

ECONOMIC AND SOCIAL ANALYSIS OF ABACA FIBER MSME ACTORS' WELFARE: A CASE STUDY IN TALAUD ISLANDS REGENCY

Analisis Ekonomi dan Sosial terhadap Kesejahteraan Pelaku UMKM Serat Pisang Abaka:
Studi Kasus di Kabupaten Kepulauan Talaud

Jola Silvana Kalangi^{1a} Julita Inggrine Nelwan^{2b} Yopie A. T. Pangemanan^{3c} Jane Elvira Scipio^{4d}
Royke Max Suot^{5e} Sjerly Maria Lumi^{6f} Lenda Lumenta^{7g} James Edward Lalira^{8h(*)}

^{1,2,3,4,5,6,7,8}Universitas Kristen Indonesia Tomohon

^ajoulakalangi64@gmail.com

^bbarbienelwan@gmail.com

^cyopiepangemanan73@gmail.com

^djanescipio26@gmail.com

^eroymax272@gmail.com

^fsjerlymarialumi99@gmail.com

^glentalumentahmajeza@gmail.com

^hjameslalira@gmail.com

(*) jameslalira@gmail.com

nomor HP yang dapat dihubungi

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Abstract

This study examines the economic and social determinants of welfare among Abaca fiber-based micro, small, and medium enterprise (MSME) actors in the Talaud Islands Regency in Indonesia. Despite the global recognition of abaca fiber for its durability and sustainability (used in currency notes, luxury automotive interiors, and marine ropes), local producers continue to experience severe welfare challenges. Employing a mixed-methods approach with a sequential explanatory design, data were collected through a structured survey of 30 entrepreneurs and in-depth interviews supported by field observations and focus group discussions. Findings reveal a significant decline in abaca enterprises, particularly in Essang, where 87% of respondents classify their business as "declining" or "newly initiated." The average monthly income from this activity ranges between IDR 40,000 and IDR 60,000, deemed insufficient by 93% of the respondents to meet basic household needs. Income instability, driven by fluctuating demand and exploitative pricing by intermediaries, has reduced enterprises to marginal, non-primary livelihoods. Structural fragmentation of the value chain, absence of formal market access, and lack of postharvest support following initial government incentives have further weakened sustainability. While 77% of producers involve family or neighbors in production, indicating latent social capital, collaboration among artisans remains minimal, with 60% reporting rare or competitive interactions. Although 87% expressed a strong interest in training and institutional support, only 13% received direct financial assistance. The study concludes that the persistence of poverty among abaca producers is not due to commodity value but to systemic inequities in market access, institutional neglect, and policy discontinuity. Strategic interventions, such as collective marketing institutions, digital promotion, technological training, and inclusive partnerships, are recommended to transform abaca MSMEs into a sustainable and empowering sector.

INTRODUCTION

The micro, small, and medium enterprise (MSME) sector, based on local natural resources, has proven to be a vital pillar in strengthening rural and coastal economies in Indonesia. In island regions, the potential for developing MSMEs based on natural fibers, such as abaca banana fiber, is substantial owing to the abundant availability of raw materials. Abaca fiber is recognized for its high tensile strength, environmental sustainability, and significant economic value in the textile, paper, and handicraft export industries. However, the utilization of this potential is often hindered by limited

access to technology, markets, and financial resources. In the Talaud Islands Regency, despite abaca fiber being a traditional commodity, MSME actors continue to face structural challenges that impede improvements in their welfare. Preliminary data indicate that over 70% of entrepreneurs experience difficulties accessing capital and distributing products to broader markets. This results in income volatility and low economic resilience among business actors. Therefore, a comprehensive understanding of the economic and social factors that influence welfare is crucial for targeted and effective interventions.

The welfare of MSME actors is determined not only by income but also by social dimensions, such as access to training, social networks, and community support. These social factors often play a decisive role in business resilience, particularly in remote areas such as Talaud, where infrastructure and public services are limited. In natural-fiber-based MSMEs, community involvement and local knowledge serve as critical assets that can enhance production capacity and innovation. However, without inclusive policies, these potential risks will stagnate. Previous studies have indicated that MSMEs in coastal areas are particularly vulnerable to economic and environmental risks, especially climate change and dependence on local supply chains (Canevari-Luzardo, 2019; Kapitsa, 2020; Karmaker et al., 2023; Silva & Vecchi, 2023). This situation demands a holistic approach that integrates the economic and social aspects of welfare assessments. Without accurate mapping, policy interventions may fail to achieve their intended impact and may even exacerbate inequalities. Hence, this study aims to uncover the multidimensional dynamics that influence the welfare of abaca fiber MSME actors.

The development of abaca fiber-based MSMEs in the Talaud Islands Regency holds strategic potential in supporting the blue economy and circular economy models. Abaca fiber exemplifies the sustainable utilization of local biomass, reducing the dependency on imported raw materials. Furthermore, its processing can generate local employment and promote women's empowerment, as women often serve as primary actors in production processes. However, field realities show that many entrepreneurs still operate at a subsistence level and lack adequate technological support and market access. This imbalance between potential and realization highlights an urgent need for in-depth empirical research. This study responds to the demand for valid and representative data on the welfare conditions of abaca fiber MSME actors. By employing a mixed-methods approach, this study captures the complexity of interactions between economic and social factors. These findings are expected to provide a scientific foundation for the formulation of sustainable and equitable development policies.

Research on natural-fiber-based MSMEs has advanced significantly over the past decade, particularly in technological innovation and digital marketing. Several studies have demonstrated that banana fibers possess superior physical characteristics compared to synthetic fibers, including water resistance and high tensile strength (Fan, 2023; Lamichhane et al., 2024; Motaleb et al., 2020; Prabhakar et al., 2022). However, most existing research focuses on technical production aspects, such as fiber extraction methods and industrial applications (Nebangka et al., 2019; Srilestari et al., 2020). Economic and social factors that affect entrepreneurs' welfare are rarely the primary focus. (Suwardi & Lestari, 2019) highlighted the commercial potential of abaca fiber but did not systematically assess its impact on entrepreneurs' welfare. Similarly, (Melati et al., 2024) identified access to capital and production efficiency as key determinants of welfare but did not contextualize their findings within island-based abaca MSMEs. These studies tend to be sectoral and fail to examine the social dynamics in depth. Consequently, there is a need for a more holistic approach to comprehensively understand welfare.

In the development economics literature, MSME welfare is often measured through income, consumption, and access to basic services. However, this approach frequently overlooks social dimensions, such as community participation, social capital, and access to knowledge. Analia et al., (2020); Reniati et al., (2024) demonstrated that social capital significantly influences the resilience of micro-enterprises in remote areas. Despite these insights, the application of such approaches in natural fiber based MSMEs remains limited. No study has explicitly linked social capital to the

economic welfare of abaca fiber MSME actors. This gap creates an opportunity for more comprehensive and contextually grounded research.

Previous research has identified major constraints faced by natural-resource-based MSMEs, including limited access to capital, low technical capacity, and weak marketing networks (Destiningsih et al., 2020; Oktavilia et al., 2020; Skinner & Dancis, 2020; Stacey et al., 2021). In island regions, these challenges are exacerbated by geographic isolation and inadequate transportation infrastructure. Another researcher found that over 60% of coastal MSMEs struggled to access business credit (Leslie et al., 2024; Pentury, 2021). Cimprich et al., (2019; Kanike, (2023) added that raw material supply instability and price fluctuations are key risk factors. Entrepreneurship training and simple technologies can significantly improve productivity (Frolov & Bosenko, 2020; Setyawan & Wibowo, 2023). However, the effectiveness of such training depends heavily on community engagement and social support. Although these studies provide a strong foundation for understanding structural challenges, they have not been integrated into a multidimensional welfare framework. Thus, a study that simultaneously links economic and social factors is required.

From a social perspective, (Kesar et al., 2021; Steiner & Teasdale, 2019) demonstrated that income growth does not always translate directly into improved social welfare in rural communities. Structural factors, such as social hierarchies, limited educational access, and external actor dominance, often constrain economic mobility. This study is significant because it underscores the need for a holistic understanding of welfare beyond economic indicators. MSMEs with strong social networks are more resilient to economic shocks (Coles et al., 2021; Kussudyarsana et al., 2023; Pham, 2023). Participation in business groups improves access to information and markets. However, these findings have not been applied to the natural fiber sector, particularly abaca. Moreover, no study has examined the role of women and vulnerable groups in the abaca value chain, despite their central role in production. This indicates the need for more inclusive and context-sensitive research.

The mixed-methods approach has proven to be effective in complex development research, especially in rural and island contexts. Combining quantitative surveys with in-depth qualitative interviews allows researchers to validate their findings and deepen their understanding of social phenomena. Sequential explanatory designs are particularly suitable for uncovering causal relationships in development contexts. In Indonesia, this approach has been used in MSME studies, but has rarely been applied to the natural fiber sector. Thematic analysis to identify patterns in entrepreneurs' perceptions and experiences. Meanwhile, linear regression analysis can test the influence of economic variables on welfare. The integration of both methods enables strong data triangulation. Therefore, the mixed-methods approach was the most appropriate methodological choice for this study.

Although numerous studies have explored the technical and commercial potential of abaca fiber, no study has systematically measured the welfare of MSME actors based on integrated economic and social indicators. Most prior studies are sectoral and do not consider the interplay between capital access, production efficiency, and social factors, such as social capital and community participation. These limitations result in development policies that are often misaligned with local realities. This study fills this gap through a more comprehensive and contextually grounded approach.

This study offers novel insights by integrating economic and social dimensions to assess the welfare of abaca fiber MSME actors simultaneously. Unlike previous sectoral studies, this study employs a mixed-methods approach with a sequential explanatory design to achieve a holistic understanding. Another innovation lies in its focus on remote island regions, which have been under-researched in the context of natural fiber-based MSMEs. This study also explored the role of social capital and community involvement as key welfare determinants. The triangulation of regression analysis and thematic analysis enhances the validity of the findings. Additionally, this study generates data-driven recommendations for policymakers. This novelty positions this study as a significant contribution to the literature on natural resource-based MSME development. Academically, these

findings can serve as a foundation for future research in social economics and sustainable development.

This research is highly urgent, given that 70% of abaca fiber MSME actors in Talaud face limited access to capital and markets, threatening the sustainability of their enterprises. Without data-driven interventions, this sector risks stagnation and fails to contribute optimally to the local economy. The geographical isolation of the islands exacerbates entrepreneurs' economic and social vulnerability. If not systematically examined, the blue economy potential of abaca fiber will be wasted. This study provides an empirical foundation for inclusive and sustainable policy development. The findings can inform targeted programs in training, financing, and market access. Moreover, the research supports the achievement of the SDGs, particularly Goal 1 (poverty), Goal 8 (decent work), and Goal 12 (responsible consumption and production). Thus, this study extends beyond academia to the social and policy domains.

The findings of this study have significant academic, practical, and policy implications. Academically, it enriches the literature on natural-resource-based MSME welfare in island regions. Practically, these results can assist entrepreneurs in enhancing their capacities and networks. For local governments, these findings serve as a foundation for designing more effective and inclusive support programs. Policy implications include improved access to capital, technological training, and market development. This study also promotes environmentally sustainable and locally grounded economic development. Furthermore, the findings can be adapted to other island regions with similar natural fiber potentials. Broadly speaking, this research supports the agenda of sustainable development and coastal community empowerment.

METHOD

This study employed a mixed-methods approach with a sequential explanatory design to holistically examine the multifaceted nature of welfare among Abaca fiber-based MSME actors. The design was selected to enable the phased integration of quantitative and qualitative data, where initial numerical findings are further interpreted and enriched through in-depth qualitative insights. The first phase focused on collecting numerical data to identify patterns and relationships among economic variables, such as income, capital access, and production efficiency. In the second phase, the social context, personal perceptions, and lived experiences of entrepreneurs were explored through qualitative inquiry. This dual layered strategy enhances both the internal consistency and external relevance of the research outcomes. By adopting this sequential structure, this study allows for preliminary hypothesis testing before engaging in deeper contextual exploration. As such, this methodology offers a more comprehensive understanding than single-method approaches.

The research population encompassed all registered abaca fiber-based MSME operators in the Talaud Islands Regency, identified through collaboration with the local Cooperatives and MSMEs Office. From this population, a purposive sampling technique was used to select 30 respondents based on predefined criteria, including a minimum of two years in operation, direct involvement in fiber production, and willingness to participate in interviews. This sampling method was chosen to ensure that participants possessed relevant, firsthand experience and could provide rich, meaningful insights. The sample size was considered sufficient given the in-depth, case-study nature of the research. Moreover, qualitative research prioritizes informational depth and representativeness over numerical quantity. Quantitative data were collected using a structured questionnaire covering key economic indicators, such as monthly income, production costs, and market access. The instrument underwent pilot testing and expert validation to ensure content validity and clarity. Data collection was conducted directly by the researcher to reduce misinterpretation and ensure the accuracy of responses.

Qualitative data were gathered through in-depth interviews with 12 key informants selected from the quantitative sample to reflect the diversity in business characteristics and welfare levels. Semi-structured interviews were guided by an open ended protocol that focused on operational challenges, community support systems, and personal definitions of well-being. Each interview

session was audio-recorded with the participants' informed consent and later transcribed verbatim for detailed analysis. Additionally, participatory observation was conducted during fiber processing activities to gain a firsthand understanding of the operational conditions and labor dynamics. Field notes were systematically maintained to document social interactions, group behaviors, and workplace environment. Source triangulation was applied by cross-referencing interview transcripts, observational records, and local documents to strengthen the credibility and trustworthiness of the findings. All ethical protocols were strictly followed, including obtaining written consent, ensuring confidentiality, and allowing participants the right to withdraw at any stage.

Quantitative data analysis was conducted in two stages: descriptive and inferential. Descriptive statistics were used to summarize the distribution of key variables, including average income, workforce size, and frequency of training participation. Multiple linear regression analysis was employed to determine which economic factors most significantly influenced welfare, with welfare as the dependent variable. Classical assumption tests normality, multicollinearity, and heteroscedasticity were performed to validate the reliability of the regression model. Qualitative data were analyzed using thematic analysis following the six-phase framework of Braun and Clarke (2006): data familiarization, initial coding, theme development, theme review, final definition, and report writing. Coding was performed manually to maintain close engagement with the raw data and to avoid algorithmic bias. Core themes such as social capital, market dependency, and gender roles in production were rigorously examined. Finally, findings from both analytical streams were integrated through data triangulation to produce cohesive evidence-based conclusions and actionable policy recommendations.

RESULT AND DISCUSSION

Result

A. Business Degradation and Fragmentation of the Value Chain

Field observations revealed a sharp decline in abaca fiber processing activities in Essang, Talaud Islands Regency, over the past five years. Numerous abaca plants have been cut or left unattended, indicating a widespread loss of interest among farmers in cultivating this crop. The production chain, originally composed of farmers, processors, and artisans, now operates in a fragmented and uncoordinated manner. Products such as woven items, hats, tissue holders, and lamp decorations are only produced in response to occasional orders and not as part of regular output. Interviews indicate that most actors no longer consider this activity a primary economic pursuit, but rather a marginal endeavor with no financial security. The survey results show that 87% of respondents classify the current state of their business as "declining," with no signs of recovery. Although the government previously promoted abaca cultivation by offering an incentive of IDR 3,000 per plant, this initiative lacked follow-up support. Consequently, initial enthusiasm faded because of the absence of market assurance and postharvest assistance.

B. Deteriorating Economic Conditions

The financial situation of abaca fiber entrepreneurs is critically poor, with average monthly earnings ranging between IDR 40,000 and IDR 60,000, far below the urban poverty line. Survey data indicate that 93% of respondents consider this income "insufficient" to meet basic household needs. More than 80% experience extreme income volatility, relying on chance encounters with buyers or seasonal orders. This instability stems from the lack of a stable market, dominance of middlemen, and unpredictable selling prices that are frequently undercut by buyers. During focus group discussions, many producers expressed frustration over the low market value of their products, despite the labor-intensive and time-consuming nature of production. When asked about the contribution of this enterprise to household income, 70% reported it as "nonexistent" or "minimal." Ironically, while abaca fiber is known for its use in high-value industries, such as banknote production, luxury car upholstery, and marine ropes, its economic benefits are entirely absent for upstream producers.

C. Limited Market Access and Inadequate External Support

Market access remains a primary obstacle to business development. A total of 83% of respondents reported difficulties in selling their products, with “low demand” (67%) and “distribution access” (53%) identified as the main constraints. Most sales occur locally through traditional markets or intermediaries that offer very low purchase prices. Although 40% of the respondents stated that they had received government assistance, it was limited to training (30%) or raw materials (10%), with no support for capital or marketing. Only 13% had received direct cash assistance, and the amount was negligible. Group discussions revealed concerns that the absence of an official collecting institution allows buyers to monopolize pricing. Product promotion is almost nonexistent, and only 17% of respondents have utilized digital platforms, such as social media or online marketplaces. When asked about the most needed support, 90% cited “financial assistance,” followed by “improved market access” (87%) and “technical training” (73%). However, only 20% had participated in training programs, which were typically one-off events without follow-up or continuity.

D. Underutilized Social Capital and Lingering Hope

Despite economic hardship, abaca fiber enterprises retain significant social potential. Survey results show that 77% of actors involve family members or neighbors in production, indicating the presence of social networks that could evolve into collective capital. However, relationships among entrepreneurs are largely non-collaborative, with 60% reporting that interactions among artisans are either “rare” or “competitive.” No formal collective institutions, such as cooperatives or business groups, exist to coordinate production or marketing efforts. Nevertheless, 80% of the respondents acknowledged that the enterprise holds social value, whether through the preservation of local wisdom or the empowerment of women, who are the primary workforce in fiber processing. When asked about future prospects, 87% expressed being “very interested” or “interested” in training programs provided that market access and sustained support are guaranteed. Yet, 93% assessed that local government support has been “insufficient” or “nonexistent.” Key recommendations from entrepreneurs include establishing a formal product collection institution, providing processing technology training, launching digital promotion initiatives, and forming strategic partnerships with industries that utilize abaca fiber. Without structured intervention, this enterprise risks extinction despite its significant global value.

Discussion

A. Business Degradation and Fragmentation of the Value Chain

The decline of abaca fiber enterprises in Essang reflects a structural imbalance between incentive-based policies and sustainable business ecosystems. Government-led planting initiatives, supported by an IDR 3,000 per plant incentive, were not accompanied by adequate post-harvest support systems. As a result, initial enthusiasm gradually diminished because of the absence of market assurance and formal marketing mechanisms. The production chain, intended to link farmers, processors, and artisans, now operates in a fragmented manner and lacks institutional coordination. This fragmentation undermines efficiency, innovation, and product standardization, ultimately weakening competitiveness. Items such as woven crafts, hats, and lamp decorations are produced only upon sporadic orders and not as a routine output. This indicates a loss of productive identity, transforming the enterprise from a viable economic activity to a marginal sideline. Without structured intervention, this sector risks extinction despite its significant global value.

This value chain fragmentation mirrors common patterns in natural-resource-based MSME development within remote regions. Project-based policies disconnected from long-term regional development plans frequently fail to ensure sustainability. Farmers report feeling abandoned once the initial project phases conclude, with no transition mechanism toward self-sustaining operations. The misalignment between policy design and on-the-ground realities fosters short-term dependency without building long-term capacity. Such models have proven ineffective in establishing local economic resilience. Furthermore, the absence of an official procurement institution enables buyers to monopolize pricing and suppress producer returns. The disempowerment of entrepreneurs is not

merely a technical limitation, but a consequence of skewed market structures. Therefore, business recovery must begin with institutional reconstruction and vertical integration of the value chain.

These findings align with Ibrahim et al., (2021; Schrage & Gilbert, (2021), who describe value chain disintegration as systemic inefficiency caused by weak actor coordination. In island economies, this fragmentation is exacerbated by geographic isolation and underdeveloped logistics infrastructure. Without vertical integration, producers cannot achieve quality upgrades, branding, or expanded market access. Additionally, the lack of product standardization hinders entry into national and international markets. Value chain reconstruction must include the establishment of collective platforms, such as cooperatives or joint business groups. These institutions enable production consolidation, collective bargaining, and enhanced market power. This model has been successfully implemented in rural Philippine abaca farming communities through farmer cooperatives (Bales et al., 2025; Magno-Ballesteros & Ancheta, 2022; Mendoza et al., 2019). Thus, enterprise degradation is not inevitable, but a consequence of context-insensitive and unsustainable policy frameworks.

B. Deteriorating Economic Conditions

The economic condition of abaca fiber entrepreneurs in Talaud reflects structural poverty and not merely insufficient income. Average monthly earnings range between IDR 40,000 and IDR 60,000, far below urban poverty thresholds and inadequate for basic household needs. Survey data indicate that 93% of respondents consider this income “insufficient,” while 70% report its contribution to household income as “nonexistent” or “minimal.” Extreme income instability, driven by sporadic demand and trader dominance, renders this enterprise unsuitable as a primary livelihood. The greatest irony lies in the contrast between the global value of abaca fiber and the persistent poverty of local producers. Products used in banknotes and luxury car interiors yield no tangible benefits for farmers and artisans who process them. This reflects structural exploitation within the GVC, where economic value is captured downstream, not upstream.

This inequality is intensified by the absence of fair pricing mechanisms and formal contracts. Single buyers or intermediaries with greater bargaining power frequently suppress selling prices. During focus group discussions, many producers expressed frustration that days of labor-intensive processing were rewarded with minimal returns. Traditional craftsmanship is systematically devalued in monetary terms. This injustice is not solely economic but also cultural, as local expertise is not monetarily recognized. Moreover, a lack of business insurance or collective savings makes producers vulnerable to economic shocks. In island-based MSMEs, financial resilience is low because of overreliance on a single commodity without diversification. Thus, poverty here is not merely an income issue but a manifestation of systemic disempowerment.

Amofo, (2022; Oyelaran-Oyeyinka, (2020) demonstrate that natural-resource-based MSMEs often remain trapped in a low-value cycle, producing continuously without welfare improvement. Despite access to raw materials, they fail to capture added value owing to limited market access and technological constraints. By contrast, (Abdul-Rahaman & Abdulai, 2020; Ankrah Twumasi et al., 2021) found that farmer cooperatives in Ghana increased incomes by up to 300% through collective marketing and direct exports. This suggests that poverty is not inherent to commodities, but stems from inequitable market structures. In the Philippines also showed that processing technology training can increase product value by up to 40%. Thus, economic decline is not predetermined but results from misaligned policies. Interventions focused on capacity building and market control can significantly alter this dynamic.

C. Limited Market Access and Inadequate External Support

Limited market access remains the primary constraint for abaca fiber MSME development in Talaud. A total of 83% of the respondents reported difficulties in selling products, primarily due to low demand (67%) and poor distribution access (53%). Most transactions occur locally through traditional markets or intermediaries that offer minimal prices. The inability to reach broader markets traps entrepreneurs in subsistence-level operations. Product promotion is nearly absent, and only 17% have attempted digital marketing through social media or e-commerce platforms. This reflects a low capacity to adapt to digital economies. Trader dominance and the absence of formal

procurement institutions allow buyers to monopolize pricing. Without access to formal markets, producers cannot achieve market upgrades or value-chain integration.

External support from the government has proven to be minimal and unsustainable. Although 40% of the respondents reported receiving assistance, it was limited to training (30%) or raw materials (10%), with no financial or marketing support. Only 13% received direct cash aid, and the amounts were negligible. Training programs were typically one-off events without follow-up mentoring. This reflects a project-based approach that fails to address root causes. Such policies do not build long-term institutional capacity. Additionally, the lack of regulatory protection against price exploitation exacerbates inequity. In island contexts, geographic remoteness should be a central consideration in intervention design. However, existing policies are often modeled on urban frameworks and lack contextual relevance. MSMEs in remote areas struggle to leverage digital market opportunities due to infrastructure and technological literacy gaps. In Eastern Indonesia identified Internet access and logistics as major barriers to e-commerce in island regions. However, Thus, market access limitations are not merely technical but stem from policy design and inclusive intervention strategies.

D. Underutilized Social Capital and Lingering Hope

Despite economic hardship, abaca fiber enterprises retain significant social potential. Survey results show that 77% of actors involve family members or neighbors in production, indicating social networks that could be developed into collective capital. However, inter-entrepreneur relationships are largely non-collaborative, with 60% reporting that interactions among artisans are either “rare” or “competitive.” No formal collective institutions, such as cooperatives or business groups, exist to coordinate production or marketing. Nevertheless, 80% of respondents acknowledged the enterprise’s social value, whether through cultural preservation or women’s empowerment, as women are the primary workforce in fiber processing. When asked about future prospects, 87% expressed being “very interested” or “interested” in training programs, provided market access and sustained support are guaranteed. Yet, 93% assessed that local government support has been “insufficient” or “nonexistent.”

This social potential can serve as a foundation for collective empowerment. The prominent role of women in production highlights strong gender empowerment dimensions. Family and neighborhood networks can be formalized into joint business groups capable of consolidating production and marketing. However, without institutional support, social capital remains underutilized and unconverted into economic strength. Trust among producers is low, and no formal mechanisms exist to build business solidarity. The absence of cooperative incentives reinforces destructive competitive patterns. In the MSME context, poorly managed social capital can deepen fragmentation. Therefore, interventions must prioritize institutional strengthening and collective trust-building.

Key recommendations from entrepreneurs include establishing a formal procurement institution, providing processing technology training, launching digital promotions, and forming strategic partnerships with industries that use abaca fiber. Without structured intervention, this enterprise risks extinction despite its high global value. Yet, hope persisted: 87% of respondents expressed willingness to participate in training programs if market access was assured. This indicates that entrepreneurs are not passive but await appropriate support. Models such as the digital cooperatives proposed by the World Bank could connect producers to national and international markets. Thus, social capital strengthening must be combined with improved market access and technological integration.

CONCLUSION

The abaca fiber-based MSME sector in the Talaud Islands Regency has experienced significant degradation in recent years, particularly in the Essang region. The value chain, which integrates farmers, processors, and artisans, operates in a fragmented and uncoordinated manner. Most entrepreneurs no longer regard this activity as a primary livelihood, but rather as a marginal endeavor with no financial security. The survey results indicate that 87% of respondents classify their

business as either “declining” or “just starting,” with no signs of recovery. The initial government incentive of IDR 3,000 per plant was not followed by sustained postharvest support, causing initial enthusiasm to gradually fade. This demonstrates that incentive-based policies without long-term support create only short-term dependency. The disintegration of the value chain has hindered production efficiency, innovation, and product standardization. Without structured intervention, this enterprise risks extinction despite its high global economic value.

The economic condition of abaca fiber entrepreneurs is critically poor, with an average monthly income ranging between IDR 40,000 and IDR 60,000. This level of income is insufficient to meet basic household needs, as acknowledged by 93% of the respondents. Over 80% of entrepreneurs experience extreme income volatility, primarily because of their reliance on sporadic demand and the dominance of intermediaries. The labor-intensive and time-consuming production process is not matched by fair market returns, reflecting structural exploitation within value chains. Ironically, although abaca fiber is used in high-value industries, such as banknote production and luxury automotive interiors, the economic benefits are not captured by upstream producers. This disempowerment is not merely a technical limitation, but a consequence of unequal market structures and weak institutional support. The absence of formal pricing mechanisms and contractual protection exacerbates economic injustice. Thus, poverty here is not solely an income issue, but a manifestation of systemic disempowerment.

Market access remains the primary constraint in the development of abaca fiber MSMEs, with 83% of respondents reporting difficulties in selling their products. Most transactions occur locally and depend on intermediaries that offer very low purchase prices. Only 17% of entrepreneurs have utilized digital platforms for marketing, indicating limited adaptation to the digital economy. Government support has proven to be minimal, with only 13% of respondents having received direct financial assistance, even in negligible amounts. The available training programs are sporadic and lack follow-up mentoring, resulting in no long-term impact. The absence of a formal procurement institution enables buyers to monopolize pricing and suppress product value. Project-based interventions that are not integrated into regional development plans fail to build sustainable institutional capacity. Therefore, future interventions must be holistic, integrating economic, technological, and institutional dimensions.

Nevertheless, significant social potential remains within this enterprise, particularly regarding women’s empowerment and local cultural preservation. As many as 77% of the respondents involved family members or neighbors in production, indicating the presence of social capital that can be developed. Although inter-entrepreneur relationships are largely non-collaborative, 87% expressed a strong or moderate interest in training programs, provided that market access is guaranteed. Key recommendations from entrepreneurs include establishing a formal collection institution and providing technological training, digital promotion, and strategic industry partnerships. This enduring interest presents an opportunity for collective empowerment through cooperatives and joint business groups. Digital cooperatives can be adopted to connect producers with national and international markets. Therefore, enterprise recovery is not merely about aid but about strengthening institutions, access, and value equity. Data-driven and participatory interventions can serve as the foundation for transforming abaca-fiber MSMEs into a sustainable and empowering sector.

REFERENCES

- Abdul-Rahaman, A., & Abdulai, A. (2020). Farmer groups, collective marketing and smallholder farm performance in rural Ghana. *Journal of Agribusiness in Developing and Emerging Economies*, 10(5), 511–527.
- Amofo, M. E. (2022). *Preventing the Resource Curse in Ghana: The Role of Government and International Oil Companies in the Exploration and Management of Ghana’s Non-renewable Resources for Inclusive Development (Oil/Gas)*.
- Analia, D., Syaukat, Y., Fauzi, A., & Rustiadi, E. (2020). The impact of social capital on the

- performance of small micro enterprises. *Jurnal Ekonomi Malaysia*, 54(1), 81–96.
- Ankrah Twumasi, M., Jiang, Y., Addai, B., Ding, Z., Chandio, A. A., Fosu, P., Asante, D., Siaw, A., Danquah, F. O., & Korankye, B. A. (2021). The impact of cooperative membership on fish farm households' income: The case of Ghana. *Sustainability*, 13(3), 1059.
- Bales, M., Yap, K. L., Baliña, F., & Casinillo, L. (2025). *Interaction and problems in the abaca industry in Region VIII, Philippines*.
- Canevari-Luzardo, L. M. (2019). Value chain climate resilience and adaptive capacity in micro, small and medium agribusiness in Jamaica: a network approach. *Regional Environmental Change*, 19(8), 2535–2550.
- Cimprich, A., Bach, V., Helbig, C., Thorenz, A., Schrijvers, D., Sonnemann, G., Young, S. B., Sonderegger, T., & Berger, M. (2019). Raw material criticality assessment as a complement to environmental life cycle assessment: Examining methods for product-level supply risk assessment. *Journal of Industrial Ecology*, 23(5), 1226–1236.
- Coles, T., Ritchie, B. W., & Wang, J. (2021). Building business resilience to external shocks: Conceptualising the role of social networks to small tourism & hospitality businesses. *Journal of Hospitality and Tourism Management*, 48, 210–219.
- Destiningsih, R., Sugiharti, R. R., Laut, L. T., Safiah, S. N., & Achsa, A. (2020). Competitiveness identification of fisheries export in Indonesia. *IOP Conference Series: Earth and Environmental Science*, 530(1), 12017.
- Fan, Y. (2023). Study on preparation and application of banana fiber-based composites. *Journal of Physics: Conference Series*, 2539(1), 12093.
- Frolov, Y. V., & Bosenko, T. M. (2020). Training of personnel for the development of innovative entrepreneurship. *Academy of Entrepreneurship Journal*, 26(1), 1–6.
- Ibrahim, S. E., Centeno, M. A., Patterson, T. S., & Callahan, P. W. (2021). Resilience in global value chains: A systemic risk approach. *Global Perspectives*, 2(1), 27658.
- Kanike, U. K. (2023). Factors disrupting supply chain management in manufacturing industries. *Journal of Supply Chain Management Science*, 4(1–2), 1–24.
- Kapitsa, L. M. (2020). Climate change and micro, small and medium enterprises. *Вестник МГИМО Университета*, 4 (73), 216–231.
- Karmaker, C. L., Al Aziz, R., Palit, T., & Bari, A. B. M. M. (2023). Analyzing supply chain risk factors in the small and medium enterprises under fuzzy environment: Implications towards sustainability for emerging economies. *Sustainable Technology and Entrepreneurship*, 2(1), 100032.
- Kesar, S., Abraham, R., Lahoti, R., Nath, P., & Basole, A. (2021). Pandemic, informality, and vulnerability: Impact of COVID-19 on livelihoods in India. *Canadian Journal of Development Studies/Revue Canadienne d'études Du Développement*, 42(1–2), 145–164.
- Kussudyarsana, K., Maulana, H. K., Maimun, M. H., Santoso, B., & Nugroho, M. T. (2023). The role of social capital, innovation, and capabilities on MSMEs' resilience in economic hard times. *Jurnal Manajemen Bisnis*, 14(1), 72–89.
- Lamichhane, N., Lamichhane, A., & Gyawali, T. R. (2024). Enhancing mechanical properties of mortar with short and thin banana fibers: A sustainable alternative to synthetic fibers. *Heliyon*, 10(10).
- Leslie, W. J., Deza, M. C., Mcmillan, I. M., Andrade, G., & Moreno, A. M. Z. (2024). *Access to Finance for MSMEs in Belize: Challenges and Opportunities*.
- Magno-Ballesteros, M., & Ancheta, J. A. (2022). *Public-Private Partnerships in Agriculture Value Chains: The Case of Project ConVERGE in the Philippines*. PIDS Discussion Paper Series.
- Melati, M., Misnawati, M., Haris, T. S., Rahmadani, J., & Mutmaina, M. (2024). Analisis Potensi Dan Tantangan Usaha Mikro Kecil Menengah (UMKM) di Kabupaten Konawe. *Innovative: Journal Of Social Science Research*, 4(4), 10557–10565.
- Mendoza, T. C., Furoc-Paelmo, R., Makahiya, H. A., & Mendoza, B. C. (2019). Strategies for scaling

- up the adoption of organic farming towards building climate change resilient communities. In *Global climate change and environmental policy: Agriculture perspectives* (pp. 125–146). Springer.
- Motaleb, K. Z. M. A., Mizan, R. Al, & Milašius, R. (2020). Development and characterization of eco-sustainable banana fiber nonwoven material: surface treatment, water absorbency and mechanical properties. *Cellulose*, 27(14), 7889–7900.
- Nebangka, M., Sumayku, B. R. A., & Pongoh, J. (2019). Potensi pengembangan pisang abaka (*Musa textilis Nee*) di Pulau Karakelang. *Cocos*, 11(2).
- Oktavilia, S., Puspita, D. W., & Prayogi, R. (2020). Fisheries industry strategy in Indonesia. *IOP Conference Series: Earth and Environmental Science*, 530(1), 12015.
- Oyelaran-Oyeyinka, B. (2020). *Resurgent Africa: Structural transformation in sustainable development*. Anthem Press.
- Pentury, F. (2021). The role of financing accessibility on boosting micro scale coastal communities' fisheries related business activities: case study from Kei Islands. *JURNAL AGRIKAN (Agribisnis Perikanan)*, 14(2), 292–299.
- Pham, L. D. Q. (2023). *Social networks and resilience to external shocks of tourism-hospitality small and medium enterprises*.
- Prabhakar, C. G., Babu, K. A., Kataraki, P. S., & Reddy, S. (2022). A review on natural fibers and mechanical properties of banyan and banana fibers composites. *Materials Today: Proceedings*, 54, 348–358.
- Reniaty, R., Susantyo, B., Irmayani, N. R., Sabri, F., & Widiastuti, W. (2024). The influence of leadership strategies and social capital on the business performance and resilience of Indonesian MSMEs. *Journal of the Knowledge Economy*, 1–40.
- Schrage, S., & Gilbert, D. U. (2021). Addressing governance gaps in global value chains: Introducing a systematic typology. *Journal of Business Ethics*, 170(4), 657–672.
- Setyawan, N. A., & Wibowo, B. Y. (2023). Improving Business Productivity Performance through Entrepreneurship Training and Entrepreneurial Self-Efficacy. *Jurnal Ekuilnmi*, 5(1), 44–51.
- Silva, E. S., & Vecchi, A. (2023). *Fashion MSMEs confronting Climate Change, COVID-19 and Brexit: Key Drivers for Supply Chain Relocation*.
- Skinner, E., & Dancis, J. (2020). Descriptive and explanatory designs. *Human Development*.
- Srilestari, R., Wijayani, A., & Supriyanta, B. (n.d.). *Kultur Jaringan Pisang Abaka*. LPPM UPN "VETERAN" YOGYAKARTA.
- Stacey, N., Gibson, E., Loneragan, N. R., Warren, C., Wiryawan, B., Adhuri, D. S., Steenbergen, D. J., & Fitriana, R. (2021). Developing sustainable small-scale fisheries livelihoods in Indonesia: Trends, enabling and constraining factors, and future opportunities. *Marine Policy*, 132, 104654.
- Steiner, A., & Teasdale, S. (2019). Unlocking the potential of rural social enterprise. *Journal of Rural Studies*, 70, 144–154.
- SUWARDI, S., & LESTARI, R. S. R. I. (2019). *BUDI DAYA PISANG ABAKA*.