



VOL. 13 , NO 2, 2025 (193-207)

JURNAL NATAPRAJA:

Kajian Ilmu Administrasi Negara

2406-9515 (p) / 2528-441X (e) <https://journal.uny.ac.id/index.php/natapraja>

Enhancing Economic Resilience: An Evidence-Based Policy Framework for Aceh Utara's Embroidery Artisans

Rabiatal Adawiyah¹, Ratna Farida², Syukri¹, Marzuki³

¹Public Administration Study, Universitas Senior Medan, Medan, Indonesia

²Public Administration, Sekolah Tinggi Ilmu Administrasi Nasional, Lhokseumawe, Indonesia

³Public Administration, Universitas Gadjah Mada, Yogyakarta, Indonesia

ARTICLE INFO

Article history:

Received 19 September 2025

Received in revised form 23 November 2025

Accepted 1 December 2025

ABSTRACT

This study aims to analyze the economic resilience of embroidery artisans in North Aceh Regency and to develop an evidence-based policy framework tailored to local needs. The research employed a concurrent mixed-methods approach by integrating quantitative and qualitative data collected through semi-structured questionnaires administered to 110 embroidery artisans in Muara Batu District. Quantitative data were analyzed using descriptive statistics, while qualitative responses were examined through thematic coding. The findings reveal that, overall, the artisans' economic resilience falls within the moderate category, with an average score of 2.69 on a four-point scale. Two dimensions, namely business capacity and household economic resilience, remain at a moderate level, whereas access to capital and technology, as well as institutional networks, appear relatively stronger. The results also highlight vulnerabilities in income stability, emergency savings, and limited access to financing and business training. On the other hand, artisans demonstrate notable strengths in product innovation, digital marketing adoption, and openness to customer feedback. Based on these results, the study emphasizes the importance of strengthening community institutions, expanding access to financial resources, promoting digital-based marketing, and fostering multi-stakeholder collaboration as key strategies to enhance economic resilience. This research contributes by providing empirical evidence that can serve as a foundation for formulating evidence-based policies in the craft sector, thereby ensuring that interventions are more contextual, adaptive, and sustainable.

Keyword:

Economic Resilience,
Embroidery Artisans,
Evidence-Based Policy, North
Aceh; MSMEs

E-mail address:rabiataladawiyah2552@gmail.com

©2025. Rabiatal Adawiyah, Ratna Farida, Syukri, Marzuki. Published by DPA UNY

<https://doi.org/10.21831/natapraja.v13i2.89821>

INTRODUCTION

Sustainable development is inseparable from the economic capacity of communities to endure and grow despite external challenges (LI et al., 2021). Economic resilience has become a crucial factor for communities, particularly in times of uncertainty and crisis (Postal & De Oliveira, 2016). For instance, during the Covid-19 crisis, the level of economic resilience within community groups helped mitigate severe impacts due to their adaptive capacity to change (O'Loughlin et al., 2023). This is because resilience largely depends on the ability of groups to reduce risks through proactive and reactive strategies that enable recovery during crises (Halmai, 2021; Oyadeyi et al., 2024). Furthermore, the economic resilience of a community is shaped by several factors, including institutional quality, economic diversification, and innovation capacity (Afolabi & Raifu, 2025; Pan et al., 2023; PASCARIU et al., 2021).

In the Indonesian context, economic diversification plays a significant role in strengthening resilience during times of crisis (Putri, 2024; WIDIANA, 2021). Data from the Ministry of Cooperatives and Small and Medium Enterprises indicates that Indonesia has more than 64 million micro, small, and medium enterprises (MSMEs). These enterprises contribute substantially to national economic growth, accounting for approximately 60.34% of GDP and absorbing 97.22% of the labor force (Erico et al., 2023; Indrawati & Ariwati, 2015). MSMEs are considered highly adaptive, particularly through innovation in response to external shocks (Sunarti et al., 2023). Case studies of embroidery artisans further reveal that, beyond adaptability and creativity, their ability to anticipate market trends is a key determinant of resilience (Sunarti et al., 2023).

North Aceh Regency, particularly Muara Batu District, is well known as a center of traditional Acehnese embroidery, with 265 artisans actively engaged in the craft (Maulana, 2024). Despite this potential, artisans face serious financial constraints, with limited capacity to address capital-related challenges (H. Zahara, 2018). They also rarely participate in exhibitions due to high costs of booths and limited financial resources. More broadly, embroidery enterprises face fluctuating market demand and limitations in human resource capacity (Fakhriati & Erman, 2022; Kiptoo et al., 2024; Mustofa et al., 2017). These conditions place embroidery artisans in a vulnerable position, as their economic resilience is easily undermined by both internal and external factors.

If these challenges are not addressed, they risk undermining the economic resilience and long-term sustainability of embroidery businesses. This situation is further exacerbated by weak institutional structures within artisan communities. In North Aceh, embroidery enterprises range from small home-based units to larger industrial-scale businesses (H. Zahara, 2016). Many artisans operate individually, often relying on daily wages, which limits their income and opportunities for growth. Previous studies have confirmed that the quality of institutions significantly influences the resilience of community groups. Weak institutions and governance place vulnerable groups at greater risk of economic fragility (Afolabi & Raifu, 2025). To counter this, strengthening social capital and expanding market networks are essential (Dhameria et al., 2021; Keumala et al., 2023; Mustofa et al., 2017; A. Zahara et al., 2024).

At the same time, many public policies in Indonesia are still formulated normatively and uniformly, without fully considering the real conditions of target groups. The absence of empirical evidence in policy formulation often results in weak effectiveness and sustainability, particularly for vulnerable groups (Chung, 2016; Hantrais et al., 2015). The evidence-based policy approach provides an alternative by grounding policy decisions in empirical data, thereby ensuring that interventions are more targeted, relevant, and adaptive to local contexts (Weiland, 2016).

In the case of embroidery artisans in North Aceh, the lack of data-driven research on their economic resilience creates the risk that current policy interventions fail to address

their fundamental issues, including limited access to finance, weak community institutions, and unstable incomes. Policies targeting MSMEs and artisan groups often remain normative and insufficiently grounded in the specific needs of beneficiaries. Evidence-based policy emphasizes the use of empirical data to design more effective and sustainable interventions, which is particularly critical for vulnerable groups such as artisans (Chung, 2016; Weiland, 2016). The limited research that empirically documents the needs, challenges, and capacities of embroidery artisans represents a critical knowledge gap. Therefore, analyzing economic resilience is essential as a strategy to strengthen the capacity and welfare of artisan communities in ways that are contextually relevant. This study seeks to explore the economic resilience of North Aceh within the framework of evidence-based policy. It is expected to generate empirical insights that can inform policy recommendations, both in the specific context of embroidery artisans in North Aceh and in broader discussions on community economic resilience.

METHODS

This study employed a concurrent mixed-methods design, which integrates quantitative and qualitative approaches within the same period of data collection (Creswell, 2017). The research was conducted in North Aceh Regency, particularly in Muara Batu District, which is recognized as a center of traditional Acehnese embroidery. The use of this approach aimed to produce a deeper and more comprehensive understanding of economic resilience in a contextual manner (Liem, 2018; Wipulanusat et al., 2020). Quantitative data provided a broad general overview, while qualitative data offered detailed insights and explanations. This methodological choice is consistent with previous studies that emphasized the importance of contextualizing the issue of economic resilience within artisan communities (Chaffin & Gunderson, 2016; Sharma-Wallace et al., 2018). The qualitative data was collected from the open question on the same questionnaire. Additional question is provided to gain a deeper understanding related to the phenomena.

Data were collected simultaneously using a semi-structured questionnaire that incorporated both closed and open-ended questions. The survey was administered to 110 embroidery artisans in Muara Batu District, North Aceh. The questionnaire items were adapted from prior studies conducted by Allo et al. (2024) and Suyadi et al. (2018). The dimensions of economic resilience measured in this study include: (1) Household Economic Resilience, (2) Business Capacity, (3) Access to Capital and Technology, and (4) Networks and Institutions. These four dimensions were selected as the main focus for strengthening the economic resilience of embroidery artisans. In addition to these measured dimensions, the study also explored artisans' expectations, needs, challenges, and institutional conditions through open-ended survey responses. The demographic profile of respondents is presented in the following table.

Table 1. Respondent Demography

| Demography | N | Percentage |
|---------------------------|----|------------|
| Gender | | |
| Male | 41 | 37,3% |
| Female | 69 | 62,7% |
| Group of Age (y.o) | | |
| 15-25 | 17 | 15,5% |
| 26-35 | 42 | 38,2% |
| 36-45 | 40 | 36,4% |
| 46-55 | 10 | 9,1% |

| | | |
|------------------------------|----|-------|
| >56 | 1 | 0,9% |
| Group of Income (IDR) | | |
| < 500 thousand | 17 | 15,5% |
| 500 – 1 million | 43 | 39,1% |
| 1 – 2 million | 28 | 25,5% |
| > 2 million | 22 | 20,0% |

Source: Processed by Author, 2025

The research data were analyzed using two complementary methods. For the quantitative data, analysis was conducted through descriptive statistical techniques using SPSS version 29. Descriptive statistics were applied to calculate means and percentages, employing a five-point Likert scale categorization adapted from Azwar (Azwar, 2022). Meanwhile, the qualitative data were analyzed using thematic analysis through a thematic coding approach. The coding process adopted an inductive thematic method in which themes emerged directly from the data provided by research participants, allowing raw textual information to be interpreted into concepts, themes, or process models (Chandra & Shang, 2019).

Table 2. Azwar's Categorization

| Category | Formula | Score Range |
|-----------|-----------------------------|-------------------|
| Very Low | $X < M - 1.5SD$ | $X < 1.75$ |
| Low | $M - 1.5SD < X < M - 0.5SD$ | $1.75 < X < 2.25$ |
| Moderate | $M - 0.5SD < X < M + 0.5SD$ | $2.25 < X < 2.75$ |
| High | $M + 0.5SD < X < M + 1.5SD$ | $2.75 < X < 3.25$ |
| Very High | $M + 1.5SD < X$ | $3.25 < X < 4$ |

Source: Adopted from Azwar (Azwar, 2022)

Before analyzing the indicators of economic resilience, an inferential analysis was conducted to explore variations in opinions among respondent groups. The purpose of this analysis was to examine whether there were significant differences in perceptions across these groups. Conducting this inferential test was important prior to descriptive analysis to ensure that the data could be treated as a homogeneous set, thereby allowing the descriptive findings to be generalized without being influenced by significant inter-group differences. The inferential analysis was carried out using the Kruskal-Wallis test in SPSS version 29. This test was applied to two main demographic variables, namely gender and age group.

Table 3. SPSS Output Analysis

| Test Statistics^{a,b} | |
|--------------------------------------|---------|
| | Average |
| Kruskal-Wallis | .593 |
| H | |
| df | 1 |
| Asymp. Sig. | .441 |

a. Kruskal Wallis Test

b. Grouping Variable: Gender

| Test Statistics^{a,b} | |
|--------------------------------------|---------|
| | Average |
| Kruskal-Wallis | 6.240 |
| H | |
| df | 4 |
| Asymp. Sig. | .182 |

a. Kruskal Wallis Test

b. Grouping Variable: Group of Age

Source: Processed by Author, 2025

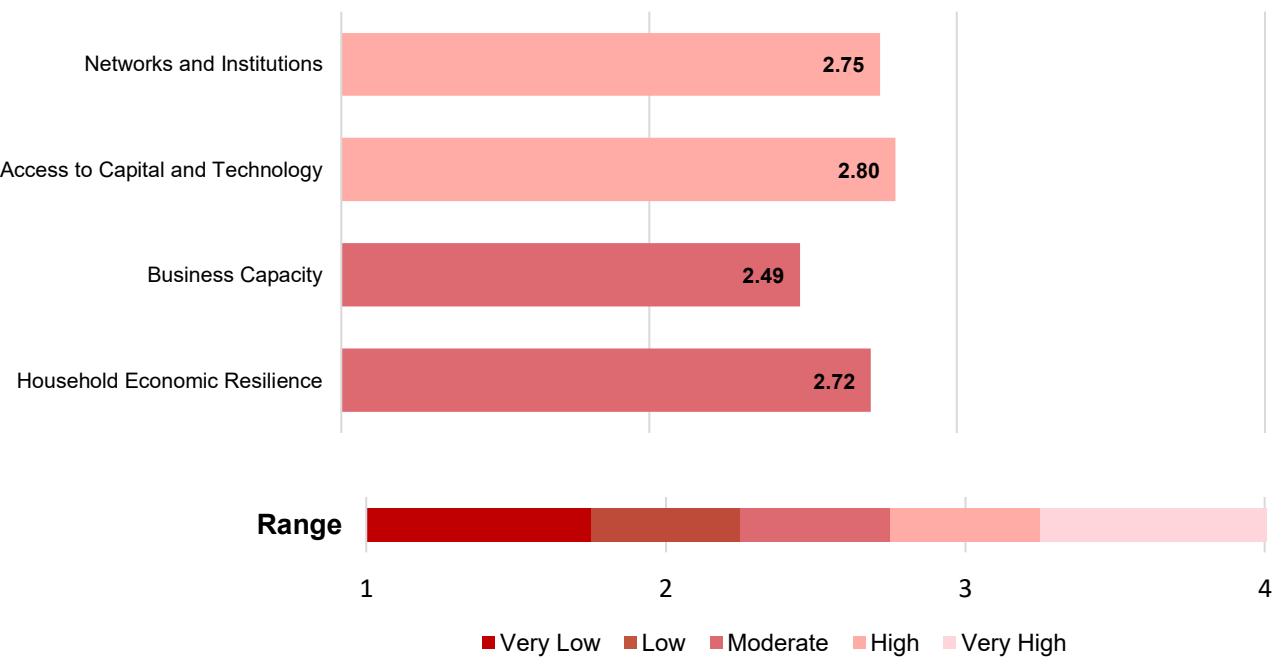
The test results indicated that the significance value (Asymp. Sig.) for the gender variable was 0.441, while the value for the age group variable was 0.182. Both values are far above the significance threshold of 0.05. These findings suggest that there are no significant differences in perceptions among respondents based on gender or age group. Therefore, it can be concluded that all respondent groups share relatively similar perspectives, allowing the subsequent descriptive analysis to be conducted by treating the data as a single homogeneous set.

RESULT AND DISCUSSIONS

Economic Resilience of Embroidery Artisans in North Aceh Mapping

Economic resilience in artisan communities is a multifaceted construct that encompasses sustainability, diversification, and social capital. These elements collectively strengthen the ability of communities to adapt, innovate, and thrive under conditions of uncertainty (Boahen et al., 2023; Cooper & Huff, 2018). The results of the analysis show that the overall level of economic resilience among embroidery artisans in Muara Batu District, North Aceh, scored 2.69 on a four-point scale. This score falls within the moderate category, indicating that artisans in the region have not yet achieved strong economic resilience. When disaggregated by dimension, two areas were found to be moderate, namely Business Capacity (2.49) and Household Economic Resilience (2.72). The other two dimensions, Networks and Institutions (2.75) and Access to Capital and Technology (2.80), were categorized as high. Although these two dimensions achieved a "High" score, this does not automatically reflect strong economic resilience overall. The average score remaining in the "Moderate" category suggests that significant challenges remain and need to be addressed to strengthen artisans' resilience in a holistic manner. Therefore, further analysis at the indicator level within each dimension is required to formulate more precise and contextually relevant policy recommendations.

Economic Resilience Dimension



Source: Processed by the author, 2025

Figure 1. Aceh Utara Embroidery Artisans's Economic Resilience

Analysis at the dimensional level provides an overview of the economic resilience conditions of the artisans. However, findings at this level are not sufficiently sensitive to identify the specific challenges faced by artisan groups. The results of the indicator-level analysis are presented in Table 4. These findings serve as an empirical basis that can be used as a reference for policy formulation aimed at strengthening the economic resilience of embroidery artisans in North Aceh. The analysis shows that, in general, most indicators fall within the moderate category. This indicates that while artisans are able to sustain themselves, they continue to face significant vulnerabilities. Several indicators are also categorized as low, underscoring the need for targeted interventions to improve the economic resilience of artisan groups in certain critical aspects.

Table 4. Economic Resilience Indicators

| Aspect | Score | Category |
|---|-------|------------------|
| Household Economic Resilience | | |
| Habitable Living Condition | 3,15 | High |
| Fulfillment of Basic Needs | 2,86 | High |
| Adequacy of Primary Income | 2,83 | High |
| Income Stability | 2,15 | Low |
| Presence of Additional Income | 2,65 | Moderate |
| Ability to Fund Child's Education | 2,55 | Moderate |
| Financial Plan for Education | 2,85 | High |
| Emergency Savings | 2,68 | Moderate |
| Health Insurance Coverage | 2,72 | Moderate |
| Business Capacity | | |
| Business Collaboration | 2,57 | Moderate |
| Community Engagement | 2,61 | Moderate |
| Training Participation | 2,74 | Moderate |
| Ease of Access to Training | 2,50 | Moderate |
| Relevance of Training Material | 2,75 | Moderate |
| Access to Business Mentoring | 2,33 | Moderate |
| Impact of Mentoring | 2,43 | Moderate |
| Official Business Licensing | 2,29 | Moderate |
| Ease of License Application | 2,16 | Low |
| Access to Capital and Technology | | |
| Access to Business Loans | 2,17 | Low |
| Knowledge of Loan Procedures | 2,35 | Moderate |
| Openness to New Technology | 3,11 | High |
| Use of Production Technology | 2,39 | Moderate |
| Use of Digital Marketing | 3,02 | High |
| Market Research Implementation | 2,94 | High |
| Product Innovation | 3,17 | High |
| Openness to Customer Feedback | 3,28 | Very High |
| Networks and Institutions | | |
| Participation in Government Programs | 2,39 | Moderate |
| Impact of Government Programs | 2,49 | Moderate |
| Experience Sharing | 2,89 | High |

| Aspect | Score | Category |
|--------------------------|-------|----------|
| Learning from Experience | 3,24 | High |

Source: Processed by Author, 2025

1. Potential for Technology Integration and Adoption

Based on the results of the table analysis, it can be observed that the economic vulnerabilities of embroidery artisans still need to be addressed, as several indicators remain within the moderate to low categories. Nevertheless, it is undeniable that artisan groups also possess significant potential and strengths in terms of economic resilience. Artisans scored highly on basic needs fulfillment, such as habitable living conditions and access to essential goods. They also demonstrated strong capacities in innovation and technology adoption, as reflected in high scores for digital marketing use, product innovation, and openness to customer feedback.

These strengths represent valuable assets for building economic resilience. In line with the findings of Segares (2021) and Rao & Gopi (2016), the integration and adaptation of technology in business management can support artisans in expanding their markets and diversifying income sources. Segares (2021) further highlights the importance of technology for creating online networking opportunities among artisans, enabling the exchange of experiences and resources, particularly knowledge, which can enhance their capacity in both business management and opportunity exploration. Moreover, collaborative networks provide artisans with access to the development of new products, which can improve the stability of their income (Ferhat et al., 2024). The strength of artisans in adopting and integrating technology thus serves as a strategic foundation for designing future initiatives to enhance their capacity and economic resilience.

2. Vulnerability in Financial Stability of Artisans

Although artisans demonstrate strong potential in adopting technology for marketing and networking, the data indicate only a moderate category in the utilization of technology for production processes. This finding suggests that artisans have not yet optimized production by incorporating technological tools, such as computers or other supporting equipment. Many production stages are still carried out manually, which, although not quantified in terms of significance, warrants attention since the limited use of technology in production may hinder the optimization of output. Moreover, reliance on non-technological processes may expose artisans to higher risks of production disruptions (Cooper & Huff, 2018).

In addition to these challenges, several financial vulnerabilities were also identified, particularly in terms of income stability and low scores related to savings and insurance. The survey results show that more than 73 percent of artisans do not have stable annual incomes, as their earnings fluctuate depending on demand and market conditions. This volatility places them at risk of economic shocks, especially during crises or emergencies. The situation is further exacerbated by the fact that over 35 percent of artisans lack savings or insurance to anticipate unexpected household expenses. Savings play a critical role in strengthening artisans' economic resilience, as they provide a financial buffer to prepare for adverse conditions such as economic shocks or unforeseen expenditures (Kamble et al., 2025; Zeka & Alhassan, 2024).

Identification of Program Needs for Artisans

The analysis of economic resilience dimensions has revealed both the potential and challenges faced by embroidery artisans. Although embroidery has long been an important part of cultural identity as well as a primary source of livelihood, the socio-economic

conditions of artisans remain relatively vulnerable. The mapping of research findings across dimensions successfully identified programmatic needs and forms of support that artisans expect in order to strengthen their resilience. These program needs are perceived as essential to overcoming the challenges faced by artisans and, in turn, enhancing their economic resilience. Broadly, the needs articulated by artisans encompass four key areas: financial support and access to capital, training opportunities, institutional and community capacity strengthening, and marketing support.

1. Limited Capital and Financial Support

Most embroidery artisans in North Aceh face significant challenges related to the availability of business capital. Many artisans explicitly stated the absence of adequate financial assistance or support for developing their businesses. Their reliance on personal capital and the limited access to formal funding sources has constrained their ability to expand production capacity. Several artisans also reported that this financial constraint directly affects business sustainability, particularly when they must fulfill large market demands or cope with fluctuations in raw material prices. This condition illustrates that without targeted financial interventions, the competitiveness of artisans will be difficult to improve significantly.

The issue of limited capital and financial support experienced by embroidery artisans in North Aceh reflects a challenge commonly faced by micro, small, and medium enterprises (MSMEs). Many SMEs rely primarily on self-financing and profit reinvestment as their main funding sources, largely due to limited access to formal financial institutions and other external funding mechanisms (Anton et al., 2024; Kaur et al., 2023). If unaddressed, this financial constraint may hinder artisans' ability to meet market demands, particularly in the face of price fluctuations that are frequently encountered in the embroidery sector (Ekayani et al., 2024). Ultimately, artisans' dependence on personal capital poses a serious risk to both production scale and the long-term sustainability of embroidery businesses.

2. Access to the training

The need for access to training is frequently emphasized by embroidery artisans. Training requirements include not only technical embroidery skills but also business management and entrepreneurial development. Artisans perceive training as crucial and highly beneficial, particularly in enabling them to expand and deepen their knowledge so they can keep pace with contemporary trends, especially in embroidery motifs and product design. Despite this recognized importance, several artisans reported that they had never participated in any training programs. This highlights a gap in program inclusivity and accessibility. Therefore, there is a strong need to develop training initiatives that are more inclusive and easier to access, ensuring that improvements in technical skills and product innovation are distributed more evenly among artisans.

Furthermore, integrating cultural elements that have long been preserved by Aceh's embroidery artisans with contemporary knowledge and practices can further strengthen their position in the business landscape. Evidence from other contexts demonstrates that artisan capacity-building through training not only enhances marketing capabilities but also contributes to cultural preservation (Ghai, 2024). Training thus plays a dual role: while it provides technical embroidery skills, it also improves artisans' understanding of product marketing, which ultimately supports the economic resilience and sustainability of artisan groups (Malarcher, 2004).

3. Strengthening Community Institutions and Collective Capacity

The findings reveal that although artisan communities and networks are present, not all members participate actively. Some artisans explicitly stated that they had never been involved in embroidery-related community activities. In contrast, artisans with prior experience in community engagement viewed these networks as valuable spaces for

“exchanging information,” “connecting with fellow artisans,” and accessing up-to-date knowledge on training opportunities and market prospects. This illustrates the latent potential of artisan community institutions that could be further optimized. Nevertheless, the uneven levels of participation underscore the need for strategies to strengthen institutional roles, whether through organizational development or by enhancing the leadership capacity of community actors. Strengthening these institutions would not only foster more inclusive participation but also provide a stronger foundation for collective empowerment and long-term economic resilience.

4. Marketing Support for Product

Some artisans emphasized that participation in communities or training activities not only improved their skills but also facilitated marketing, such as “making production and sales easier and supporting household economies within the community.” In addition, several artisans highlighted the importance of access to updated information and market opportunities, although not all artisans have yet been able to experience these benefits directly. Limited marketing capacity thus remains a significant challenge, as the success of strengthening artisans’ economic resilience depends not only on production skills but also on the ability to expand and sustain market access.

The Need for an Evidence-Based Policy Framework

The findings of this study indicate that the economic resilience of embroidery artisans in North Aceh remains vulnerable, with major challenges related to limited access to capital, insufficient training, weak community institutions, and inadequate marketing support. This situation underscores that policy development for the craft sector cannot be carried out in a generic manner but must be grounded in evidence. The evidence-based policy approach emphasizes that public policy formulation should be based on empirical data rather than solely on normative or political considerations. The evidence derived from artisans’ needs and perceptions provides a strong foundation for designing interventions that are more contextual, effective, sustainable, and responsive to complex problems (Weiland, 2016).

Several studies in other national contexts have shown that policy implementation failures are often linked to the absence of evidence-based approaches (Chung, 2016; Unlu & Aksu, 2018). As a data-driven approach, the availability of high-quality evidence is crucial, along with the capacity to analyze and contextualize socio-economic and political factors (Hantrais et al., 2015). When implemented properly, evidence-based policy can generate recommendations that are not only rigorous but also highly relevant in addressing social issues. According to Nutley et al. (2007), the evidence-based policy framework generally consists of five stages: (1) problem identification, (2) evidence gathering and analysis, (3) formulation of policy alternatives, (4) policy implementation, and (5) monitoring and evaluation.

In the context of economic resilience, resilience theory views resilience as the ability of individuals, households, and communities to anticipate, adapt to, and recover from economic pressures. Key factors such as asset capacity, social networks, income diversification, and institutional support serve as pillars for building economic resilience. The findings of this study, which highlight the limited access to capital and training, reflect weak adaptive capacity among artisans in responding to market dynamics. Similarly, weak community institutions undermine their transformative capacity to create long-term structural change, including strengthening their bargaining power within the creative industry value chain.

Moreover, the literature on community economic empowerment emphasizes the importance of capacity building and social capital to enhance the competitiveness of small enterprises. Training in both technical and managerial skills, strengthening artisan networks, and marketing innovation are strategic steps directly identified by the artisans

themselves. Thus, this evidence provides a strong basis for local governments and stakeholders to design programs that align with the real needs of embroidery artisans. Based on the empirical data collected in this study, an evidence-based policy framework can be developed to serve as an empirical recommendation for strengthening the economic resilience of embroidery artisans in North Aceh. The proposed framework is not limited to be applied in Nort Aceh context. Some adjustment or contextualization of the framework might possibly working for other region.



Source: Processed by the author, 2025

Figure 2. Evidence Based Policy Framework Recommendation

Based on the empirical data collected and the evidence-based policy framework, the following empirical recommendations can be adopted to enhance the economic resilience of embroidery artisans in North Aceh.

1. Strengthening Artisan Community Institutions

Strengthening artisan community institutions is crucial, as collective organizations can enhance shared capacities, broaden access to information, and improve the bargaining position of artisans in the marketplace. Research indicates that artisan communities supported by strong institutions are able to adopt financial literacy and digital strategies more rapidly, generating a positive impact on business sustainability (Siregar et al., 2024). Strong institutions also open opportunities for partnerships with government, the private sector, and non-governmental organizations, thereby facilitating the accommodation of artisans' needs. Thus, well-organized communities can serve as a key pillar in maintaining the stability and growth of embroidery artisans' economic resilience.

2. Expanding Access to Capital and Inclusive Financing

Adequate access to business capital provides artisans with the opportunity to increase production capacity and foster product innovation. International studies emphasize that inclusive microfinance schemes, designed with simple procedures and fair interest rates, can improve income and reduce the economic vulnerability of small business group (Makara et al., 2024). Such schemes are particularly effective when combined with financial management assistance, ensuring that the capital is used more productively. Therefore, providing inclusive and well-targeted financing mechanisms can be a critical factor in strengthening the economic resilience of embroidery artisans in North Aceh.

3. Marketing Support and Business Digitalization

The use of digital technology in marketing has been proven to significantly expand market reach and enhance the competitiveness of craft products. Evidence shows that digital marketing training encourages artisans to interact more broadly with consumers and to access both national and international markets (Siregar et al., 2024). Moreover, the integration of digital techniques with traditional motifs preserves cultural values while simultaneously increasing the attractiveness of products in modern markets (Wesnina et al., 2025). Policy support that facilitates business digitalization and online product promotion will reinforce artisans' positioning within the creative industry value chain.

4. Strengthening Networks and Multi-Stakeholder Collaboration

The economic resilience of artisans will be more secure when supported by robust networks and multi-stakeholder collaboration involving government, universities, the private sector, and civil society organizations. Such synergies enable the provision of complementary support in training, technology access, and market facilitation. Studies have shown that this type of collaboration enhances business sustainability through the integration of financing, mentoring, and digital market access within a unified ecosystem (Siregar et al., 2024; Wesnina et al., 2025). Through collaborative networks, artisans not only gain financial support but also opportunities for innovation and long-term business development.

The findings above emphasize the important of capacity improvement for the artisan particularly in the area of community institution. Some suggestion strongly recommend the community and local government to address the complexity, continuity, and adaptability of the business. A collaborative action is required to support the development and existence of the community. In summary, this findings aligned with some previous researches, giving a direct urgency to solve the problem (Makara et al., 2024; Siregar et al., 2024; Wesnina et al., 2025)

CONCLUSION

This study demonstrates that the economic resilience of embroidery artisans in North Aceh remains within the moderate category. Strengths are evident in areas such as innovation, adoption of digital marketing, and openness to customer feedback, while vulnerabilities persist in income stability, emergency savings, and access to inclusive financing. These findings underscore that economic resilience cannot be achieved solely through individual adaptive capacity but also requires strengthened institutions, access to resources, and collaborative networks. By applying an evidence-based policy framework, this study fills a knowledge gap by linking empirical mapping of economic resilience with concrete policy recommendations for vulnerable artisan groups. The main contribution of this research lies in integrating four dimensions of economic resilience, namely household resilience, business capacity, access to capital and technology, and institutional networks, into a systematic, adaptive, and sustainable policy cycle. In practical terms, the results highlight the importance of policies that prioritize strengthening community institutions, expanding financial inclusion, supporting digitalization and marketing, and reinforcing multi-stakeholder collaboration. These findings are relevant for local governments and stakeholders seeking to design interventions that are contextual and responsive to artisans' actual needs, thereby enhancing their capacity to anticipate, adapt, and recover from economic challenges. Although this study provides strong evidence to inform policy formulation, there is a limitation in terms of research context that only focus on the North Aceh embroidery artisan. Further research is needed, particularly through cross-regional comparisons or longitudinal evaluations of policy impacts.

ACKNOWLEDGEMENTS

The author would like to express sincere gratitude to the BIMA Research Program for providing financial support, which enabled this study to be successfully conducted. Appreciation is also extended to the Government of North Aceh Regency and the embroidery artisan community in Muara Batu District for their active participation and valuable contributions during the research process. Their support was instrumental in enriching the empirical findings and ensuring the relevance of this study to the actual conditions faced by artisans.

REFERENCES

Afolabi, J. A., & Raifu, I. A. (2025). Toward economic resilience in Sub-Saharan Africa: The role of institutional quality and human capital development. *Sustainable Development*, 33(2), 2566–2578. <https://doi.org/10.1002/sd.3251>

Allo, E. R. R., Prijadi, R., & Chotib, C. (2024). Faktor Penentu Ketahanan Ekonomi UMKM Jakarta dalam Menembus Pasar Global. *Jurnal Keamanan Nasional*, 10(2), 235–262.

Anton, C. E., Zamfirache, A., Albu, R.-G., Suciu, T., Sofian, S. M., & Ghiță-Pirnuță, O.-A. (2024). Sustainable Entrepreneurship: Romanian Entrepreneurs' Funding Sources in the Present-Day Context of Sustainability. *Sustainability*, 16(2), 654. <https://doi.org/10.3390/su16020654>

Azwar. (2022). *Penyusunan Skala Psikologi Edisi 3*. Pustaka Pelajar.

Chaffin, B. C., & Gunderson, L. H. (2016). Emergence, institutionalization and renewal: Rhythms of adaptive governance in complex social-ecological systems. *Journal of Environmental Management*, 165, 81–87. <https://doi.org/10.1016/j.jenvman.2015.09.003>

Chandra, Y., & Shang, L. (2019). Inductive Coding. In *Qualitative Research Using R: A Systematic Approach* (pp. 91–106). Springer Nature Singapore. https://doi.org/10.1007/978-981-13-3170-1_8

Chung, J. (2016). The (mis)use of the Finnish teacher education model: 'policy-based evidence-making'? *Educational Research*, 58(2), 207–219. <https://doi.org/10.1080/00131881.2016.1167485>

Cooper, L., & Huff, E. (2018). Foreign investments in the forestry sector as a means of increasing community resilience: two case studies in Mexico. *International Forestry Review*, 20(4), 452–468. <https://doi.org/10.1505/146554818825240629>

Creswell, J. D. (2017). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. Sage Publisher.

Dhameria, V., Ghozali, I., Hidayat, A., & Aryanto, V. D. W. (2021). Networking capability, entrepreneurial marketing, competitive advantage, and marketing performance. *Uncertain Supply Chain Management*, 9(4), 941–948. <https://doi.org/10.5267/j.uscm.2021.7.007>

Erico, Antoni, D., Hossain, Md. J., Widiyanto, D., Pratiwi, M. P., & Faradillah. (2023). Business Process Digitalization on Authentic Culinary Palembang. *2023 International Conference on Informatics, Multimedia, Cyber and Informations System (ICIMCIS)*, 683–687. <https://doi.org/10.1109/ICIMCIS60089.2023.10349010>

Fakhriati, & Erman, E. (2022). COVID-19, local wisdom, and resilience: The case of embroidery artisans in Indonesia. *Cogent Arts & Humanities*, 9(1). <https://doi.org/10.1080/23311983.2022.2129034>

Ferhat, S., Oger, R., Ballot, E., & Lauras, M. (2024). Building a collaborative manufacturing system's network resilience through an adaptability potential analysis. *European Journal of Innovation Management*. <https://doi.org/10.1108/EJIM-12-2023-1144>

Ghai, L. (2024). Lessons of Design Empowerment. In *The Routledge Handbook of Craft and Sustainability in India* (pp. 121–135). Routledge India. <https://doi.org/10.4324/9781003228721-12>

Halmai, P. (2021). Resilience in Focus: Certain Mechanisms of the Deepening of the Economic and Monetary Union. *Pénzügyi Szemle = Public Finance Quarterly*, 66(1), 7–31. https://doi.org/10.35551/PFQ_2021_1_1

Hantrais, L., Lenihan, A. T., & MacGregor, S. (2015). Evidence-based policy: exploring international and interdisciplinary insights. *Contemporary Social Science*, 10(2), 101–113. <https://doi.org/10.1080/21582041.2015.1061687>

Indrawati, & Ariwati. (2015). Factors affecting e-commerce adoption by micro, small and medium-sized enterprises in Indonesia. *International Conferences on E-Health 2015*, 118–125.

Kamble, P. A., Mehta, A., & Rani, N. (2025). Measuring Multidimensional Financial Resilience: An Ex-ante Approach. *Social Indicators Research*, 176(2), 533–567. <https://doi.org/10.1007/s11205-024-03476-8>

Kaur, S., Pahuja, A., & Kumar, P. (2023). *Sustainable Financing* (pp. 224–241). <https://doi.org/10.4018/979-8-3693-0111-1.ch012>

Keumala, C. M., Farida, R., Triana, N., & Andirfa, M. (2023). Human Capital dan Pertumbuhan Ekonomi di Negara Berpenduduk Muslim. *ASIA-PACIFIC JOURNAL OF PUBLIC POLICY*, 23–40. <https://doi.org/10.52137/apjpp.v9i1.147>

Kiptoo, M., Sambajee, P., & Baum, T. (2024). Resilience through adversity: a case of informal artisan entrepreneurs in Kenya. *International Journal of Entrepreneurial Behavior & Research*, 30(11), 446–465. <https://doi.org/10.1108/IJEBR-07-2023-0762>

LI, Y., HUANG, H., & SONG, C. (2021). Rural economic resilience in poor areas and its enlightenment: Case study of Yangyuan County, Hebei Province. *Progress in Geography*, 40(11), 1839–1846. <https://doi.org/10.18306/dlkxjz.2021.11.004>

Liem, A. (2018). Interview schedule development for a Sequential explanatory mixed method design: complementary-alternative medicine (CAM) study among Indonesian psychologists. *International Journal of Social Research Methodology*, 21(4), 513–525. <https://doi.org/10.1080/13645579.2018.1434864>

Makara, M., Faimau, G., & Maphosa, F. (2024). Microfinance and Poverty Alleviation: The Socio-Economic Contribution of SILC, a Savings-Led Microfinance Programme in Semonkong, Lesotho. *Journal of Asian and African Studies*. <https://doi.org/10.1177/00219096241300433>

Malarcher, P. (2004). Matching makers with market places. *Surface Design Journal*, 29(1), 6–11. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-10044224501&partnerID=40&md5=dfc8257af7452af4688cced80f8d676d>

Maulana, R. (2024, October 25). *Penilaian Desa Kerajinan di Meunasah Aron, Bungkaih Ketua Dekranasda Aceh Minta Perajin Manfaatkan Pasar Digital*. <https://disporapar.acehutara.go.id/berita/kategori/pariwisata/penilaian-desa-kerajinan-di-meunasah-aron-bungkaih-ketua-dekranasda-aceh-minta-perajin-manfaatkan-pasar-digital#:~:text=Sebelumnya%20Pj%20Ketua%20Dekranasda%20Kabupaten,terhim pun%20dalam%20sembilan%20kelompok%20usaha.>

Mustofa, M. S., Ngabiyanto, & Santoso, A. B. (2017). Innovation and social capital in the development of embroidery industry in Nalum sari sub district of Jepara regency, central Java (a study in Nalum sari and Daren Villages). *International Journal of Applied Business and Economic Research*, 15(6), 321 – 332. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85019478032&partnerID=40&md5=ffe8444556ec3efe7592b062510fadfd>

Nutley, S. M., Walter, I., & Davies, H. T. O. (2007). *Using evidence*. Bristol University Press. <https://doi.org/10.2307/j.ctt9qgwt1>

O'Loughlin, D., Szmigin, I., McEachern, M. G., Karantinou, K., Barbosa, B., Lamprinakos, G., & Fernández-Moya, M. E. (2023). Theorising Resilience in Times of Austerity. In *Researching Poverty and Austerity* (pp. 40–53). Routledge. <https://doi.org/10.4324/9781003226222-4>

Oyadeyi, O. O., Ibukun, C. O., Arogundade, S., Oyadeyi, O. A., & Biyase, M. (2024). Unveiling economic resilience: exploring the impact of financial vulnerabilities on economic volatility through the economic vulnerability index. *Discover Sustainability*, 5(1), 253. <https://doi.org/10.1007/s43621-024-00438-5>

Pan, S.-C., Hu, T.-S., You, J.-X., & Chang, S.-L. (2023). Characteristics and influencing factors of economic resilience in industrial parks. *Heliyon*, 9(4), e14812. <https://doi.org/10.1016/j.heliyon.2023.e14812>

PASCARIU, G.-C., IACOBUTĂ-MIHĂITĂ, A., PINTILESCU, C., & ȚIGĂNAȘU, R. (2021). Institutional Dynamics and Economic Resilience in Central and Eastern EU Countries. Relevance for Policies. *Transylvanian Review of Administrative Sciences, SI 2021*, 77–103. <https://doi.org/10.24193/tras.SI2021.5>

Postal, R., & De Oliveira, H. C. (2016). Economic resilience during the financial crisis of 2008. How important are the institutions? *Espacios*, 37(37). <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85013474207&partnerID=40&md5=00fa1c20c44f42b60418afeaa7eff4b8>

Putri, S. E. (2024). The Role of Marketing Innovation during the Global Crisis. In *Building Resilience in Global Business During Crisis* (pp. 219–231). Routledge India. <https://doi.org/10.4324/9781032719870-14>

Rao, B., & Gopi, A. G. (2016). Investigating the value chain of modern artisanal innovation. *2016 Portland International Conference on Management of Engineering and Technology (PICMET)*, 1037–1042. <https://doi.org/10.1109/PICMET.2016.7806779>

Segares, M. (2021). Crochet microentrepreneurs and technology: A collective case study. *Craft Research*, 12(2), 275–293. https://doi.org/10.1386/crre_00053_1

Sharma-Wallace, L., Velarde, S. J., & Wreford, A. (2018). Adaptive governance good practice: Show me the evidence! *Journal of Environmental Management*, 222, 174–184. <https://doi.org/10.1016/j.jenvman.2018.05.067>

Siregar, N. B., Nasution, A. A., Herubawa, D. A., & Azhar, I. A. S. (2024). Empowering Ulos Artisans through Financial Literacy and Digital Marketing: A Sustainable Approach to Preserving Cultural Heritage in Sipirok, Indonesia. *Asian Multidisciplinary Research Journal of Economy and Learning*, 1(6), 12–20. <https://doi.org/10.70471/sn564045>

Sunarti, L., Hussin, H., Sari, N. F. L., & Haghia, R. S. (2023). Tasikmalaya embroidery during the COVID-19 pandemic: Local entrepreneurs and their wisdom-based resilience. *Cogent Arts & Humanities*, 10(1). <https://doi.org/10.1080/23311983.2023.2264024>

Suyadi, S., Syahdanur, S., & Suryani, S. (2018). Analisis Pengembangan Usaha Mikro Kecil dan Menengah (UMKM) di Kabupaten Bengkalis-Riau. *Jurnal Ekonomi KIAT*, 29(1). <https://journal.uir.ac.id/index.php/kiat>

Unlu, A., & Aksu, G. (2018). A contemporary evaluation of Turkish drug-control policy. *Drugs: Education, Prevention and Policy*, 25(2), 138–147. <https://doi.org/10.1080/09687637.2016.1216946>

Weiland, S. (2016). On the Role of Evidence and Knowledge in Sustainability Governance – Towards a Reflexive Approach to Political Decision-Making ? *Revue de Métaphysique et de Morale*, N° 89(1), 39–54. <https://doi.org/10.3917/rmm.161.0039>

Wesnina, W., Prabawati, M., & Noerharyono, M. (2025). Integrating traditional and contemporary in digital techniques: the analysis of Indonesian batik motifs evolution. *Cogent Arts & Humanities*, 12(1). <https://doi.org/10.1080/23311983.2025.2474845>

WIDIANA, M. E. (2021). The Standardization Transformation of Industry Oriented Batik to Accelerate Competitiveness 4.0 and National Independence in Clothing Sector during New Normal. *Journal of Environmental Management and Tourism*, 12(7), 1930. [https://doi.org/10.14505/jemt.12.7\(55\).18](https://doi.org/10.14505/jemt.12.7(55).18)

Wipulanusat, W., Panuwatwanich, K., Stewart, R. A., & Sunkpho, J. (2020). *Applying Mixed Methods Sequential Explanatory Design to Innovation Management* (pp. 485–495). https://doi.org/10.1007/978-981-15-1910-9_40

Zahara, A., Farida, R., Muhammadi, M., & Kuntorini, D. (2024). Social Capital of Tourism Development in Lut Tawar Lake, Central Aceh Regency Based on Community-Based

Tourism. *Mimbar Administrasi*, 2(2), 36–50.
<https://doi.org/https://doi.org/10.56444/mia.v21i2.1980>

Zahara, H. (2016). Upaya Pengembangan Usaha Ekonomi Kreatif Kerajinan Bordir Aceh Di Kabupaten Aceh Utara. *Agrifo: Jurnal Agribisnis Universitas Malikussaleh*, 1(1), 21. <https://doi.org/10.29103/ag.v1i1.1078>

Zahara, H. (2018). Kapasitas Perempuan Dalam Pengembangan Usaha Ekonomi Kreatif Kerajinan Bordir Aceh Di Kabupaten Aceh Utara. *Agrifo: Jurnal Agribisnis Universitas Malikussaleh*, 3(1), 30. <https://doi.org/10.29103/ag.v3i1.673>

Zeka, B., & Alhassan, A. L. (2024). Gender disparities in financial resilience: insights from South Africa. *International Journal of Bank Marketing*, 42(6), 1212–1231. <https://doi.org/10.1108/IJBM-01-2023-0053>