

Digital Transformation Strategy to Improve Sustainability of Sasirangan MSMEs in Banjarmasin City: SWOT-QSPM Approach

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ABSTRACT

Digital transformation is essential for sustaining culture-based MSMEs. However, Sasirangan MSMEs in Banjarmasin City continue to face limited digital literacy, weak digital branding, underutilized marketplaces, and manual business management. This study aims to formulate priority digital transformation strategies for improving their business sustainability. A qualitative descriptive design was employed by integrating SWOT analysis with the QSPM. Data were collected through interviews, observations, and documentation involving 18 informants, comprising 15 Sasirangan MSME owners or managers, representatives of the Cooperatives and MSMEs Office and South Kalimantan Dekranasda, and a digital marketing practitioner. The results show a relatively strong internal position, with an IFE score of 2.57, and favorable external conditions, with an EFE score of 2.98. Priority strategies include improving digital literacy and marketing capabilities, strengthening digital branding, optimizing marketplaces, digitizing payments and bookkeeping, and enhancing stakeholder collaboration. Implementing these strategies can strengthen competitiveness, preserve Banjar cultural identity, and support the long-term sustainability of Sasirangan MSMEs.

Keywords: Business Sustainability; Digital Branding; Digital Transformation; MSMEs; QSPM; SWOT

JEL Classification: M13; O33; Q0

INTRODUCTION

Micro, small, and medium enterprises (MSMEs) play a central role in economic development through their contributions to economic growth, employment creation, income distribution, and poverty reduction. Their sustainability, however, is increasingly shaped by rapid technological change, shifting consumer behavior, intensified competition, and demands for more efficient and responsive business practices (de la Cruz et al., 2026). Producing distinctive and high-quality products is therefore no longer sufficient; MSMEs must also adapt their operations, marketing activities, customer relationships, and managerial systems to the digital business environment (Martínez-Peláez et al., 2023; Prasetyo & Gunawan, 2026; Vrontis et al., 2022).

Digital transformation has consequently become a strategic necessity for MSMEs. It involves integrating digital technologies into business processes, organizational activities, and value creation, including social media, online marketplaces, digital payments, data analytics, and digital bookkeeping (Appio et al., 2024; Sariyani et al., 2026). These technologies can improve operational efficiency, broaden market access, strengthen customer engagement, and support business innovation (Liana et al., 2026; Suseno et al., 2025). Nevertheless, their benefits depend on digital literacy, human-resource competence, managerial readiness, and the alignment of technology with business needs. Many MSMEs therefore remain at an early stage of adoption and use digital platforms mainly for promotional purposes rather than integrated business transformation.

This challenge is particularly evident among Sasirangan MSMEs in Banjarmasin City. Sasirangan is a traditional Banjar fabric distinguished by unique motifs, production techniques, philosophical meanings, and strong cultural value. These characteristics provide product differentiation and market opportunities, particularly through tourism, the creative economy, and growing consumer interest in local products. Nevertheless, Sasirangan MSMEs continue to face limited digital literacy, weak digital branding, underutilized online marketplaces, manual bookkeeping, and insufficient use of customer and market data. They also compete with modern textiles, imported products, and other regional fabrics promoted intensively through digital channels. An effective transformation strategy must therefore enhance competitiveness while preserving cultural authenticity and communicating the cultural meanings embedded in Sasirangan products (Pratama & Maulida, 2022).

The Indonesian government and local authorities have introduced digital-literacy training, marketplace facilitation, digital-payment adoption, business mentoring, and local-product promotion. However, standardized digitalization programs may not correspond to the specific resources, capabilities, and constraints of individual MSME sectors (Sitari et al., 2026). Culture-based enterprises require a contextual strategy that combines technological development with cultural preservation, product identity, stakeholder collaboration, and long-term business sustainability (Kepakisan et al., 2026; Ningsih et al., 2026; Setini et al., 2026). Strategy formulation should therefore consider both the internal capabilities of Sasirangan MSMEs and the opportunities and threats arising from their external environment.

Previous studies have demonstrated that digital transformation and digital capabilities can enhance innovation, competitiveness, business performance, and MSME sustainability (Cuevas-Vargas et al., 2024; Martínez-Peláez et al., 2023; Vrontis et al., 2022). However, much of the literature employs quantitative approaches, including Structural Equation Modeling and Partial Least Squares Structural Equation Modeling,

to test relationships among digital transformation, innovation, performance, and sustainability. Although these studies provide important empirical evidence, they offer limited practical guidance concerning which digital initiatives should be prioritized by resource-constrained MSMEs.

Moreover, research on culture-based MSMEs often examines digital marketing, technology adoption, product development, or cultural preservation separately rather than integrating them into a comprehensive transformation strategy. Studies specifically addressing Sasirangan MSMEs have also rarely established systematic priorities for combining cultural strengths with digital capabilities. Consequently, limited evidence is available regarding how culture-based MSMEs should select and implement interconnected digital initiatives.

To address this gap, the present study integrates Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis with the Quantitative Strategic Planning Matrix (QSPM) (Wardana et al., 2022). SWOT analysis identifies internal and external factors and generates alternative digital-transformation strategies. However, because SWOT alone does not objectively rank these alternatives, QSPM evaluates their relative attractiveness based on the importance of the identified strategic factors (David & David, 2017; Gürel & Tat, 2017). The integration of these methods moves the analysis beyond descriptive diagnosis toward transparent, prioritized, and implementable strategic recommendations.

The novelty of this study lies in examining digital transformation within a culture-based creative industry where economic sustainability must coexist with the preservation of local identity. It also conceptualizes digital transformation as a multidimensional business strategy rather than merely a marketing instrument and applies the integrated SWOT–QSPM approach to determine implementation priorities. Accordingly, this study aims to identify the internal and external factors affecting the digital transformation of Sasirangan MSMEs in Banjarmasin City, formulate alternative strategies, and determine their priorities. The findings are expected to support digital-capability development, market competitiveness, stakeholder coordination, and long-term business sustainability while preserving Sasirangan as an integral part of Banjar cultural heritage.

LITERATURE REVIEW

MSME Digital Transformation

Digital transformation refers to the strategic integration of digital technologies into business processes, organizational structures, customer interactions, and value-creation mechanisms. It differs from digitization, which converts analog information into digital formats, and digitalization, which uses technology to improve particular operational activities. Digital transformation involves broader organizational changes that influence business models, managerial practices, human resources, and strategic decision-making (Martínez-Peláez et al., 2023).

Previous studies generally agree that digital transformation can improve MSME efficiency, innovation, market access, customer engagement, and business performance. Martínez-Peláez et al. (2023), based on a systematic review of 59 studies, identify organizational culture, stakeholder involvement, digital capabilities, and data utilization as critical foundations for sustainable digital transformation. Similarly, Firdaussiah et al. (2026) and Vrontis et al. (2022) demonstrate that digital technology adoption contributes to economic sustainability and social value creation. These findings

suggest that digital transformation has strategic value beyond the simple adoption of social media or online marketplaces.

However, previous findings differ in explaining how digital transformation produces improved performance. [Vrontis et al. \(2022\)](#) emphasize the moderating role of entrepreneurial orientation, whereas [Merín-Rodrigáñez et al. \(2024\)](#) show that business model innovation partially mediates the relationship between digital transformation and SME performance. In the Indonesian context, [Probohudono et al. \(2025\)](#) identify innovation capabilities and digital IT capabilities as partial mediators between business strategy and MSME performance. Therefore, technology adoption does not automatically generate superior outcomes; its effects depend on whether MSMEs possess the managerial, innovative, and organizational capabilities required to transform digital resources into business value.

This comparison reveals an unresolved issue in the literature. Most empirical studies examine the statistical relationships among digital transformation, organizational capabilities, innovation, and performance, but provide limited guidance regarding which digital initiatives should be implemented first by resource-constrained MSMEs. The literature explains whether digital transformation affects performance, but does not adequately determine how MSMEs should prioritize digital literacy, branding, marketplace adoption, digital payments, bookkeeping, data analytics, and stakeholder collaboration.

A systematic review by [Melo et al. \(2023\)](#) also found that digital transformation research in SMEs remains fragmented across industries, regions, technologies, and performance indicators. More importantly, many existing assessments neglect at least one dimension of sustainability and tend to emphasize operational or economic performance. This limitation indicates that the effectiveness of digital transformation should not be assessed solely by increased sales or technology adoption but also by its contribution to social, environmental, and long-term business sustainability.

Accordingly, the present study extends earlier research by treating digital transformation as a strategic portfolio of interconnected initiatives rather than as a single technological variable. It identifies the internal and external factors influencing Sasirangan MSMEs and determines the relative priority of alternative transformation strategies through the SWOT–QSPM approach.

Business Sustainability

Business sustainability refers to an enterprise's capacity to maintain long-term operations, adapt to environmental changes, create value for stakeholders, and balance economic, social, and environmental responsibilities. In the MSME context, sustainability includes profitability, business continuity, market resilience, customer relationships, employment creation, responsible resource utilization, and the ability to respond to technological and competitive changes ([Melo et al., 2023](#)).

The literature consistently indicates that digital transformation can support sustainability, although the mechanisms and dimensions examined differ considerably. [Vrontis et al. \(2022\)](#) focus on economic sustainability and social value, whereas [Tomás et al. \(2025\)](#) demonstrate that digital transformation improves performance directly and indirectly by stimulating innovation. Meanwhile, [Melo et al. \(2023\)](#) report that many studies do not evaluate economic, social, and environmental sustainability simultaneously. Thus, the positive relationship between digital transformation and performance does not necessarily represent comprehensive business sustainability.

Another inconsistency concerns whether digital transformation functions as a direct driver or an enabling mechanism. Some studies treat it as a direct antecedent of business performance, while others find that its contribution operates through innovation capabilities, entrepreneurial orientation, business model innovation, or strategic alignment. The evidence therefore suggests that sustainability outcomes are contingent on the ability of an MSME to combine digital technology with complementary organizational resources and capabilities.

The sustainability of culture-based MSMEs involves an additional cultural dimension. Sasirangan is not merely a textile commodity but a cultural product containing distinctive motifs, production knowledge, historical meanings, and Banjar identity. Consequently, the sustainability of Sasirangan MSMEs cannot be evaluated exclusively through financial growth or market expansion.

Studies on cultural heritage indicate that digital and creative technologies can strengthen community participation, market visibility, cultural learning, and economic development. [Del Soldato and Massari \(2024\)](#), for example, show that digital strategies can support the preservation and communication of cultural heritage while contributing to sustainable local development. Nevertheless, inappropriate commercialization may simplify cultural narratives and weaken product authenticity. Culture-based MSMEs must therefore balance digital market expansion with the preservation of cultural meanings and community ownership.

This cultural dimension remains insufficiently integrated into mainstream MSME digital transformation research. Studies of digital transformation predominantly emphasize technology, innovation, and firm performance, whereas cultural heritage studies focus more strongly on identity, preservation, community participation, and tourism. The present study bridges these perspectives by positioning digital transformation as a means of improving competitiveness and business continuity while preserving the cultural identity embedded in Sasirangan products ([Rozag & Hardinto, 2016](#)).

SWOT and QSPM for Strategic Prioritization

SWOT analysis is a strategic planning method used to evaluate an organization's internal and external conditions. Strengths and weaknesses reflect internal resources and limitations, while opportunities and threats represent favorable and unfavorable developments in the external environment. The interaction among these factors generates Strength–Opportunity (SO), Weakness–Opportunity (WO), Strength–Threat (ST), and Weakness–Threat (WT) strategies ([David & David, 2017](#); [Gürel & Tat, 2017](#)).

The main advantage of SWOT analysis is its ability to integrate organizational resources with external environmental conditions. However, the literature also identifies important methodological limitations. SWOT analysis can generate alternative strategies, but it does not objectively establish their relative importance. The selection of a strategy may therefore remain subjective, particularly when several alternatives appear equally relevant. In addition, SWOT analysis can become a descriptive list if the factors are not systematically weighted, validated, and linked to strategic decisions. The theoretical foundations, benefits, and limitations of SWOT are discussed comprehensively by [Gürel and Tat \(2017\)](#).

The QSPM addresses this limitation by comparing alternative strategies according to the relative importance of the internal and external factors identified through the IFE and EFE matrices. Each strategic factor receives a weight, and each alternative is assigned

an Attractiveness Score. Multiplying the factor weight by the Attractiveness Score produces the Total Attractiveness Score, which provides a quantitative basis for ranking alternative strategies. The strategic-management text by [David and David \(2017\)](#) includes internal and external audits, strategy generation, and strategy selection as interconnected stages.

Compared with the use of SWOT alone, the integration of SWOT and QSPM provides a more transparent and systematic strategy-selection process. SWOT performs a diagnostic function by identifying strategic conditions, whereas QSPM performs an evaluative function by determining which alternative has the greatest relative attractiveness. Nevertheless, QSPM does not completely eliminate subjectivity because the quality of its results depends on how the factors are identified, who assigns the weights and ratings, and how the Attractiveness Scores are established.

Previous SWOT–QSPM applications demonstrate the usefulness of this integration for converting a broad set of internal and external factors into ranked strategies. However, its application to digital transformation in culture-based MSMEs remains limited. Existing MSME studies more commonly use regression, SEM, or PLS-SEM to test relationships among variables, while studies using SWOT frequently stop at formulating general strategic alternatives. Consequently, limited evidence is available regarding the systematic prioritization of interconnected digital initiatives for traditional creative enterprises.

The present study extends the use of SWOT–QSPM by applying it to the digital transformation of Sasirangan MSMEs. The method is used not only to diagnose digital readiness but also to prioritize practical interventions involving digital literacy, digital marketing, branding, marketplaces, payments, bookkeeping, data utilization, and institutional collaboration.

Theoretical Synthesis and Research Positioning

The reviewed literature demonstrates three areas of convergence. First, digital transformation can strengthen MSME competitiveness and performance. Second, these benefits depend on complementary capabilities, including innovation, digital competence, entrepreneurial orientation, organizational culture, and stakeholder support. Third, sustainable transformation requires more than technology adoption because MSMEs must align digital initiatives with their strategic objectives and resource limitations.

Despite this convergence, three gaps remain. First, most previous studies examine causal relationships between digital transformation and performance but do not determine implementation priorities. Second, sustainability is frequently operationalized through economic or organizational performance without adequately considering cultural continuity. Third, few studies integrate digital transformation, cultural preservation, and systematic strategy prioritization within a single analytical framework.

This study responds to these gaps by integrating digital transformation, multidimensional business sustainability, and the SWOT–QSPM approach. Digital transformation represents the strategic intervention; the sustainability of Sasirangan MSMEs constitutes the intended outcome; and SWOT–QSPM provides the mechanism for identifying, evaluating, and prioritizing appropriate strategies.

The theoretical contribution of the study lies in extending digital transformation research into the context of culture-based MSMEs, where business development must coexist

with cultural preservation. Its methodological contribution lies in moving beyond relational testing and descriptive SWOT analysis toward a prioritized strategy framework. Its practical contribution is the formulation of implementable recommendations for Sasirangan MSME owners, government institutions, universities, Dekranasda, and digital-business practitioners.

The theoretical framework guiding this research is presented in Figure 1.

Figure 1. Theoretical Framework of Research



Research Design

This study employed a qualitative descriptive design to formulate digital transformation strategies for improving the sustainability of Sasirangan MSMEs in Banjarmasin City, South Kalimantan, Indonesia. The qualitative approach was selected because it enabled an in-depth examination of the actual business conditions, digital capabilities, cultural characteristics, institutional support, and competitive environment of Sasirangan MSMEs.

The qualitative analysis was combined with structured strategic analysis using SWOT analysis and the QSPM. The qualitative stage was used to identify and interpret the strategic factors affecting digital transformation, while the quantitative scoring stage was used to evaluate the relative importance of these factors and determine the priority of the resulting strategies. SWOT analysis classified the identified factors into SWOT, whereas QSPM ranked the alternative strategies according to their relative attractiveness (David & David, 2017).

Research Setting and Participants

The research was conducted among Sasirangan MSMEs operating in Banjarmasin City. Participants were selected using purposive sampling based on their knowledge, experience, and direct involvement in Sasirangan business operations, MSME development, creative-industry promotion, or digital marketing assistance.

Table 1. Research Participants and Selection Criteria

Participant Group	Number	Selection Criteria	Role in the Research
Sasirangan MSME Owners or Managers	15	Owners or managers of active Sasirangan businesses who directly understood production, marketing, financial administration, and business-development processes	Provided information on internal business conditions, digital technology adoption, business constraints, market opportunities, and strategic needs
Banjarmasin City Cooperatives and MSMEs Office	1	An official directly involved in MSME development, empowerment, and digitalization programs	Provided information on government policies, training programs, institutional assistance, and MSME digitalization
South Kalimantan Dekranasda	1	A representative involved in developing craft-based creative industries and promoting Sasirangan products	Provided information on product development, promotion, stakeholder collaboration, and cultural preservation
Digital Marketing Practitioner	1	A practitioner experienced in digital marketing, marketplace utilization, digital branding, and MSME assistance	Provided technical assessments of digital capabilities, online marketing, branding, and technology-based business development
Total	18		

As presented in Table 1, the study involved 18 participants consisting of 15 Sasirangan MSME owners or managers, one representative of the Banjarmasin City Cooperatives and MSMEs Office, one representative of South Kalimantan Dekranasda, and one digital marketing practitioner. The MSME participants provided direct information regarding production, marketing, financial administration, customer management, technology adoption, and business-development constraints. The institutional and professional participants contributed information regarding government policies, creative-industry development, cultural preservation, digital marketing, and MSME assistance. The diversity of the participants allowed the study to integrate operational, institutional, cultural, and technological perspectives in identifying and evaluating the strategic factors.

The 15 Sasirangan MSME owners or managers represented enterprises operating at micro- and small-enterprise scales. They were selected because of their direct experience in managing production, marketing, financial administration, customer relationships, and business development. Their involvement was essential because they directly encountered the challenges of digital transformation, including limited digital

literacy, marketplace utilization, online branding, and competition with modern textile products.

The representative of the Banjarmasin City Cooperatives and MSMEs Office contributed information regarding MSME policies, empowerment programs, training activities, financial facilitation, and digitalization support. Meanwhile, the representative of South Kalimantan Dekranasda provided information regarding the development of culture-based creative industries, regional product promotion, exhibition activities, product quality improvement, and the preservation of Sasirangan cultural identity. The digital marketing practitioner contributed technical assessments regarding the use of social media, online marketplaces, digital branding, digital payments, customer engagement, and digital technologies. The involvement of these different participant groups strengthened the comprehensiveness of the strategic-factor identification and enabled the findings to reflect both the internal conditions of Sasirangan MSMEs and the external environment in which they operate.

Data Collection

Data were collected through semi-structured interviews, field observations, and document analysis. Interviews were conducted to obtain information regarding the participants' experiences and assessments of digital literacy, social media use, marketplace utilization, digital branding, digital payment systems, bookkeeping practices, human resource capabilities, product competitiveness, cultural identity, government support, and market competition.

Field observations were conducted to examine business operations, product presentation, promotional activities, customer interaction, financial administration, and the actual use of digital technologies. Documentary data included MSME profiles, promotional materials, institutional reports, government program documents, business records, and other documents relevant to Sasirangan MSME development.

Data from interviews were compared with observational and documentary evidence through source and method triangulation. This procedure was used to reduce reliance on a single source and strengthen the credibility of the identified strategic factors.

Identification and Validation of Strategic Factors

The identification of strategic factors was conducted in four stages. First, interview transcripts, observational notes, and documents were reviewed and coded according to recurring issues related to business resources, product characteristics, digital capabilities, management practices, cultural identity, market opportunities, government support, technological developments, and competitive pressures.

Second, statements with similar meanings were grouped into common categories to prevent the duplication of strategic factors. Third, the factors were classified as internal when they originated from resources or conditions that could be controlled by Sasirangan MSMEs and as external when they originated from market, policy, technology, consumer, or competitive conditions. Internal factors were subsequently classified as strengths or weaknesses, whereas external factors were classified as opportunities or threats.

Fourth, the preliminary factors were discussed and confirmed with the participants. A factor was retained when it was supported by the interview data and corroborated by field observations, documentary evidence, or stakeholder confirmation. The validated

factors were then entered into the Internal Factor Evaluation (IFE) and External Factor Evaluation (EFE) matrices.

Assignment of Weights and Ratings

The 18 participants were involved in assessing the relative importance of the validated strategic factors. Each participant assigned an importance score ranging from 1 to 5, where 1 indicated that the factor was very unimportant and 5 indicated that it was very important for the digital transformation and sustainability of Sasirangan MSMEs.

The individual scores were averaged to obtain the mean importance score for each factor. The weight of each factor was then normalized using the following formula:

$$\text{Weight}_i = \frac{\text{Mean importance score}_i}{\text{Total mean importance scores}}$$

The normalized weight of each factor ranged from 0.00 to 1.00, and the total weight of all factors in each IFE and EFE matrix was equal to 1.00. A higher weight indicated that the factor had greater strategic importance.

The IFE ratings represented the actual internal condition of Sasirangan MSMEs and were measured on a four-point scale ranging from 1 (major weakness) to 4 (major strength). Similarly, the EFE ratings reflected the effectiveness of Sasirangan MSMEs' responses to external opportunities and threats, using a four-point scale ranging from 1 (poor response) to 4 (superior response).

The participants assigned ratings independently. The mean rating for each factor was calculated and rounded to the nearest whole number for the matrix calculation. The weighted score of each factor was obtained by multiplying its normalized weight by its rating.

$$\text{Weighted Score}_i = \text{Weight}_i \times \text{Rating}_i$$

The total IFE or EFE score was calculated by summing the weighted scores of all factors. A total score above 2.50 indicated a relatively strong internal position or an above-average response to the external environment, whereas a score below 2.50 indicated a relatively weak position or response.

SWOT Strategy Formulation

The results of the IFE and EFE matrices were subsequently integrated into the SWOT matrix to formulate strategic alternatives. The interaction between internal and external factors generated four strategic categories: SO strategies, which leverage internal strengths to capitalize on external opportunities; WO strategies, which utilize external opportunities to overcome internal weaknesses; ST strategies, which employ internal strengths to mitigate external threats; and WT strategies, which aim to minimize internal weaknesses while reducing exposure to external threats.

The alternative strategies were formulated by matching strategically related internal and external factors. Strategies with overlapping meanings were combined to avoid duplication. The remaining alternatives were reviewed to ensure their relevance to digital transformation, competitiveness, cultural preservation, and the long-term sustainability of Sasirangan MSMEs.

QSPM and Strategy Prioritization

The strategies generated through the SWOT matrix were subsequently evaluated using QSPM. The same participants assessed the relative attractiveness of each alternative strategy in responding to every relevant internal and external factor.

The Attractiveness Score was assigned using the following scale: 1 = not attractive; 2 = somewhat attractive; 3 = reasonably attractive; and 4 = highly attractive. A blank score was assigned when a particular strategic factor had no meaningful relationship with an alternative strategy. The individual Attractiveness Scores were averaged to obtain the mean Attractiveness Score for each factor–strategy combination.

The Total Attractiveness Score was calculated using the following formula:

$$TAS_{ij} = Weight_i \times Mean AS_{ij}$$

The Sum Total Attractiveness Score for each alternative strategy was calculated by adding all relevant Total Attractiveness Scores:

$$STAS_j = \sum TAS_{ij}.$$

The alternative strategies were ranked from the highest to the lowest STAS. The strategy with the highest STAS was selected as the main priority because it demonstrated the strongest overall capacity to utilize strengths and opportunities while addressing the identified weaknesses and threats. Independent scoring and the calculation of mean values were used to reduce the influence of a single participant on the strategy-selection process.

Data Analysis Stages

Data analysis was conducted sequentially through strategic-factor identification, IFE and EFE assessment, SWOT strategy formulation, and QSPM prioritization. Table 2 summarizes the analytical stages and their respective outputs.

Table 2. Stages of Data Analysis

No.	Analytical Stage	Output
1	Identification of internal and external strategic factors	Validated SWOT
2	IFE Matrix	Normalized weights, ratings, and weighted scores of internal factors
3	EFE Matrix	Normalized weights, ratings, and weighted scores of external factors
4	SWOT Matrix	Alternative SO, WO, ST, and WT strategies
5	QSPM	Attractiveness Scores, Total Attractiveness Scores, and Sum Total Attractiveness Scores
6	Strategy prioritization	Ranked and recommended digital transformation strategies

Research Credibility and Analytical Transparency

The credibility of the findings was strengthened through data-source triangulation, method triangulation, participant confirmation, and the involvement of multiple stakeholder groups. The researchers maintained an analytical record containing the initial factor list, coding results, participant scoring sheets, normalized weights, ratings, Attractiveness Scores, and matrix calculations. This audit trail improved the transparency and reproducibility of the SWOT–QSPM analysis.

RESULTS

SWOT Analysis

Internal Strategic Factors

Internal strategic factors were identified through in-depth interviews, field observations, and document analysis. Factors were categorized as internal when they originated from resources, capabilities, practices, or limitations that could be controlled or improved by Sasirangan MSMEs. The identified internal factors were subsequently classified into strengths and weaknesses. As shown in Table 3, five strengths and six weaknesses were identified. The strengths were primarily associated with cultural identity, distinctive product characteristics, product quality, customer relationships, and community support. The weaknesses were mainly related to digital literacy, digital branding, marketplace utilization, human-resource competence, financial administration, and digital data analytics.

Table 3. Identification of Internal Strategic Factors

Code	Internal Strategic Factor
Strengths (S)	
S1	Sasirangan is a distinctive Banjar cultural product with strong identity and heritage value.
S2	Sasirangan products contain distinctive motifs, philosophical meanings, and cultural values that differentiate them from other textile products.
S3	Product quality is relatively good, with designs that continue to develop in response to market needs.
S4	Many Sasirangan MSMEs have regular customers and maintain positive relationships with consumers.
S5	Sasirangan MSME communities and supporting institutions actively facilitate collaboration among business actors.
Weaknesses (W)	
W1	The digital literacy of many Sasirangan MSME owners or managers remains relatively low.
W2	Digital branding and brand identity have not been developed consistently.
W3	The use of online marketplaces and social media as marketing channels remains limited.
W4	Human resources with adequate digital competence remain limited.
W5	Most business actors continue to use manual financial-recording and bookkeeping systems.
W6	Digital data analytics have not been systematically used to support business decision-making.

Strengths (S)

The findings indicate that the main strength of Sasirangan MSMEs lies in the strong cultural identity and heritage value of Sasirangan products. Sasirangan is not merely a textile commodity but also a cultural product containing historical meanings, traditional knowledge, philosophical values, and Banjar identity. These characteristics provide product differentiation that is difficult for modern or mass-produced textiles to replicate. The distinctive motifs and philosophical meanings of Sasirangan products also constitute an important competitive advantage. Product differentiation based on cultural authenticity can strengthen consumer perceptions of uniqueness, product value, and regional identity. In addition, continuous innovation in motifs, designs, and product forms enables Sasirangan MSMEs to respond to changing market preferences without entirely abandoning their cultural characteristics.

Product quality, regular customers, and positive consumer relationships further strengthen the internal position of Sasirangan MSMEs. Several business actors have established local customers, institutional customers, and tourist-market consumers. These relationships support repeat purchases and contribute to business continuity. The existence of Sasirangan MSME communities, Dekranasda, and local-government support also provides social and institutional capital. These institutions facilitate training, exhibitions, promotion, product development, and collaboration among business actors. Therefore, cultural identity, product differentiation, product quality, customer relationships, and stakeholder support represent the main internal resources that can be mobilized in implementing digital transformation.

Weaknesses (W)

Despite these strengths, Sasirangan MSMEs continue to face several internal limitations. Low digital literacy remains one of the primary barriers because many business actors have not yet developed adequate skills in social media management, online-marketplace operation, digital-content creation, digital payment systems, and technology-based business administration. Consequently, digital platforms are often used only for basic promotion rather than as integrated business-management instruments. Digital branding is also not consistently developed. Some Sasirangan MSMEs do not yet have a clear brand identity, standardized visual elements, consistent product information, or a coherent cultural narrative across digital platforms. This limitation reduces product recognition and makes it more difficult for consumers to distinguish Sasirangan brands in increasingly competitive online markets.

The limited utilization of online marketplaces and social media also constrains market expansion. Although some MSMEs have created social media or marketplace accounts, their utilization remains irregular and is not always supported by content planning, customer-response management, promotional evaluation, or digital advertising. Another weakness concerns the limited availability of human resources with digital competence. In many MSMEs, the owner is simultaneously responsible for production, marketing, finance, and customer service. This concentration of responsibilities limits the time and capacity available for managing digital transformation. Manual bookkeeping and the limited use of digital analytics further weaken business management. Manual records may reduce the accuracy, accessibility, and timeliness of financial information. At the same time, the absence of digital analytics prevents business actors from systematically evaluating customer behavior, product performance, marketing effectiveness, and market trends. Therefore, the internal priorities for digital transformation include improving digital literacy, strengthening digital branding, optimizing marketplaces, developing digitally competent human resources, digitizing bookkeeping, and introducing data-based decision-making.

External Strategic Factors

External strategic factors were identified from market, policy, technological, consumer, tourism, and competitive conditions that could not be directly controlled by individual Sasirangan MSMEs. These factors were categorized into opportunities and threats. As summarized in Table 4, the main opportunities included the growth of e-commerce and online marketplaces, government support for MSME digitalization, the adoption of digital payment systems, the use of artificial intelligence (AI), the growth of cultural tourism, and increasing public interest in local products. The main threats included competition from modern textiles, price competition in online marketplaces, changes in consumer preferences, imported products, and rapid technological change.

Table 4. Identification of External Strategic Factors

Code	External Strategic Factor
Opportunities (O)	
O1	Rapid growth of e-commerce and online marketplaces.
O2	Increasing government support for MSME digitalization.
O3	Increasing adoption of QRIS and other digital payment systems.
O4	Growing availability of AI applications for digital marketing and customer service.
O5	Growth of cultural tourism in Banjarmasin City.
O6	Increasing public interest in local and culturally distinctive products.
Threats (T)	
T1	Increasing competition from modern textile products.
T2	Intensive price competition in online marketplaces.
T3	Rapid changes in consumer trends and preferences.
T4	The entry of imported textile products at competitive prices.
T5	Rapid technological change that requires continuous adaptation.

Opportunities (O)

The growth of e-commerce and online marketplaces provides a substantial opportunity for Sasirangan MSMEs to expand their market beyond Banjarmasin City. Digital platforms enable MSMEs to reach consumers in national and potentially international markets without establishing physical stores in multiple locations. This opportunity is particularly relevant for Sasirangan products because their cultural distinctiveness can attract consumers interested in traditional fabrics, creative products, cultural tourism, and regional identity.

Government support also creates opportunities for accelerating digital transformation. Digital-literacy training, marketplace facilitation, business mentoring, financing assistance, QRIS adoption, product exhibitions, and local-product promotion can reduce the resource limitations experienced by individual MSMEs. However, the effectiveness of these programs depends on their continuity and their suitability for the actual needs of culture-based enterprises. The increasing adoption of QRIS and other digital payment systems provides opportunities to improve transaction efficiency, financial-record accuracy, and customer convenience. Digital payment records may also support better financial management when integrated with digital bookkeeping applications.

AI provides additional opportunities for content creation, customer-service automation, consumer-data analysis, and digital-campaign optimization. Nevertheless, its utilization requires adequate digital literacy and appropriate verification to ensure that generated content remains accurate and culturally appropriate. The growth of cultural tourism in Banjarmasin City and increasing public interest in local products also strengthen the potential market for Sasirangan. Cultural-tourism activities can integrate product sales with cultural education, production demonstrations, storytelling, and visitor experiences. These opportunities can strengthen both economic value and cultural preservation.

Threats (T)

The primary external threat is increasing competition from modern textile products and culturally inspired products from other regions. Competitors may offer a wider variety of designs, lower prices, faster production, and more intensive digital promotion. This competition becomes more visible on online marketplaces because consumers can easily compare products, prices, ratings, and delivery services.

Price competition represents another significant threat. Sasirangan products often involve distinctive production processes, cultural motifs, and craftsmanship that may increase production costs. When consumers evaluate products primarily on price, Sasirangan MSMEs may experience pressure to reduce prices without corresponding reductions in production costs. Rapid changes in consumer trends and preferences also require continuous product and marketing adaptation. Business actors must respond to changes in colors, motifs, product forms, purchasing channels, promotional content, and customer-service expectations. Failure to adapt may reduce product relevance, particularly among younger consumers.

Imported textile products and imitation products offered at lower prices may also reduce the market share of authentic Sasirangan products. This threat emphasizes the importance of product authenticity, cultural storytelling, certification, quality assurance, and brand differentiation. Rapid technological development is both an opportunity and a threat. MSMEs that continuously improve their digital capabilities may benefit from new technologies, whereas those unable to adapt may experience widening capability gaps. Therefore, technological change requires continuous learning, mentoring, and collaboration with government institutions, universities, digital practitioners, and business-support organizations.

Matrix

Internal Factor Evaluation (IFE) Matrix

The IFE Matrix was used to evaluate the relative importance of the identified strengths and weaknesses. Each factor was assigned a weight based on its strategic importance and a rating based on the actual internal condition of Sasirangan MSMEs. The weighted score was calculated by multiplying the weight by the rating. As presented in Table 5, the total IFE score was 2.57. This score is slightly higher than the reference value of 2.50, indicating that Sasirangan MSMEs have a relatively strong internal position. However, the limited difference between the total score and the reference value indicates that important internal weaknesses must still be addressed.

Table 5. IFE Matrix

Code	Internal Factor	Weight	Rating	Weighted Score
Strengths (S)				
S1	Strong Banjar cultural identity and heritage value	0.12	4	0.48
S2	Distinctive motifs, philosophical meanings, and cultural values	0.10	4	0.40
S3	Relatively good product quality and design development	0.08	3	0.24
S4	Regular customers and positive consumer relationships	0.09	3	0.27
S5	Active MSME communities and institutional support	0.08	3	0.24
Weaknesses (W)				
W1	Low digital literacy among MSME owners or managers	0.11	2	0.22
W2	Weak and inconsistent digital branding	0.10	2	0.20
W3	Limited utilization of online marketplaces	0.09	2	0.18
W4	Limited human resources with digital competence	0.12	1	0.12

W5	Continued use of manual bookkeeping systems	0.06	2	0.12
W6	Limited utilization of digital data analytics	0.05	2	0.10
Total		1.00	-	2.57

Table 5 shows that strong cultural identity and heritage value generated the highest weighted score of 0.48. Distinctive motifs, philosophical meanings, and cultural values generated the second-highest weighted score of 0.40. These findings indicate that cultural authenticity and product differentiation represent the strongest internal foundations for the development of Sasirangan MSMEs.

Among the weaknesses, limited digitally competent human resources received a rating of 1, indicating a major internal weakness. Low digital literacy, weak digital branding, and limited marketplace utilization also received relatively high strategic weights. These findings demonstrate that digital transformation cannot rely only on access to technology. It must be supported by human-resource development, consistent branding, digital-business management, and continuous assistance. The total IFE score of 2.57 indicates that Sasirangan MSMEs have sufficient internal potential to undertake digital transformation. Nevertheless, successful transformation requires strategies that simultaneously utilize cultural strengths and reduce digital-capability weaknesses.

External Factor Evaluation (EFE) Matrix

The EFE Matrix was used to evaluate the ability of Sasirangan MSMEs to respond to external opportunities and threats. Each factor was weighted according to its strategic importance and rated according to the effectiveness of the current response of Sasirangan MSMEs. As shown in Table 6, the total EFE score was 2.98. This score is higher than the reference value of 2.50, indicating that Sasirangan MSMEs operate in a relatively favorable external environment and have an above-average capacity to respond to external developments.

Table 6. EFE Matrix

Code	External Factor	Weight	Rating	Weighted Score
Opportunities (O)				
O1	Growth of e-commerce and online marketplaces	0.12	4	0.48
O2	Government support for MSME digitalization	0.11	4	0.44
O3	Adoption of QRIS and other digital payment systems	0.08	3	0.24
O4	Utilization of AI in digital marketing	0.09	3	0.27
O5	Growth of cultural tourism in Banjarmasin City	0.10	4	0.40
O6	Increasing public interest in local products	0.10	3	0.30
Threats (T)				
T1	Competition from modern textile products	0.12	2	0.24
T2	Price competition in online marketplaces	0.09	2	0.18
T3	Changes in consumer trends and preferences	0.08	2	0.16
T4	Entry of imported textile products	0.06	2	0.12
T5	Rapid technological change	0.05	3	0.15
Total		1.00	-	2.98

Table 6 indicates that the growth of e-commerce and online marketplaces generated the highest weighted score of 0.48. Government support for MSME digitalization generated a weighted score of 0.44, while the growth of cultural tourism generated a weighted score

of 0.40. These findings indicate that digital-market expansion, institutional support, and cultural tourism represent the most important external opportunities.

Competition from modern textile products generated the highest weighted score among the threats, at 0.24. Price competition, changing consumer preferences, imported products, and technological change also require strategic responses. Product differentiation, cultural branding, continuous innovation, and digital-capability development are therefore essential for reducing the effects of these threats.

The total EFE score of 2.98 indicates that external opportunities are relatively favorable. However, these opportunities will generate sustainable benefits only when Sasirangan MSMEs possess sufficient digital capabilities to utilize them effectively.

SWOT Matrix and Strategy Formulation

The internal and external factors presented in Tables 3–6 were matched through the SWOT Matrix. The matching process generated four categories of strategies: SO, WO, ST, and WT strategies. As presented in Table 7, the formulated strategies emphasize digital marketing, marketplace utilization, digital branding, digital payments, digital bookkeeping, human-resource development, product differentiation, operational efficiency, and stakeholder collaboration.

Table 7. SWOT Matrix for Sasirangan MSMEs in Banjarmasin City

	O		T	
S	SO1	Develop social media-based digital marketing to expand market reach.	ST1	Strengthen product differentiation through innovation based on authentic Banjar cultural identity.
	SO2	Optimize online marketplaces and QRIS to increase national market access and transaction efficiency.	ST2	Improve product and service quality to respond to competition from modern and imported textile products.
	SO3	Strengthen digital branding by emphasizing Sasirangan cultural identity, motifs, and philosophical meanings.	ST3	Strengthen customer loyalty through personalized communication, consistent service, and cultural storytelling.
	SO	Integrate Sasirangan promotion with cultural tourism programs in Banjarmasin City.	ST4	Utilize MSME communities and institutional collaboration to improve adaptability to technological and market changes.
	SO5	Utilize AI to support promotional content creation and customer service.	-	
W	WO1	Organize structured digital-literacy training for Sasirangan MSME owners and managers.	WT1	Improve digital adaptability through continuous training and technology assistance.
	WO2	Optimize the use of online marketplaces and social media through continuous mentoring.	WT2	Strengthen business administration through digital bookkeeping and administrative digitalization.

	WO3	Introduce integrated digital bookkeeping and QRIS payment systems.	WT3	Improve operational efficiency to respond to price competition.
	WO4	Improve human-resource competence through digital-transformation assistance.	WT4	Utilize digital data to understand changes in consumer behavior and market trends.
	WO5	Strengthen collaboration with government institutions, universities, Dekranasda, and digital practitioners.	-	

Strength–Opportunity (SO) Strategies

The SO strategies utilize the cultural, product, customer, and institutional strengths of Sasirangan MSMEs to capture external opportunities. As presented in Table 7, these strategies include expanding social media-based marketing, optimizing online marketplaces and digital payments, strengthening culture-based digital branding, integrating promotion with cultural tourism, and utilizing AI for promotional content and customer service. These strategies position cultural identity not as a barrier to modernization but as the primary differentiating value in digital markets. Digital transformation should therefore communicate the authenticity, philosophical meanings, craftsmanship, and cultural background of Sasirangan products.

Weakness–Opportunity (WO) Strategies

The WO strategies utilize external opportunities to address internal digital-capability weaknesses. Table 7 shows that these strategies focus on digital-literacy training, marketplace optimization, digital bookkeeping, QRIS adoption, human-resource capacity development, and collaboration with external institutions. Government programs, university assistance, Dekranasda support, and digital-practitioner involvement can reduce the financial and competency limitations experienced by individual MSMEs. Continuous mentoring is necessary because short-term training alone may not produce sustained changes in digital-business practices.

Strength–Threat (ST) Strategies

The ST strategies use the cultural and relational strengths of Sasirangan MSMEs to respond to external competition. As indicated in Table 7, product differentiation based on Banjar cultural identity should be combined with improvements in quality, design innovation, service, customer loyalty, and institutional collaboration. Authentic cultural value can distinguish Sasirangan products from modern textiles, imported products, and imitation products. However, cultural identity must be supported by consistent quality, contemporary product development, reliable service, and effective digital communication.

Weakness–Threat (WT) Strategies

The WT strategies are defensive strategies intended to reduce internal weaknesses and minimize exposure to external threats. As shown in Table 7, these strategies include improving digital adaptability, digitizing business administration, increasing operational efficiency, and utilizing digital data to understand consumer behavior. These strategies are particularly important for MSMEs with limited financial resources and limited digital competence. Improved administrative systems, accurate financial records, and consumer-data utilization can support more efficient decision-making and reduce vulnerability to price competition and rapidly changing market trends.

Synthesis of SWOT Results

The SWOT analysis demonstrates that digital transformation constitutes the central direction for strengthening the competitiveness and sustainability of Sasirangan MSMEs. However, digital transformation should not be limited to the adoption of social media or online marketplaces. It should integrate digital literacy, branding, marketing, payments, bookkeeping, data utilization, product innovation, cultural preservation, and stakeholder collaboration. The strategies presented in Table 8 also demonstrate that cultural identity and digital transformation are complementary rather than contradictory. Digital technology can expand the visibility of Sasirangan products, communicate cultural narratives, strengthen customer engagement, and support business continuity. At the same time, transformation strategies must preserve the authenticity and cultural meanings embedded in Sasirangan products. The alternative strategies generated through the SWOT Matrix subsequently provide the analytical input for the QSPM, which is used to determine the relative priority of each strategy.

DISCUSSION

Key Findings Analysis

Digital Transformation as an MSME Sustainability Strategy

The SWOT and QSPM analyses identify digital transformation as the primary strategy for improving the sustainability of Sasirangan MSMEs in Banjarmasin City. Priority strategies, including strengthening digital marketing, improving digital literacy, enhancing digital branding, and optimizing marketplace utilization, demonstrate that MSME sustainability depends not only on product quality but also on the effective use of digital technologies to create value and expand market access. These findings support [Martínez-Peláez et al. \(2023\)](#), who argued that digital transformation enhances operational efficiency, customer relationships, and business sustainability, as well as [Tomás et al. \(2025\)](#), who emphasized its role in fostering innovation and long-term sustainability. For Sasirangan MSMEs, digital transformation extends beyond technology adoption to strategic business changes that improve marketing effectiveness, service quality, and customer engagement.

Strengthening Competitive Advantage Through Banjar Cultural Identity

The findings reveal that Sasirangan's cultural identity is the main competitive advantage distinguishing it from other textile products. Besides its economic value, Sasirangan embodies historical, philosophical, and cultural significance that strengthens product differentiation. However, these cultural values have not been fully integrated into digital branding, as most MSMEs still focus primarily on product sales rather than storytelling and cultural promotion. These findings are consistent with [Cuevas-Vargas et al. \(2024\)](#), who highlighted that digitalization and innovation increase product value and sustainability, and [Fawaid et al. \(2026\)](#) and [Ouwrelian & Andrian \(2025\)](#), who emphasized that digital transformation should preserve local identity. Therefore, digital marketing strategies should incorporate Banjar cultural values to strengthen product competitiveness in national and international markets.

The Role of Digital Capability in Enhancing MSME Competitiveness

The IFE analysis indicates that limited digital literacy and inadequate digital competencies remain major weaknesses of Sasirangan MSMEs. Consequently, the QSPM prioritizes digital capability development through training, mentoring, and collaboration with universities and digital practitioners. Digital capability enables MSMEs not only to adopt technology but also to integrate it into business processes, innovation, and strategic decision-making. These findings support [Probohudono et al. \(2025\)](#), who found that digital capability enhances innovation and business performance, and [Becker](#)

[et al. \(2026\)](#), who emphasized the importance of organizational readiness and competent human resources for successful digital transformation.

Strategic Implications of the SWOT–QSPM Approach for Banjarmasin’s Creative Economy

The integration of SWOT and QSPM provides a systematic and objective framework for identifying strategic priorities for Sasirangan MSMEs. The recommended strategies, including digital marketing, digital literacy, digital branding, marketplace optimization, digital payment and bookkeeping systems, multi-stakeholder collaboration, and AI, offer practical guidance for improving MSME competitiveness and supporting the creative economy in Banjarmasin City. The findings also provide practical implications for local governments in designing digital transformation policies and a theoretical contribution by demonstrating that integrating SWOT and QSPM can produce operational strategies for culture-based MSMEs. This framework may also serve as a reference for developing similar MSMEs in other regions of Indonesia.

Research Implications

This study provides both theoretical and practical implications. Theoretically, it enriches the literature on digital transformation and business sustainability by integrating the SWOT and QSPM approaches into a strategic framework for culture-based MSMEs. Unlike previous studies that primarily examined the relationship between digital transformation and business performance using quantitative methods, this research offers an implementation-oriented strategic model for prioritizing digital transformation initiatives.

Practically, the findings provide guidance for local governments, MSME support institutions, and business practitioners in designing digital transformation programs. Priority strategies, including strengthening digital marketing, improving digital literacy, enhancing digital branding, optimizing marketplace utilization, adopting digital payment and bookkeeping systems, and promoting collaboration among government, universities, and MSME communities, can improve the competitiveness and long-term sustainability of Sasirangan MSMEs while preserving Banjar cultural heritage.

CONCLUSION

This study identified the internal and external factors shaping the digital transformation of Sasirangan MSMEs in Banjarmasin City and prioritized appropriate strategies through the integrated SWOT–QSPM approach. Cultural identity, product quality, and established customer relationships constitute the principal strengths, whereas limited digital literacy, inadequate digital competence, inconsistent branding, and manual business administration remain the major weaknesses. Favorable opportunities arise from e-commerce growth, government support, digital payments, cultural tourism, and increasing interest in local products, while competition, changing consumer preferences, imported textiles, and technological change require continuous adaptation. The priority strategies are to strengthen digital marketing and culture-based branding, improve digital literacy and human-resource capability, optimize marketplaces, digitize payments and bookkeeping, and expand collaboration among government institutions, universities, Dekranasda, MSME communities, and digital practitioners.

The study contributes an implementation-oriented framework that connects digital transformation with business sustainability and cultural preservation. Practically, stakeholders should develop continuous mentoring and coordinated digitalization programs with measurable targets for adoption, sales, financial recording, and customer

engagement at the MSME level, rather than isolated short-term training. Future research should test the proposed strategic relationships quantitatively, compare different culture-based MSME sectors, and evaluate strategy implementation longitudinally.

LIMITATION

This study has several limitations. First, the research focuses exclusively on Sasirangan MSMEs in Banjarmasin City, which may limit the generalizability of the findings to other cultural industries or geographical contexts. Second, the study employs a qualitative approach integrated with SWOT and QSPM analyses; therefore, the proposed strategies have not been statistically validated using quantitative techniques. Third, the research primarily emphasizes strategic planning and does not evaluate the long-term effectiveness of strategy implementation.

Future studies are encouraged to apply quantitative approaches such as Structural Equation Modeling (SEM) or Partial Least Squares Structural Equation Modeling (PLS-SEM) to validate the relationships among digital transformation, digital capability, and business sustainability. Comparative studies involving different culture-based MSMEs and longitudinal research evaluating the implementation of digital transformation strategies would further strengthen the existing literature.

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DECLARATION OF CONFLICTING INTEREST

The author declares that there are no conflicts of interest related to the research, authorship, or publication of this article.

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