

25-12-2025

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To cite this article: Aprilani, T. L., Fathurrahman, F., Andriyani, Y., Cahayani, M., Saksono, H., Indarti, D. M., & Putra, I. R. A. S. Examining digital marketing's role in boosting Songket Weaver MSMEs' income in Ungga and Sukarara Villages. *Central Community Development Journal*, 5(2), 119–135. <https://doi.org/10.55942/ccdj.v5i2.1400>

To link to this article: <https://doi.org/10.55942/ccdj.v5i2.1400>



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Examining digital marketing's role in boosting Songket Weaver MSMEs' income in Ungga and Sukarara Villages

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Received 12 January 2025

Revised 18 August 2025

Accepted 25 November 2025

ABSTRACT

This study investigates how digital marketing shapes the income of Micro, Small, and Medium Enterprises (MSMEs) engaged in songket weaving in Ungga and Sukarara Villages in Central Lombok Regency, West Nusa Tenggara Province, Indonesia. Songket weaving is a culturally embedded craft, but its market prospects increasingly depend on visibility and engagement in digital channels. Using a quantitative design, data were collected from 100 songket weaver MSMEs through structured questionnaires and analyzed using partial least squares-structural equation modeling (PLS-SEM). Digital marketing is conceptualized through five dimensions, accessibility, interactivity, entertainment, trust, and informativeness, while MSME income is measured by monthly revenue and profit. The measurement model demonstrated satisfactory convergent and discriminant validity, as well as high reliability across all indicators. The structural model shows that digital marketing has a strong and statistically significant positive effect on MSME income ($\beta = 0.747$; $p < 0.001$), explaining 55.8% of the variance ($R^2 = 0.558$) with high predictive relevance ($Q^2 = 0.671$). These findings confirm that more intensive and higher-quality use of digital channels is associated with higher income for the songket weavers. The study concludes that targeted interventions, such as digital marketing training, content creation support, and facilitation of social media and marketplace usage, are critical to enhancing the competitiveness, resilience, and livelihood outcomes of traditional craft-based MSMEs in peripheral tourism regions like Central Lombok. This study contributes to the MSME and digital transformation literature by providing destination-specific evidence from a craft cluster in an emerging economy context and offering an empirically grounded basis for designing local government and development agency programs for the digital empowerment of artisans.

Keywords: Digital marketing, income, MSMEs, *songket* weavers, SEM-PLS.

1. INTRODUCTION

In Indonesia, Micro, Small, and Medium Enterprises (MSMEs) are pivotal contributors to the national economy, not only in terms of the number of business units but also through their substantial role in employment creation and income generation at the grassroots level. MSMEs absorb a large share of the workforce that might otherwise be excluded from formal employment, thereby acting as an important buffer against poverty and economic vulnerability. However, the competitive environment facing MSMEs is becoming increasingly complex due to market integration, shifting consumer preferences, and rapid technological changes. In this context, the adoption of digital technology, particularly in marketing, promotion, and transaction processes, has become a strategic necessity rather than merely an option, as it can determine whether MSMEs can survive, grow, and scale up in a digitalized economy (Gutiérrez Navas et al., 2025).

Digital marketing, broadly understood as the use of digital tools and online platforms to streamline interactions between producers, intermediaries, and consumers, provides MSMEs with a competitive advantage. Through digital channels, MSMEs can reach wider markets beyond their immediate localities, reduce information asymmetry and present their unique value propositions more effectively. Social media-based marketing, search engine visibility, and online marketplaces enable MSMEs to build brand recognition, communicate with customers in real time, and adjust their offerings based on direct feedback (Rizkita et al., 2025). Platforms such as WhatsApp, Instagram, and Facebook are particularly relevant in Indonesia because of their high penetration rates and ease of use. These platforms are used not only to display products and respond to inquiries but also to create narratives around authenticity, locality, and craftsmanship, which are essential for differentiating MSME products from mass-produced goods.

From the demand side, social media has become a crucial conduit through which consumers exchange information, experiences, and recommendations, influencing their awareness, product evaluation, and purchasing behavior. User-generated content and electronic word-of-mouth can rapidly shape perceptions of quality and trust, amplifying both positive and negative experiences. For MSMEs, this means that digital visibility must be accompanied by consistent quality and responsive customer service to convert online engagement into actual sales and repeat purchases (Rizkita et al., 2025). Simultaneously, the increasing reliance on digital channels raises new challenges related to information quality, digital literacy, and the ability to manage online reputation effectively.

In the realm of tourism, the roles of social media and digital marketing are even more pronounced. Tourism is highly experience-based, and travel decisions are often driven by visual impressions, narratives and peer recommendations shared online. Social media platforms function as influential hubs where potential tourists discover destinations, compare alternatives, and form expectations long before they arrive at the site. This dynamic affects not only hotels and tour operators but also creative and cultural MSMEs embedded in tourist destinations, such as traditional craft producers. When these enterprises can position their products within the broader digital discourse about a destination, they can benefit from increased visibility, higher visitor traffic, and stronger sales performance. Conversely, a lack of digital presence can cause them to be bypassed, even when they are physically close to major tourist flows (Satpathy et al., 2025).

West Nusa Tenggara (NTB), particularly Central Lombok, provides a clear example of the intersection between tourism development and traditional crafts. Lombok is widely recognized as one of the centers of woven fabric craft in Indonesia, with villages such as Sade and Sukarara known as iconic hubs for traditional weaving. Weavers in these villages produce *songket* and other woven fabrics that have cultural, symbolic, and economic value. The development of major tourism infrastructure and the hosting of international events, such as the ASEAN Talent Cup, World Superbike, and MotoGP at the Mandalika circuit, have significantly increased tourist arrivals and media exposure in the region, creating substantial opportunities for woven fabric MSMEs to expand their markets. Digital marketing can help these enterprises capture spillover demand by connecting offline tourist experiences to online discovery and post-visit purchasing.

Previous research has highlighted the positive impact of social media, e-commerce platforms, and websites on the performance of woven fabric MSMEs, particularly in terms of market expansion and brand strengthening (Amin et al., 2025). However, the extent to which these digital tools translate into higher and more stable incomes is shaped by several factors, including MSME capabilities, collaborative networks, and risk management practices. Studies on MSME performance underline the importance of supportive relationships and symbiotic interactions with other actors, such as suppliers, intermediaries, and institutions, in enhancing resilience and returns in small-town and peripheral contexts (Kijkasiwat et al., 2021). Simultaneously, the post-COVID-19 environment has underscored the need for MSMEs to adopt strategies that enhance resilience and sustainability, including digital transformation, business model adaptation, and proactive engagement with changing consumer behavior (Satpathy et al., 2025).

As more MSME entrepreneurs in Central Lombok delve into the digital realm of woven fabric marketing, there is a growing need for empirical evidence on how digital marketing affects enterprise-level income. The digitization process is influenced by internal and external factors, such as managerial skills, access to finance, institutional support, and regional digital ecosystems, which determine whether MSMEs can fully benefit from technological opportunities (Gutiérrez Navas et al., 2025). Building on these insights, this study aims to explore the role of digital marketing in the income of woven fabric MSMEs in Ungga and Sukarara Villages, Central Lombok Regency, West Nusa Tenggara Province, Indonesia. This study seeks to generate practical implications for digital business development by identifying how specific digital marketing practices contribute to income enhancement, the constraints MSMEs face in implementing them, and the forms of support needed to strengthen the competitiveness and sustainability of woven fabric MSMEs in a rapidly evolving tourism and digital environment.

2. LITERATURE REVIEW

2.1. Digital Marketing

Digital marketing represents a contemporary approach that leverages multimedia and traditional media across computers, mobile devices, and other platforms in the mobile internet era. Gradually gaining popularity, it is reshaping marketing strategies (Sokolova & Titova, 2019). Successful digital marketing involves the correct utilization of digital media to create direct, interactive, and personalized commercial communications that capture clients' attention (Amin et al., 2025). This approach employs social media, search engines, and brand promotion to implement strategies and enhance brand value, leading to a notable increase in revenue (Kannan & Li, 2017). Notably, tied to technological advancements, internet usage, and continuous communication, digital marketing delivers relevant news, unique experiences, and opportunities for interaction with the brand (Makrides et al., 2020).

The term "digital marketing" encompasses various Internet strategies for promoting goods and services, including search engine optimization (SEO), search engine marketing (SEM), social media marketing (SMM), pay-per-click (PPC) advertising, affiliate marketing, email marketing, content marketing, inbound marketing, online advertising, and mobile marketing (Burghate, 2018; Charlesworth, 2014; Zwick & Dholakia, 2020). Utilizing digital platforms, such as websites, social networks, search engines, and mobile devices, these methods reach a global audience and target specific demographics. Understanding the digital behavior and preferences of the target audience is a key focus of digital marketing research, which offers diverse techniques for effective online promotion and client interaction. See [Figure 1](#)

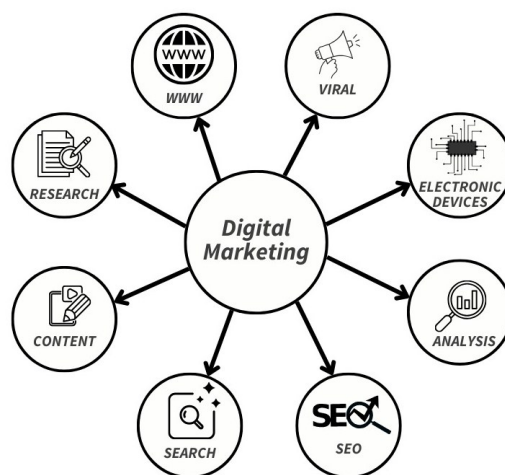


Figure 1. Digital Marketing

Source: Chaffey and Ellis-Chadwick, 2019

Digital marketing, as illustrated in the diagram above, comprises diverse strategies, including online advertising, email marketing, search engine optimization (SEO) for increased organic website traffic, social media marketing (SMM), content marketing, paid search marketing, mobile marketing, online reputation management, and video marketing. These advertising methods collectively enhance the efficiency and effectiveness of the process. Additionally, automated platforms manage user databases and ad inventories, ensuring swift and highly efficient operation (Chaffey & Ellis-Chadwick, 2019).

Social media platforms, most notably Facebook, have created unprecedented opportunities for firms to communicate with millions of potential customers about their products and services, opening entirely new marketing avenues. However, these opportunities can only be fully realized when managers understand how to design and deploy communication strategies that genuinely engage customers and enhance their experience (Mangold & Faulds, 2009). Therefore, marketing professionals need a deep understanding of online social marketing campaigns and programs, including how to implement and evaluate them effectively using clear performance indicators.

As global market dynamics shift, particularly with younger audiences gaining easier access to and heavier usage of social media, organizations must adopt strategically integrated approaches to their marketing communication plans (Hanna et al., 2011). Within this broader transformation, the Goods and Services Tax (GST) has been framed as a major tax reform capable of reshaping the national economic landscape, and this study adopts that perspective as an underlying assumption supporting the review of the GST. Blogs have also emerged as powerful digital marketing tools, significantly boosting sales revenue, especially for products for which consumers actively seek and contribute reviews and personal testimonials. User-generated content in the form of online reviews has become an effective component of many firms' strategic marketing efforts (Zhang et al., 2011). Overall, online service tools tend to exert greater influence than traditional communication methods (Helm et al., 2013), while well-designed web experiences shape consumers' cognitive processes and strengthen their intentions to purchase online (Cetină et al., 2012).

Digital marketing has become a strategic lever for micro, small, and medium enterprises (MSMEs); however, its utilization is shaped by a mix of internal capabilities and external conditions. Studies across different country contexts show that while many MSMEs have started using social media and basic online channels, only a smaller subset manages to integrate digital marketing into a coherent strategy that drives performance and resilience (Barman & Mahanta, 2025; Kumar & Nanda, 2023; Vo Thai et al., 2025).

At the firm level, several factors are consistently identified as critical for the effective utilization of digital marketing. First, owner/manager digital literacy and attitudes toward technology strongly influence whether MSMEs move beyond the "trial" use of social media into more systematic campaigns. In Assam, adoption intensity is higher among relatively larger and urban MSMEs, with better-educated owners and stronger exposure to digital tools, whereas rural micro-enterprises remain stuck at very basic use due to

low awareness, skills, and confidence (Barman & Mahanta, 2025). Second, resource readiness, such as access to affordable Internet, devices, and basic IT infrastructure, conditions the ability to use digital marketing consistently rather than sporadically. From a strategic tripod perspective, internal resources and capabilities, industry competition, and supportive institutions jointly shape how far MSMEs can progress in their digitalization journey, including marketing functions (Vo Thai et al., 2025). Third, alignment between digital marketing activities and business goals is essential; social media and other channels deliver value only when integrated with positioning, customer service, and product strategies (Kumar & Nanda, 2023).

The literature highlights substantial opportunities when these factors are present. Social media marketing offers low-cost reach, customer engagement, and brand-building potential, which are highly compatible with MSMEs' budget constraints (Kumar & Nanda, 2023). In broader terms, digitalization allows MSMEs to enter wider markets, collect real-time feedback, and support more transparent and efficient operations, which, in turn, contributes to sustainable development outcomes at the local and national levels (Vo Thai et al., 2025).

However, its adoption remains constrained by persistent challenges. Barman and Mahanta (2025) show that in less developed regions, barriers include a lack of training, perceived complexity, and fear of online fraud or regulatory issues. Kumar and Nanda (2023) emphasize practical obstacles, such as difficulties in designing compelling content, managing multiple platforms, and interpreting analytics, alongside worries about reputational risk from negative viral feedback. Even when MSMEs recognize the benefits of social media marketing, limited facilitating conditions, such as poor connectivity, time constraints, and the absence of dedicated marketing staff, often prevent sustained use. From a strategic perspective, weak institutional support and uneven digital infrastructure further widen the gap between "digital leaders" and lagging MSMEs (Vo Thai et al., 2025).

While digital transformation has increasingly been identified as a critical pathway for MSMEs to enhance their competitiveness, human capital is consistently positioned as a central determinant of its success. Rather than being limited to the acquisition of digital tools, digital transformation in MSMEs is conceptualized as a capability-building process in which skills, knowledge, and organizational practices are reconfigured to exploit digital technologies effectively.

From this perspective, Alexandro (2025) examines strategic human resource management (SHRM) in Indonesian MSMEs and startups and argues that HR functions become strategically important in the digital economy when they are explicitly oriented toward developing digital capabilities. In this context, SHRM includes digital technology adoption in HR processes, digital training and development, flexible work arrangements, innovative recruitment and retention practices, and the use of HR analytics and AI. The empirical results indicate that the generic digitalization of HR processes or the introduction of flexible work arrangements alone does not significantly improve productivity or performance. Instead, innovation in recruitment and retention, and the use of analytics and AI exhibit strong positive effects on organizational outcomes (Alexandro, 2025). This suggests that human capital becomes a strategic asset in digital transformation when deliberately managed through data-driven and forward-looking HR practices.

The link between human capital and digital transformation is further elaborated by Setiawan et al. (2025), who analyze the role of digital transformation alongside dynamic and agile capabilities in MSMEs. Their findings show that digital transformation contributes to performance primarily when accompanied by the organization's ability to sense environmental changes, seize emerging opportunities, and reconfigure internal processes. These dynamic and agile capabilities are rooted in the skills, learning orientation, and adaptability of owners and employees, positioning human capital as an upstream enabler of effective digital transformation (Setiawan et al., 2025). From this perspective, digital tools enhance performance only when supported by a workforce capable of integrating them into decision-making and daily operations.

The literature on barriers to digitalization underscores the costs of human capital deficits. Rupeika-Apoga and Petrovska (2022), using a resource-based lens, identified seven key barriers to sustainable digital transformation in MSMEs, with IT security concerns and a shortage of digital specialists emerging as the most critical. These constraints are closely linked to limited knowledge, training, and educational resources within firms and the broader labor market (Rupeika-Apoga et al., 2022). Their study reinforces the

argument that capability-related factors, rather than technology availability per se, frequently block progress toward more advanced forms of digitalization.

The interaction between human capital, structural capital, and digital transformation was highlighted by [Ovami et al. \(2025\)](#). This study reports that digital transformation and structural capital jointly act as catalysts for performance, with digital adoption mediating the relationship between internal resources and the outcomes. When human capital is embedded in clear routines, documented know-how, and supportive organizational systems, the performance gains from digital transformation are significantly amplified ([Ovami et al., 2025](#)). Conversely, when management practices remain informal and undocumented, even relatively strong individual skills may not translate into consistent performance improvements.

The Indonesian case of West Nusa Tenggara (NTB) provides a contextual illustration of these dynamics. NTB hosts more than 580,000 MSMEs and employs over 1.4 million non-agricultural workers, accounting for approximately 92.33% of the workforce across 34 provinces. However, evidence from the Central Statistics Agency (BPS) indicates that MSMEs in NTB face substantial challenges, including limited access to banks, low skills and knowledge among human resources, simple management practices, limited use of technology, and low competitiveness against foreign products ([Amin et al., 2025](#)). In line with the broader literature, these constraints reflect weaknesses in human and structural capital rather than the mere absence of digital tools. The proposal to leverage existing digital technologies as marketing instruments for MSME products in NTB positions digital transformation as a potential response to these constraints but implicitly assumes parallel investments in upgrading human capital and professionalizing management practices ([Amin et al., 2025](#)).

2.2. MSMEs Income

The literature consistently shows that well-designed digital marketing strategies are strongly associated with higher income and overall financial performance for micro, small and medium enterprises (MSMEs). Across different contexts, digital marketing not only expands market reach but also improves sales conversion, customer retention, and resilience during shocks, making it a critical lever for sustaining and growing MSME revenue streams ([Gao et al., 2023](#); [Jadhav et al., 2023](#)).

[Jadhav et al. \(2023\)](#) provide a broad, systematic overview of how digital marketing affects SMEs' business outcomes. Synthesizing empirical studies from multiple countries and sectors, they concluded that digital marketing, encompassing social media marketing, search engine optimization, content marketing, mobile marketing, and email campaigns, tends to increase sales volume, customer acquisition, and profitability when implemented strategically. A key contribution of their review is the emphasis on how digital marketing creates income effects through multiple mechanisms: lowering customer acquisition costs, enabling precise targeting, improving communication efficiency, and supporting data-driven decision-making regarding pricing and promotions ([Jadhav et al., 2023](#)). However, they also highlight that the income impact is heterogeneous, depending on the sector, firm capabilities, and the degree of integration between digital and offline channels.

Focusing more narrowly on specific tactics, [Etim et al. \(2021\)](#) analyze e-marketing strategies and SME performance in the “new normal” environment during the pandemic. Their study examined the effects of social media marketing, online advertising, and email marketing on the performance of small- and medium-sized enterprises, treating performance in terms of sales, market share, and profitability. They found that all three e-marketing tools positively and significantly influenced SME performance, with social media marketing often emerging as the strongest driver because of its ability to build brand awareness and engagement at a relatively low cost ([Etim et al., 2021](#)). This suggests that income gains are closely tied to the breadth and depth of digital promotion activities, particularly when SMEs can create consistent online visibility and maintain interactive communication with customers.

Evidence from Indonesia further reinforces the income effect of digital marketing on MSMEs. [Sasongko et al. \(2023\)](#) examined the effect of digital marketing on MSMEs in Indonesia and showed that adopting digital marketing tools, such as social media platforms, online marketplaces, and other Internet-based channels, significantly enhances business performance. Their findings indicate that MSMEs using

digital marketing can reach wider geographic markets, communicate value propositions more effectively, and respond more quickly to customer needs, all of which translate into higher sales and revenue growth (Sasongko et al., 2023). The study underscores that in emerging markets, digital marketing is particularly powerful for micro and small firms that previously depended almost exclusively on local, offline channels and word-of-mouth.

Gao et al. (2023) provide one of the clearest demonstrations of the link between digital marketing adoption and financial performance during crises. Investigating MSMEs during the COVID-19 pandemic, they analyzed the combined impact of e-commerce and digital marketing adoption on financial and sustainability performance. Their results show that both e-commerce and digital marketing adoption have significant positive effects on financial performance indicators, such as sales, profitability, and liquidity (Gao et al., 2023). Moreover, they found that digital marketing supports sustainability performance by enabling efficient resource use, maintaining customer relationships, and stabilizing income flows when traditional channels are disrupted. In this context, a digital marketing strategy functions as a buffer, helping MSMEs preserve and even grow their revenue during external shocks.

Synthesizing these contributions, several cross-cutting themes emerge regarding how digital marketing strategy relates to MSME income. First, the relationship was clearly positive but not automatic. All four studies stress that mere presence on digital platforms is insufficient; income gains arise when MSMEs implement coherent strategies that align digital tools with target markets, value propositions, and business models (Etim et al., 2021; Gao et al., 2023; Jadhav et al., 2023; Sasongko et al., 2023). Second, multichannel and integrated approaches appear to be more income-enhancing than isolated tactics. Combining social media, online advertising, email marketing, and e-commerce platforms allows MSMEs to create a sales funnel, from awareness to purchase and loyalty, that generates more stable and scalable revenue streams (Etim et al., 2021; Gao et al., 2023). Third, the magnitude of the income effect depends heavily on internal capabilities. Jadhav et al. (2023) and Sasongko et al. (2023) both highlight the role of digital skills, managerial commitment, and data-use capabilities in turning digital marketing strategies into sustained sales growth. Firms with weak capabilities tend to use digital tools sporadically or superficially, limiting their impact on income.

The literature points to an important dynamic aspect: digital marketing strategies seem to be especially critical in turbulent or highly competitive environments. In Gao et al.'s (2023) pandemic context, digital marketing adoption was decisive in retaining customers and generating sales when physical interactions were constrained. Similarly, Etim et al. (2021) frame e-marketing strategies as a “new normal” necessity rather than an optional add-on, implying that MSME income trajectories will increasingly diverge based on the quality of digital marketing. Taken together, the evidence suggests a strong and growing consensus: robust digital marketing strategies, anchored in clear objectives, integrated tools, and adequate capabilities, are now among the most important determinants of MSME income and financial sustainability.

3. METHODOLOGY

This study employs a quantitative approach and uses a sample of 100 respondents to establish correlations, causal relationships, and the significance of the research hypotheses. Descriptive statistical techniques were applied to provide an overview of all research variables, while inferential (inductive) statistics were utilized to analyze the influence of government and community participation on tourism industry development and community welfare in Central Lombok Regency. The structural relationships among variables were examined using Structural Equation Modeling (SEM) with a covariance-based perspective, while estimation was carried out through Partial Least Squares (PLS) as an alternative method that is suitable for relatively small to medium sample sizes and complex models (Hair et al., 2016; Hair et al., 2019).

Data processing involved editing, coding, and tabulating. Editing ensures data quality standards, whereas coding categorizes data for tabulation and calculation. The analysis employs quantitative techniques, particularly Partial Least Square (PLS) analysis, as an alternative to structural equation

modeling, addressing the challenge of small sample sizes. PLS was chosen for its applicability to smaller sample sizes and its ability to confirm theoretical foundations (Chin, 2010; Hair et al., 2019). The steps for PLS analysis include designing the structural and measurement models, constructing a path diagram, converting it to a system of equations, estimating coefficients, evaluating goodness of fit, and hypothesis testing through resampling and bootstrapping.

Variables such as digital marketing (X1) and MSME income (Y1) were analyzed using a one-way path with a recursive single-edged arrow, where one exogenous variable directly influenced one endogenous variable. The relationships between the variables are summarized in Table 1.

Table 1. Research Objects Based on Variables

No	Variable	Indicator
1	Digital Marketing (X ₁)	X _{1.1} = accessibilities X _{2.1} = interactive X _{3.1} = entertainment X _{4.1} = trust X _{5.1} = informative
2	MSMEs Income (Y ₁)	Y _{1.1} = income received per month Y _{2.1} = profit

Source: Researchers (processed)

The research method uses the SEM-PLS analysis tool by depicting the paths of the variables studied (Figure 2).

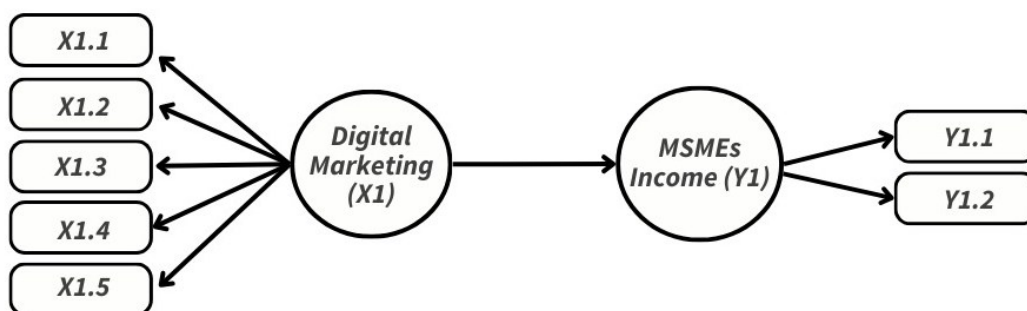


Figure 2. Research Objects Based on Variables and Indicators

The model comprises two latent variables: Digital Marketing (X1) and MSMEs Income (Y1). The Role of Digital Marketing was measured using five indicators. X1.1 (accessibility) captures the ease with which customers can find and reach MSMEs using digital channels. X1.2 (interactive) reflects two-way communication features, such as chat, comments, and feedback mechanisms. X1.3 (entertainment) represents the attractiveness and enjoyment of digital content, including visuals, storytelling, and engaging content. X1.4 (trust) indicates the perceived security, reliability, and credibility of MSMEs' online presence. X1.5 (informative) measures the extent to which digital platforms provide complete, clear, and useful product and transaction information. The high loading values attached to these indicators demonstrate that each dimension strongly explains the overall digital marketing construct.

The MSMEs income construct (Y1) was measured using two indicators. Y1.1 (income received per month) reflects the total monthly revenue earned by *songket* weavers, whereas Y1.2 (profit) represents the net financial gain after costs. The strong loadings on these indicators indicate that they are valid measures of the income performance.

4. RESULT AND DISCUSSION

4.1. Structural Equation Modeling

The research findings are illustrated through the Smart PLS 3.0 output, which generates a Structural Equation Model. A comprehensive interpretation of the structural equation model analysis results is provided in Figure 3.

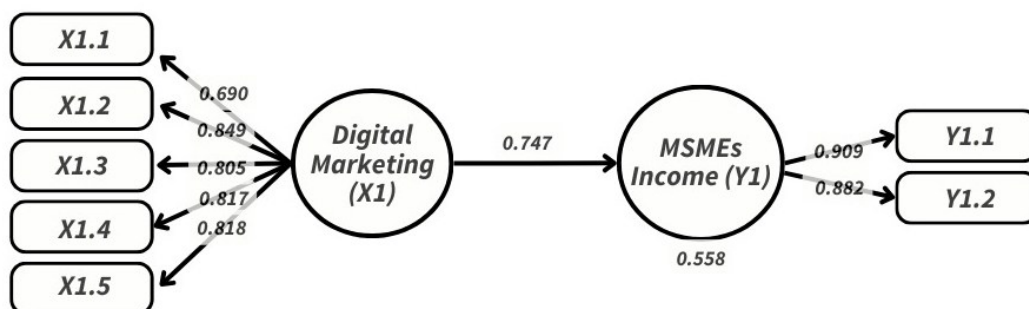


Figure 3. Digital Marketing Impact on *Songket* Weaver MSMEs Income in Central Lombok

The arrow connecting the role of digital marketing to MSMEs income shows the direct structural relationship between the two latent variables. The positive path coefficient suggests that better accessibility, interactivity, entertainment value, trust, and informational quality in digital marketing collectively lead to higher monthly income and profit for *songket* weaver MSMEs. The R^2 value inside the MSMEs income circle indicates that a substantial proportion of the variation in income and profit can be explained by the digital marketing construct. The figure emphasizes that strengthening these five dimensions of digital marketing is crucial for improving the financial performance of *songket* weaving businesses in Central Lombok.

4.2. Evaluation of the Measurement Model (Outer Model)

The outer model analysis aimed to validate and ensure the reliability of the measurements (Hulland, 1999). Two latent constructs, namely the role of digital marketing and the income of MSMEs *songket* weavers, were identified through various indicators, as presented in the SmartPLS output. The convergent validity test confirmed the validity of the constructs, with loading values > 0.70 , indicating a strong correlation. The Fornell and Larcker test, cross-loading correlation, and Heterotrait-Monotrait Ratio (HTMT) supported the validity of the role of digital marketing (X1) and MSMEs income (Y1). Composite reliability values exceeding 0.70 demonstrated the model's overall reliability. Additionally, AVE values above 0.50 and Cronbach's alpha values indicated the validity and reliability of all variables in the model, emphasizing the consistency of the instrument's statements.

4.3. Structural Model Testing (Inner Model)

The inner model outlines the structural relationships between latent variables based on an underlying substantive theory. In PLS-SEM, the assessment of this inner model begins with examining the R-square for each dependent latent variable, because the R-square indicates how much variance in an endogenous construct is explained by its predictors. Subsequently, the strength and significance of the path coefficients between constructs were evaluated together with the R-square values to determine whether the theoretical model was empirically supported (Hair et al., 2019).

Table 2. R-Square for Digital Marketing's Role

	R Square	Information
MSMEs Income (Y ₁)	0,558	Weak

Source: Processed data, 2023

[Table 2](#) shows that the role of digital marketing explains 55.8% of the variance in MSMEs income (Y₁). In practical terms, this means that differences in the accessibility, interactivity, entertainment, trust, and informativeness of digital marketing activities account for more than half of the observed variation in the monthly income and profit of *songket* weaver MSMEs. According to the commonly used guidelines in PLS-SEM, R-squared values of 0.75, 0.50, and 0.25 are often interpreted as substantial, moderate, and weak, respectively ([Hair et al., 2019](#)). Thus, an R-square of 0.558 lies between moderate and substantial explanatory power, even though in this study, it is classified as “weak” because it is below the benchmark of 0.722 set by the researchers. The remaining 44.2% of the variance is presumably influenced by other factors outside the current model, such as production capacity, access to raw materials, or broader market conditions.

Using the R-squared values in the research model, the predictive relevance (Q²) can be calculated as follows:

$$Q^2 = 1 - \{(1-R_1^2) (1-R_2^2)\}$$

$$Q^2 = 1 - \{(1-0,722^2) (1-0,558^2)\}$$

$$Q^2 = 1 - \{(0,479) (0,688)\}$$

$$Q^2 = 1 - 0,329$$

$$Q^2 = 0,671$$

A Q² value of 0.671 indicates that the model possesses strong predictive relevance for MSMEs income.

4.4. Direct Effect Testing

The direct impact in this study was examined by observing the path coefficients and their associated t-statistics and p-values, which indicate whether the relationships between latent constructs are statistically significant. In PLS-SEM, a relationship is considered significant when the p-value is below the chosen alpha level, commonly 0.05 ($p < 0.05$). A smaller p-value, such as below 0.005, reflects an even stronger statistical evidence. Conversely, a p-value above 0.05 indicates that the latent construct does not exert a statistically significant direct or indirect influence on the dependent variable. Thus, by comparing the obtained p-values and t-statistics with the relevant critical values, the researcher can determine which hypothesized paths are supported. [Table 3](#), together with the accompanying explanation, presents the test results for the direct influence of the role of digital marketing on MSMEs income.

Table 3. Test of the Direct Effect of Latent Variables

Relationship between Variables	Original Sample	Standard Deviation	T Stat.	P Values	Information
X ₁ ->Y ₁	0.747	0.076	9,842	0.000	Signifikan

Source: Processed data, 2023

The analysis results reveal a path coefficient (original sample) of 0.747 from Digital Marketing (X₁) to MSMEs income (Y₁), with a t-statistic of 9.842 and a p-value of 0.000. Using a 5 percent significance level ($\alpha = 0.05$), the t-statistic clearly exceeds the critical t-table value of 1.96, while the p-value is far below 0.05. These findings confirm that digital marketing has a strong and positive effect on the income of *songket* weaver MSMEs. In practical terms, improvements in the accessibility, interactivity, entertainment, trust, and informativeness of digital marketing activities are associated with higher monthly income and profit. Consequently, policies that focus on capacity building, such as training weavers and MSME owners in content creation, social media management, and online customer engagement, are expected to significantly

enhance the financial performance of *songket* weaving MSMEs, particularly in Ungga and Sukarara Villages, Central Lombok Regency.

4.5. Discussion

The outer model results show that all indicators of the two latent constructs, role of digital marketing and MSME income, meet the standard thresholds of convergent and discriminant validity, with factor loadings above 0.70, average variance extracted (AVE) values above 0.50, and composite reliability and Cronbach's alpha values above 0.70. These values indicate that the items used in the questionnaire consistently capture the underlying constructs and are reliable for structural analysis, in line with the criteria proposed by [Hulland \(1999\)](#), [Hair et al. \(2016; 2019\)](#), and [Chin \(2010\)](#). From a methodological standpoint, this supports the conclusion that “digital marketing” and “income” are measured in a way that is both statistically sound and conceptually coherent.

Turning to the structural model, the R-square value of 0.558 for MSME income suggests that the role of digital marketing explains approximately 55.8% of the variance in income among *songket* weaver MSMEs. Although the study categorizes this as “weak” because it is lower than a benchmark value of 0.722, in the PLS-SEM literature, an R-square above 0.50 is typically interpreted as moderate and meaningful for social science research ([Hair et al., 2019](#)). The Q² value of 0.671 further indicates the strong predictive relevance of the model. In combination, these metrics suggest that digital marketing is not a marginal factor; it accounts for more than half of the variance in income, while also leaving room for other important determinants such as human capital, structural capital, market access, and institutional support ([Alexandro, 2025](#); [Ovami et al., 2025](#); [Rupeika-Apoga et al., 2022](#)).

The direct effect results support this interpretation. The path coefficient from digital marketing to income ($\beta = 0.747$, $t = 9.842$, $p < .001$) indicates a strong, statistically significant positive relationship. In practical terms, improvements in the role and intensity of digital marketing are associated with substantial increases in the income of *songket* weaver MSMEs. This aligns strongly with global evidence showing that digital marketing strategies, particularly when planned, targeted, and integrated, can increase sales, broaden market reach, and improve MSMEs' profitability ([Etim et al., 2021](#); [Gao et al., 2023](#); [Jadhav et al., 2023](#); [Sasongko et al., 2023](#)).

Conceptually, the result is consistent with mainstream digital marketing theory, which frames digital tools as a powerful extension of the promotion mix. [Mangold and Faulds \(2009\)](#) describe social media as a new hybrid component of marketing communications that allows two-way interaction with customers at a relatively low cost. [Chaffey and Ellis-Chadwick \(2019\)](#) and [Charlesworth \(2014\)](#) emphasized that when MSMEs use digital channels strategically, combining content marketing, search, social media, and email, they can generate greater awareness, engagement, and conversion than they can by relying on traditional methods alone. The strong coefficient in this study suggests that *songket* MSMEs that use digital marketing not just as a “display” but as a strategy (e.g., consistent posting, story-telling, campaigns, and customer interaction) are rewarded with higher income.

The mechanism underlying this effect is supported by consumer behavior studies. Online experiences shape perceptions, attitudes, and purchase decisions, especially for visual and culturally rich products such as *songket* ([Cetină et al., 2012](#); [Makrides et al., 2020](#)). Digital platforms allow weavers to showcase product uniqueness, craftsmanship, and cultural narratives through photos, videos, and stories, which can influence buyers' mental processing and their willingness to pay. User-generated content, such as reviews, comments, and testimonials, further amplifies this effect: blogs, social media posts, and reviews boost sales revenue by building trust and social proof ([Helm et al., 2013](#); [Zhang et al., 2011](#)). The strong path coefficient found here is consistent with this network effect, where each incremental improvement in digital marketing presence and competence can lead to disproportionately higher sales growth.

Empirical studies on MSMEs reflect these patterns. [Etim et al. \(2021\)](#) find that e-marketing strategies, social media marketing, online advertising, and email marketing, significantly improve SME performance, with social media emerging as a particularly strong driver. [Gao et al. \(2023\)](#) show that MSMEs that adopted e-commerce and digital marketing during COVID-19 reported better financial performance and resilience in the face of disruption. In the Indonesian context, [Sasongko et al. \(2023\)](#)

demonstrated that MSME digital marketing adoption leads to increased market reach and performance, particularly for firms that previously relied heavily on local, offline customers. The positive and strong coefficient in the current model fits squarely within this emerging consensus: digital marketing is no longer a peripheral add-on but a central determinant of MSME income.

Simultaneously, the R-squared value below 0.60 and the Lombok context signal that digital marketing is necessary but not sufficient. Studies on digital transformation and MSME performance repeatedly show that digital tools are most effective when complemented by strong human capital, digital orientation, and structural capital (Alexandro, 2025; Ovami et al., 2025; Setiawan et al., 2025; Vo Thai et al., 2025). In rural and semi-rural settings, MSMEs often face constraints related to skills, infrastructure, financing, and formalization (Barman & Mahanta, 2025; Gutiérrez Navas et al., 2025). *Songket* weavers in Ungga and Sukarara may still struggle with limited digital literacy, irregular access to stable internet, and basic business management challenges. Thus, while digital marketing clearly elevates income, a significant portion of income variance is still likely driven by factors such as product quality, production capacity, network relations, and institutional support systems (Amin et al., 2025; Kijkasiwat et al., 2021; Satpathy et al., 2025).

The discussion also needs to consider the qualitative nature of *songket* as a culturally embedded product. Rizkita et al. (2025) show that integrating cultural adaptation into digital marketing strategies strengthens competitiveness and sustainability for Javanese MSMEs. For Lombok *songket*, digital marketing that simply pushes products without highlighting cultural meaning, authenticity, and local identity may generate limited income gains compared to strategies that tell stories about heritage, craftsmanship, and the community. This suggests that the “role of digital marketing” in the model should be interpreted not just as platform usage but also as the quality and cultural relevance of digital content. High coefficients combined with moderate R-squares are compatible with a scenario in which a subset of MSMEs that excel at culturally adapted digital marketing achieves much higher income, pulling up the overall relationship.

Methodologically, the strong path coefficient and acceptable R-squared, combined with adequate reliability and validity, indicate that the model is sound for the current sample. However, as Kannan and Li (2017) argue, the effects of digital marketing are often contingent on dynamic environmental factors such as market turbulence, platform algorithms, and competitive intensity. Amin et al. (2025) show that the impact of digital transformation on SME marketing performance is moderated by social media and market turbulence, implying that the strength of the digital marketing–income relationship for *songket* weavers may fluctuate over time as platforms change and competition intensifies. Future research should consider moderating variables such as market turbulence, digital capability, and cultural adaptation to refine the model.

Digital marketing has a strong, positive, and statistically significant effect on the income of *songket* weaver MSMEs, consistent with a broad body of international and Indonesian evidence. Simultaneously, the model’s explanatory power highlights that digital marketing is a key driver but not the only determinant of income, underscoring the need to integrate digital strategies with investments in human capital, structural capital, and culturally grounded branding. For policymakers and practitioners, the message is straightforward: training programs that enhance digital marketing skills, especially in storytelling, social media management, and content creation, are likely to yield tangible income gains for traditional craft-based MSMEs, provided they are embedded in broader efforts to strengthen digital readiness and business capabilities.

4.5.1 Digital Marketing as a Catalyst for Inclusive Community Development in Craft-Based Tourism Economies

MSMEs occupy a central position in Indonesia’s community development landscape because they translate macroeconomic growth into jobs, household income, and social protection at the local level, especially for workers who are excluded from formal labor markets. The passage shows that this role is increasingly mediated by digitalization: when marketing, promotion, and transactions move online, the ability of micro and small producers to participate in markets becomes a determinant of whether

communities can convert local assets into sustainable livelihoods. In terms of community development, digital marketing is not merely a firm-level technique but a capability that shapes opportunity structures within a locality. For craft-based villages, digital platforms can reduce geographic isolation by connecting producers to a wider demand, strengthening bargaining positions, and enabling more stable cash flows through pre-orders, repeat purchases, and post-visit sales. At the same time, the same passage makes clear that digital gains are conditional: online visibility must be matched by quality assurance, responsive service, trust-building, and the capacity to manage reputation because user-generated content and electronic word-of-mouth can rapidly amplify both positive and negative signals. This conditionality has direct implications for the community. If only a subset of enterprises in a village can build these capabilities, digitalization may widen local inequality, concentrating income among “digital leaders” while leaving smaller, older, or less connected producers behind. Conversely, if digital marketing skills and infrastructure are developed collectively through village-level training, shared content production, cooperatives, or community enterprise hubs, digitalization can function as inclusive local economic development, raising average incomes while strengthening social capital and collective efficacy. The tourism context intensifies these dynamics because tourist decisions are shaped well before arrival through online images, narratives, and peer recommendations. Cultural MSMEs can be “bypassed” even when they are physically close to tourist flows if they lack digital presence. For NTB and Central Lombok, where weaving villages such as Sade and Sukarara are embedded in destination branding and benefit from major tourism events and infrastructure, digital marketing becomes a mechanism that determines whether tourism growth translates into broad-based community welfare or is captured by a narrow set of actors in the visitor economy.

The quantitative discussion in this study reinforces the community development significance of digital marketing by demonstrating a strong positive association between the digital marketing construct, operationalized through accessibility, interactivity, entertainment value, trust, and informativeness, and MSME income and profit among *songket* weavers in Central Lombok. When digital marketing explains more than half of the observed variance in income (R^2 reported at approximately 0.558) and shows a large, significant direct effect (path coefficient reported at approximately 0.747 with a high t-statistic), the implication is that community welfare in craft villages is increasingly shaped by digital market participation rather than only by physical proximity to tourists or traditional intermediaries. However, the same results also imply that a substantial share of income differences remains driven by factors outside the model, which are precisely the domains where community development interventions typically operate: human capital, organizational routines, cooperative networks, production capacity, access to finance, and institutional support. In practice, enabling weavers to benefit from digital marketing requires more than short training; it requires an ecosystem approach that addresses infrastructure reliability, affordable connectivity, digital safety, and institutional arrangements that allow artisans to convert online demand into timely delivery and consistent quality. This ecosystem framing matters because *songket* weaving is not only an income-generating activity but also a form of cultural heritage. Digital storytelling can strengthen place identity and heritage value; however, it can also encourage commodification pressures if communities lose control over narratives, pricing, and intellectual property. A community development lens therefore pushes the discussion beyond “does digital marketing raise income?” toward “under what governance and collective arrangements does digital marketing produce equitable, resilient, and culturally sustaining development?” In Central Lombok, this translates into policies that build shared capabilities, content creation support, platform literacy, customer service standards, and reputation management, while strengthening local institutions that protect artisans’ interests, promote fair distribution of tourism gains, and ensure that digital transformation complements, rather than displaces, community-based production systems and social relations.

5. CONCLUSION

The data analysis and discussion in this study affirm that the influence of digital marketing (X1) on the income of *songket* weaver MSMEs (Y1) is both positive and significant. The results indicate that digital marketing has become a pivotal tool for MSMEs to facilitate income augmentation. Strategic

investments in digital marketing activities are essential to enhance the success prospects of these enterprises, while support from the government and policymakers is crucial in providing MSMEs with access to training, infrastructure, and other resources needed to optimize digital marketing efforts. As the global market increasingly embraces online platforms, the accessibility of digital marketing has become a key determinant of songket weavers' income. Examining the transformative journey of *songket* weavers in Central Lombok Regency through the lens of digital marketing reveals intricate connections between accessibility, interactivity, entertainment, trust, and informativeness. This convergence shapes the financial landscape for these artisans, opening new avenues for income generation while simultaneously helping preserve the timeless essence of *songket* weaving as a cherished cultural heritage. The interactive dimension of digital marketing introduces a dynamic factor into revenue equations. Weavers can directly engage with their audience using features such as live chats, virtual showrooms, and consumer feedback systems. These interactions provide valuable insights into customer preferences, enabling the customization of products and services to align with market needs. Building long-term relationships with customers through personalized communication and responsive services contributes to more stable monthly cash flows and improved profitability over time.

Ethical approval

This research did not require ethical approval.

Informed consent statement

This research did not require informed consent.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Author Contributions

TLA contributed to the conceptualization of the study, formulation of research objectives, research design, questionnaire development, coordination of data collection in Ungga and Sukarara Villages, data curation, PLS-SEM analysis, interpretation of results, and drafting the original manuscript. FR contributed to the literature review, operationalization of digital marketing dimensions and MSME income measures, questionnaire refinement, data collection support, preliminary data cleaning, and contribution to the original draft. YA contributed to the methodology and statistical analysis, including guidance on PLS-SEM procedures, assessment of measurement and structural models (validity, reliability, and predictive relevance), visualization of results, and reviewing and editing the manuscript. MC contributed to instrument validation, field implementation support, data verification, interpretation of findings in the context of craft-based MSMEs, and reviewing and editing the manuscript. HS contributed to policy framing and contextual analysis, linking the findings to local government and development program implications, and reviewing and editing the manuscript. DMI contributed to strengthening the discussion and implications, ensuring alignment with MSME digital empowerment and tourism-periphery contexts, and reviewing and editing the manuscript. IRASP contributed to supervision, critical review of the research logic and conclusions, refinement of recommendations, and final approval of the manuscript.

Data availability statement

The data presented in this study are available on request from the corresponding author due to privacy reasons.

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