embroidery functions as a medium of adaptive cultural identity expression, as well as an ideological arena where tradition, modernity, and creativity interact with each other.

Reflection on the results of this study shows that Acehnese embroidery innovations have double implications, both functional and dysfunctional, in the context of culture and creative industries. Functionally, motif transformation, digitization of techniques, and material exploration contribute to increasing production efficiency, expanding the market, and strengthening the position of Acehnese embroidery as a competitive and sustainable cultural product. This innovation also opens up space for the regeneration of artisans and strengthens the creative economy based on local wisdom. However, dysfunctionally there is the potential for a reduction in symbolic meaning and aesthetic homogenization when the logic of the market and mass production is more dominant than the philosophical value of tradition (Wang et al., 2020). Reliance on digital technology also risks shifting manual skills as hereditary knowledge (Goyal & Choudhury, 2024). Therefore, the results of this study imply the importance of a balance between innovation and conservation, so that Acehnese embroidery continues to function as an authentic cultural expression as well as relevant in the dynamics of modernity.

The results of this study have similarities with previous research which emphasizes that traditional craft innovation is an important strategy in maintaining cultural sustainability

https://doi.org/10.62033/elegentia.v2i2.214
ISSN (Online): XXXX-XXX

in the midst of modernization, especially through the adaptation of motifs and production technology (Dobriyal & Sarkar, 2025). Study by Yadav et al (2023) also shows that the transformation of techniques from manual to modern technology can increase the efficiency and competitiveness of craft products, as found in typical Acehnese embroidery. However, the main difference as well as the novelty of this research lies in the simultaneous emphasis between motive innovation, digital engineering, and material exploration which are analyzed as a single cultural process, not just technical or economic changes. Different from previous research that tended to separate aesthetic and production aspects, this study places Acehnese embroidery as a cultural practice that is consciously negotiated between historical values, local identity, and the ideology of the global creative industry (Kiatdamnoen-Ngam & Saleepun, 2024). Thus, the novelty of this research lies in an integrative approach that reads Acehnese embroidery innovations as a process of sustainable cultural hybridization.

Based on the results of this study, the action plan that can be carried out is focused on strengthening the policy of preservation and sustainable development of Acehnese embroidery. First, an integrated mentoring policy is needed for craftsmen through design training, digital embroidery technology, and production management so that innovation does not eliminate the philosophical value of traditional motifs. Second, local governments and creative industry stakeholders need to encourage collaboration schemes between artisans, designers, academics, and fashion actors to produce highly competitive Acehnese embroidery products that are rooted in local identity. Third, the preparation of standards for curating motifs and materials based on local wisdom is important to be carried out as a form of cultural protection from excessive commodification. In addition, the integration of Acehnese embroidery in creative economy policies and cultural diplomacy can expand national and international markets, so that innovation not only increases economic value, but also strengthens the position of Acehnese embroidery as a living and sustainable cultural heritage.

6. Conclusion

The most important finding of this study is the understanding that the sustainability of cultural heritage does not lie in trying to maintain traditions rigidly, but rather in the ability to manage change consciously and responsibly. This research provides a lesson that Acehnese embroidery can continue to be alive and meaningful when innovation is positioned as a means of dialogue between the past and the present, not as a form of denial of traditional values. The transformation of motifs, techniques, and materials shows that the creativity of craftsmen plays an important role as cultural agents who reinterpret local identities according to the context of their time. The main lesson that can be learned is that innovations that are rooted in understanding history, symbolism, and local wisdom are actually able to strengthen cultural identity, increase competitiveness, and open up opportunities for economic sustainability. Thus, this study confirms that traditions that are managed in a reflective and adaptive manner have great potential to develop as dynamic, relevant, and valuable cultural practices across generations.

The main strength of this research lies in its contribution in enriching the scientific study of art and culture through the presentation of empirical data that is contextual and based on the practice of typical Acehnese embroidery craftsmen. This study contributes in-depth qualitative data on the transformation of motifs, techniques, and materials as the main variables that are rarely analyzed in an integrated manner in traditional craft studies. Conceptually, this research introduces an integrative approach that blends aesthetic, technological, and cultural perspectives to read innovation as a cultural process, not just a technical change. This approach opens up new spaces for analysis of the relationship between tradition, the creative industry, and local identity. In addition, this research raises follow-up questions related to the boundaries between innovation and authenticity, the role of technology in the transmission of traditional knowledge, and cultural policy strategies that are able to maintain a balance between preservation and commodification. Thus, this research makes a significant contribution both theoretically and methodologically in the development of the study of contemporary craft arts based on local culture.

Although this study provides a comprehensive overview of Acehnese embroidery innovations in contemporary fashion design, there are several limitations that need to be observed. First, the scope of research focuses more on the perspective of artisans and industry players, so that it has not explored in depth the response of consumers or market perceptions to the transformation of Acehnese embroidery motifs, techniques, and materials. Second, this study has not conducted a quantitative analysis related to the economic impact of embroidery innovation, such as increasing income, production scale, or labor absorption. Third, the limited time and location of the research cause the variety of Acehnese embroidery practices in other regions to be fully accommodated. Therefore, further research is recommended to involve a multidisciplinary approach, a wider geographical scope, and a more in-depth economic and sociological analysis so that an understanding of the sustainability and transformation of Acehnese embroidery can be obtained more fully and comprehensively.

References

Anik, K. M. A. Z., & Tabassum, H. (2024). *Technological Advances in Embroidery: Driving the Textile and RMG Industry's Growth*. 1–7.

Battilana, J., Besharov, M., & Mitzinneck, B. (2017). On Hybrids and Hybrid Organizing: A Review and Roadmap for Future Research. In *The SAGE Handbook of Organizational Institutionalism* (pp. 128–162). SAGE Publications Ltd. https://doi.org/10.4135/9781446280669.n6

Bhandari, N. B. (2022). Homi K. Bhabha's Third Space Theory and Cultural Identity Today: A Critical Review. *Prithvi Academic Journal*. https://doi.org/10.3126/paj.v5i1.45049

Canavan, K. (2015). Applications of Textile Products. In *Textiles and Fashion* (pp. 531–545). Elsevier. https://doi.org/10.1016/B978-1-84569-931-4.00021-0

Chutia, L. J., & Sarma, M. K. (2016). Commercialization of Traditional Crafts of South and South East Asia: A Conceptual Model based on Review of Literature. *IIM Kozhikode Society & Management Review*, *5*(2), 107–119. https://doi.org/10.1177/2277975215624728

Cornish, F., Breton, N., Moreno-Tabarez, U., Delgado, J., Rua, M., de-Graft Aikins, A., & Hodgetts, D. (2023). Participatory action research. *Nature Reviews Methods Primers*. https://doi.org/10.1038/s43586-023-00214-1

Crane, D. (2016). Culture and globalization: Theoretical models and emerging trends. In *Global Culture: Media, Arts, Policy, and Globalization*. https://doi.org/10.4324/9781315538792-6

Creese, A., & Blackledge, A. (2015). Translanguaging and identity in educational settings. In *Annual Review of Applied Linguistics*. https://doi.org/10.1017/S0267190514000233

DE VRIES, H., BEKKERS, V., & TUMMERS, L. (2016). INNOVATION IN THE PUBLIC SECTOR: A SYSTEMATIC REVIEW AND FUTURE RESEARCH AGENDA. *Public Administration*, *94*(1), 146–166. https://doi.org/10.1111/padm.12209

Deldjoo, Y., Nazary, F., Ramisa, A., McAuley, J., Pellegrini, G., Bellogin, A., & Noia, T. Di. (2024). A Review of Modern Fashion Recommender Systems. *ACM Computing Surveys*, *56*(4), 1–37. https://doi.org/10.1145/3624733

Ding, Q. K., & Liang, H. E. (2024). Digital restoration and reconstruction of heritage clothing: a review. In *Heritage Science*. https://doi.org/10.1186/s40494-024-01349-4

Dobriyal, A., & Sarkar, S. (2025). *In-Depth Review of Crafts from Natural Fibres: Traditional Techniques, Innovations, and Sustainability*. https://doi.org/10.1007/978-981-96-4383-7_30

Feldman, C. H., & Wunderlich, S. (2023). Cultural food distancing: a conceptual discourse on the evolution of seminal to present and future models of traditional food practices. *British Food Journal*, *125*(5), 1936–1952. https://doi.org/10.1108/BFJ-12-2021-1337

Goyal, A., & Choudhury, J. (2024). *Exploring the revival of traditional Handloom techniques in contemporary fashion trends in emerging technologies and sustainable finance*. https://doi.org/10.2991/978-94-6463-544-7_31

Granqvist, N., & Siltaoja, M. (2020). Constructions, Claims, Resonance, Reflexivity: Language and Market Categorization. *Organization Theory*, *1*(4).

https://doi.org/10.1177/2631787720968561
Hua, Z. (2017). The Routledge Handbook of Migration and Language. In S. Canagarajah (Ed.), *The Routledge Handbook of Migration and Language*. Routledge. https://doi.org/10.4324/9781315754512
Kiatdamnoen-Ngam, S., & Saleepun, S. (2024). Phu Tai Attire: Cultural Identity in Women's Clothing of the Phu Tai in Kalasin. *International Journal of Diverse Identities*. https://doi.org/10.18848/2327-7866/CGP/v24i02/1-22
Kim, Y. Y. (2017). Cross-Cultural Adaptation. In *Oxford Research Encyclopedia of Communication*. Oxford University Press. https://doi.org/10.1093/acrefore/9780190228613.013.21
Kodžoman, D. (2023). Decoding Fashion: Cultural Values and Theoretical Interpretations. *Tekstil: Časopis Za Tekstilnu i Odjevnu Tehnologiju*.
Liu, G., Shi, Q., Yao, Y., Feng, Y., Yu, T., Liu, B., Ma, Z., Huang, L., & Diao, Y. (2024). Learning from Hybrid Craft: Investigating and Reflecting on Innovating and Enlivening Traditional Craft through Literature Review. *Proceedings of the CHI Conference on Human Factors in Computing Systems*, 1–19. https://doi.org/10.1145/3613904.3642205
Loita, A., & Husen, W. R. (2018). Variasi Bentuk dan Makna Motif Bordir di Sentra Bordir Kecamatan Kawalu Kota Tasikmalaya. *Jurnal Pendidikan Dan Kajian Seni*, *3*(2). https://doi.org/10.30870/jpks.v3i2.4579
Luchs, M. G., Swan, K. S., & Creusen, M. E. H. (2016). Perspective: A Review of Marketing Research on Product Design with Directions for Future Research. *Journal of Product Innovation Management*, *33*(3), 320–341. https://doi.org/10.1111/jpim.12276
Nobile, T. H., Noris, A., Kalbaska, N., & Cantoni, L. (2021). A review of digital fashion research: before and beyond communication and marketing. *International Journal of Fashion Design, Technology and Education*. https://doi.org/10.1080/17543266.2021.1931476
Prihatina, Y. I. (2009). Sejarah dan Perkembangan Bordir Pada Kebaya Encim Di Indonesia. *Jurnal UNY*.
Rosenmann, A., Reese, G., & Cameron, J. E. (2016). Social Identities in a Globalized World. *Perspectives on Psychological Science*, *11*(2), 202–221. https://doi.org/10.1177/1745691615621272
Song, G., Prompongsaton, N., & ... (2024). Cultural Preservation and Revival: Discuss efforts to preserve and revive traditional Miao costume patterns. Explore how local communities, artisans, and cultural …. *Library of Progress …*.
Szromek, A. R., & Bugdol, M. (2024). Sharing Heritage through Open Innovation—An Attempt to Apply the Concept of Open Innovation in Heritage Education and the Reconstruction of Cultural Identity. *Heritage*, *7*(1), 193–205. https://doi.org/10.3390/heritage7010010
Todeschini, B. V., Cortimiglia, M. N., Callegaro-de-Menezes, D., & Ghezzi, A. (2017). Innovative and sustainable business models in the fashion industry: Entrepreneurial drivers, opportunities, and challenges. *Business Horizons*, *60*(6), 759–770. https://doi.org/10.1016/j.bushor.2017.07.003
Wang, S. L., Gu, Q., Von Glinow, M. A., & Hirsch, P. (2020). Cultural industries in international business research: Progress and prospect. In *Journal of International Business Studies*. https://doi.org/10.1057/s41267-020-00306-0
Yadav, U. S., Tripathi, R., Tripathi, M. A., Ghosal, I., Kumar, A., Mandal, M., & Singh, A. (2023). Digital and innovative entrepreneurship in the Indian handicraft sector after the COVID-19 pandemic: challenges and opportunities. *Journal of Innovation and Entrepreneurship*, *12*(1), 69. https://doi.org/10.1186/s13731-023-00337-5
Yulimarni, Y., & Rahmanita, N. (2018). PENINGKATAN KREATIVITAS KELOMPOK PKK DUSUN KABUN BARU KEC. LUBUK ALUNG MELALUI PELATIHAN SULAMAN. *Jurnal Abdimas Mandiri*, *2*(2). https://doi.org/10.36982/jam.v2i2.526
Zhong, X., & Chudasri, D. (2019). A Review of Traditional Embroidery from China in Relation to Knowledge Management and Design. *2019 Joint International Conference on Digital Arts, Media and Technology with ECTI Northern Section Conference on*

Electrical, Electronics, Computer and Telecommunications Engineering (ECTI DAMT-NCON), 276–281. https://doi.org/10.1109/ECTI-NCON.2019.8692256

Zou, Y., Pintong, S., Shen, T., & Luh, D.-B. (2022). Evaluation and trend of fashion design research: visualization analysis based on CiteSpace. *Fashion and Textiles*, *9*(1), 45. https://doi.org/10.1186/s40691-022-00316-6