

Sustainable Competitive Advantage in Traditional Textile MSMEs: A VRIO Framework Approach on Medali Mas

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Abstract

Research aim: This study aims to analyze the strategic resources of Medali Mas Traditional Weaving MSME using the VRIO framework to identify the sources of sustainable competitive advantage within the traditional textile industry.

Design/Method/Approach: This study uses a qualitative case study approach. Data collection was conducted through in-depth interviews, direct observations, and documentation involving the owner and artisans of Medali Mas MSME in Kediri. The data obtained were then analyzed using the VRIO framework, which consists of valuable, rare, inimitable, and organized resource dimensions.

Research Finding: The findings indicate that Medali Mas has strategic resources that support sustainable competitive advantage, including distinctive handcrafted motifs, weaving expertise, natural dye innovation, and strong cultural heritage values. However, the business still faces challenges related to imported raw materials, limited digital marketing, and manual financial management.

Theoretical contribution/Originality: This study contributes to the development of Resource-Based View (RBV) and VRIO framework literature by emphasizing intangible cultural resources and artisan capabilities as strategic assets in traditional weaving MSMEs.

Practical/Policy implication: The study provides practical insights for traditional textile MSMEs in optimizing strategic resources, strengthening organizational capabilities, and improving sustainable business competitiveness through innovation and digital adaptation.

Research limitation: This research is limited to a single MSME case study and relies primarily on qualitative data, which may limit

the generalizability of the findings to other traditional textile industries.

Keywords: *VRIO Framework, Resource-Based View, Sustainable Competitive Advantage, Traditional Weaving MSME, Cultural Heritage.*

1. Introduction

Traditional weaving industries in Indonesia represent not only economic activities but also cultural heritage that reflects local identity, historical values, and artisanal craftsmanship inherited across generations. However, the development of industrial textile production, fast-fashion competition, and changing consumer preferences have created increasing challenges for traditional textile MSMEs. Traditional weaving businesses are required to preserve product authenticity while simultaneously adapting to modern market dynamics and digital transformation. Previous studies explained that cultural textile businesses frequently experience limitations related to technological adaptation, market positioning, and organizational capability in maintaining long-term competitiveness [1,2].

Medali Mas Traditional Weaving MSME in Kediri is one of the traditional textile enterprises that consistently preserves local cultural identity through handcrafted weaving production. Based on interview results, Medali Mas creates its own exclusive motifs to maintain product originality and distinguish its designs from competitors. The woven products are characterized by large and intricate patterns, including bamboo and floral motifs, combined with customized color arrangements that are difficult for other producers to replicate. Furthermore, the production activities still rely on manual weaving techniques and the expertise of artisans, which have been passed down through generations within the family. The application of natural dyes and customized production methods further enhances the authenticity and cultural significance of the products produced by Medali Mas.

Despite possessing strong cultural and artisanal values, Medali Mas still faces several managerial and operational challenges. The business depends heavily on imported raw materials and dye substances due to the lower quality of local materials. In addition, financial recording systems remain manual, digital marketing utilization has not been fully optimized, and artisan regeneration remains limited because younger generations show lower interest in traditional weaving occupations. Similar challenges were also identified in previous studies on traditional weaving and songket businesses, particularly regarding business sustainability, market adaptation, and the need for innovation in maintaining competitiveness [2,3].

From a strategic management perspective, the Resource-Based View (RBV) theory explains that firms can achieve sustainable competitive advantage through resources that are valuable, rare, inimitable, and organized (VRIO). Barney emphasized that strategic resources fulfilling VRIO criteria can create superior performance because competitors cannot easily imitate or substitute such resources [1]. In the context of traditional weaving MSMEs, strategic resources include not only physical assets but also intangible cultural resources such as

handcrafted expertise, motif exclusivity, tacit artisan knowledge, cultural heritage, and long-established relationships with consumers and suppliers.

Previous studies mainly discussed traditional textile MSMEs from the perspectives of community empowerment, participatory development, product innovation, and marketing strategy. Research on Bandar Kidul weaving MSMEs emphasized the importance of artisan participation, skill development, and cultural preservation in strengthening product quality and business sustainability [2]. Meanwhile, studies on traditional songket businesses highlighted the role of heritage branding, digital marketing, and artisan collaboration in improving competitiveness within modern fashion markets [3]. However, existing studies have not comprehensively analyzed whether cultural craftsmanship and artisan capabilities function as strategic resources that generate sustainable competitive advantage using the VRIO framework.

Therefore, there is still a noticeable research gap related to the strategic evaluation of intangible cultural resources in traditional weaving MSMEs through the VRIO framework. Previous studies have generally emphasized marketing approaches and community empowerment, while limited attention has been given to examining how handcrafted production methods, exclusive motif designs, customized coloring techniques, and tacit knowledge possessed by artisans can create sustainable competitive advantage. This issue is increasingly relevant because many traditional textile businesses have distinctive cultural characteristics but are often unable to transform these unique resources into long-term strategic strengths.

This study seeks to address the gap by analyzing the strategic resources of Medali Mas Traditional Weaving MSME using the VRIO framework. In contrast to earlier research that primarily focused on marketing and empowerment strategies, the present study explores the role of cultural heritage, artisan expertise, and organizational capability as strategic assets that may contribute to sustainable competitiveness. The novelty of this research lies in the integration of VRIO analysis with intangible cultural resources and heritage-based artisan competencies within the context of traditional weaving MSMEs.

Furthermore, this research aims to identify and evaluate both tangible and intangible resources owned by Medali Mas Traditional Weaving MSME based on the VRIO framework. Through this analysis, the study intends to determine the sources of sustainable competitive advantage as well as examine organizational challenges that influence long-term business sustainability.

1.1 Statement of Problem

Traditional weaving MSMEs are currently confronted with growing challenges arising from industrial competition, digital transformation, shifting consumer preferences, and various operational constraints. Although Medali Mas possesses unique cultural and artisanal assets, several issues such as dependence on imported raw materials, limited utilization of digital technology, manual management practices, and the slow regeneration of artisans may influence its ability to maintain long-term competitiveness. Therefore, an in-depth analysis is needed to

examine whether the resources owned by Medali Mas meet the VRIO criteria and can function as strategic assets capable of creating sustainable competitive advantage.

1.2 Research Objectives

This study aims to identify the tangible and intangible resources owned by Medali Mas Traditional Weaving MSME, to analyze the strategic resources of Medali Mas using the VRIO framework, to determine the sources of sustainable competitive advantage within Medali Mas Traditional Weaving MSME, to evaluate organizational and operational challenges affecting the sustainability of business competitiveness.

2. Method

This study uses a qualitative case study approach to analyze the strategic resources of Medali Mas Traditional Weaving MSME using the VRIO framework. The qualitative approach was selected because this research focuses on understanding intangible cultural resources, artisan capabilities, and organizational conditions that contribute to sustainable competitive advantage within traditional textile MSMEs [1].

This research was carried out at Medali Mas Traditional Weaving MSME located in Kediri. The study focused on analyzing the strategic resources owned by the business, including both tangible and intangible assets associated with handcrafted production processes, motif innovation, artisan skills, raw material management, organizational capability, and adaptation to market changes. The informants involved in this research consisted of the business owner, experienced artisans, and production workers who were directly engaged in the operational and manufacturing activities of the enterprise.

Data collection was conducted through in-depth interviews, direct observation, and documentation analysis. Interviews were carried out to obtain information regarding production processes, motif exclusivity, dyeing techniques, digital marketing utilization, raw material supply, artisan regeneration, and operational challenges faced by the business. Observation was conducted directly during the weaving production process to identify the implementation of handcrafted techniques, production activities, and organizational workflows. Documentation analysis was supported by interview summaries, production records, and supporting literature related to Resource-Based View (RBV) theory and traditional textile MSMEs [1-3].

The collected data were analyzed using the VRIO framework by evaluating whether the resources owned by Medali Mas fulfill four criteria, namely valuable, rare, inimitable, and organized. Resources that fulfill all VRIO dimensions were identified as sources of sustainable competitive advantage, while resources that only partially meet the criteria were categorized as temporary competitive advantage or competitive parity [1].

To ensure data validity, this study applied source triangulation and method triangulation by comparing interview findings, observational results, and supporting documentation. The analysis results were then interpreted to evaluate how strategic resources contribute to the sustainability and competitiveness of Medali Mas Traditional Weaving MSME.

3. Results and Discussion

This section discusses the results of the VRIO analysis conducted on the strategic resources owned by Medali Mas Traditional Weaving MSME. The analysis aims to identify both tangible and intangible assets that have the potential to create sustainable competitive advantage within the traditional textile sector. Based on interview data and direct field observations, Medali Mas demonstrates several unique resources, including handcrafted production techniques, exclusive motif designs, artisan competencies, cultural heritage values, and collaborative business relationships that support the continuity of the enterprise.

The findings indicate that intangible resources play a more dominant role than tangible resources in strengthening the competitiveness of Medali Mas. The uniqueness of handcrafted weaving techniques, customized color compositions, and tacit artisan knowledge inherited through generations create product differentiation that is difficult for competitors to imitate. These findings are consistent with Resource-Based View (RBV) theory, which explains that sustainable competitive advantage can be achieved through valuable, rare, inimitable, and organized resources [1].

Table 1. VRIO Analysis of Strategic Resources at Medali Mas MSME

No.	Strategic Resources	Valuable (V)	Rare (R)	Inimitable (I)	Organized (O)	Competitive Implication
1	Handcrafted weaving techniques	Yes	Yes	Yes	Yes	Sustained Competitive Advantage
2	Exclusive motif designs	Yes	Yes	Yes	Yes	Sustained Competitive Advantage
3	Customized color compositions	Yes	Yes	Yes	Partial	Temporary Competitive Advantage
4	Natural dye innovation	Yes	Partial	Partial	Yes	Temporary Competitive Advantage
5	Artisan tacit knowledge	Yes	Yes	Yes	Yes	Sustained Competitive Advantage
6	Cultural heritage value	Yes	Yes	Yes	Yes	Sustained Competitive Advantage
7	Collaboration with designers	Yes	Partial	Partial	Yes	Temporary Competitive Advantage
8	Customer relationships	Yes	Partial	Partial	Yes	Competitive Parity
9	Digital marketing capability	Yes	No	No	Partial	Competitive Parity
10	Imported raw material access	Yes	Partial	No	Partial	Temporary Competitive Advantage

Source: Processed research data (2026)

The table above indicates that handcrafted weaving techniques, exclusive motif development, artisan tacit knowledge, and cultural heritage values satisfy all dimensions within the VRIO framework, making them the primary sources of sustainable competitive advantage for Medali Mas. These resources provide significant value because they enhance product

differentiation and strengthen consumer perceptions of authenticity and exclusivity. In addition, such resources are considered rare since similar weaving methods and motif characteristics are not widely possessed by competing businesses in the traditional textile industry.

One of the strongest strategic resources identified in this study is artisan tacit knowledge. Based on interview findings, senior artisans possess specialized weaving skills and coloring techniques developed through long-term experience and hereditary learning systems within family environments. Certain motifs can only be produced by experienced artisans due to their complexity and technical difficulty. This condition creates a high imitation barrier for competitors because the knowledge is not formally documented and requires years of practical experience to master. These findings support previous studies explaining that artisan capability and cultural craftsmanship can function as strategic resources in traditional textile industries [2,3]. Recent studies also emphasized that traditional textile competitiveness is strongly influenced by artisan education, skill continuity, and cultural knowledge preservation within local industries.

The exclusivity of motif designs also serves as an important factor in creating competitive advantage for Medali Mas. The business independently develops and combines various motif patterns to prevent product similarity within the market. Distinctive large-scale motifs, such as bamboo and floral patterns, combined with customized color arrangements, form unique visual characteristics that are difficult for other weaving enterprises to replicate. Moreover, the production activities still rely heavily on manual handcrafted techniques, which further enhance the authenticity and cultural significance of the products. These conditions strengthen the position of Medali Mas within premium and culture-based textile market segments. This finding is consistent with recent studies stating that cultural authenticity and heritage branding play a significant role in reinforcing the competitive position of traditional textile MSMEs in contemporary markets.

Furthermore, the application of natural dyes contributes not only to product differentiation but also to the creation of environmental value. Based on interview results, environmentally friendly textile products tend to be more attractive to international and external markets, whereas domestic consumers generally prefer products with brighter and more durable colors. This condition encourages Medali Mas to implement market segmentation strategies by adjusting production according to consumer preferences. Nevertheless, the use of natural dyes still encounters several obstacles, including laboratory testing requirements, difficulties in maintaining color consistency, and limited availability of raw materials. Consequently, the capability related to natural dye production currently provides only a temporary competitive advantage because the organizational support system has not yet been fully developed. Previous studies have also emphasized that sustainable innovation in traditional textile industries is influenced not only by environmental practices, but also by the ability to maintain cultural continuity, generate economic value, and adapt organizationally to market changes.

Although Medali Mas possesses strong cultural and artisanal resources, the business still faces several organizational and managerial constraints. Financial recording practices are still carried out manually and lack a structured system, resulting in less effective business evaluation and operational control. In addition, the utilization of digital marketing through e-commerce platforms and social media has not been fully optimized due to administrative expenses and limited digital management capabilities. Even though the enterprise has begun using platforms such as Shopee and WhatsApp for promotional and sales activities, digital operations have not yet been comprehensively integrated into the overall business strategy. As a result, digital marketing capability currently only provides competitive parity because similar practices can be relatively easily adopted by competitors. This finding is in line with recent studies highlighting that digital transformation capability has become increasingly important for traditional textile MSMEs in sustaining competitiveness within modern digital markets.

Another major challenge identified in this study is the dependence on imported raw materials and dye substances. The rising prices of imported silk and coloring materials contribute to production cost instability and increase operational risks for the business. Although Medali Mas attempts to maintain relationships with long-term suppliers and occasionally uses local materials during supply shortages, locally available raw materials are generally perceived as less capable of ensuring consistent product quality. This condition suggests that dependence on external supply chains may reduce long-term business sustainability if it is not supported by stronger resource diversification strategies.

In addition, the regeneration of skilled artisans has become an important issue influencing organizational sustainability. Most experienced weavers belong to older generations, while younger people tend to show lower interest in pursuing traditional weaving occupations. Newly recruited workers require approximately one month of intensive training before they are able to produce weaving products that meet acceptable quality standards. Since weaving expertise relies heavily on tacit knowledge and hands-on experience, limited artisan regeneration may threaten the continuity of these strategic capabilities in the future. Previous studies have also emphasized that the preservation of intangible cultural heritage requires continuous knowledge transfer and adaptive learning systems in order to maintain long-term sustainability within traditional craft industries.

In contrast to previous studies that primarily emphasized marketing strategies and community empowerment, this research reveals that intangible cultural resources—especially artisan tacit knowledge, handcrafted exclusivity, and cultural heritage value—serve as the main strategic assets that generate sustainable competitive advantage within traditional weaving MSMEs. These findings reinforce the view that competitive advantage in culture-based MSMEs is largely determined by the ability of a business to preserve, manage, and transform intangible heritage resources into long-term strategic capabilities.

Overall, the findings demonstrate that the sustainable competitive advantage of Medali Mas primarily originates from intangible cultural resources rather than physical assets. Handcrafted production systems, artisan tacit knowledge, motif exclusivity, and cultural

heritage values function as strategic resources that are difficult to imitate by competitors. These findings reinforce the Resource-Based View (RBV) perspective stating that sustainable competitiveness is strongly influenced by the firm's ability to manage valuable and unique internal resources [1].

Nevertheless, this study also demonstrates that the ownership of valuable cultural resources alone is not sufficient to ensure long-term competitiveness. Factors such as organizational capability, digital adaptation, improvement of financial management systems, and the regeneration of skilled artisans remain crucial in supporting business sustainability within increasingly competitive and modern textile markets. Therefore, Medali Mas needs to enhance its organizational structure and digital capabilities while continuing to preserve its cultural authenticity and handcrafted identity as its main strategic advantage.

4. Conclusion

This study examined the strategic resources of Medali Mas Traditional Weaving MSME through the VRIO framework to identify the sources of sustainable competitive advantage within the traditional textile sector. The results show that the main competitive strengths of Medali Mas are derived primarily from intangible cultural resources rather than tangible or physical assets. Handcrafted weaving techniques, exclusive motif development, artisan tacit knowledge, and cultural heritage values were recognized as strategic resources that fulfill all VRIO dimensions, namely valuable, rare, difficult to imitate, and well-organized. These resources contribute to strong product differentiation while reinforcing the authenticity and exclusivity of Medali Mas products in increasingly competitive textile markets. Nevertheless, the study also found several areas that still require improvement, particularly in relation to digital marketing capability, financial management systems, and dependence on imported raw materials. Strengthening these organizational aspects is considered important to support long-term business sustainability and maintain competitiveness in the future.

The findings of this study reinforce the Resource-Based View (RBV) perspective, which explains that sustainable competitive advantage is strongly influenced by the firm's ability to manage unique and difficult-to-imitate internal resources [1]. Unlike previous studies that mainly focused on marketing strategies, empowerment, and product innovation within traditional textile MSMEs, this research specifically highlights the strategic role of intangible cultural resources and artisan capabilities in generating sustainable competitiveness. Recent studies also emphasized that preserving artisan knowledge, cultural authenticity, and heritage-based capabilities are increasingly important for maintaining the competitiveness of traditional industries in modern markets [4]. Therefore, this study contributes theoretically to the development of VRIO and RBV literature within cultural-based MSMEs, particularly traditional weaving industries.

Practically, this study provides strategic implications for traditional textile MSMEs in strengthening organizational capability while preserving cultural authenticity as a strategic asset. Medali Mas needs to improve digital marketing integration, strengthen financial

management systems, diversify raw material sourcing strategies, and develop sustainable artisan regeneration programs to maintain long-term competitiveness. Collaboration with designers, adaptive product innovation, and digital transformation should also be optimized to expand market reach and strengthen customer engagement. Furthermore, government institutions and related stakeholders are expected to provide greater support for traditional textile MSMEs through digital training programs, business development assistance, and cultural preservation initiatives. Recent studies also highlighted that digital capability development and organizational adaptation are essential factors influencing the sustainability of traditional cultural industries in the digital economy era [5].

This study is limited to a single case study conducted at Medali Mas Traditional Weaving MSME and mainly utilizes a qualitative approach, which may restrict the generalization of the findings to other traditional textile industries. Therefore, future research is recommended to undertake comparative studies involving several traditional textile MSMEs or to incorporate quantitative methods in order to examine the relationship between strategic resources and business performance more comprehensively. Furthermore, subsequent studies could explore issues related to digital transformation capability, sustainable innovation, and cultural commercialization strategies within heritage-based industries in greater depth.

Content Attribution

All eight authors contributed actively and collaboratively throughout the entire process of preparing this article. These contributions included searching and collecting journal references, developing the research framework, conducting interviews and field observations at Medali Mas Traditional Weaving MSME, processing and analyzing data using the VRIO framework, as well as writing, editing, and refining the manuscript. All authors were involved in research discussions, interpretation of findings, and final manuscript review to ensure the academic quality and compliance of the article with conference publication standards. All authors have read and approved the final version of the manuscript.

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