

## **Impact of Digital Marketing Adoption on Profitability of Indian MSMEs: The Mediating Role of Sales Growth and Customer Retention**

**Akash Prasad, Dr. Sushil Kumar,**

Research Scholar, Department of Management Studies, Birla Institute of Technology (BIT), Mesra, Patna Campus.

Assistant Professor, Department of Management Studies, Birla Institute of Technology (BIT), Mesra, Patna Campus.

### **Abstract**

#### **Purpose:**

This study investigates the relationship between digital marketing adoption and the profitability of Micro-Small-Medium Enterprises (MSMEs), with a focus on the mediating roles of digital marketing capability, sales growth, customer retention, and competitive advantage. This study aims to provide evidence of how adoptions can translate into profit for resource-constrained MSMEs operating in emerging markets.

#### **Design/methodology/approach:**

Quantitative methodology is used for this study based on primary data collected from 450 MSMEs. PLS SEM is applied to analyse the conceptual model proposed. Reliability and validity are evaluated for the measurement model. Then, the structural model is analysed via bootstrapping to evaluate the hypothesis tested and the mediation effect.

#### **Findings:**

Digital marketing adoption has been shown to affect profitability across multiple channels positively. Of these, sales growth is the most influential mediator, followed closely by digital marketing capability, customer retention, and competitive advantage. In addition to enhancing market performance measures, digital marketing capability has been found to directly increase profitability. Furthermore, while barriers to adoption have been shown to have a significant negative effect on profitability, they confirm the fact that structural constraints continue to hinder digital transformation among MSMEs. The results show that there is a partial mediation, indicating that both direct and indirect effects contribute to overall firm performance.

#### **Research limitations/implications:**

A major limitation of this study is its reliance on cross-sectional data and its focus on MSMEs within a single country, thereby limiting the study's ability to generalise. Future studies could address these issues by employing longitudinal designs, conducting sector-specific analyses, and incorporating emerging technologies such as artificial intelligence and data analytics to deepen our understanding of digital transformation processes.

#### **Practical implications:**

As previously mentioned, the results suggest that MSMEs need to go beyond simply adopting digital marketing and instead develop their digital marketing capabilities if they hope to experience sustainable profitability. Therefore, policymakers and supporting institutions should prioritise initiatives to build capacity, improve digital literacy, and increase access to the supporting infrastructure to reduce barriers to adoption and thereby improve the competitiveness of MSMEs.

#### **Social implications:**

Enabling MSMEs to use digital marketing effectively is beneficial for achieving broad social and economic development, promoting job creation, and encouraging inclusive growth, especially in emerging economies, where MSMEs serve a vital social and economic function.

#### **Originality/value:**

This study presents an integrated, comprehensive framework that links digital marketing adoption to profitability

through multiple mediating mechanisms. Additionally, this study builds on the current literature by integrating technology adoption theories, the resource-based view, and performance theories into a single model applicable to MSMEs in emerging markets.

**Keywords:** Digital Marketing Adoption; MSMEs; Profitability; Sales Growth; Customer Retention; Competitive Advantage; Digital Capability; PLS-SEM; Emerging Markets; India

**JEL Classification:** M31 – Marketing, L25 – Firm Performance: Size, Diversification, and Scope, O33 – Technological Change: Choices and Consequences, L26 – Entrepreneurship, D22 – Firm Behaviour

## **1. Introduction**

MSMEs in both Emerging Markets and Developed Countries are commonly recognised as integral to their respective national economies. The significance of MSMEs lies primarily in their contribution to job creation, entrepreneurship, innovation, export diversity, and overall inclusion in local markets. In India, MSMEs are becoming increasingly vital to the nation's economy through Manufacturing Support, Strengthening Domestic Supply Chain Systems, Expanding Service Industry Production and Developing Regional Economies. Despite the growing importance of MSMEs to National Economic Development, MSMEs remain disadvantaged in terms of Limited Market Access, a Lack of Financial Resources for marketing, poor management skills, and Competition from large firms with Advanced Technology. Because of this pressure on MSMEs to be competitive, it has created an opportunity for MSMEs to develop Strategies that will allow them to Scale Up, Compete Effectively in the Global Marketplace and Focus on their Markets. One of the best methods for Small Businesses to compete effectively in their marketplace is through Digital Marketing. Today, Digital Marketing is viewed as one of the most Innovative and effective marketing methods.

Digital Marketing is defined as the utilisation of Internet-based applications and tools to acquire new Customers, Increase Long-Term Customer Interest and retention, and Foster Continued Customer Loyalty. Traditional Advertising enables organisations to promote products or services to a large audience. Unlike Traditional Advertising, Digital Marketing allows Organisations to communicate directly with Targeted Groups of Consumers, Offer Tailored Products/Services Based on Each Individual's Preferences, Measure Consumer Behaviour and Change Campaigns Rapidly at a lower cost than Traditional Advertising. MSMEs may benefit from utilising Digital Marketing as a method to overcome historical disadvantages stemming from Size Limitations, Geographic Restrictions, and Informational Imbalances. Research conducted in the last few years suggests that businesses that practice Digital Marketing techniques will likely experience improved customer contact, increased brand recognition, greater response rates and ultimately superior business performance (Hadiyati et al., 2024; Saura et al., 2023).

The "new norm" created by COVID-19 has further emphasised the importance of digital channels in business. A dramatic shift in how consumers use technology occurred during the pandemic. Specifically, consumers began using search engines more frequently, making payments electronically instead of cash, utilising social media as a means of commerce (social commerce), purchasing remotely rather than in person, and utilising platform-based purchases. Consequently, many small businesses responded to the pandemic by implementing digital marketing as a growth strategy and/or an operational survival strategy. Research conducted in Emerging Markets indicates that many companies have become increasingly reliant on digital communication, marketplace platforms, and social media interactions to ensure continuity in conducting commercial operations and maintaining customer contact during times of crisis (Amoah et al., 2023; Mohammed et al., 2024).

While the number of small businesses adopting digital marketing continues to grow exponentially, the relationship between digital marketing adoption and profitability is unexplored. A large portion of prior research focuses on the intention to adopt digital marketing, social media usage, customer engagement, or general performance metrics. In contrast, far less research focuses specifically on profitability as a separate strategic outcome. While growth in website traffic, follower numbers, or even sales volume does not always translate into margin improvement or sustainable earnings. Profitability measures a business's potential to earn financial profits from identified market opportunities. This area of interest is especially pertinent to Micro, Small, and Medium

Enterprises (MSMEs), because they operate under very thin margins and limited resource constraints (Shams et al., 2024; Lopes et al., 2025).

A significant body of recent research has been based upon the assumption that using digital technologies will yield better results than traditional methods. However, many organisations create a virtual presence as a symbol of their use of digital technology, yet fail to develop the internal competency needed to leverage the virtual interactions with their customers economically. A company's ability to create applicable content, analyse how its target audience responds to its communication attempts, select the proper platforms for its communications, utilise campaign management techniques to maximise the efficiency of its efforts, and ultimately translate leads created by digital marketing efforts into actual sales is critical in defining whether using digital marketing strategies creates real-world financial value. The Resource-Based View (RBV) and Dynamic Capability Theory (DCT) support this view of sustainability by asserting that long-term competitive advantage results not only from access to resources but also from the ability to apply them effectively (Enshassi et al., 2025; Mora Cortez & Ghosh Dastidar, 2022).

Finally, the impact of digital marketing on profitability is likely to operate through intermediate causal mechanisms rather than directly. Digital marketing can enable companies to grow sales by expanding the number of markets they serve; retain customers by enabling continuous interaction with their customer base; and enhance their competitive position by improving agility, flexibility, and focused positioning. These last two mechanisms are particularly important for MSMEs, where retaining existing customers, creating unique visibility in a narrow niche, or rapidly responding to changing environmental factors are often key determinants of long-term viability. Thus, a mediated framework will provide a truer reflection of the association between digital marketing and profitability than a direct adoption-profitability relationship (Yadav et al., 2024; Virglerová et al., 2022).

The Indian environment provides a highly desirable setting for examining such causal relationships. India has experienced tremendous increases in smartphone penetration, reductions in internet access prices, the use of UPI for electronic transactions, the development of e-logistics systems, and the emergence of social commerce and entrepreneurship platform ecosystems. As a result, never-before-seen opportunities exist for MSMEs to interact electronically with their customer bases through means such as WhatsApp Business, Instagram Commerce, Online Marketplaces and Search Engine Discovery Systems. Moreover, despite this abundance of opportunities, readiness levels among MSMEs vary widely, depending on factors such as geographic location, industrial sector, language spoken by employees, managerial experience, and digital literacy. Consequently, MSMEs in India may derive varying degrees of financial benefit from digital marketing (Chatterjee & Kar, 2020; Choubey et al., 2024).

As noted above, this investigation examines the impact of digital marketing on profitability among MSMEs operating in India. While simultaneously considering the mediating effects of digital marketing capability, sales growth, customer retention, and competitive advantage, as well as impediments to adoption. The contributions of this research include shifting attention away from general performance metrics toward profitability as a more strategic outcome metric. Secondly, it distinguishes between adoption and capability to clarify why some firms achieve higher profits from similar digital marketing instruments. Finally, it presents empirical evidence from the Indian MSME ecosystem, where Digital Transformation is progressing rapidly yet remains highly unevenly distributed.

## 2. Literature Review

As the importance of digital transformation continues to grow, academic interest in the role of digital marketing in the development of small businesses is increasing. In particular, digital marketing is increasingly seen as a strategic way for smaller firms operating in markets dominated by large-scale players to overcome their size-related disadvantages, gain greater access to customers, and compete in platform-led markets. Digital marketing adoption is now regarded as non-optional for many enterprises — it is now seen as an essential part of enabling market survival and growth in digitally connected economies (Saura et al., 2023; Dwivedi et al., 2021).

An initial focus of early studies in this area was on determining whether SMEs and MSMEs used digital tools, specifically examining factors such as perceived utility, ease of use, owner-manager(s) ' attitudes towards digital marketing, and external pressures. Logic derived from the Technology Acceptance Model (TAM) indicated that

firms would be more likely to implement digital marketing if they perceived commercial value and believed it was straightforward to do so. Using a social media marketing case study, Chatterjee and Kar (2020) found that Indian SMEs implemented social media marketing when they saw it as cost-effective, customer-oriented, and strategically beneficial. Consistent evidence from other emerging markets indicates that competitive pressure and changes in consumer behaviour have emerged as key drivers for digital marketing adoption (Enshassi et al., 2025; Virglerová et al., 2022; Hadiyati et al., 2024).

For example, both organisational and environmental barriers limit the adoption of digital marketing by MSMEs. Firms encounter barriers related to digital literacy, insufficiently trained staff, financial constraints, difficulty creating content, cybersecurity concerns, and uncertainty about ROI. Choubey et al. (2024), in a mixed-methods study of small retailers, demonstrated that although awareness of digital tools exists, prolonged use is often constrained by skill deficits and time constraints. Similarly, Hadiyati et al. (2024) found that organisations lacking preparedness to manage will find it difficult to convert a digital presence into tangible results. Thus, barriers to adoption persist and represent a significant issue for micro-firms and small enterprises.

Although there have been numerous reports about how much time has been spent on the adoption of new technology in small and medium-sized enterprises (SME's), recently the literature has started to examine the concept of digital marketing capability as a way to express the ability of an organisation to create and implement its digital marketing capabilities. A firm's ability to develop, use, monitor, and optimise its digital marketing activities defines digital marketing capability. Capability can differ significantly from adoption, because while a company may have social media accounts or a website, it may still lack the strategy to make money from them. Ghosh-Dastidar & Mora-Cortés (2018) used the resource-based view (RBV) to argue that sustainable competitive advantage results when organisations connect their use of digital marketing tools with their organisational processes and knowledge of the marketplace. There is evidence from empirical research to support the argument above, as companies possessing higher levels of analytical competency, greater levels of competency to manage their content and greater levels of responsiveness to their customers achieve higher levels of performance compared to organisations having a predominantly symbolic online presence (Grover et al., 2022; Mohammed et al., 2024).

The majority of research indicates a statistically significant relationship between digital marketing capability and sales growth. In terms of reaching wider, geographically diverse markets and targeting specific consumer niches, generating leads and increasing conversion rates at lower cost than with traditional mass advertising techniques, digital marketing offers substantial benefits for resource-constrained organisations that cannot rely on traditional forms of advertising.

Yadav et al. (2024) demonstrated that the use of social media and a technological orientation towards digital technologies enhanced MSME performance by enabling them to leverage additional channels for market expansion. Similarly, Saura et al. (2023) stated that data-driven approaches to digital marketing enable MSMEs to acquire customers more effectively and to generate additional revenue. This evidence shows that sales growth is among the earliest outcomes of successful digital marketing implementation.

Customer retention is an essential part of the whole chain for MSMEs. A campaign for one-time advertisements does not allow a buyer and a seller to have ongoing contact with each other through personal contact or communication after purchase; also, by forming a community among buyers, and by providing rapid feedback, the same businesses can form strong bonds with their customers, and thus increase the possibility of repeat purchasing. For example, as both Lopes et al. (2025) and Amoah et al. (2023) show, Small and Medium Enterprises (SMEs) using technologies that promote consumer engagement and social communication systems may develop greater loyalty, higher levels of satisfaction, and longer-term relationship continuities. In this respect, customer retention may be significantly more important for MSMEs than for large enterprises, since repeat purchases indicate if a business has financial stability.

Research has also recognised the strategic role of digital marketing in enhancing MSMEs' competitive advantage. By providing faster responses to competitors' actions, greater flexibility in executing marketing campaigns, targeted communication capabilities, and market intelligence-gathering capabilities, MSMEs can be more competitive relative to incumbent large-scale players. Digital platforms diminish some of the traditional scale-

related disadvantages faced by MSMEs, as they can interact directly with consumers and differentiate themselves by responding quickly and authentically to specific needs. Virglerová et al. (2022) illustrated that digital engagement contributes positively to SME competitiveness and internationalisation potential. Also, Enshassi et al. (2025) demonstrated that technology-adaptive SMEs achieve stronger market positions than firms with slower adaptability.

Despite these developments, relatively little research has been conducted on profitability. Although many studies utilise very general measures of business success, such as overall business growth, market performance metrics, brand awareness metrics or customer engagement metrics instead of direct financial outcome metrics (Shams et al., 2024), profitability is generally considered a more stringent metric because it assesses a firm's ability to convert its market efforts into economic surplus. Higher web traffic or sales without appropriate price disciplines could still ultimately result in lower long-term viability. Shams et al. (2024) suggested that digital initiatives should be evaluated not only for their visibility but also for their economic returns and resource productivity. This gap is particularly pertinent in the MSME context, given the thin profit margins MSMEs typically experience and their limited liquidity.

Further evidence supports the assertion that profitability effects are likely to be indirect rather than entirely direct. Profitability may be enhanced by MSMEs adopting digital marketing capabilities through increased sales growth, strengthened customer retention, enhanced competitive positioning, or enhanced internal capability development. A mediated viewpoint is theoretically compatible with Dynamic Capability theory, which holds that operational routines translate strategic inputs into performance outputs. Despite this compatibility with theoretical frameworks, very few empirical studies have modelled all of these pathways collectively in a unified framework -- particularly in emerging economies.

India provides an interesting context for expanding the existing body of literature, given the rapid growth in mobile Internet penetration, the availability of low-cost data plans, UPI-enabled payment mechanisms, online logistics services, and platform commerce, which have created numerous opportunities for India's MSMEs to participate in the digital marketplace. On the other hand, regional disparities, linguistic diversity among population segments across regions, sectoral heterogeneity of MSMEs across industries in India, and varying degrees of managerial capability among MSME owners/managers create uneven conditions for MSMEs to adopt digital marketing. As previously noted by Chatterjee and Kar (2020), for instance, Indian SMEs benefit from using social media marketing; however, outcomes depend heavily on strategic orientation and the quality of strategy execution. Other recent studies have also shown that the benefits of digital transformation vary widely across smaller firms (Yadav et al., 2024; Choubey et al., 2024).

To summarise, previous research shows that digital marketing enhances business outcomes for MSMEs; yet three gaps currently exist. Firstly, profitability has received less emphasis than the generic performance metrics utilised by previous studies. Secondly, there appears to be little differentiation made between adoption and capability in much of the extant literature. Lastly, there does not appear to be sufficient evidence available in the extant literature detailing mediating paths in the Indian MSME context. The current study aims to bridge these gaps by assessing how digital marketing adoption affects profitability through digital marketing capability, sales growth, customer retention, and competitive advantage, while controlling for various adoption barriers.

### 3. Research Methodology

This research is based on a Quantitative Research Design that analyses how Digital Marketing Adoption impacts the profitability of Indian Micro, Small & Medium Enterprises (MSMEs); with an emphasis on the Mediating Roles of Digital Marketing Capability, Sales Growth, Customer Retention, Competitive Advantage, while at the same time accounting for Barriers to Digital Marketing Adoption. Because this research will explain, rather than describe, why there is an association or relationship between these variables, a Quantitative Methodology is Appropriate. Additionally, since the objective of this research is to explain which factors contribute most to Digital Marketing Adoption's relationship with profitability and because the Model contains Mediation Paths, Partial Least Squares Structural Equation Modelling (PLS-SEM) was selected as the primary method of Analysis.

PLS-SEM is especially well-suited for research projects that include Complex Causal Models, Behavioural Constructs, Prediction-Oriented Objectives, and Data Collected from Heterogeneous Firm Populations, such as MSMEs. Unlike Covariance-Based Structural Equation Modelling, PLS-SEM focuses more on Variance Explanation and Prediction and therefore represents a highly Relevant Analytical Technique for Managerial and Entrepreneurship Studies, where Theory Continues to evolve, and constructs remain context-sensitive. Due to its ability to Simultaneously Estimate Measurement Properties and Structural Relationships with relatively few Distributional Assumptions (Hair et al., 2022), PLS-SEM has become very Popular in the areas of marketing, technology adoption, and SME Performance Research.

### 3.1 Instrument Development and Construct Operationalisation

Beginning with primary data, a structured questionnaire was developed from the existing literature on digital marketing, small- to medium-sized enterprise competitiveness, technology adoption, and firm performance. The questionnaire was designed to assess the strategic and operational dimensions of MSME digitalisation. The questionnaire's content validity was enhanced by adapting previously used measurement items and refining them to be specific to the Indian MSME context.

The concept of Digital Marketing Adoption (DMA) measures how often an organisation utilises digital platforms, including websites, social media, online promotional tools and digital communications. Digital Marketing Capability (DMC) assesses an organisation's ability to design, manage, monitor, and optimise its digital marketing strategies. Sales Growth (SG) measures the perceived improvements in customer acquisition and revenue growth resulting from the use of digital marketing strategies. Customer Retention (CR) refers to how often customers interact with your company online to sustain their relationship with you over a longer period and generate repeat business. Competitive Advantage (CA) indicates an organisation's relative advantage over its competitors in terms of being more visible, more agile, more responsive, and differentiated. Profitability (PROF), as described above, is the dependent measure of success that defines the ultimate outcome of the study and is used to assess whether there are improvements in profitability, returns, or overall financial results. Barriers to Adoption (BARR) were determined using the barriers identified as obstacles to respondents' efforts to implement new technologies, such as cost, lack of digital skills, and time required.

Each item representing each construct was measured on a five-point Likert scale ranging from 1 ("Strongly Disagree") to 5 ("Strongly Agree"). A single-response option format is used for every question to ensure consistency in participant responses and has been widely adopted in organisational and marketing-related research.

### 3.2 Sampling Design and Data Collection

The target population comprised all Indian Micro, Small, and Medium Enterprises (MSMEs) operating across all four industry sectors: Manufacturing, Trading, Retail, and Services. To increase the diversity of enterprise types included in the study, since digital marketing adoption varies by enterprise type and size, data were collected via a structured survey instrument in both online and field-assisted formats. Respondents chosen as the best suited for this research were business owners, managers, proprietors, and decision-makers who had a working knowledge of their companies' marketing practices, including their company's advertising and promotion activities and associated business outcomes.

The number of completed surveys received totalled 450. These were the only responses that could be used for analysis once the initial screening process determined that there were no missing or inconsistent data. The sample size was larger than the minimum required to conduct Partial Least Squares Structural Equation Modelling (PLS-SEM), which is typically 150 cases. This sample is large enough to provide the necessary estimates for models containing multiple constructs and mediation paths. Also, the sample provided the necessary statistical power to detect moderate-sized structural relationships.

### 3.3 Analytical Strategy

The Empirical Analysis was performed on the PLS-SEM software called SmartPLS. The empirical analysis followed the same procedure as previous research. It consisted of a two-stage approach. First, to evaluate the

measurement model's reliability and validity, internal consistency was assessed using Cronbach's Alpha and Composite Reliability. Next, convergent validity was calculated using the average variance extracted (AVE). Finally, Discriminant Validity was calculated using the Heterotrait-Monotrait (HTMT) ratio.

Next, the structural model was analysed by assessing the paths, the coefficient of determination ( $R^2$ ), effect sizes, and goodness-of-fit. To test the hypotheses, bootstrapping was used to calculate t-statistics and p-values. The general structural relationships tested in the study may be represented as follows:

$$\begin{aligned}
 DMA &= f(BARR) \\
 DMC &= f(DMA) \\
 SG &= f(DMA, DMC) \\
 CR &= f(DMA, DMC) \\
 CA &= f(DMA, DMC) \\
 PROF &= f(SG, CR, CA, DMC)
 \end{aligned}$$

These equations reflect the proposition that barriers shape adoption behaviour, adoption strengthens internal capability, and profitability emerges through a combination of market growth, customer continuity, competitive positioning, and managerial capability.

**3.4 Justification for Mediation Framework**

Theoretical foundations for the use of mediation include the belief that the impact of digital marketing on profitability typically occurs through multiple channels at different times. This process involves changes to the organisation's internal operations (i.e., processes) and/or its outward-facing position (i.e., its capabilities), which ultimately influence profit levels. For example, while digital campaigns can increase awareness and/or attract new customers, this will likely be reflected in profitability only after those new customers become repeat buyers with improved margins, etc. Therefore, sales growth, customer retention and competitive advantage have been represented within the model as intermediate variables rather than separate outcome measures.

**3.5 Ethical Considerations and Data Quality**

Respondents were told the purpose of this study was strictly educational. Their response data will be maintained as private and confidential. Respondent participation was completely voluntary; no personal or sensitive data were collected. Data screening took place before analysing respondents' responses for missing values (e.g., did not answer), evidence of "straight line" responding (i.e., respondent answered all questions in the same way) and/or obviously incorrect answers. Only usable and complete questionnaires were used.

**3.6 Methodological Contribution**

This methodological approach provides a theoretical contribution to existing literature on MSMEs by integrating technology adoption constructs and performance pathways into a single predictive model. Instead of simply determining whether a firm adopts digital marketing (an either/or proposition), this research design examines how a firm's digital marketing adoption transforms into profitability, based on its organisational capabilities and strategic outcomes. Therefore, this study presents a more practical perspective on the digital transformation process for small, resource-constrained businesses.

**Table 1. Construct Operationalisation and Supporting Literature Matrix**

<b>Construct</b>	<b>Code</b>	<b>Conceptual Definition</b>	<b>Indicative Measurement Focus</b>	<b>Key Supporting Literature</b>
Barriers to Adoption	BARR	Organisational, financial, skill-based, and operational constraints that inhibit the adoption of digital marketing tools and practices among MSMEs.	Cost burden, lack of digital skills, time limitations, implementation complexity, uncertainty of returns.	Choubey et al. (2024); Hadiyati et al. (2024); Enshassi et al. (2025)

Construct	Code	Conceptual Definition	Indicative Measurement Focus	Key Supporting Literature
Digital Marketing Adoption	DMA	The extent to which a firm actively utilises digital platforms and online channels for promotion, communication, and market engagement.	Use of social media, websites, online promotion, platform presence, digital campaigns.	Chatterjee and Kar (2020); Dwivedi et al. (2021); Saura et al. (2023)
Digital Marketing Capability	DMC	The firm's ability to strategically manage, execute, monitor, and optimise digital marketing activities to create business value.	Content creation, analytics use, campaign management, responsiveness, platform selection.	Grover et al. (2022); Mora Cortez and Ghosh Dastidar (2022); Mohammed et al. (2024)
Sales Growth	SG	Improvement in customer acquisition, revenue generation, and market expansion attributable to digital marketing initiatives.	Increased inquiries, higher conversions, expanded market reach, revenue growth.	Saura et al. (2023); Yadav et al. (2024); Hadiyati et al. (2024)
Customer Retention	CR	The extent to which digital engagement helps sustain customer relationships, repeat purchases, and long-term loyalty.	Repeat buying, relationship continuity, communication frequency, customer loyalty.	Amoah et al. (2023); Lopes et al. (2025); Dwivedi et al. (2021)
Competitive Advantage	CA	The strategic superiority gained through digital agility, stronger visibility, responsiveness, and market differentiation.	Faster communication, niche positioning, better visibility, adaptability.	Virglerová et al. (2022); Enshassi et al. (2025); Grover et al. (2022)
Profitability Performance	PROF	The extent to which digital marketing contributes to improved margins, returns, and overall financial outcomes.	Better margins, return on marketing spend, improved financial performance, profitability growth.	Shams et al. (2024); Lopes et al. (2025); Chatterjee and Kar (2020)

#### 4. Results and Discussion

The empirical analysis of the proposed model was conducted using partial least squares structural equation modelling (PLS-SEM). It was performed in a two-step procedure: assessing the measurement model, and then examining the structural model.

Regarding the measurement model, internal consistency is acceptable. Reliability of each construct is demonstrated by Cronbach's Alpha coefficients ( $\alpha$ ) being  $.726 < \alpha < .850$ , which is greater than the recommended threshold. Reliability is also demonstrated by composite reliabilities (CR), which are  $.829 \leq CR \leq .893$ . Convergent validity is established because Average Variance Extracted (AVE) estimates ranged from  $.523$  to  $.625$ , suggesting that each construct captures an adequate amount of variation among its constituent items. Discriminant validity was evaluated based on Heterotrait-Monotrait Ratio of Correlation (HTMT) and demonstrated that all HTMT estimates were less than  $.85$ ; therefore, digital marketing capability, customer retention, and competitive advantage are empirically distinct.

Once it has been determined that the measurement model is acceptable, the structural relationships are analysed. As noted earlier, the first step in this process was to assess the impact of barriers on digital marketing adoption. The relationship between these variables can be described as follows:

$$DMA = \beta_0 + \beta_1(BARR) + \varepsilon$$

The results reveal an extremely statistically significant negative relationship ( $\beta = -0.259, p < .001$ ), indicating that, indeed, structural/operational constraints negatively affect the probability of MSMEs adopting digital marketing. This result shows how much MSMEs are affected today by their costs, the lack of technical skills, and the time issues still prevalent in many emerging markets.

The Digital Marketing Adoption is also a major driving force behind the development of the other downstream capabilities/outcomes.

$$DMC = \beta_0 + \beta_1(DMA) + \varepsilon$$

The strong coefficient ( $\beta = 0.559, p < 0.001$ ) suggests that adoption translates effectively into capability development, implying that engagement with digital platforms fosters learning-by-doing and strategic competence.

The influence of adoption extends further into market-facing outcomes. Sales growth, customer retention, and competitive advantage are simultaneously driven by adoption, as reflected in the following relationships:

$$SG = \beta_0 + \beta_1(DMA) + \varepsilon (\beta = 0.465, p < 0.001)$$

$$CR = \beta_0 + \beta_1(DMA) + \varepsilon (\beta = 0.366, p < 0.001)$$

$$CA = \beta_0 + \beta_1(DMA) + \varepsilon (\beta = 0.460, p < 0.001)$$

These coefficients highlight that digital marketing adoption simultaneously enhances demand generation, customer relationship continuity, and strategic positioning. The relatively stronger effect on sales growth suggests that revenue expansion is the most immediate outcome of digital engagement.

The ultimate outcome of interest—profitability—is influenced by multiple pathways. The structural equation for profitability can be expressed as:

$$PROF = \beta_0 + \beta_1(SG) + \beta_2(CR) + \beta_3(CA) + \beta_4(DMC) + \varepsilon$$

There is evidence from the empirical studies that sales growth has the largest impact ( $\beta = .327, p < .001$ ) and, in turn, is followed by the influence of digital marketing capacity ( $\beta = .172, p < .01$ ), customer retention ( $\beta = .139, p < .01$ ), and competitive advantage ( $\beta = .137, p < .01$ ). This sequence indicates that expansion of revenue streams is the primary driver of profitability in MSMEs with relational and strategic factors serving secondary roles.

Further evidence for these findings comes from the model's explanatory strength. The  $R^2$  for profitability is 0.314. Therefore, approximately 31.4 per cent of the variability in profitability is accounted for by the model's variables. Similarly, digital marketing capacity shows substantial explanatory power ( $R^2 = 0.311$ ), supporting its critical role as an organisational capability. However, the explanatory strength of customer retention is substantially lower ( $R^2 = 0.132$ ), suggesting that other behavioural or service-related factors may be at work.

Additional support for the model's adequacy comes from model-fit statistics. Both the SRMR for the saturated model (.048) and estimated model (.066) are well below acceptable standards, providing strong evidence that the model fits the data reasonably well. Although d\_ULS values were significantly above their corresponding bootstrap thresholds, this does not diminish the model's structural validity, as it is typical for models with many mediators to show significant deviations due to multiple paths linking antecedent and outcome constructs.

Therefore, taken collectively, the study provides substantial evidence of multi-path mediation. Digital marketing capability affects profitability through a web of interconnected pathways rather than a single pathway. Of these pathways, those leading to increased sales growth are most influential; therefore, digital marketing primarily enhances profitability by increasing market exposure and generating revenue. Additionally, there are secondary impacts from digital marketing capability development, customer retention, and competitive positioning.

Overall, the findings show that digital marketing capability is a fundamental strategic capability for MSMEs. The positive impact of digital marketing capability on profitability is mediated by both direct and indirect pathways,

operating through operational and relational mechanisms. Therefore, the findings emphasise the need to adopt digital marketing tools and have the requisite ability to utilise them effectively.

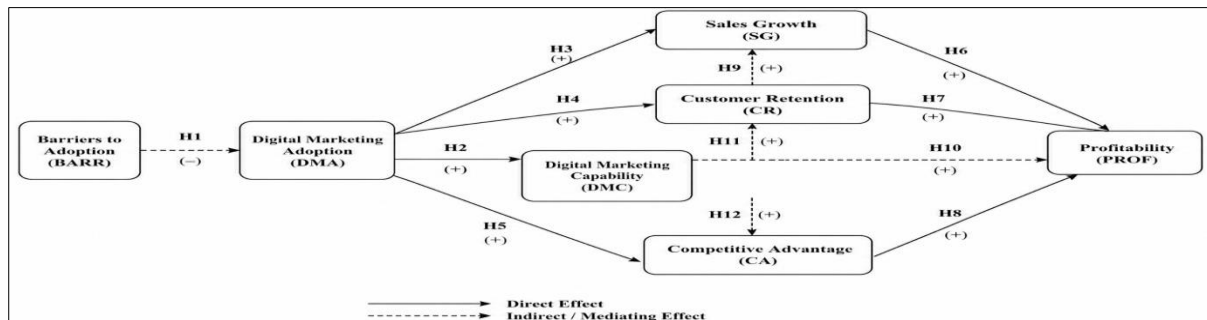


Figure 1 Conceptual Model

### Conceptual Framework Explanation

The conceptual model suggests that higher levels of Barriers to Adoption (BARR) will negatively affect the adoption of digital marketing practices by MSMEs. Examples of BARRs could include financial constraints, limited knowledge of digital, insufficient time, and questions about whether they can get a return on their investment in digital marketing practices. Therefore, it is assumed that a higher number of BARR will negatively impact an MSME's willingness/ability to implement digital marketing.

Digital Marketing Adoption (DMA) is defined as the central strategy driver for this model. DMA represents the degree to which MSMEs have adopted and utilise websites, social media, online promotions, and other digital customer engagement tools. As such, a greater degree of DMA will increase the potential to develop Digital Marketing Capability (DMC) by providing opportunities to build skills in campaign management, customer behaviour analysis, content creation, etc.

Furthermore, it is proposed that DMA has a direct relationship with three main business outcomes: Sales Growth (SG), Customer Retention (CR), and Competitive Advantage (CA). Increased adoption allows MSMEs to expand their market reach and provide additional ways to acquire new customers, thereby potentially increasing sales. Furthermore, continued interaction with customers via digital channels and personalised communication allows MSMEs to retain existing customers. Finally, the use of digital channels provides MSMEs with the opportunity to be more agile than larger competitors, be visible to their target markets, and position themselves differently, thereby enhancing their competitive advantage.

Lastly, PROF is identified as the outcome measure. Each of the three prior measures is assumed to contribute positively to PROF. SG increases the company's revenue. CR reduces the cost of acquiring new customers and increases repeat purchases. CA enhances the company's long-term viability. Additionally, DMC is believed to positively contribute to PROF by increasing the efficiency/effectiveness of the company's promotional spending.

In summary, it is assumed that there are no singular direct routes from DMA to PROF. Rather, PROF is believed to occur through a combination of DMC development, expansion of revenue generation through SG, maintenance of customer relationships through CR, and establishment and maintenance of a favourable competitive position through CA.

### 5. Discussion

This research has advanced our current understanding of digital transformation within MSME's (Small-to-Medium Enterprises) by identifying the relationship between digital marketing adoption and profitability via an interconnected series of mechanisms.

These findings support the fundamental assertion that digital marketing is a strategic capability that determines the success of individual businesses through both direct and indirect channels.

The statistically significant negative influence of barriers to digital marketing adoption indicates that, even though there may be growing levels of digital participation among SMEs, they are still constrained by a lack of technical

expertise, financial limitations, time pressure, etc., consistent with views based on resource constraints and capabilities. Although barriers appear to have a reasonable explanatory power for predicting adoption, SMEs exhibit varying behavioural characteristics, so some may use an entrepreneurial orientation and learning behaviour to overcome some or all of the barriers to adoption.

A major contribution of this study is identifying digital marketing adoption as an antecedent of capability development. The statistical evidence from this study supports the concept of "learning by doing," whereby experience with digital marketing activities contributes to the development of organisational knowledge, the capacity to create content, and the ability to develop customer interactions. This supports dynamic capability theory, which states that organisations achieve competitive advantage by continuously adapting to their environment through the accumulation of capabilities.

In addition, this study found that digital marketing adoption has a statistically significant influence on sales growth, customer retention, and competitive advantage. In particular, sales growth was found to be the most immediately influential measure of performance improvement. MSMEs' primary motivation for adopting digital marketing activities is to enhance market reach, acquire additional customers and increase transaction volume. The relatively weak but statistically significant relationships between digital marketing adoption and customer retention and competitive advantage suggest that these benefits are less readily available, require sustained activity, and are not necessarily achieved immediately.

The main impact of using Digital Marketing for Profitability can be seen through several channels, primarily through increased Sales Growth.

In summary, the improvement in profit performance among MSMEs can be attributed to an increase in revenue and, to a lesser extent, to a reduction in costs. Furthermore, there is a statistically significant positive correlation between Digital Marketing Capability and Profitability. Therefore, companies that have developed the right internal skills to interact with digital media will generate higher returns from their interactions than those that do not.

Customer Retention and Competitive Advantage are also shown to positively contribute to profitability (to a lesser extent than Sales Growth). This suggests that Customer Retention and Competitive Advantage will take longer to achieve profitability than Sales Growth.

In conclusion, this research indicates that there are multiple indirect pathways from Digital Marketing Adoption to Profitability. Hence, the pathway from Digital Marketing Adoption to Profitability is partly mediated by Digital Marketing Capability and Performance Drivers. Additionally, the multi-layered nature of these pathways indicates that while Digital Marketing Adoption is essential, converting that adoption into Operational and Strategic Outcomes is the best chance of realising Value from Digital Marketing.

Finally, the results from this research provide a comprehensive theoretical framework for understanding MSMEs within the Digital Age. The framework provides a way to integrate Technology Adoption Theory, the Resource-Based View, and Performance frameworks. By creating a comprehensive theoretical framework, the study moves beyond previous studies that were based on a traditional Binary Analysis of Adoption.

## **6. Managerial Implications**

Research results from this project have important implications for owners of Micro, Small and Medium Enterprises (MSMEs) who wish to achieve improved performance through digital transformation.

Firstly, if MSME company owners wish to see increased profits due to adopting digital marketing, then simply having a digital presence does not constitute a successful adoption. This study clearly demonstrates a direct correlation between a company's overall performance and the development of appropriate digital marketing capabilities within its organisation. As such, MSME companies must invest in developing internal capabilities to produce and distribute digital content, manage digital platforms, interact with consumers, and measure the effectiveness of their digital campaigns. Without these capabilities within a MSME organisation, it would be rare for digital campaigns to significantly improve that MSME's profit margin.

Secondly, since the factor representing sales increase contributed by digital marketing has a high coefficient, MSME organisations wishing to grow their market share should prioritise the utilisation of digital channels. About clients' geographic location, digital platforms offer opportunities to reach remote customers, target specific niches, and reduce the costs of reaching potential customers compared to more traditional advertising methods. As such, MSME companies should utilise their digital campaign strategies almost exclusively to generate leads, optimise conversion rates, and enter new markets, rather than maintaining an online presence.

Thirdly, the focus on customer retention highlights the need for sustained interactions with current customers. While utilising digital marketing techniques to acquire customers is important, MSME companies may also benefit from leveraging digital technologies to engage existing customers. Examples of sustaining customer interaction include frequent communications with customers, answering customer questions, delivering personalised product or service offerings, and establishing customer feedback systems that foster brand loyalty. Additionally, fostering brand loyalty directly generates stable, predictable revenue streams and profit margins.

Fourthly, since the factor measuring the relationship between digital marketing and enterprise competitiveness has a positive coefficient, there exists a strong possibility that digital marketing can provide competitive advantages for MSME companies relative to large enterprises. By implementing agile, customer-focused strategies, small organisations can differentiate themselves from larger competitors through greater responsiveness, innovation and targeted communication. As digital platforms reshape competitive barriers in emerging markets, this trend is becoming increasingly relevant.

Lastly, the finding that the relationship between barriers to digital marketing and its effectiveness is negatively related provides evidence for the need for institutional and policy-based support. Policymakers should take action to reduce obstacles to adoption by creating subsidised access to technology, providing digital training programs, raising public awareness about digital marketing, and developing capacity-building interventions that will assist MSMEs in transitioning from simple adoption to capability-driven digital transformations.

## **7. Conclusion**

Digital marketing has become increasingly important for MSMEs to remain profitable, particularly in emerging markets. In this study, we investigated how the use of digital marketing improves MSMEs' profitability using a sample of SMEs from Ghana. We also explored other ways in which digital marketing impacts MSMEs' profitability.

Our results demonstrate that the primary way digital marketing improves profitability is by increasing sales. Our results also showed that developing appropriate capabilities supports this process of increasing sales. While retaining customers and gaining a competitive advantage were found to have a positive effect on MSMEs' profitability, they had less impact than either sales or capability development.

The findings show that the connection between digital marketing and profit is partly mediated and therefore both direct and indirect. To maximise the benefits of digital marketing, MSMEs will need to implement a comprehensive technology plan.

In theory, this study integrates three previously independent frameworks (adoption, capability, and performance) into a unified model that describes the competitive nature of MSMEs in today's digital environment. In practice, this study emphasises that MSMEs' potential benefit from utilising digital marketing depends heavily on their ability to acquire and utilise the necessary skills and competences.

Ultimately, digital marketing can be seen as a necessity for successful small businesses, but by developing the ability to drive quantifiable performance improvements, there are greater possibilities.

## **Appendix A. Measurement Instrument**

All items were measured on a five-point Likert scale ranging from **1 = Strongly Disagree** to **5 = Strongly Agree**.

### **Barriers to Adoption (BARR)**

BARR1. Our firm lacks sufficient resources to invest in digital marketing regularly.

BARR2. Limited digital skills hinder our ability to use online marketing tools effectively.

BARR3. Time constraints prevent consistent management of digital marketing activities.

BARR4. We are uncertain whether digital marketing generates adequate returns.

BARR5. Managing multiple digital platforms appears complex for our business.

**Digital Marketing Adoption (DMA)**

DMA1. Our firm actively uses social media platforms for business promotion.

DMA2. We regularly use online channels to communicate with customers.

DMA3. Our business uses digital advertising or paid online promotions.

DMA4. We maintain an active digital presence through website or marketplace platforms.

DMA5. Digital marketing is an important part of our business strategy.

DMA6. We have increased digital marketing usage over recent years.

**Digital Marketing Capability (DMC)**

DMC1. Our firm can create effective digital marketing content.

DMC2. We understand which digital channels are most useful for our customers.

DMC3. We are able to analyse customer responses from online campaigns.

DMC4. Our business can manage digital campaigns efficiently.

DMC5. We can modify digital strategies based on market feedback.

DMC6. We possess the skills needed to use digital tools productively.

**Sales Growth (SG)**

SG1. Digital marketing has increased customer inquiries.

SG2. Digital marketing has improved our sales volume.

SG3. Our business has reached new markets through digital channels.

SG4. Online promotion has increased conversion of leads into sales.

SG5. Digital marketing has contributed to revenue growth.

**Customer Retention (CR)**

CR1. Digital communication helps us maintain relationships with existing customers.

CR2. Our customers engage with us repeatedly through digital channels.

CR3. Online responsiveness has improved customer satisfaction.

CR4. Digital marketing has increased repeat purchase behaviour.

CR5. Digital engagement has strengthened customer loyalty.

**Competitive Advantage (CA)**

CA1. Digital marketing helps us compete effectively with larger firms.

CA2. Our digital presence has improved brand visibility.

CA3. We respond faster to customer needs through digital tools.

CA4. Digital marketing differentiates us from competitors.

CA5. Our firm adapts more quickly to market changes because of digital tools.

**Profitability Performance (PROF)**

PROF1. Digital marketing has improved our profit margins.

PROF2. Our return on marketing expenditure has improved.

PROF3. Digital marketing has positively affected overall financial performance.

PROF4. Increased digital sales have contributed to profitability.

PROF5. Digital marketing has created sustainable business value.

**Appendix B. Sample Profile of Respondents (n = 450)**

Category	Classification	Percentage (%)
----------	----------------	----------------

Enterprise Type	Micro	55.0
	Small	32.0
	Medium	13.0
Business Sector	Manufacturing	24.0
	Trading	20.0
	Services	23.0
	Retail	18.0
	Food/Hospitality	9.0
	Others	6.0
Location	Rural	12.0
	Semi-urban	29.0
	Urban	39.0
	Metro	20.0

**Appendix C. Measurement Model Summary**

Construct	No. of Items	Cronbach's Alpha	Composite Reliability	AVE
BARR	5	0.780	0.849	0.530
DMA	6	0.820	0.870	0.527
DMC	6	0.818	0.868	0.523
SG	5	0.850	0.893	0.625
CR	5	0.726	0.829	0.549
CA	5	0.786	0.854	0.539
PROF	5	0.825	0.877	0.589

**Appendix D. Structural Model Summary**

Path	Coefficient ( $\beta$ )	t-value	p-value
BARR $\rightarrow$ DMA	-0.259	5.979	<0.001
DMA $\rightarrow$ DMC	0.559	17.334	<0.001
DMA $\rightarrow$ SG	0.465	11.967	<0.001
DMA $\rightarrow$ CR	0.366	9.193	<0.001
DMA $\rightarrow$ CA	0.460	12.366	<0.001
DMC $\rightarrow$ PROF	0.172	3.461	0.001
SG $\rightarrow$ PROF	0.327	7.805	<0.001
CR $\rightarrow$ PROF	0.139	3.302	0.001
CA $\rightarrow$ PROF	0.137	2.794	0.005

The model conceptualises profitability as a multi-path outcome of digital transformation. Digital marketing adoption influences profitability directly and indirectly through capability enhancement, revenue expansion, customer continuity, and strategic positioning, while barriers constrain the adoption process.

**References**

1. Amoah, J., Boateng, H., & Dzogbenuku, R. K. (2023). Social media marketing capability and SME performance in emerging markets. *Cogent Business & Management*, 10(1), 2183573. <https://doi.org/10.1080/23311975.2023.2183573>
2. Chatterjee, S., & Kar, A. K. (2020). Why do small businesses adopt social media marketing? Evidence from an emerging economy. *International Journal of Information Management*, 53, 102103. <https://doi.org/10.1016/j.ijinfomgt.2020.102103>
3. Choubey, V. M., Sharma, R., & Singh, P. (2024). Digital adoption barriers and small enterprise transformation in India. *Journal of Global Information Management*, 32(4), 1–19. <https://doi.org/10.4018/JGIM.353395>
4. Dwivedi, Y. K., Hughes, L., Ismagilova, E., Aarts, G., Coombs, C., Crick, T., Duan, Y., Dwivedi, R., Edwards, J., Eirug, A., Galanos, V., Ilavarasan, P. V., Janssen, M., Jones, P., Kar, A. K., Kizgin, H., Kronemann, B., Lal, B., Lucini, B., ... Williams, M. D. (2021). Artificial intelligence (AI): Multidisciplinary perspectives on emerging challenges, opportunities, and agenda for research, practice and policy. *International Journal of Information Management*, 57, 101994. <https://doi.org/10.1016/j.ijinfomgt.2019.08.002>
5. Enshassi, M., Alzoubi, H., & Alshurideh, M. (2025). Digital capability development and SME competitiveness in turbulent markets. *Journal of Open Innovation: Technology, Market, and Complexity*, 11(1), 100519. <https://doi.org/10.1016/j.joitmc.2025.100519>
6. Grover, P., Kar, A. K., & Dwivedi, Y. K. (2022). Understanding artificial intelligence adoption in operations and marketing systems. *International Journal of Information Management Data Insights*, 2(2), 100116. <https://doi.org/10.1016/j.jjime.2022.100116>
7. Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2022). *Partial least squares structural equation modeling (PLS-SEM) using R: A workbook*. Springer. <https://doi.org/10.1007/978-3-030-80519-7>
8. Hadiyati, E., Mulyono, S., & Gunadi. (2024). Digital marketing orientation and business growth of SMEs. *Innovative Marketing*, 20(3), 35–49. [https://doi.org/10.21511/im.20\(3\).2024.03](https://doi.org/10.21511/im.20(3).2024.03)
9. Lopes, J. M., Ferreira, J. J., Farinha, L., & Silveira, P. (2025). Customer engagement capability and firm performance in digitally active SMEs. *International Journal of Tourism Research*, 27(1), e70004. <https://doi.org/10.1002/jtr.70004>
10. Mohammed, F., Rahman, M., & Islam, T. (2024). Analytics capability and digital business performance in SMEs. *International Journal of Information Management Data Insights*, 4(1), 100248. <https://doi.org/10.1016/j.jjime.2024.100248>
11. Mora Cortez, R., & Ghosh Dastidar, A. (2022). Building digital capabilities for customer value creation in SMEs. *Journal of Business Research*, 145, 436–448. <https://doi.org/10.1016/j.jbusres.2022.02.086>
12. Saura, J. R., Palacios-Marqués, D., & Ribeiro-Soriano, D. (2023). Digital marketing strategies and SME growth performance. *Journal of Small Business Management*, 61(5), 2104–2126. <https://doi.org/10.1080/00472778.2021.1955127>
13. Shams, R., Chatterjee, S., & Chaudhuri, R. (2024). Digital transformation and profitability pathways in small firms. *Journal of Business Research*, 176, 114689. <https://doi.org/10.1016/j.jbusres.2024.114689>
14. Virglerová, Z., Ivanová, E., & Dvorsky, J. (2022). Digital competitiveness and SME resilience in emerging Europe. *Economics and Sociology*, 15(1), 342–355. <https://doi.org/10.14254/2071-789X.2022/15-1/17>
15. Yadav, U. S., Singh, A., & Tiwari, R. (2024). Digital orientation, innovation and MSME performance in developing economies. *Journal of Innovation and Entrepreneurship*, 13, 34. <https://doi.org/10.1186/s13731-024-00434-z>