

# Drivers of Social Media Marketing Adoption and Performance Impacts on Indonesian SMEs: An Integrated TAM, RDT, and TOE Framework

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## Abstract

*This study explores the drivers of social media marketing (SMM) adoption and its impact on the financial performance of small and medium-sized enterprises (SMEs) in Indonesia. Using an integrated framework combining the Technology Acceptance Model (TAM), Resource Dependence Theory (RDT), and Technology-Organization-Environment (TOE) frameworks, the research investigates how internal, external, and organizational factors influence the adoption of social media marketing. Data were collected from 300 SME owners and managers and analyzed using descriptive statistics and structural equation modeling (SEM-PLS). The findings reveal that perceived usefulness, competitive pressure, and government support are significant drivers of SMM adoption. Moreover, the study highlights that adopting social media marketing positively impacts SMEs' financial performance, increasing sales, customer engagement, and profitability. The research also identifies barriers hindering SMM adoption, such as financial costs and lack of human resources. This study offers valuable insights for policymakers and business leaders seeking to enhance the digital competitiveness of SMEs, particularly in emerging markets like Indonesia. It contributes to the existing literature by empirically linking SMM adoption to financial outcomes and providing a holistic view of the factors influencing adoption. The findings set a benchmark for future research on technology adoption in SMEs within similar contexts.*

**Keywords:** TAM, RDT, TOE, Social Media Marketing, Adoption, SMEs, Indonesia.

## Introduction

Digital technologies have transformed business-customer interactions, making social media essential for marketing (Agnihotri, 2020). For small and medium-sized enterprises (SMEs), which often face resource constraints, social media marketing offers opportunities to compete with larger firms through cost-effective customer engagement and brand building (Al Halbusi et al., 2022). However, despite these advantages, adoption among SMEs remains inconsistent, particularly in emerging markets (Qalati et al., 2021a). This research addresses this issue by exploring the drivers of social media marketing (SMM) adoption and its impact on the financial performance of Indonesian SMEs.

Existing literature has utilized the Technology Acceptance Model (TAM), Resource Dependence Theory (RDT), and Technology-Organization-Environment (TOE) frameworks to explain technology adoption (Kwak et al., 2023; Loo et al., 2023). TAM emphasizes perceived usefulness and ease of use (Nazir & Khan, 2022), RDT focuses on external pressures like resource dependencies and competitive forces (Oliveira et al., 2022), while TOE examines organizational and environmental factors (Dadhich & Hiran, 2022).

With its dynamic SME sector, Indonesia is an ideal context for this research. SMEs make up over 99% of all businesses and contribute significantly to GDP (Tumiwa & Nagy, 2021). However, these businesses face limited digital infrastructure, low digital literacy, and competition from larger firms (Ollerenshaw et al., 2021). Understanding the drivers of social media marketing adoption in this context has theoretical and practical implications for enhancing SME competitiveness.

This study provides empirical evidence on integrating TAM, RDT, and TOE frameworks in adopting SME social media marketing. Additionally, it examines the impact of adoption on financial performance, adding to research on digital marketing outcomes in SMEs (Dar & Mishra, 2020). The findings offer insights for

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SME managers, digital marketers, and policymakers aiming to boost technology adoption and SME performance in Indonesia and similar markets.

The novelty of this research lies in integrating TAM, RDT, and TOE into a cohesive model that captures internal, external, and organizational factors influencing social media marketing adoption in Indonesian SMEs. This approach provides a nuanced understanding of adoption, particularly in resource-constrained settings like Indonesia. The research also uniquely links adoption determinants with financial outcomes, addressing a gap in existing literature, which often focuses solely on large firms or adoption processes without assessing financial impacts.

Finally, this study emphasizes the Indonesian SME landscape, an underexplored social media marketing research area. As one of the largest emerging markets, Indonesia's digital transformation, government initiatives, and competitive pressures provide valuable insights for local and global stakeholders. The study's use of a comprehensive dataset, including variables like government support and competitive pressures, deepens the understanding of external forces shaping social media marketing adoption. These findings offer a new benchmark for future studies on technology adoption and digital marketing in SMEs.

## Literature Review and Hypotheses Development

### *Perceived Usefulness and SMM Adoption*

Perceived usefulness (PU) is a key factor influencing the intention to adopt new technologies, particularly in social media marketing. Defined as the belief that technology enhances job performance or business success (Davis, 1989), PU is central to the Technology Acceptance Model (TAM). Social media marketing platforms are increasingly essential for reaching customers, improving brand visibility, and boosting efficiency, especially for small and medium-sized enterprises (SMEs) (Alalwan et al., 2017). When decision-makers perceive social media as beneficial, they are more likely to adopt it.

Recent studies confirm the link between PU and adoption intention. For example, Pentina et al., (2012) found that PU significantly predicts social media marketing adoption for SMEs. Other scholars, Alkhasoneh et al., (2024), similarly found that PU strongly influences adoption decisions in emerging markets, especially for building brand awareness and customer engagement. Moreover, Haque et al. (2024) argue that PU affects adoption intention and encourages continued use, particularly in resource-limited SMEs, ensuring that investments in social media marketing deliver long-term benefits. Based on this rationale, we hypothesize that:

H1: Perceived usefulness positively influences the intention to adopt social media marketing

### *Perceived Importance and SMM Adoption*

Recent research highlights perceived importance as a crucial factor shaping the intention to adopt new technologies, particularly in marketing. Perceived importance refers to the extent to which decision-makers recognize the strategic significance of technology in achieving business goals and responding to market needs. In social media marketing, decision-makers are more likely to adopt platforms when they recognize their role in driving customer engagement, brand visibility, and competitiveness. Studies show that firms increasingly view social media marketing as essential for survival and growth, especially in sectors where customer interaction and brand development are vital (Dwivedi et al., 2021). Empirical studies confirm this relationship. Wang & Kim (2017) found that perceived importance significantly influenced managers' decisions to invest in social media, particularly for improving customer relationships and staying competitive. Similarly, Qalati et al., (2021b) found that perceived importance was a key driver of social media adoption in SMEs, especially in competitive environments. Further evidence comes from emerging markets. Qalati et al., (2021a) showed that perceived importance, driven by competitive pressures and changing consumer behavior, strongly predicted social media adoption, particularly for SMEs targeting underserved markets. When businesses perceive social media marketing as critical to survival and growth, they are likelier to adopt it. As a result, the hypothesis is proposed:

H2: Perceived importance positively influences the intention to adopt social media marketing

#### *Relative Advantage and Perceived Usefulness*

Relative advantage is a key factor in technology adoption, defined as the degree to which an innovation is perceived as superior to the technology it replaces (Mamonov & Benbunan-Fich, 2020). In social media marketing, this refers to the perceived benefits of social media platforms compared to traditional methods, such as improved customer engagement, lower costs, and better brand visibility (Zollo et al., 2020). When decision-makers perceive these advantages, they are more likely to see social media as a useful tool. This perception enhances the perceived usefulness of social media marketing as businesses increasingly recognize its unique value over older marketing strategies.

Recent studies confirm this link between relative advantage and perceived usefulness. For instance, Dwivedi et al., (2021) found that social media's ability to reach a broader audience and facilitate real-time customer interaction significantly enhanced its perceived usefulness. Businesses viewed targeted advertising and cost efficiency as superior to traditional methods, increasing their perception of social media's value.

Other scholars, Salam et al., (2021) also noted that the growing use of social media marketing enhances its perceived usefulness, particularly for SMEs. Social media's cost-effectiveness and scalability offer clear advantages over traditional advertising, making it an attractive and useful tool for businesses seeking to improve marketing outcomes. Accordingly, this leads to the formulation of the following hypothesis.

H3: Relative advantage positively influences the perceived usefulness of social media marketing

#### *Complexity and Perceived Usefulness*

Complexity refers to how challenging an innovation is to understand, use, or implement (Afsar & Umrani, 2020). In social media marketing, complexity often arises in navigating platforms, managing content, and using analytics tools effectively. When decision-makers perceive social media platforms as too complex, it reduces their perceived usefulness despite potential benefits (Grover et al., 2019). This inverse relationship is well-established, especially for SMEs, where limited resources and expertise make complex technologies seem less valuable.

Recent studies confirm that complexity can lower the perceived usefulness of social media marketing. For example, Qalati et al., (2021a), SMEs in emerging markets struggled with integrating multiple social media platforms into a cohesive strategy. Issues such as understanding algorithms and managing cross-channel efforts were key factors that reduced perceived usefulness. As perceived complexity increases, businesses view social media as less beneficial due to concerns over lacking technical capabilities.

Similarly, Sharabati et al., (2024) found that complex digital marketing technologies are barriers to adoption. SMEs, especially those lacking digital expertise, reported lower perceived usefulness when faced with complex interfaces and a steep learning curve. This evidence supports the idea that as complexity increases, the perceived usefulness of social media marketing decreases. Based on this, a hypothesis is suggested.

H4: Complexity negatively affects the perceived usefulness of social media marketing

#### *Compatibility and Perceived Usefulness*

In social media marketing, compatibility refers to how well social media platforms align with a business's existing marketing practices, technological infrastructure, and organizational goals (Mahendrawathi & Wardati, 2020). When businesses perceive a high level of compatibility, they are more likely to see social media as helpful in enhancing operations, improving customer engagement, and boosting performance (Al Halbusi et al., 2022). This alignment strengthens the belief that social media marketing can effectively contribute to business success.

Recent research supports the link between compatibility and perceived usefulness. For instance, Chatterjee & Kar (2020) found that SMEs that already used digital tools or had online engagement strategies viewed social media as a valuable extension, increasing its perceived usefulness. In contrast, firms with less digital integration found it more challenging to see the value of social media. This suggests that decision-makers are more likely to view social media marketing as applicable when it fits well with their existing frameworks.

Similarly, Mtjilibe et al., (2024) found that SMEs in emerging markets rated social media as more valuable when aligned with their operational goals, such as improving customer communication and sales. This evidence supports the hypothesis that compatibility positively influences perceived usefulness, as businesses find more value in social media when it integrates smoothly with existing practices. Therefore, the study posits the following hypothesis.

H5: Compatibility positively influences the perceived usefulness of social media marketing

#### *Compatibility and SMM Adoption*

Compatibility refers to how well an innovation aligns with an organization's values, needs, and practices (Zacharias et al., 2020). Social media marketing reflects how well social media tools fit a business's current marketing strategies, operations, and technology. When businesses perceive social media as compatible with their established practices, they are more likely to adopt it, as it reduces the perceived risk of integrating new technologies (Qalati et al., 2021a). Compatibility gives businesses confidence that social media will complement their existing workflows, positively influencing their intention to adopt.

Empirical studies support this link between compatibility and adoption. For instance, Chatterjee et al., (2021) found that SMEs in emerging markets are more likely to adopt social media when it aligns with their business objectives. When social media fits well with current marketing efforts, it reduces the learning curve and implementation challenges, particularly for resource-constrained SMEs.

Previous scholars Ho et al., (2020) extended this by showing that perceived compatibility influences the intention to adopt and speeds up the process. Firms that saw social media as compatible with their culture and technology adopted it more quickly and with fewer barriers. Compatibility lowers perceived risks and enhances the likelihood of adoption. Consequently, the following hypothesis is put forward.

H6: Compatibility positively influences the intention to adopt social media marketing.

#### *Financial Costs and Adoption*

Financial costs are a significant factor influencing the adoption of new technologies, especially for SMEs with limited resources. The costs of adopting social media marketing include software licenses, hiring personnel, training, and ongoing operational expenses (Indrawati & Caska, 2024). When businesses perceive these costs as high, their intention to adopt social media platforms decreases. The Technology-Organization-Environment (TOE) framework highlights how financial burdens can significantly hinder technology adoption, particularly in resource-constrained environments (Raj et al., 2024).

A previous study by Sharabati et al., (2024) suggests that SMEs who perceive social media marketing costs as prohibitive are less likely to adopt it despite its benefits. High costs—such as hiring managers and investing in advertising—diminish the perceived value of social media marketing, reducing adoption intentions. Previous studies by Malesev & Cherry (2021) and Ur Rahman et al., (2020) showed that financial constraints often lead SMEs to prioritize core operational costs over marketing, delaying or rejecting social media adoption. Their findings highlight that financial costs significantly deter adoption, even when business leaders recognize the benefits. Thus, financial costs negatively influence the intention to adopt social media marketing, which is well supported, as higher costs act as a barrier to adoption. Based on this, a hypothesis is suggested.

H7: Financial costs negatively influence the intention to adopt social media marketing.

### *Lack of Human Resources and SMM Adoption*

Lack of skilled human resources is a significant barrier to adopting new technologies, including social media marketing, especially for small and medium-sized enterprises (SMEs). Human resource constraints often appear as a lack of expertise in managing social media platforms, creating content, or analyzing marketing data (Effendi et al., 2020). Without employees with the necessary skills, SMEs may find it challenging to implement social media marketing effectively, leading to reduced adoption intentions. The Technology-Organization-Environment (TOE) framework highlights how a lack of skilled personnel hinders the adoption of innovative tools (Effendi et al., 2020).

Research supports that SMEs hesitate to adopt social media marketing because they lack skilled personnel. For instance, Effendi et al., (2020); Qalati et al., (2021b); Sharabati et al., (2024) found that SMEs with limited digital marketing expertise struggle with managing social media channels, developing campaigns, and interpreting performance metrics, reducing their likelihood of adopting these platforms. Businesses without dedicated marketing teams or access to training are less likely to invest in social media, perceiving it as too complex to manage effectively. Similarly, Effendi et al., (2020) emphasized that a lack of trained personnel is critical to the digital marketing adoption gap, particularly in emerging markets. They found that businesses lacking the necessary human resources were more likely to view social media marketing as too time-consuming or complex, further diminishing adoption intentions. This aligns with broader studies (Effendi et al., 2020; Zollo et al., 2020), reinforcing that human resource limitations significantly reduce the likelihood of SMEs adopting social media marketing. Hence, the following hypothesis has been developed:

H8: Lack of human resources negatively influences the intention to adopt social media marketing

### *Competitive Pressure and Perceived Importance*

Competitive pressure refers to how businesses perceive the need to adopt new technologies to stay competitive. In social media marketing, this pressure arises from competitors' growing use of social media platforms to engage customers, build brand awareness, and increase sales (Malesev & Cherry, 2021; Qalati et al., 2021b). When businesses see competitors effectively using social media, they are more likely to view it as a crucial tool for maintaining market position. Previous empirical evidence supports this relationship. For example, Ali Abbasi et al., (2022) found that SMEs in competitive environments are more likely to adopt social media marketing to match or surpass competitors' digital presence. Businesses facing intense competition view social media as essential for staying relevant and maintaining customer engagement. Similarly, Raj et al., (2023) emphasized that e-commerce has amplified the role of competitive pressure, particularly in developing markets. Their research showed that businesses experiencing high competition invest in social media for differentiation and customer retention. This growing body of literature supports the hypothesis that competitive pressure positively influences the perceived importance of social media marketing. Accordingly, this leads to the formulation of the following hypothesis:

H9: Competitive pressure positively influences the perceived importance of social media marketing

### *Government Support and the Perceived Importance*

Government support plays a crucial role in the adoption and perceived importance of new technologies, especially in emerging markets where businesses may lack resources or infrastructure for digital marketing. Initiatives such as subsidies, training programs, tax incentives, and policies promoting digital adoption help reduce barriers, making it easier for small and medium-sized enterprises (SMEs) to recognize the strategic importance of social media marketing for growth and competitiveness (Qalati et al., 2021a).

Recent studies confirm that government support significantly increases the perceived importance of social media marketing. For instance, Qalati et al., (2021a) found that businesses receiving training or digital infrastructure grants were likelier to adopt social media marketing, recognizing it as essential for enhancing market presence, brand visibility, and customer engagement. Government-backed programs help firms see social media as vital for long-term growth in the digital economy. Other scholars, Ta & Lin (2023), also

highlighted that policies promoting digital transformation increase the perceived importance of social media marketing in both developed and emerging markets. SMEs often face resource constraints and benefit from government interventions that make social media marketing more accessible. Thus, government support positively influences the perceived importance of social media marketing, as businesses with access to such support view it as a critical marketing tool. As a result, the hypothesis is proposed:

H10: Government support positively influences the perceived importance of social media marketing

#### *Digital Environmental Change and Perceived Importance*

Digital environmental change refers to the rapid evolution of digital technologies, platforms, and consumer behavior, significantly impacting the business landscape. As these technologies advance, businesses must adapt by incorporating tools like social media marketing to connect with consumers, enhance brand visibility, and gather valuable insights through analytics (Dwivedi et al., 2021). This ongoing digital evolution boosts the perceived importance of social media marketing as companies recognize its role in keeping up with market shifts and consumer expectations.

Recent studies confirm the growing importance of social media marketing in response to digital environmental changes. For instance, Dwivedi et al., (2021) found that as consumers increasingly turn to digital channels, businesses perceive social media as essential for reaching new audiences and staying competitive. Companies often see social media marketing as crucial for navigating the challenges of constant technological innovation. Additionally, Qalati et al. (2021b) and Malesev & Cherry (2021) emphasized that advancements in mobile technology, AI, and data analytics have reinforced the importance of social media marketing. As digital tools become more integrated into consumer behavior, businesses that fail to adapt risk falling behind. These findings support the hypothesis that digital environmental change positively influences the perceived importance of social media marketing, pushing firms to prioritize social media in their digital transformation strategies. Consequently, the following hypothesis is formulated:

H11: Digital environmental change positively influences the perceived importance of social media marketing

#### *SMM Adoption and Financial Performance*

Adopting social media marketing (SMM) has become a vital strategy for small and medium-sized enterprises (SMEs) aiming to improve their financial performance. Social media platforms allow businesses to engage customers, promote products, and enhance brand visibility, leading to better sales, customer loyalty, and market share (Kikawa et al., 2022; Qalati et al., 2021b). For resource-constrained SMEs, SMM is a cost-effective way to reach large audiences, interact directly with consumers, and build relationships that contribute to financial growth (Kikawa et al., 2022; Malesev & Cherry, 2021). Effective use of SMM can increase revenue and strengthen SMEs' competitive position, particularly in industries where consumer engagement is crucial.

Empirical studies confirm the link between SMM adoption and financial performance in SMEs. For example, Kikawa et al., (2022) and Qalati et al., (2021b) found that SMM firms saw significant sales and profitability improvements as social media enabled them to reach targeted audiences and personalize campaigns. Similarly, Mtjilibe et al., (2024) showed that SMEs using platforms like Facebook and Instagram experienced higher customer acquisition and retention, translating into better financial performance. This evidence supports the hypothesis that adopting SMM positively influences SMEs' financial performance, enhancing customer engagement, sales, and profitability. Therefore, a hypothesis is proposed:

H12: The adoption of social media marketing positively influences SMEs' financial performance

#### *Research Model*

The study's proposed research model is presented in Figure 1 below.

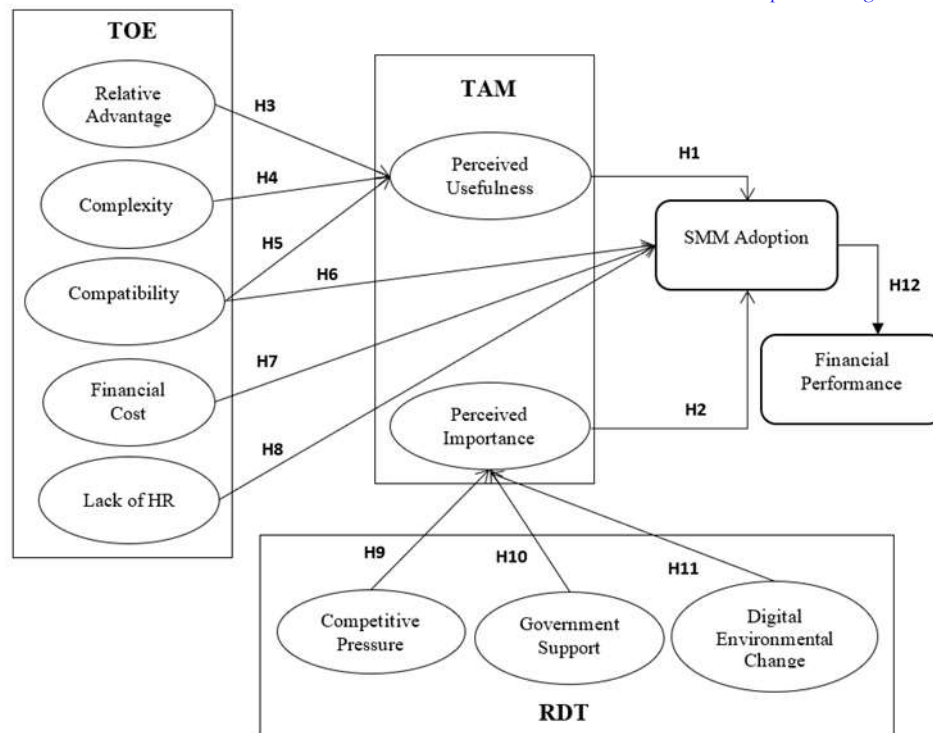


Figure 1. Research Model

## Research Methodology

This research was conducted in Yogyakarta Province, Indonesia, a region recognized for its vibrant small and medium-sized enterprise (SME) sector spanning diverse industries. The province's focus on digital finance and business development makes it a fitting setting for exploring the relationship between digital financial tools and SME performance. The study adopts a quantitative research design, with data collected through structured questionnaires from 300 SME owners and/or managers. This approach facilitates systematic data gathering and allows for statistical analysis to objectively assess the impact of diverse factors affecting social media marketing (SMM) and SMEs' financial performance.

The sampling method employed is convenience sampling, selecting SME owners or managers who were readily accessible and willing to participate. This method is practical for reaching the target population and ensuring a robust sample size for analysis. A total of 300 respondents were included, providing sufficient data for reliable hypothesis testing and ensuring adequate statistical power for the study's objectives. The chosen sample size supports comprehensive analysis techniques that explore the connection between digital finance and SME performance in Yogyakarta Province.

The study used a Likert scale to gauge respondents' agreement with each questionnaire statement, ranging from 1 (strongly disagree) to 5 (strongly agree). This five-point scale effectively captures the intensity of respondents' opinions and attitudes toward the measured constructs, providing detailed insights into the relationships between variables.

Descriptive statistics were applied to summarize sample characteristics, including demographic factors such as age, education, and business sector, as well as key metrics related to the study's variables. SPSS software was utilized for this analysis, offering insights into the central tendencies and data dispersion. Structural Equation Modeling (SEM) was conducted using SmartPLS software to test the proposed hypotheses. SEM-PLS is particularly suitable for complex models with multiple constructs and relationships, and it can accommodate smaller sample sizes more effectively than covariance-based SEM. SmartPLS was used to

assess the measurement model (for construct validity and reliability) and the structural model (for path analysis), examining the relationships between tested variables.

## Results and Findings

### *Demographic Results*

Table 1 presents the demographic results of the study, detailing various characteristics of the 300 respondents. The gender distribution indicates a predominance of men, with 73% (219 respondents) identifying as male compared to 27% (81 respondents) identifying as female. This substantial gender imbalance suggests a potential response bias, which could influence the findings and their applicability to a broader audience. Regarding educational attainment, most respondents (52%) hold a Bachelor's degree, followed by 31% with a high school diploma and 15% with education lower than high school. Notably, only 2% possess a Master's degree, and there are no respondents with a PhD, highlighting a gap in higher educational representation.

**Table 1. Demographic Results**

| Category               | Sub-Category           | %  | Number |
|------------------------|------------------------|----|--------|
| Gender                 | Men                    | 73 | 219    |
|                        | Women                  | 27 | 81     |
| Education Level        | Lower than high school | 15 | 45     |
|                        | High school            | 31 | 93     |
|                        | Bachelor               | 52 | 156    |
|                        | Master                 | 2  | 6      |
|                        | PhD                    | 0  | 0      |
| Years of establishment | < 5                    | 33 | 99     |
|                        | 5 – 10                 | 49 | 147    |
|                        | > 10                   | 18 | 54     |
| Job position           | Owners                 | 40 | 120    |
|                        | Managers               | 41 | 123    |
|                        | Owners-Managers        | 19 | 57     |
|                        | Others                 | 0  | 0      |
| Age of the respondents | 21 – 25                | 5  | 15     |
|                        | 26 – 30                | 19 | 57     |
|                        | 31 – 35                | 33 | 99     |
|                        | 36 – 40                | 32 | 96     |
|                        | 41 – 50                | 8  | 24     |
|                        | > 50                   | 3  | 9      |
| Number of employees    | 5 – 19                 | 42 | 126    |
|                        | 20 – 99                | 58 | 174    |
| Industry               | Services               | 44 | 132    |
|                        | Non-Services           | 56 | 168    |

The data also provide insights into the respondents' professional landscape. A significant portion (49%) of the businesses represented have been established for 5 to 10 years, while 33% are less than five years old, indicating a strong presence of newer firms in the sample. Job positions reveal that 40% are owners and 41% are managers, underscoring that the majority of respondents hold decision-making roles. Age distribution shows that 33% of respondents are between 31 and 35 years old, and 32% are between 36 and 40 years old, suggesting a relatively experienced workforce. Additionally, most respondents belong to small to medium-sized enterprises, with 42% having 5-19 employees and 58% having 20-99 employees. This demographic composition is crucial for understanding these businesses' contexts and challenges, particularly regarding adopting new practices or technologies.



*Validity and Reliability*

The findings regarding the validity of the overall measurement's convergent and reliability tests are presented in Table 2. The Average Variance Extracted (AVE), Composite Reliability (CR), and Cronbach's Alpha (CA) for various constructs relevant to the study. AVE measures the amount of variance a construct captures concerning the variance due to measurement error. In this table, all constructs show AVE values above the commonly accepted threshold of 0.50, which indicates that they adequately capture the variance of their respective indicators. For instance, the "Competitive Pressure" construct has an AVE of 0.796, strongly representing the underlying concept. Additionally, constructs such as "Complexity" and "Digital Environmental Change" have AVE values of 0.756 and 0.777, further confirming the robustness of these constructs in the study.

The Composite Reliability (CR) and Cronbach's Alpha (CA) values indicate the reliability of the constructs. All constructs exhibit CR values exceeding the 0.70 benchmark, with "Digital Environmental Change" achieving the highest reliability at 0.913. Similarly, the CA values also support the internal consistency of the constructs, with "Complexity" showing a CA of 0.866. These findings affirm that the constructs are valid and reliable, making them suitable for further analysis in the study context. Overall, the results in Table 2 strengthen the confidence in the measurement model and lay a solid foundation for exploring relationships among the constructs in subsequent analyses.

Table 2 also presents the item loadings for each construct within the study, which are critical for understanding the strength of the relationships between observed variables (items) and their corresponding latent constructs. Each item loading reflects how much of the variance in an item is explained by the latent construct it is associated with. In this table, the loadings range from 0.701 to 0.937, indicating that most items have a strong relationship with their respective constructs. For example, the item "DIGITAL3" under the construct "Digital Environmental Change" has the highest loading of 0.937, demonstrating that it is particularly effective in representing this construct.

**Table 2. The Validity Convergent and Reliability Test Results**

| Variables                              | Item     | Item Loading | AVE   | CR    | CA    |
|--|----------|--------------|-------|-------|-------|
| Compatibility (COMPAT)                 | ADF1     | 0,850        | 0,706 | 0,821 | 0,785 |
|  | ADF2     | 0,738        |       |       |       |
|  | ADF3     | 0,742        |       |       |       |
| Competitive Pressure (PRESS)           | PRESS1   | 0,837        | 0,796 | 0,815 | 0,760 |
|  | PRESS2   | 0,767        |       |       |       |
|  | PRESS3   | 0,707        |       |       |       |
| Complexity (COMPLEX)                   | COMPLEX1 | 0,701        | 0,756 | 0,948 | 0,866 |
|  | COMPLEX2 | 0,899        |       |       |       |
|  | COMPLEX3 | 0,761        |       |       |       |
| Digital Environmental Change (DIGITAL) | DIGITAL1 | 0,855        | 0,777 | 0,913 | 0,876 |
|  | DIGITAL2 | 0,850        |       |       |       |
|  | DIGITAL3 | 0,937        |       |       |       |
| Financial Cost (COST)                  | COST1    | 0,720        | 0,709 | 0,876 | 0,813 |
|  | COST2    | 0,906        |       |       |       |
|  | COST3    | 0,959        |       |       |       |
| Government Support (GOV)               | GOV1     | 0,918        | 0,726 | 0,762 | 0,723 |
|  | GOV2     | 0,931        |       |       |       |
|  | GOV3     | 0,920        |       |       |       |
| Intention to Adopt (ADOPT)             | ADOPT1   | 0,848        | 0,752 | 0,846 | 0,768 |
|  | ADOPT2   | 0,874        |       |       |       |
| Lack of Human Resources (LACKHR)       | LACKHR1  | 0,700        | 0,781 | 0,801 | 0,704 |
|  | LACKHR2  | 0,998        |       |       |       |

|                               |         |       |       |       |       |
|-------------------------------|---------|-------|-------|-------|-------|
| Perceived Importance (IMPORT) | IMPORT1 | 0,820 | 0,717 | 0,884 | 0,803 |
|                               | IMPORT2 | 0,861 |       |       |       |
|                               | IMPORT3 | 0,859 |       |       |       |
| Perceived Usefulness (PUSE)   | PUSE1   | 0,865 | 0,759 | 0,904 | 0,842 |
|                               | PUSE2   | 0,869 |       |       |       |
|                               | PUSE3   | 0,880 |       |       |       |
| Relative Advantage (ADVAN)    | ADVAN1  | 0,839 | 0,707 | 0,879 | 0,792 |
|                               | ADVAN2  | 0,870 |       |       |       |
|                               | ADVAN3  | 0,813 |       |       |       |

The generally high item loadings (above the acceptable threshold of 0.70) signify good construct validity, suggesting that the items are appropriate indicators of their respective constructs. Items with lower loadings, such as "COMPLEX1" at 0.701, still maintain adequate relevance, though they might benefit from further examination to ensure they contribute effectively to the construct. Overall, the results from Table 2 support the robustness of the measurement model, confirming that the constructs are well-represented by their indicators, which enhances the reliability of the study's findings.

Table 3 presents the Fornell-Larcker criterion, which is used to assess the discriminant validity of the constructs in the study. This criterion states that each construct's square root of the Average Variance Extracted (AVE) should be greater than the correlations between that construct and all other constructs. The diagonal elements of the table represent the square root of the AVE for each construct, while the off-diagonal elements indicate the correlations among the constructs. In this table, the square roots of the AVE for constructs such as "Digital Environmental Change" and "Government Support" are 0.882 and 0.757, respectively, which are greater than their corresponding correlations with other constructs, supporting their discriminant validity. The results in Table 3 demonstrate that all constructs satisfy the Fornell-Larcker criterion, indicating that they are distinct and measure different theoretical concepts.

**Table 3. Fornell-Larcker Criterion**

|                            | 1           | 2           | 3           | 4           | 5           | 6           | 7           | 8           | 9           | 10          | 11          |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 1. Compatibility           | <b>0,78</b> |             |             |             |             |             |             |             |             |             |             |
| 2. Competitive Pressure    | 0,73        | <b>0,77</b> |             |             |             |             |             |             |             |             |             |
| 3. Complexity              | 0,13        | 0,10        | <b>0,80</b> |             |             |             |             |             |             |             |             |
| 4. Digital Enviro. Change  | 0,11        | 0,07        | 0,20        | <b>0,88</b> |             |             |             |             |             |             |             |
| 5. Financial Cost          | 0,18        | 0,04        | 0,17        | 0,54        | <b>0,84</b> |             |             |             |             |             |             |
| 6. Government Support      | 0,59        | 0,72        | 0,16        | 0,09        | 0,02        | <b>0,76</b> |             |             |             |             |             |
| 7. Intention to Adopt      | 0,65        | 0,64        | 0,05        | 0,06        | 0,05        | 0,61        | <b>0,86</b> |             |             |             |             |
| 8. Lack of Human Resources | 0,02        | 0,62        | 0,23        | 0,46        | 0,50        | 0,03        | 0,06        | <b>0,82</b> |             |             |             |
| 9. Perceived Importance    | 0,71        | 0,62        | 0,15        | 0,15        | 0,07        | 0,55        | 0,68        | 0,21        | <b>0,85</b> |             |             |
| 10. Perceived Usefulness   | 0,63        | 0,66        | 0,07        | 0,02        | 0,02        | 0,62        | 0,76        | 0,13        | 0,59        | <b>0,87</b> |             |
| 11. Relative Advantage     | 0,67        | 0,70        | 0,16        | 0,03        | 0,06        | 0,63        | 0,67        | 0,13        | 0,63        | 0,72        | <b>0,84</b> |

### *Structural Model Analysis*

Table 4 presents the results of the collinearity test for various constructs in the study. This test assesses the degree to which the constructs correlate, which is essential for ensuring that multicollinearity does not adversely affect the regression analyses. The values in the table indicate the variance inflation factor (VIF), where lower values suggest that the constructs are not highly collinear. The table indicates no significant multicollinearity issue exists, as the overall VIF values are below 5. This suggests that there are no problematic correlations among the variables.

**Table 4. The Results of the Collinearity Test**

| Table 4. The Results of the Collinearity Test |   |   |   |   |   |      |   |   |      |      |    |      |
|---|---|---|---|---|---|------|---|---|------|------|----|------|
|   | 1 | 2 | 3 | 4 | 5 | 6    | 7 | 8 | 9    | 10   | 11 | 12   |
| 1. Compatibility                              |   |   |   |   |   |      |   |   |      | 1,81 |    | 2,34 |
| 2. Competitive Pressure                       |   |   |   |   |   |      |   |   | 2,06 |      |    |      |
| 3. Complexity                                 |   |   |   |   |   |      |   |   |      | 1,03 |    |      |
| 4. Digital Environmental Change               |   |   |   |   |   |      |   |   | 1,01 |      |    |      |
| 5. Financial Cost                             |   |   |   |   |   |      |   |   |      |      |    | 1,36 |
| 6. Financial Performance                      |   |   |   |   |   |      |   |   |      |      |    |      |
| 7. Government Support                         |   |   |   |   |   |      |   |   | 2,07 |      |    |      |
| 8. Lack of HR                                 |   |   |   |   |   |      |   |   |      |      |    | 1,35 |
| 9. Perceived Importance                       |   |   |   |   |   |      |   |   |      |      |    | 2,17 |
| 10. Perceived Usefulness                      |   |   |   |   |   |      |   |   |      |      |    | 1,76 |
| 11. Relative Advantage                        |   |   |   |   |   |      |   |   |      | 1,83 |    |      |
| 12. SMM Adoption                              |   |   |   |   |   | 1,00 |   |   |      |      |    |      |

Table 5 outlines the testing of several hypotheses related to the study's constructs, presenting each hypothesis's statistical values and significance. H1 is strongly supported, with an original sample coefficient of 0.503, a t-value of 10.435, and a p-value of 0.000. These results indicate that perceived usefulness significantly enhances the intention to adopt social media marketing (SMM). H2 is also supported, showing an original sample coefficient of 0.290, a t-value of 6.257, and a p-value of 0.000. This indicates that perceived importance positively influences the intention to adopt SMM.

The third hypothesis (H3) is strongly supported by an original sample coefficient of 0.548, a t-value of 8.481, and a p-value of 0.000. The fourth hypothesis is supported but reveals a negative relationship, with an original sample coefficient of -0.058, a t-value of 2.307, and a p-value of 0.019. This indicates that increased complexity negatively affects perceived usefulness, suggesting that users are less likely to perceive it as beneficial if SMM is viewed as complicated.

Hypothesis 5 is supported, with an original sample coefficient of 0.266, a t-value of 4.802, and a p-value of 0.000. The results indicate that compatibility positively influences perceived usefulness, suggesting that when SMM aligns well with existing practices and values, users are more likely to recognize its benefits. The sixth hypothesis is supported, with an original sample coefficient of 0.137, a t-value of 2.865, and a p-value of 0.004. This indicates that compatibility directly influences the intention to adopt SMM, reinforcing that alignment between SMM and users' existing frameworks is critical for fostering adoption.

H7 is supported, showing an original sample coefficient of -0.094, a t-value of 3.567, and a p-value of 0.012. The findings indicate that higher perceived financial costs negatively impact the intention to adopt SMM. This suggests that if potential adopters view SMM as costly, they may be deterred from implementation. The eighth hypothesis is supported, with an original sample coefficient of -0.008, a t-value of 2.164, and a p-value of 0.009. This indicates that lacking human resources negatively influences the intention to adopt SMM. H8 is supported with an original sample coefficient of -0.008, a t-value of 2.164, and a p-value of 0.009. This indicates that lacking human resources negatively influences the intention to adopt SMM.

H9 is strongly supported, with an original sample coefficient of 0.463, a t-value of 6.429, and a p-value of 0.000. The results indicate that competitive pressure significantly enhances the perceived importance of SMM. The tenth hypothesis (H10) is supported, with an original sample coefficient of 0.211, a t-value of 3.108, and a p-value of 0.002. This indicates that government support positively influences the perceived importance of SMM.

H11 is supported, showing an original sample coefficient of 0.094, a t-value of 2.473, and a p-value of 0.014. The results suggest that changes in the digital environment positively affect perceived importance. Lastly, H12 is supported by an original sample coefficient of 0.593, which indicates a positive impact of SMM

adoption on financial performance. The sample mean aligns perfectly with the original sample, further validating the reliability of this finding. The t-value for this hypothesis is exceptionally high at 105.91, which indicates a statistically significant relationship, while the p-value is 0.000, affirming that the results are highly significant.

**Table 5. Hypotheses Testing**

| Hypotheses  | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T-Values | P-Values | Decision      |
|---|---------------------|-----------------|----------------------------|----------|----------|---------------|
| Perceived Usefulness → Intention to Adopt SMM       | 0,503               | 0,499           | 0,048                      | 10,435   | 0,000    | H1 Supported  |
| Perceived Importance → Intention to Adopt SMM       | 0,290               | 0,292           | 0,046                      | 6,257    | 0,000    | H2 Supported  |
| Relative Advantage → Perceived Usefulness           | 0,548               | 0,534           | 0,065                      | 8,481    | 0,000    | H3 Supported  |
| Complexity → Perceived Usefulness                   | -0,058              | -0,028          | 0,044                      | 2,307    | 0,019    | H4 Supported  |
| Compatibility → Perceived Usefulness                | 0,266               | 0,268           | 0,055                      | 4,802    | 0,000    | H5 Supported  |
| Compatibility → Intention to Adopt SMM              | 0,137               | 0,133           | 0,048                      | 2,865    | 0,004    | H6 Supported  |
| Financial Cost → Intention to Adopt                 | -0,094              | -0,068          | 0,060                      | 3,567    | 0,012    | H7 Supported  |
| Lack of HR → Intention to Adopt SMM                 | -0,008              | -0,018          | 0,047                      | 2,164    | 0,009    | H8 Supported  |
| Competitive Pressure → Perceived Importance         | 0,463               | 0,465           | 0,072                      | 6,429    | 0,000    | H9 Supported  |
| Government Support → Perceived Importance           | 0,211               | 0,209           | 0,068                      | 3,108    | 0,002    | H10 Supported |
| Digital Environmental Change → Perceived Importance | 0,094               | 0,100           | 0,038                      | 2,473    | 0,014    | H11 Supported |
| SMM Adoption → Financial Performance                | 0,593               | 0,593           | 0,056                      | 10,591   | 0,000    | H12 Supported |

## Conclusions and Suggestions

### Conclusion

The results of this study confirm the proposed hypotheses and provide valuable insights into the factors influencing social media marketing adoption and its impact on financial performance among SMEs in Yogyakarta Province, Indonesia. The study's findings are consistent with existing literature, further supporting the integration of Technology Acceptance Model (TAM), Resource Dependence Theory (RDT), and Technology-Organization-Environment (TOE) frameworks. Each factor examined in the study significantly influenced the adoption of social media marketing, with all hypotheses being supported. These findings underscore the critical role of technological, organizational, and environmental factors in driving social media marketing adoption and improving financial performance in SMEs.

First, the significant relationship between perceived usefulness and the intention to adopt social media marketing (H1) aligns with the foundational elements of TAM, where perceived usefulness has been repeatedly shown to be a key driver of technology adoption (Loo et al., 2023). SME owners and managers who recognize the business value of social media marketing are more likely to implement it. This reinforces the importance of demonstrating tangible benefits of social media platforms, such as increased customer

engagement and enhanced sales, which have become increasingly evident as businesses shift towards digital strategies. Similarly, the supported hypothesis that perceived importance positively influences adoption intention (H2) highlights the strategic value SME owners attribute to social media marketing, particularly in competitive environments where digital presence is crucial for market survival.

The findings also support the hypotheses that relative advantage, compatibility, and government support significantly impact SMEs' adoption of social media marketing. Relative advantage (H3) was found to enhance the perceived usefulness of social media marketing, confirming that SME owners recognize the superiority of social media over traditional marketing methods in terms of cost-effectiveness and customer reach. Compatibility (H5, H6) was shown to positively influence both perceived usefulness and adoption intention, indicating that when social media marketing aligns with existing business practices, SMEs are more likely to perceive it as beneficial and integrate it into their operations. Additionally, the strong relationship between government support and the perceived importance of social media marketing (H10) highlights the significant role of governmental initiatives in encouraging digital adoption among SMEs. This finding aligns with prior research suggesting that when businesses receive institutional support, such as training and infrastructure, they are more likely to adopt new technologies (Salam et al., 2021).

Another critical finding relates to the impact of financial costs (H7) and lack of human resources (H8), which were shown to influence the intention to adopt social media marketing negatively. High financial costs and insufficient human capital present major obstacles for SMEs, limiting their ability to adopt and effectively utilize social media platforms. This finding aligns with the broader literature, consistently identifying financial constraints and resource shortages as significant barriers to technology adoption among SMEs (Mahendrawathi & Wardati, 2020). Despite these challenges, the study shows that SMEs that can overcome these hurdles—perhaps through government support or strategic partnerships—are well-positioned to reap the benefits of social media marketing.

Finally, the study demonstrates that adopting social media marketing positively influences SMEs' financial performance (H12). This finding reinforces the growing body of evidence that shows how adopting social media platforms can improve customer acquisition, increase sales, and boost profitability (Mtjilibe et al., 2024). SMEs that actively engage in social media marketing report better financial outcomes, underscoring the importance of integrating digital marketing strategies into the core business model. The positive influence of competitive pressure (H9) and digital environmental change (H11) on the perceived importance of social media marketing further highlights the need for SMEs to stay agile and responsive to market trends, as these factors drive the adoption of innovative marketing practices in an increasingly digitalized economy.

In conclusion, the findings of this study underscore the importance of various factors—including technological, organizational, and environmental influences—in shaping SMEs' adoption of social media marketing and their subsequent financial performance. The integration of TAM, RDT, and TOE frameworks in this study provides a comprehensive understanding of how these factors interact to drive digital marketing adoption in the SME sector. The practical implications suggest that policymakers, business leaders, and stakeholders should focus on reducing financial and human resource barriers while enhancing compatibility and support systems to encourage wider adoption of social media marketing in SMEs.

### **Suggestion**

This study offers valuable insights into the factors influencing SMEs' adoption of social media marketing in Yogyakarta Province, Indonesia, but several limitations should be acknowledged. First, the research employed a convenience sampling method, which may limit the generalizability of the findings. While convenience sampling is practical for reaching participants, it may not fully represent the broader SME owners and managers population. Consequently, the findings may not apply to all SMEs in Indonesia or other regions with different socio-economic characteristics. Future studies should consider using more rigorous sampling techniques, such as random or stratified sampling, to ensure a more representative sample and increase the external validity of the results.

Second, the study relied on self-reported data collected through questionnaires, which may introduce common method bias or response bias. SME owners and managers may have overestimated or underestimated certain aspects of social media marketing adoption due to personal beliefs, external pressures, or social desirability. To mitigate this issue, future research could incorporate mixed-method approaches, including in-depth interviews, focus groups, or longitudinal studies, to capture a broader and more nuanced understanding of the factors driving social media marketing adoption. This would help validate and complement the quantitative data obtained from self-reported surveys.

Third, this study focused solely on SMEs in Yogyakarta Province, potentially limiting the scope of the findings to this specific region. While Yogyakarta offers a dynamic SME sector, the digital infrastructure and socio-economic context may differ from the other areas in Indonesia or emerging markets. To improve the generalizability of the results, future studies should examine the adoption of social media marketing across multiple regions or countries, comparing findings across different economic contexts. Cross-cultural studies or comparative research in various geographical settings would provide a deeper understanding of how local factors, such as digital literacy, government policies, and competitive pressures, influence social media marketing adoption and financial performance.

In summary, addressing these limitations in future research could strengthen understanding of social media marketing adoption among SMEs and provide more comprehensive insights applicable to a broader range of business environments.

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