

# MIXED METHODS STRATEGY MODEL IN PRODUCT INNOVATION AND DIGITAL MARKETING OPTIMIZATION FOR DAYAK SPECIALTY SOUVENIRS

<sup>1</sup>Joy Imanuel Sianipar,<sup>2</sup>Jeysca Gabriella Manuputty,<sup>3</sup>Muhammad Akbar  
<sup>4</sup>Vivy Kristinae,<sup>5</sup>Berta Margareta Agustin Wijaya

<sup>1,2,3,4,5</sup>Management, Economics and Business, University of Palangka Raya  
Palangka Raya City, Indonesia

Author's email:

<sup>1</sup>joyimmanuel2@gmail.com;<sup>2</sup>vivykristinae84@gmail.com  
berta.margaretaagustinwijaya@feb.upr.ac.id

Corresponding author email: joyimmanuel2@gmail.com

**Abstract.** Dayak specialty souvenirs, which represent the rich cultural heritage and biological uniqueness of Kalimantan, face significant challenges in adapting to modern market demands, particularly regarding limited product innovation and marketing effectiveness. Traditional products often lack added value, have monotonous designs, and packaging that does not meet the standards of a wider market. A strategic intervention is required that combines product quality improvement with measured digital marketing strategies. This study aims to formulate a strategic model for Dayak specialty souvenir product innovation integrated with digital marketing optimization. The research employs an exploratory sequential mixed methods approach. The first stage (qualitative) involves in-depth interviews with artisans, cultural stakeholders, and designers to identify the potential of local raw materials (e.g., Dayak Onion, rattan) and formulate concepts for competitive product design and packaging innovation. This stage yields a contextual product innovation model. The second stage (quantitative) is to test the effectiveness and market acceptance of the formulated product innovation model. A survey will be conducted among potential consumers and tourists to measure purchase intention and willingness to pay for the innovated products. The results from both stages will be synthesized to produce strategic recommendations, including guidelines for the diversification of craft and culinary products, and an appropriate digital marketing model to expand market reach, thereby elevating Dayak specialty souvenirs from local products to high-value tourism commodities.

**Keywords:** Creative Economy; Dayak Specialty Souvenirs; Digital Marketing; Mixed Methods, Product Innovation.

## 1. INTRODUCTION

### 1.1 Background

Micro, Small, and Medium Enterprises (MSMEs) play a vital role in the Indonesian economy, acting not only as a primary source of employment but also as guardians of cultural identity through creative economy products. In Kalimantan, MSMEs specializing in Dayak souvenirs possess unique market potential by offering products with high artistic value and cultural philosophy. Commodities such as rattan plaiting, wood carving, and traditional textiles are not only in demand within the local market but also hold significant opportunities in the global marketplace.

However, amidst this potential, artisans face complex structural and contextual challenges. Preliminary observations indicate a gap between product potential and the realization of business sustainability. One of the primary identified obstacles is the scarcity of natural raw materials, particularly rattan, which serves as the fundamental material for Dayak craftsmanship. Furthermore, issues regarding the protection of Intellectual Property Rights (IPR), specifically those of a communal nature, present a distinct concern that potentially hinders artisans' willingness to engage in open product innovation.

Conversely, the digital era demands rapid adaptation in marketing strategies. The transformation toward digital marketing is no longer an option but a necessity to ensure

business sustainability. Yet, there are few strategic models that specifically map how upstream challenges (raw materials and IPR) influence innovation interest, and how these issues can be mitigated through downstream digital marketing capabilities.

Consequently, this research is designed to develop an empirically tested strategic model. Given the complexity of the problem involving policy aspects (IPR), natural resources (rattan), and managerial issues (marketing) this study utilizes a Mixed Methods approach with an Exploratory Sequential design (QUAL→QUAN). This approach allows the researcher to first qualitatively explore the issues to formulate precise variables before testing them quantitatively to generate accurate recommendations for the sustainability of Dayak souvenir MSMEs.

### *1.2 Statement Of The Problem*

Based on the background outlined above, the specific problems addressed in this research are:

1. How does digital marketing capability function as a key driver for business sustainability amidst the existing challenges in product innovation?
2. How the appropriate and empirically tested strategic model to enhance the competitiveness and sustainability of Dayak souvenir MSMEs?

### *1.3 Research Objectives*

1. To demonstrate the role of digital marketing capability as a primary driving variable in achieving business sustainability;
2. To formulate a comprehensive strategic model that can serve as a reference for artisans and local governments in developing a competitive Dayak souvenir MSME ecosystem.

### *1.4 Significance of The Study*

#### *1.4.1 Theoretical Significance*

This research is expected to enrich the literature on Strategic Management and Entrepreneurship, particularly concerning the application of Mixed Methods (Exploratory Sequential) in dissecting MSME issues. Additionally, this study provides new insights into the relationship between legal protection (IPR), supply chain management (raw materials), and digital marketing within a single integrative model.

#### *1.4.2 Practical Significance*

1. For Artisans/MSME Practitioners: It provides strategic guidance on how to maintain innovation amidst raw material limitations and how to maximize digital technology to expand market reach;
2. For Local Government: It offers data-driven input regarding the urgency of Communal IPR protection and conservation or cultivation policies for rattan to guarantee the availability of raw materials for the creative industry.

## **2. LITERATUR REVIEW**

1. Purwanto, A., & Hartono, J. (2023) – Digital Capability and MSME Resilience, In their research, Purwanto and Hartono (2023) assert that the mere adoption of digital technology does not guarantee MSME success; rather, strategic digital marketing capability is required to build business resilience in the post-pandemic era. Their findings indicate a significant positive relationship between digital capability and business sustainability, yet this relationship is notably strengthened when mediated by continuous product innovation. This is highly relevant to this study as it seeks to demonstrate that digital marketing for Dayak souvenirs must be accompanied by product innovation to compete sustainably.

2. Rahardjo, B., & Utami, W. (2022) – Communal IPR Protection, regarding legal protection, Rahardjo and Utami (2022) elucidate the urgency of Communal Intellectual Property Rights (IPR) for creative economy products based on traditional culture. The study highlights that legal uncertainty and the fear of unauthorized motif imitation often dampen artisans' motivation to widely publish their original works. This perspective serves as a crucial foundation for analyzing how structural IPR issues in Kalimantan may hinder Dayak artisans from engaging in open innovation within the digital marketplace.

3. Haryono, S., & Wardani, L. (2024) – Rattan Raw Material Scarcity, Concerning raw material challenges, the study by Haryono and Wardani (2024) specifically underscores the impact of rattan scarcity on the handicraft industry in Kalimantan. They found that supply constraints due to export policies and land conversion force artisans to engage in frugal innovation—innovation with limited resources—which, if left unaddressed, has the potential to degrade production quality standards in the long term. These findings support the raw material barrier variable in this study as a critical factor influencing the innovation performance of souvenir artisans.

4. Sari, D. P., & Wijaya, A. (2022) – Strategies Based on Local Wisdom, Sari and Wijaya (2022) developed a competitive strategy model that integrates local wisdom values with digital marketing channels. Their research concludes that traditional craft products have a significant opportunity to succeed in global competition if they can package cultural philosophy as a primary value proposition distributed through digital platforms. This model is highly relevant for adoption in formulating strategies for Dayak artisans, ensuring they sell not only physical products but also cultural value through storytelling on social media.

5. Prasetyo, E., et al. (2021) – Barriers to E-Commerce Adoption, Utilizing a mixed methods approach similar to this study, Prasetyo et al. (2021) investigated the factors influencing e-commerce adoption by artisans in rural areas. The results indicate that the primary barriers lie not only in technological infrastructure but also in managerial aspects and the fear of unhealthy price competition in marketplaces. This study provides empirical insight into the contextual challenges that may also be faced by artisans in Kalimantan in optimizing digital marketing.

6. Kotler, P., Kartajaya, H., & Setiawan, I. (2021) – Marketing 5.0, In the book Marketing 5.0, Kotler, Kartajaya, and Setiawan (2021) provide a fundamental theoretical basis regarding the use of advanced technology to create value for humanity (Technology for Humanity). The concept of data-driven marketing discussed in this text is crucial for underpinning the digital marketing optimization variable, where artisans are advised to utilize consumer behavior data to create more precise and personalized marketing strategies in accordance with modern market demands.

7. Wheelen, T. L., Hunger, J. D., Hoffman, A. N., & Bamford, C. E. (2023) – Strategic Management and Sustainability, Wheelen et al. (2023) provide a comprehensive strategic management framework that positions sustainability as the ultimate goal of business activities in the globalization era. This text explains how the analysis of the external environment (such as government regulations and natural resource availability) must be aligned with internal capabilities to achieve competitive advantage. This theory serves as the primary analytical tool in formulating a strategic model that connects upstream challenges (raw materials/IPR) with downstream strategies (marketing) for MSME sustainability.

8. Creswell, J. W., & Creswell, J. D. (2022) – Mixed Methods Research Design, Serving as the methodological foundation, Creswell and Creswell (2022) describe in detail the Exploratory Sequential design, wherein the researcher begins with qualitative exploration to understand a phenomenon that is not yet fully understood before measuring it quantitatively. This reference is essential for validating the research flow used in this study, which proceeds from document analysis to identify artisan challenge variables, to a questionnaire survey to statistically test the strategic model.

### 3. Research Methodology

#### 3.1 Time of Research

This research is conducted in stages following the Exploratory Sequential design, beginning with the qualitative phase and proceeding to the quantitative phase. The total duration of the study is scheduled for 2 (two) months, calculated from October to November 2025. This condensed schedule encompasses the preparation stage, qualitative data collection (document study), instrument development, survey distribution, data analysis, and the final report compilation.

#### 3.2 Place of Research

The research focuses on Small and Medium Industry (IKM) centers and MSMEs producing Dayak souvenirs in the Kalimantan region, with a primary focus on:

1. Palangka Raya City and surrounding areas (Central Kalimantan): Selected as the center of government and Dayak Ngaju culture, which possesses a high concentration of rattan artisans and handicraft producers.
2. Online Locations (Digital): Given the research focus on digital marketing, observations are also conducted on marketplaces (e.g., Shopee, Tokopedia) and social media platforms (e.g., Instagram, TikTok) where artisans market their products.

The selection of these locations is based on the consideration that these areas represent the primary production bases for Dayak crafts that face direct challenges regarding rattan raw materials and Communal IPR issues.

#### 3.3 Data Sources

In accordance with the *Mixed Methods* approach, the data sources in this study are categorized into two types:

1. Primary Data Sources

Primary data is obtained directly from research subjects through questionnaire surveys during the quantitative phase. The respondents in this study are MSME actors/artisans of Dayak souvenirs who have been operating for at least 2 years. This data encompasses their perceptions regarding digital marketing capabilities, interest in innovation, and the raw material obstacles they face.

2. Secondary Data Sources

Secondary data is utilized primarily in the initial qualitative phase to formulate hypotheses and the model. These sources include:

- Local government policy documents related to IPR protection and rattan trade regulations.
- Previous scientific journals regarding product innovation and digital marketing.
- Statistical data from the Department of Cooperatives and SMEs and the Central Statistics Agency (BPS) regarding the number of MSMEs and export volumes of Kalimantan handicrafts.

#### 3.4 Research Tools

The tools used to support the research process and data analysis including:

1. Hardware:

- Laptop/PC for data processing and report compilation.

- Smartphone for communication with respondents and digital documentation.
  - Recording devices (if validation of in-depth interviews is required).
2. Software:
- NVivo or Atlas.ti: Used in the qualitative phase to manage and code data from document and journal analysis.
  - SmartPLS (Partial Least Squares) or SPSS: Used in the quantitative phase to test the causal relationship model and hypotheses (SEM-PLS analysis).
  - Mendeley/Zotero: For reference management and citation.
  - Google Forms: The platform for distributing online questionnaires.

### *3.5 Research Materials*

Research materials refer to the materials or instruments used to acquire data, namely:

1. Document Analysis Matrix: A checklist table used to map structural challenge variables (IPR and raw materials) from literature and policy documents.
2. Structured Questionnaire: The main instrument of the quantitative phase containing closed-ended questions using a Likert Scale (1-5) to measure the variables of Product Innovation, Digital Marketing Capability, and Business Sustainability.
3. Research Permit: Administrative documents for the legality of field data collection.

### *3.6 Data Collection Techniques*

Data collection techniques are carried out sequentially in accordance with the research design:

- Phase 1: Qualitative (Document & Literature Study)

In the initial stage, data collection is conducted through Literature Review and Document Analysis. The researcher collects and examines journals, government reports, and credible articles to:

- Identify specific issues regarding "Uncertainty of Communal IPR" and "Rattan Scarcity."
  - Discover key variables influencing innovation interest.
  - The results from this stage are used to construct the conceptual framework and question items in the questionnaire.
- Phase 2: Quantitative (Survey)

After the instrument is developed based on Phase 1 findings, data collection proceeds with a Field Survey.

- Distribution: Questionnaires are distributed both offline (visiting artisan centers) and online (through MSME community groups on WhatsApp/Facebook).
- Measurement: The obtained data is numerical (quantitative), reflecting respondents' perceptions of the studied variables. This technique aims to statistically test the validity of the proposed strategic model.

## **4. RESULTS AND DISCUSSION**

A. *Digital Marketing Capability Function as a Key Driver for Business Sustainability Amidst the Existing Challenges in Product Innovation*

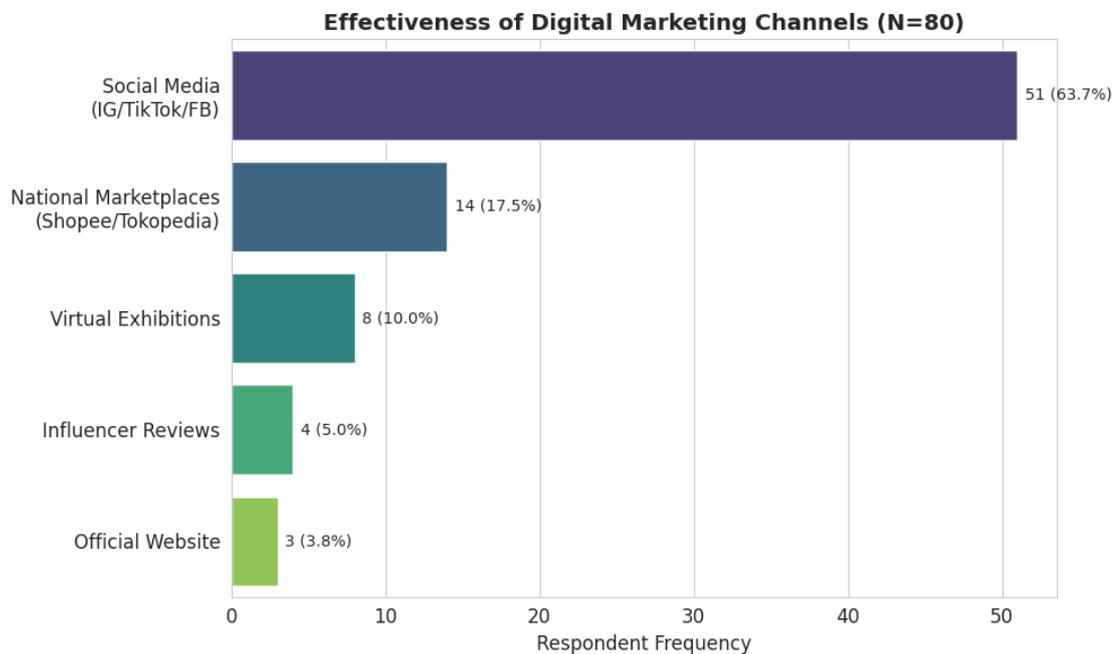


Figure 1.1 Survey Results Chart Table

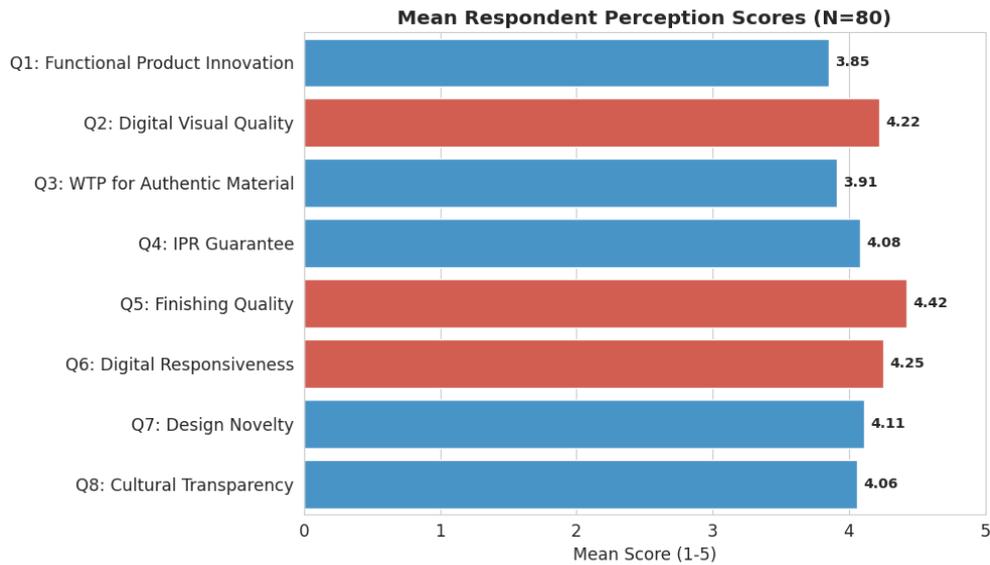
Reveals the hegemony of social media as the most effective marketing channel for Dayak handicraft products, with an absolute dominance of 63.8%. Respondents unequivocally selected platforms such as Instagram, TikTok, and Facebook as the primary venues for discovering products. This confirms that consumers currently prefer a pattern of discovery-driven shopping, where they encounter products through engaging visual content on their social media feeds, rather than actively searching for them on search engines or websites. Social media serves as the primary "entry point" that builds initial interest through visual storytelling.

The second position is occupied by National Marketplaces (Shopee/Tokopedia) with a percentage of 17.5%. The substantial disparity between social media and marketplaces delineates the differing functions of these platforms in the eyes of consumers. Social media acts as a channel for inspiration and cultural education, whereas marketplaces serve as channels for transaction and price comparison. Consequently, an effective marketing strategy involves utilizing social media to build brand awareness and purchase intention, and subsequently directing that consumer traffic to marketplaces for secure payment execution.

Meanwhile, channels that are more formal or unidirectional, such as "Official Websites" and "Virtual Exhibitions," demonstrate very low effectiveness, at only 3.7% and 10.0%, respectively. The lack of interest in official websites suggests that consumers feel less inclined to access separate websites solely to view a single product type; they prefer platforms integrated into their daily activities. Additionally, virtual exhibitions, which were popular during the pandemic, appear to be losing their appeal compared to the direct and dynamic interaction offered by short-form video content on TikTok or Instagram Reels.

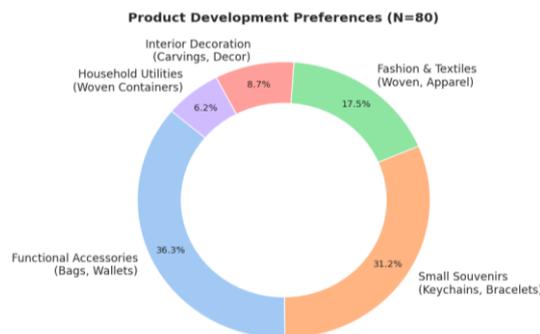
The implication of these findings demands a shift in the digital resource allocation of MSMEs. Instead of expending significant costs on building exclusive websites that attract few visitors, artisans should direct investment toward creative content creation on social media. The primary focus must be on optimizing social media algorithms through high-quality product photography and "behind-the-scenes" videos that highlight cultural authenticity, as this is where the majority of consumer interaction and purchasing decisions originate.

**B. The Appropriate and Empirically Tested Strategic Model to Enhance the Competitiveness and Sustainability of Dayak Souvenir MSMEs**



**Figure 1.2** Survey Results Chart Table

Furthermore, the variable pertaining to the digital storefront, specifically Digital Visual Quality (Q2), also achieved a "Very High" score of 4.22. This substantiates the premise that before consumers physically handle a product, they "purchase" its visual representation first. Aesthetic photography and videography are no longer merely supplementary features but are the primary determinants in purchasing decisions. Meanwhile, interest in Functional Product Innovation (Q1) and Design Novelty (Q7) stands at the "High" level (scores of 3.85 and 4.11, respectively), confirming that the market demands functional modernization, provided it is supported by convincing visualization on digital platforms. Finally, the aspects of ethics and sustainability reflected in the variables Willingness to Pay for Authentic Raw Materials (Q3) and IPR Guarantee (Q4) show scores of 3.91 and 4.08, respectively. These figures indicate the presence of a market segment characterized by ethical consumerism. Consumers are willing to pay a premium price provided there is transparency that the product utilizes authentic rattan not synthetic plastic and that the motifs respect indigenous copyright. These findings validate that transparency regarding raw material provenance and cultural protection can be leveraged as a branding strategy to enhance product value amidst raw material scarcity.



**Figure 1.3** Product Interest Survey Results

In that table a significant shift in consumer preferences regarding the types of Dayak handicraft products. The "Functional Accessories" category, comprising items such as bags, wallets, and hats, dominates the market with a percentage of 36.3%. This dominance demonstrates that modern consumers perceive traditional crafts not merely as static display objects but as integral components of a modern lifestyle that can be worn daily. Product innovation that integrates ethnic motifs with practical functions proves to be more relevant to current market needs compared to purely decorative products.

The second position, the "Small Souvenirs" category, such as keychains and bracelets, commands 31.2% of the preference share. The high interest in this category indicates the substantial potential of the souvenir market, which is characterized by low involvement (affordable prices and portability). For MSMEs facing rattan raw material constraints, this category offers a strategic solution in the form of material efficiency paired with high sales volume (high turnover). Small products allow artisans to maintain mass production levels even when rattan supplies are limited. Conversely, product categories that are heavier and more complex, such as "Interior Decoration" and "Household Utilities," are favored by only a small segment of respondents, at 8.8% and 6.2%, respectively. This low percentage may be attributed to relatively higher price points, logistical shipping difficulties, or a lack of functional flexibility for urban consumers, particularly the younger generation. The decline in interest for heavy display items signals artisans to refrain from over-allocating production stock to large items with slow cash flow turnover.

Collectively, this preference data provides a clear direction for product diversification strategies. Artisans are advised to implement a "hybrid product" strategy maintaining authentic Dayak motifs but applying them to modern functional items. By focusing 67.5% of production capacity on a combination of functional accessories and small souvenirs, MSMEs can maximize market absorption while simultaneously conserving rattan raw materials, aligning with the concept of Frugal Innovation amidst supply chain challenges.

## CONCLUSIONS

This study concludes that although Dayak souvenir artisans face structural barriers regarding rattan scarcity and IPR uncertainty, business sustainability is achievable through a "hybrid" functional product innovation strategy (such as bags and accessories) and digital marketing optimization focused on visual storytelling and service responsiveness. The integration of authentic cultural values with product modernization proves to be the key driver in attracting consumers willing to pay a premium, making digital transformation and raw material efficiency absolute necessities for survival in the modern market.

It is recommended that artisans prioritize the production of material-efficient functional goods and enhance digital service responsiveness, while the local government must urgently facilitate Communal IPR protection and guarantee rattan supply through trade regulations. Finally, future researchers are expected to expand the study scope to the entire Kalimantan region and consider analyzing logistics cost variables, which often pose significant barriers to inter-island transactions.

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