

The Adoption of Digital Technology and Its Impact on Msme Income Growth in The Samota Strategic Area, Sumbawa Regency

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ABSTRACT

The digitalization of the creative economy plays a strategic role in increasing community income and enhancing the competitiveness of tourism destinations, particularly in emerging economic growth areas. The adoption of digital technology expands market access beyond geographical boundaries, improves operational efficiency, and supports more accountable financial management. This study aims to describe the level and forms of digital technology adoption, analyze sustainability strategies for digital adoption in supporting MSME income growth, and identify the barriers and enabling factors affecting its implementation in the Samota Strategic Area, Sumbawa Regency. Informants were selected using purposive sampling, while data were collected through interviews, observations, and documentation. The findings indicate that the digital transformation of MSMEs has progressed through the integration of social media-based marketing and online delivery platforms, the adoption of QRIS cashless payment systems, and the use of digital bookkeeping applications for financial administration. However, implementation continues to face challenges, including limited telecommunications infrastructure, low digital literacy among some business owners, and the dual burden experienced by women entrepreneurs. The study concludes that successful digital transformation of MSMEs requires an integrated approach involving equitable telecommunications infrastructure, continuous coaching and mentoring, and multi-stakeholder collaboration based on the Pentahelix model. This approach strengthens productive financial inclusion by utilizing digital financial footprints as a basis for improving access to financing and supporting the sustainable development of MSMEs.

INTRODUCTION

Digital transformation has become a fundamental pillar in accelerating Indonesia's national economic development. The vision of a Digital Indonesia requires all economic sectors, including those at the regional level, to integrate information technology in order to improve efficiency and expand market reach. According to Suharyanto (2021), accelerating the adoption of digital technology is no longer merely an option but a strategic necessity for business entities to survive and thrive amid the increasingly interconnected global market. Micro, Small, and Medium Enterprises (MSMEs) play a crucial role as the backbone of Indonesia's economy, making a significant contribution to the country's Gross Domestic Product (GDP). However, the competitiveness of MSMEs is often constrained by traditional management practices that have not fully optimized the opportunities offered by digital technologies. Sudaryanto (2019) argues that empowering MSMEs through digital transformation is an effective strategy to reduce distribution barriers and enhance the added value of local products in the national market.

The adoption of digital technology by MSMEs encompasses various dimensions, ranging from the use of social media for promotional purposes, the implementation of e-commerce platforms, to the utilization of financial technology (fintech) for improving transaction efficiency. One of the major challenges faced is the digital literacy gap, which hinders the pace of digital transformation at the grassroots level. According to Mulyadi (2022), the readiness of technological infrastructure must be accompanied by improvements in human resource capabilities to ensure that digital investments generate tangible economic benefits. The relationship between digital technology adoption and income growth has become a central issue in small business innovation management. The utilization of digital platforms enables MSMEs to expand their market reach beyond geographical boundaries, thereby significantly increasing their sales potential. As stated by Sari (2023), the digitalization of business processes has a positive impact on the financial performance of MSMEs by optimizing operational costs and enhancing the effectiveness of more competitive pricing strategies.

Sumbawa Regency, particularly with the designation of the Samota area (Saleh, Moyo, and Tambora), possesses substantial economic potential in the tourism and trade sectors. As a strategic region prioritized in Indonesia's national infrastructure development agenda, Samota is expected to become a driving force for economic growth in eastern Indonesia. According to Zulkarnaen (2020), the development of strategic regions must be accompanied by the readiness of local economic actors so that the benefits arising from increased investment flows and tourist arrivals can be optimally absorbed by the local community. The MSME landscape in the Samota area is dominated by the creative industry, local food processing, and tourism service sectors. However, the considerable market opportunities created by domestic and international tourist arrivals have not been fully utilized due to the limited digital presence of MSMEs. Fauzi (2022) emphasizes that the development of tourism economic corridors such as Samota

requires MSMEs to innovate their digital marketing strategies in order to establish a strong and credible regional brand (place branding).

LITERATURE REVIEW

Theory of Digital Transformation in MSMEs

The Basic Concept of Digital Transformation: Digital transformation is a fundamental process of changing the way organizations operate and deliver value to customers through the integration of digital technologies across all business functions. This concept extends beyond the mere digitization of documents, encompassing changes in organizational culture, organizational structure, and marketing strategies. According to Westerman et al. (2014), from a global perspective, digital transformation is about leadership's ability to leverage technology to redesign customer experiences and business models in order to achieve superior organizational performance.

Dimensions and Strategies of Digital Market Penetration: Digital market penetration encompasses strategies for utilizing e-commerce platforms, social media, and search engine optimization (SEO) to reach a broader consumer base. These strategies focus on establishing a strong brand presence in the digital environment that is capable of attracting audiences through both organic and paid channels.

The Manifestation of Digital Transformation among MSMEs in Sumbawa: The manifestation of digital transformation among MSMEs in Sumbawa Regency is clearly reflected in the shift toward promoting flagship local products, such as Sumbawa wild horse milk and Sumbawa honey, through digital platforms. Business owners have increasingly recognized that relying solely on conventional sales in local markets is no longer sufficient to achieve exponential income growth. According to Fauzi (2022), the use of mobile technology as the primary medium for business communication in Sumbawa has created opportunities for downstream commercialization of regional products, enabling more efficient access to metropolitan markets.

Within the Samota Strategic Area, the optimization of local economic potential is achieved through the accelerated adoption of digital technologies that combine Sumbawa's local wisdom with the accessibility offered by online platforms. This process is supported by the integrated use of social media as a showcase for flagship products, online marketplaces as national distribution channels, and digital payment systems to enhance consumer convenience. Consequently, the digital transformation of MSMEs aims not only to increase short-term profitability but also to strengthen the competitiveness of the Samota region as a Smart Tourism destination supported by a resilient and sustainable community-based economy. The conceptual framework illustrating the relationship between digital technology adoption and the income growth of MSMEs in the Samota Strategic Area of Sumbawa Regency can be presented in the following flowchart.

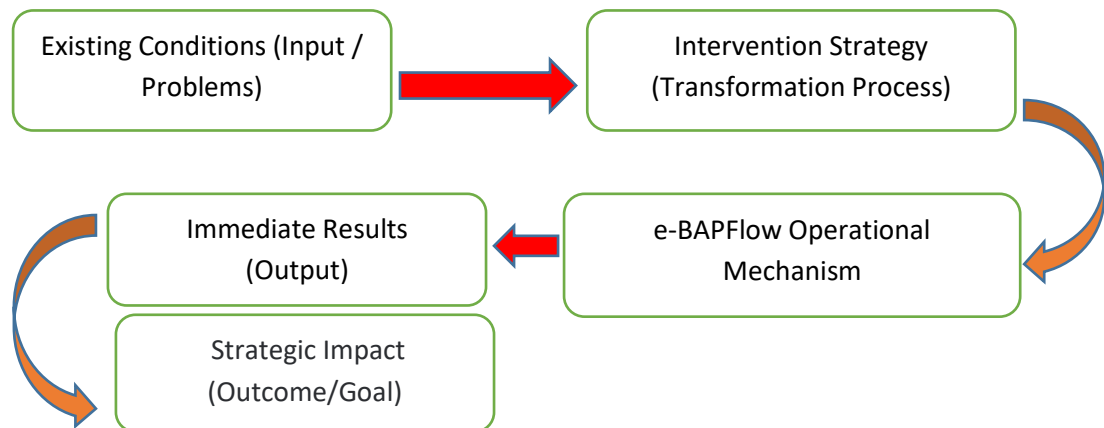


Figure: Conceptual Framework Diagram

RESEARCH METHODOLOGY

This study employed a qualitative research approach aimed at understanding the phenomenon from the perspectives of business actors by exploring meanings, processes, and relationships in depth rather than measuring numerical or statistical data. The study focused on how digital technologies are implemented, the perceived benefits, the challenges encountered, and their impact on income generation through descriptive and narrative analysis.

The selection of informants was based on their authority in regional policymaking, practical experience in operating digital business platforms, and their capacity to provide insights into the dynamics of the tourism economy within the Saleh, Moyo, and Tambora (Samota) corridor. According to Patton (2015), the selection of information-rich cases is intended to obtain in-depth insights and diverse perspectives regarding the strengths and challenges of a system transformation. To ensure comprehensive representation, the researcher included both internal stakeholders, represented by the Office of Cooperatives and MSMEs, and external stakeholders who actively support the digital ecosystem. This approach enabled the data collected to comprehensively reflect the realities of local economic empowerment.

According to Sugiyono (2018), data collection procedures in qualitative research are conducted gradually, flexibly, and continuously until the information obtained is considered complete and reaches data saturation. The process began with the preparation stage, which involved developing an interview guide containing the main research topics, identifying respondents who possessed extensive knowledge and understanding of the research issues, and preparing the necessary recording and documentation equipment. The fieldwork stage followed, during which the researcher directly visited the research sites to conduct in-depth, open-ended interviews aimed at exploring the experiences and perspectives of the respondents. In addition, direct observations were carried out to examine business conditions, operational activities, and the surrounding business environment. Relevant documents and records related to the research problem were also collected to complement the primary data.

Sugiyono (2018) further explains that qualitative data analysis is conducted continuously before, during, and after data collection using an interactive model consisting of four interrelated stages: data reduction, data display, conclusion drawing, and verification. Accordingly, the data analysis process in this study was carried out through two interrelated and continuous stages.

The study employed qualitative data analysis to examine the process of transformational innovation and the dynamics of the digital ecosystem in the Samota Strategic Area. In accordance with the interactive model proposed by Miles and Huberman (1984), the analysis was conducted continuously and interactively throughout the research process until data saturation was achieved.

RESEARCH RESULTS

Analysis of the Level of Digital Technology Adoption and the Typology of Business Actors' Readiness for Adaptation. The level of digital technology adoption among MSMEs in the Samota Strategic Area demonstrates a fragmented and uneven structure. Based on the qualitative data analysis, the digital readiness of business actors can be classified into three main typologies.

The first group consists of younger entrepreneurs with a high level of digital literacy. They have adopted digital technologies comprehensively, including online marketing, cashless payment systems, digital inventory management, and digital bookkeeping.

The second group utilizes digital technology on a limited basis. They generally use WhatsApp for customer communication and order management and provide QRIS as a digital payment option. However, they have not yet implemented digital bookkeeping or actively promoted their businesses through other social media platforms.

The third group is dominated by middle-aged and elderly entrepreneurs who possess limited digital skills and experience considerable technological barriers. Consequently, their business operations remain heavily dependent on conventional cash-based transactions.

Despite these differences in digital readiness, the pattern of technological adaptation among MSMEs in Samota demonstrates an adaptive learning process. Most business owners initially acquire digital skills independently through guidance from family members or peers (peer mentoring), which is subsequently reinforced through formal training programs organized by government agencies and financial institutions such as Bank Indonesia. This hybrid adaptation model has become one of the key determinants of the long-term success of digital transformation among MSMEs in the Samota tourism area.

DISCUSSION

Level and Forms of Digital Technology Adoption among MSMEs in the Samota Strategic Area: Digital technology adoption among MSMEs in the Samota Strategic Area has progressed alongside the growth of tourism activities. Tourism development has encouraged business owners to transform from conventional business practices to digital operations through the use of social media, e-commerce, QRIS digital payment systems, and digital bookkeeping

applications. The expansion of the tourism sector has become a key driver of technological adaptation, enabling MSMEs to expand market reach and enhance business competitiveness.

Sustainability Strategies for Digital Technology Adoption in Supporting MSME Income: The sustainability of digital transformation requires an integrated strategy, including continuous capacity-building through coaching and mentoring, equitable internet infrastructure development, business zoning arrangements, the establishment of a Smart Tourism platform, diversification of digital marketing channels and product traceability features, strengthened multi-stakeholder collaboration through the Pentahelix model, and the utilization of digital financial footprints to improve MSMEs' access to financing. These strategies are expected to strengthen business competitiveness and support sustainable income growth for MSMEs.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The implementation of digital technology adoption in the operations of MSMEs within the Samota Strategic Area has progressed dynamically through the integration of digital marketing systems utilizing social media platforms (WhatsApp Business, Instagram, Facebook, and TikTok), the expansion of market access through e-commerce platforms and online delivery services, as well as the adoption of QRIS cashless payment systems and application-based financial administration. The implementation of sustainable digital technology adoption strategies in the Samota tourism area has been empirically shown to generate significant positive impacts on the stability and growth of local MSMEs' income. The key enabling factors contributing to the successful digital transformation of MSMEs in Samota include cross-sectoral policy collaboration among local government, financial institutions, and business communities; the opportunities created by international tourism events; and improved access to business financing through People's Business Credit (KUR) supported by digital financial footprints derived from cashless transaction records.

Recommendations for Future Research and Policy

The Government of Sumbawa Regency, through the Office of Cooperatives, Industry, and Trade (Diskoperindag), in collaboration with the Tourism Office, should formulate formal operational regulations and Standard Operating Procedures (SOPs) governing partnership arrangements. These regulations should require hotels, major restaurants, and tourism event organizers in the Samota area to formally integrate certified local MSME products into their supply chains. The Office of Communication, Informatics, and Statistics (Diskominfo) of Sumbawa Regency is encouraged to accelerate the development of telecommunications infrastructure, particularly Base Transceiver Stations (BTS), in strategic locations that continue to experience limited internet connectivity, such as the Moyo Honey production centers on Moyo Island and several major transportation corridors within the Samota area. Strengthening digital infrastructure will minimize the risk of QRIS transaction failures while ensuring the reliability of online customer services. Banks, cooperatives, and business

support organizations are encouraged to implement regular digital and financial literacy training programs, accompanied by intensive mentoring that is inclusive and gender-responsive, particularly for women-owned micro-enterprises and senior entrepreneurs. These initiatives are expected to reduce the digital divide while simplifying access to People's Business Credit (KUR) by optimizing MSMEs' cashless transaction histories as accountable alternative indicators for creditworthiness assessment.

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