

The Mediating Role of Technological Capability between Social Media Marketing and MSMEs Performance

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ABSTRACT. The aim of this study is to determine the effect of social media marketing towards MSMEs performance. The sample size used in this research was 135 MSMEs respondents. The sample was accessed through an online survey questionnaire. Smart PLS 3.0 is utilized in analysis within this study. The findings show that social media marketing has a positive effect on MSMEs performance and technological capability. Technological ability has a positive effect on MSMEs performance and acts as a mediator between social media marketing and MSMEs performance. The limitation of the study is that it was conducted in one geographical area, limiting generalizability to other industries or other regions with varied characteristics. The paper contributes to the body of literature by empirically validating technological ability as a mediator variable between social media marketing and MSMEs performance. These results suggest that MSME managers should invest in social media for both marketing and internal capacity building, put in place technology monitoring systems, and technology alliances with external organizations. Future research is also suggested to test other mediating or moderating variables like technological innovations, market forces, or organizational designs.

Keywords: Social Media Marketing; MSMEs performance; Technological Capability

JEL Classification: M31; L26; O33

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INTRODUCTION

Micro, small, and medium enterprises (MSMEs) in food and beverages play an important role in Central Java's economic growth in Indonesia (Triwibowo & Yusuf, 2024). The firms create jobs and trigger local economic growth by processing value-added goods from the area's fertile agricultural produce (Pratiwi & Ardian, 2024). In Central Java, food and beverage MSMEs are an important part of the local economy, and they also reflect the entrepreneurial culture and identity of the populace (Harvie, 2015). Although they have an important role to play, they face constraints like limited access to capital (Rachmawati et al., 2022), technological advancement (Yuwono, Tajudin, et al., 2024), and market expansion, which impact their competitiveness in local and international markets (Yuwono, Suroso, et al., 2024). Available evidence suggests that capacity development of MSMEs is extremely important in assuring their sustainability (Yuwono, Novandari, et al., 2024) and their contribution to the local economy (Rachmawati et al., 2022; Yuwono, Triwibowo, et al., 2024).

The findings indicate that ICT use significantly influences marketing performance and influences the creation of distinctive competencies among MSMEs, which enhances their performance (Yuwono et al., 2025). MSMEs are largely marked by restricted resources and marketing abilities that limit them from utilizing social media as a source of competitive advantage. The majority of entrepreneurs have misalignments between media requirements and creative potentials of social media platforms that can slow down ICT adoption and diminish potential reach (Zolkepli & Kamarulzaman, 2015). Discrepancies between user satisfaction expectations and entrepreneurial intentions can derail integrated content strategies, which evolve with inconsistent consumption and poor brand communication (Sulasih et al., 2023). The obstacles to social media marketing usage in MSMEs consist of technological constraints, time, and lack of strategic guidance (Sulasih et al., 2024). Overcoming these obstacles is necessary to facilitate improved customer interaction, increased market recognition, and make social media activities a lasting competitive edge for MSMEs (Marolt et al., 2022).

Maximum utilization of social media has been found to enhance the performance of MSMEs due to the fact that it has the ability to reach a larger number of customers (Fiona et al., 2024). Social media is among the most used digital platforms and has the potential to enhance sales volume for MSMEs (Ravindran et al., 2023). Literature has concluded that social media marketing has a positive influence on enhancing the performance of MSMEs. Yet, the majority of the studies concentrate on the direct effect of social media marketing on MSME performance (Ellyawati & Kusumatriawan, 2023). Some of the studies employed the moderating role of entrepreneurial competency on social media in affecting MSME marketing performance (ANYADIGHIBE et al., 2024). Literature on the contribution of digital marketing to the sustainable performance of MSMEs prioritizes online purchase intentions and actual buying behavior but has not yet addressed how technological capability converts social media activities into actual outcomes (Hairudinor & Rusidah, 2023). Literature on the adoption of social media alongside innovation strategies demonstrates a positive effect on MSMEs' marketing performance in Bekasi City, Indonesia. But it overlooks mediating inner technological processes that affect this influence (Winarso et al., 2023). Examining Bandung's adoption of social media technology concentrates on organizational and environmental issues. But it does not address the role of mature technology capability in mediating social media marketing efforts and general SME performance (Wulandari et al., 2020). Therefore, there is a clear gap in terms of the mediating effect of technology capability in

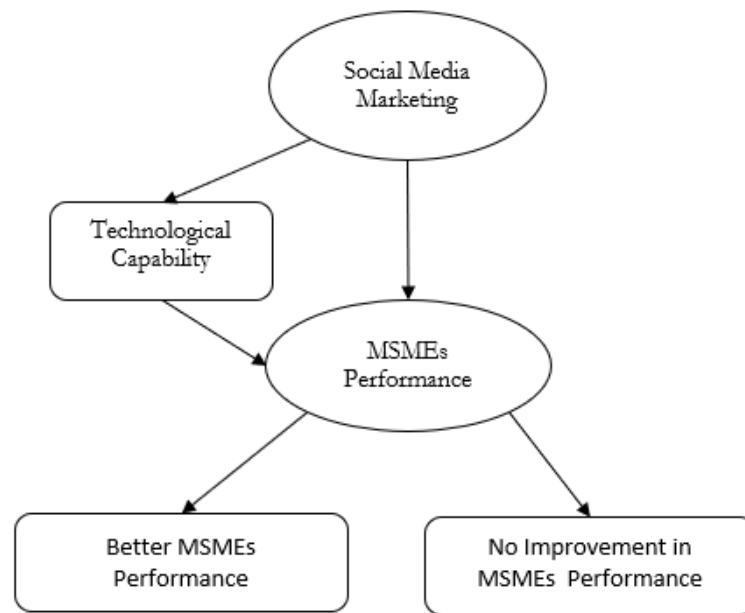
converting social media marketing activities into improved MSMEs performance. The current research employs technological capability as a mediating variable, following (Yuwono et al., 2025) study's suggestion that MSMEs require special competencies in order to boost their performance. Technological capacity in MSMEs is defined as the capacity of firms to systematically identify, acquire, assimilate, convert, and exploit external and internal technological resources for developing operational competences leading to superior performance. Technological capacity in this research consists of six dimensions: strategy, expertise, innovation, monitoring, integration, talent, and development (Salisu & Abu Bakar, 2019). The purpose of this study is to provide empirical evidence to practitioners and policymakers about how the performance of MSMEs can be improved through the use of technological capability and social media marketing. Social media was selected as the form of ICT used in this study since, according to prior studies, social media is the most widely used form of ICT among MSMEs in Central Java, Indonesia (Yuwono, Novandari, et al., 2024).

This research makes a number of important contributions to practice and research. It first adds to our theoretical knowledge of how digital marketing tools overall, and social media marketing specifically, align with tangible business results by revealing the mediating role of technological capability. This serves to fill an essential lacuna in earlier studies that all too frequently overlook the intervening processes involved in social media activity shaping MSME performance. Second, in concentrating on Indonesian-owned food and beverage MSMEs in Central Java, the research offers context-specific data pertinent to emerging market economies, and thus making empirical evidence valuable in informing regional enterprise development programs and policy. Third, this paper conceptualizes technological capability as a multi-dimensional construct and therefore facilitates easier future measurement and increasing MSME readiness to adopt digital innovations. Guided by previous studies, we made the following hypotheses:

- H1. Social media marketing has a positive effect on MSMEs performance.
- H2. Social media marketing has a positive effect on technological capability
- H3. Technological capability has a positive effect on MSMEs performance.
- H4. Technological capability mediates the relationship between Social media marketing and MSMEs performance.

METHODS

There were 200 questionnaires distributed and only 135 returned. The data were collected from Food and Beverage MSMEs in Central Java, Indonesia, with an online questionnaire. Smart PLS version 3.0 was used for the analysis. The questionnaire used a Likert scale and the following measurement of responses: (1) strongly disagree, (2) disagree, (3) slightly agree, (4) agree, and (5) strongly agree. In addition, the theoretical concept was examined through the structural model proposed by. Figure 1 delineates the analysis framework of this study.



Source: Authors' own creation

Figure 1. Analytical framework

This theory elucidates that Social Media Marketing (SMM) in MSMEs, with the assistance of Technological Capability (TC), can work better than others who do not develop technological capability in their social media marketing. Social media marketing is quantified based on the usage of social media as a marketing tool, information gathering, and consumer relationship (Sulasih et al., 2023). MSMEs Performance is quantified based on growth in sales, profit, assets, and equity (Yuwono et al., 2025).

RESULT AND DISCUSSION

Validity test and discriminant validity are ascertained using the value of the loading factor, whereas discriminant validity is tested using the value of average variance extracted. Having tested the validity for SMM, TC, and MSME performance, the findings indicate that all SM indicator possesses a value of the loading factor above 0.70. The extracted findings have Average Variance Extracted (AVE) values of 0.693, 0.849, and 0.916, respectively, all above the cutoff value of 0.50. This tool is reliable. Reliability testing is conducted by looking at the composite reliability (CR) value. The composite reliability (CR) values for the SMM, TC, MSMEs Performance variables in this study are 0.871, 0.975, and 0.978, respectively. The values confirm that all the variables are reliable as they are all above the 0.70 threshold. The values in Table 2 confirm the tool is reliable.

Table 1. Data Quality Test

Variable	Item	Loading Factor	Result	CR	AVE	Result
Social media marketing	SMM1	0.858	Valid	0.871	0.693	Reliable
	SMM2	0.772				
	SMM3	0.864				
Technological Capability	TC1	0.894		0.975	0.849	
	TC2	0.910				
	TC3	0.927				
	TC4	0.957				
	TC5	0.948				

Variable	Item	Loading Factor	Result	CR	AVE	Result
MSMEs Performance	TC6	0.949		0.978	0.916	
	TC7	0.861				
	MSMEs1	0.958				
	MSMEs2	0.974				
	MSMEs3	0.936				
	MSMEs4	0.960				

Source: Authors' own work

Figure 2 illustrates the structural model assessment-based hypothesis testing process. Figure 2 is an outgrowth of bootstrapping tests that were performed by way of 500 resamplings using the SmartPLS 3.0 computer software program. Figure 2 shows that in this research, there are several hypotheses to be verified through empirical data collected in the field. Social media marketing has a substantial impact on the MSMEs Performance. SMM influences MSMEs performance through the mediation of TC.

Table 2. Dirrect Effect

Dirrect Effect	Sample Mean	T-Statistic	T-Critical	Result
H1 SMM → MSMEs performance	-0.271	2.804	1.978	Rejected Null Hypotheses
H2 SMM → TC	0.590	9.148		
H3 TC → MSMEs performance	0.395	3.642		

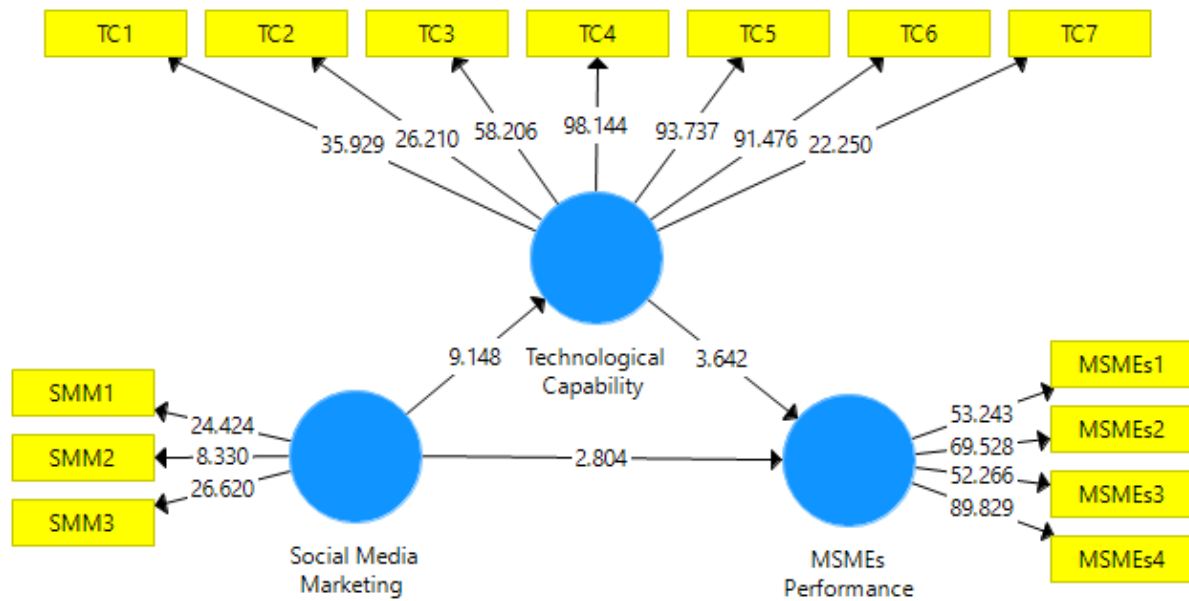
Source: Authors' own work

Table 3. Indirrect Effect

Hypotheses	Mediation
Indirect Effect (T-Statistic)	TC
SMM and MSMEs performance	3.567

Source: Authors' own work

The results of this study are presented in Tables 2 and 3. The impact of SMM on MSMEs performance is statistically significant ($t = 2.804 > 1.978$). The impact of SMM on TC is statistically significant ($t = 9.418 > 1.978$). The direct impact of TC on MSMEs performance is statistically significant ($t = 3.642 > 1.978$). Additionally, Table 4 examines the impact of the mediating variable (TC) on SMM and MSMEs performance ($t = 3.567 > 1.978$). The results validate the aforementioned hypothesis. Null hypothesis of zero increased MSMEs performance is rejected.



Source: Authors' own creation

Figure 2. Structural equation modeling results

DISCUSSION

The study's empirical findings support that the application of social media in marketing activities, information access, and customer engagement has a favorable impact on the performance of MSMEs. MSMEs who use social media to market their products gain visibility in the marketplace and can leverage real-time information to guide product and price decisions. Direct online linking enhances stronger customer relationships, repeat buys, and advocacy can optimize MSME profits. These results align with Deku et al. (2024) study, which mentioned that digital marketing usage has a positive effect on SMEs business management performance.

SMM also greatly enhances the TC of MSMEs. Firms using social media tools can evolve to create better competitive technology strategies by benchmarking innovation, constructing technological know-how, adopting new digital technologies, connecting new trends in technology, linking internal and external technological sources through web-based collaboration, sourcing in and pozing best talent from professional networks, and continually improving based on instant feedback. These findings are in line with Wang et al. (2017), who argue that an organization's social media competence is based on an advanced comprehension of the firm's TC. TC has a direct correlation with MSME performance through sales growth, profit, assets, and equity since companies with superior technology strategies and expertise can maximize operations, import value-added goods, and switch quickly to accommodate market changes.

For instance, the availability of front-end monitoring technology and systems lowers the cost of manufacturing (increasing margins) and offers new sources of sales that fuel top-line growth. Likewise, the utilization of internal and external capabilities and attraction of finest technical professionals enhance asset efficiency and create equity by spearheading ongoing innovation. These findings are consistent with Salisu & Abu Bakar (2019), who present that TC allows companies to notice, obtain, and leverage new external knowledge to build operating competences

that can lead to excellent company performance. The results of the mediation analysis show that SMM affects MSMEs performance through the TC of MSMEs.

This implies that through engagement in marketing activity on web-based social media sites, gaining access to real-time information on technology, and online interactions with consumers, MSMEs will be able to upgrade their competitive technology strategy, promote their operating expertise, implement innovations to resolve challenges, keep abreast of new emerging trends in technology, integrate inner and outer resources, win the services of leading experts, and enjoy non-stop improvement, thus maximizing MSME sales, revenues, assets, and capital. This practice is consistent with Marolt et al.'s (2022) evidence that relational social trading ability is a mediator between social media use and competitive success, and Wang et al.'s (2017), who observed that the social media capacity of a firm depends on complete understanding of the firm's TC.

CONCLUSION

The findings of this research indicate that TC completely mediates SMM's effect on the performance of Indonesian MSME in Central Java. Introducing competitive technology strategies, experience, implementation of innovation, environmental monitoring, resource integration, attracting talents, and continuous improvements into an overall process for Indonesian MSME in Central Java is able to enhance sales growth, profitability, assets, and equity.

Limitations of the research are our dependence on data from a single geographic area that can constrain causal inference and external validity of the results. To overcome these limitations, future research would be better served by employing the use of a longitudinal or experimental design and a greater geographic sample. Conceptually, we enrich dynamic capability (Teece et al., 1997) by empirically constructing TC as a key mediator by social media marketing to MSMEs performance. MSMEs ought to invest in social media platforms for advertising, create in-house capabilities, produce technology watch systems, and participate in technology alliances with outside stakeholders. Other activities or mediators can be examined in subsequent research, like customer experience or interaction (Mohd-Ramly & Omar, 2017).

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