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ENHANCING THE PERFORMANCE OF NEWLY ESTABLISHED MSMEs THROUGH ENTREPRENEURIAL ORIENTATION AND DIGITALIZATION

ABSTRACT

This study examines the impact of entrepreneurial orientation, opportunity recognition, opportunity exploitation, and social media adoption on the performance of newly established MSMEs in West Java, Jakarta, and Lampung. Using a mixed-method approach, quantitative data from 523 MSMEs were analyzed with PLS-SEM, while in-depth interviews with six MSMEs explored financial literacy's role in enhancing entrepreneurial orientation and business performance. The results confirm that entrepreneurial orientation significantly improves MSME performance by fostering innovation, risk-taking, and proactive strategies. It also enhances social media adoption, enabling businesses to expand market reach, strengthen brand positioning, and increase customer engagement. Opportunity recognition and exploitation further drive competitive advantage and market sustainability. Financial literacy plays a crucial role in optimizing resource allocation, risk management, and strategic investment decisions. Moreover, social media serves as both a marketing tool and a financial learning platform, supporting informed decision-making. This study contributes to entrepreneurial research by integrating financial literacy into entrepreneurial orientation, demonstrating its significance in strengthening MSME resilience and growth. Managerial implications emphasize the need for MSME leaders to foster entrepreneurial orientation, integrate digital strategies, and enhance financial literacy through targeted education programs. Policymakers should support MSMEs with financial and digital training initiatives to improve competitiveness. Limitations include the study's focus on newly established MSMEs and reliance on self-reported data, suggesting future research on diverse business sizes, longitudinal analysis, and the effectiveness of digital financial tools.

Keywords: entrepreneurial orientation, opportunity recognition, opportunity exploitation, social media, MSMEs performance, financial literacy

JEL Classification: L21, L25, L26, M13, M21

INTRODUCTION

The rapid advancement of digital technology and globalization presents both opportunities and challenges for micro, small, and medium enterprises (MSMEs) in Indonesia, a sector that plays a pivotal role in the national economy. MSMEs account for 99% of all business units in the country, contributing 60.5% to GDP and absorbing 96.9% of the national workforce (Limanseto, 2022). This highlights their crucial role in fostering economic stability (Setiawan et al., 2024). Despite their potential, many MSMEs face difficulties competing in increasingly dynamic markets due to limited access to technology, financial resources, and adaptive innovations, all of which significantly impact their competitiveness and performance (Fizzanty, 2024; Saifurrahman & Kassim, 2024).

Entrepreneurial orientation has emerged as an effective strategy to address these challenges and enhance MSME performance. Entrepreneurial orientation encompasses the degree to which organizations embrace innovation, proactiveness, and risk-taking. It fosters creativity, facilitates innovation, and enables MSMEs to respond proactively to market changes. Evidence suggests that entrepreneurial orientation significantly en-

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hances MSMEs' ability to identify and capitalize on new opportunities, especially in dynamic market environments (Mathafena & Msimango-Galawe, 2023). Moreover, entrepreneurial orientation enables resource-constrained MSMEs to manage their resources more creatively and flexibly (Setiawan et al., 2024), leading to improved business outcomes (Tambunan, 2019).

In addition to entrepreneurial orientation, the proliferation of digital technology, particularly social media, has opened new avenues for MSMEs to reach broader markets. Social media platforms like Instagram, Facebook, TikTok, and WhatsApp are increasingly utilized for marketing, promotion, and sales, providing MSMEs with tools to interact directly with customers, build closer relationships, respond promptly to consumer needs, and enhance brand visibility (Susanto et al., 2023; Anim et al., 2024). Social media adoption has thus emerged as a crucial mediating factor linking EO to improved MSME performance (Aftab et al., 2024; Fan et al., 2021).

Entrepreneurial orientation in MSMEs encompasses innovation, proactiveness, and risk-taking behaviours essential for business growth and competitiveness. However, inadequate financial literacy among MSME owners and managers can impede the effective manifestation of entrepreneurial orientation. Financial literacy equips entrepreneurs with the knowledge and skills to manage financial resources efficiently, make informed decisions, and access external financing. Without this competence, MSMEs may struggle with cash flow management, budgeting, and financial planning, leading to suboptimal decision-making and constrained innovation. Moreover, limited financial understanding can hinder MSMEs' ability to secure funding, as they may be unable to present credible financial statements or comprehend financing options, thereby restricting their capacity to undertake entrepreneurial initiatives. Empirical studies have underscored the positive correlation between financial literacy and MSME performance, suggesting that enhancing financial literacy is pivotal for fostering entrepreneurial orientation and ensuring the sustainability of MSMEs (Hamdana et al., 2021; IS et al., 2024; Molina-García et al., 2023). Financial literacy is a key factor in strengthening the impact of entrepreneurial orientation on MSME performance. Entrepreneurial orientation fosters innovation, proactiveness, and risk-taking, but its effectiveness depends on the financial knowledge of MSME owners (Hamdana et al., 2021). Financial literacy enhances cash flow management, investment decisions, and resource allocation, amplifying the benefits of entrepreneurial orientation on financial performance (IS et al., 2024). Additionally, it improves access to external funding, mitigates financial risks, and ensures long-term business stability (Molina-García et al., 2023). Thus, integrating financial literacy into entrepreneurial strategies is crucial for maximizing MSME growth and sustainability.

Entrepreneurial orientation significantly enhances the performance of MSMEs, particularly in financial aspects, by fostering innovation, proactiveness, and risk-taking. Entrepreneurial orientation enables MSMEs to identify market opportunities, develop competitive advantages, and adapt to changing business environments, leading to improved resource allocation, strategic decision-making, and ultimately, higher profitability and growth (Hamdana et al., 2021). Financial performance improvements driven by entrepreneurial orientation stem from increased access to finance, revenue diversification, and optimized cost management, as MSMEs with strong entrepreneurial orientation are more likely to attract investment and financing due to their strategic planning and market responsiveness (IS et al., 2024). Moreover, financial literacy plays a critical role in amplifying entrepreneurial orientation's impact, as MSME owners with financial knowledge can leverage their entrepreneurial capabilities more effectively to enhance profitability. Additionally, entrepreneurial orientation fosters agility, enabling MSMEs to adapt quickly to economic fluctuations and consumer preferences, thereby ensuring financial stability and long-term sustainability (Molina-García et al., 2023). Strengthening entrepreneurial orientation, coupled with financial literacy, is essential for MSMEs to achieve sustained financial success in competitive markets.

Extant research on the relationship between entrepreneurial orientation and business performance, profitability, and competitive advantage often draws on resource-based views (RBV) and organizational theory. However, these frameworks may be insufficient to capture the unique challenges faced by MSMEs in developing economies, where entrepreneurial competencies, resource availability, and market dynamics differ significantly from those in developed nations (Anwar et al., 2022). In developing countries, MSMEs encounter more pronounced barriers across various domains, complicating their efforts to recognize and exploit opportunities. Limited financial literacy further exacerbates these challenges, restricting MSME owners' ability to manage cash flow, secure external financing, and make informed investment decisions. As a result, the full potential of entrepreneurial orientation remains unrealized, hindering business expansion and long-term sustainability. Digitalization presents a viable solution by providing MSMEs with accessible financial education, digital financial tools, and data-driven decision-making capabilities. Through fintech innovations and digital platforms, MSMEs can enhance financial literacy, improve financial management, and strengthen their entrepreneurial orientation to drive sustainable growth.

Although entrepreneurial orientation has gained increasing attention, its influence in promoting the identification and utilization of opportunities to improve the success of newly established MSMEs in emerging economies has received limited

focus. Additionally, the role of social media innovations in the development of new MSMEs within these environments remains underexamined. Previous research (e.g., Susanto et al., 2023) has pointed out the limitations of applying theories from developed economies to the distinct realities of developing nations, emphasizing the need for a more comprehensive understanding of local challenges. Without these insights, both researchers and practitioners may misinterpret the complexities present in developing markets. Studies examining the financial and non-financial performance of newly established MSMEs through entrepreneurial orientation and digitalization remain scarce. Despite the growing relevance of digital technologies in enhancing business performance, limited empirical research has explored how digitalization interacts with entrepreneurial orientation to drive MSME success. A deeper understanding of these dynamics is essential for identifying strategies that foster sustainable growth and competitiveness. Therefore, further comprehensive research is crucial to bridge this gap and provide valuable insights for both academia and industry.

To address these critical gaps, this study investigates the linkages among entrepreneurial orientation, opportunity recognition, opportunity exploitation, and social media adoption, and their collective impact on MSME performance in Indonesia. Furthermore, this study highlights the crucial role of financial literacy in shaping entrepreneurial orientation, which in turn enhances MSME performance through digitalization. A strong financial literacy foundation enables MSMEs to make informed strategic decisions, effectively allocate resources, and maximize the benefits of digital transformation. In particular, financial literacy enhances MSME owners' ability to leverage social media adoption for marketing, customer engagement, and business expansion. By exploring the interplay between entrepreneurial orientation and social media innovations, this study essentially offers both theoretical and practical contributions to the literature on entrepreneurship and digital marketing, particularly in the context of MSMEs in developing economies like Indonesia. The findings are expected to provide actionable insights for MSME practitioners in formulating strategies that are more adaptive to the evolving digital landscape.

LITERATURE REVIEW

Entrepreneurial Orientation and Financial Literacy

Entrepreneurial orientation and financial literacy are crucial determinants of MSME performance, shaping their ability to innovate, take risks, and respond proactively to market dynamics. Hamdana et al. (2021) highlight that entrepreneurial orientation alone is insufficient to drive MSME success without adequate financial literacy. MSME owners must possess financial knowledge to effectively manage resources, make strategic decisions, and secure external funding. Without these competencies, entrepreneurial efforts may be hindered by poor financial planning, cash flow mismanagement, and limited access to financial support.

Financial literacy plays a vital role in enhancing MSME owners' ability to assess financial risks and optimize capital utilization. IS et al. (2024) emphasize that a strong financial foundation allows entrepreneurs to navigate credit markets, evaluate investment opportunities, and sustain business growth. Inadequate financial literacy, on the other hand, often results in inefficient capital allocation and difficulties in securing funding from financial institutions. This knowledge gap can ultimately restrict the ability of MSMEs to expand, innovate, and maintain long-term viability.

Furthermore, Molina-García et al. (2023) argue that financial literacy strengthens business resilience by equipping MSME owners with the necessary skills to mitigate financial distress. Entrepreneurs with higher financial literacy levels are better prepared to handle economic uncertainties, adapt to changing financial environments, and maintain profitability. In addition, financial literacy enhances the effectiveness of digital financial tools, enabling MSMEs to leverage technology for more efficient financial transactions and record-keeping. This integration of financial literacy with digitalization contributes to better decision-making and operational efficiency.

The role of financial literacy extends beyond traditional financial management and directly influences MSME adoption of social media for business growth. MSMEs with strong financial knowledge can allocate budgets effectively for digital marketing, optimize advertising strategies, and track return on investment. However, limited financial literacy can lead to poor financial decision-making regarding digital adoption, ultimately constraining business expansion. Ensuring that MSMEs possess financial literacy is essential for leveraging digital tools and platforms to enhance market reach and competitiveness.

Financial literacy significantly enhances the impact of entrepreneurial orientation on MSME performance by improving financial decision-making, access to funding, and business sustainability (Hamdana et al., 2021). Without sufficient financial knowledge, MSME owners may face challenges in capitalizing on entrepreneurial opportunities and navigating financial complexities. By integrating financial literacy into MSME development strategies, policymakers, financial institutions, and business educators can foster a more resilient and adaptive entrepreneurial ecosystem. Strengthening financial literacy

programs tailored to MSMEs is essential for supporting innovation, digital adoption, and long-term growth. Therefore, a holistic approach that combines entrepreneurial orientation with financial literacy is crucial for maximizing MSME success in an increasingly digital and competitive business landscape.

Entrepreneurial Orientation and Newly Established MSMEs Performance

Entrepreneurial orientation has been widely recognized as a critical factor influencing firm performance, particularly in newly established MSMEs (Anim et al., 2024; Lumpkin & Pidduck, 2021). Characterized by innovativeness, proactiveness, and risk-taking, entrepreneurial orientation enables firms to identify and exploit opportunities in dynamic and competitive markets (Pulka et al., 2021). These dimensions collectively drive MSMEs to adopt strategic behaviours that enhance adaptability and resilience in uncertain environments.

Empirical studies have consistently demonstrated a positive relationship between entrepreneurial orientation and MSME performance. Pulka et al. (2021) found that entrepreneurial orientation fosters the development of entrepreneurial competencies essential for navigating challenges faced by new ventures. Aftab et al. (2024) highlighted that entrepreneurial orientation equips MSMEs with the ability to respond effectively to environmental dynamism, improving performance outcomes. This suggests that entrepreneurial orientation not only encourages innovation but also helps firms align their strategies with market demands.

Additionally, Susanto et al. (2023) emphasized the role of entrepreneurial orientation in leveraging marketing capabilities and utilizing social media innovations. Their findings suggest that MSMEs with high entrepreneurial orientation are more adept at engaging customers and expanding market reach, thus improving performance. Similarly, Kusa, Duda & Suder (2021) argued that entrepreneurial orientation enhances opportunity recognition and exploitation, which are critical for the growth and survival of new ventures in resource-constrained settings. These studies underscore the strategic importance of entrepreneurial orientation in driving performance through proactive and innovative approaches.

In the context of newly established MSMEs, the ability to act entrepreneurially is particularly vital. These firms often face significant resource limitations and market uncertainties. Entrepreneurial orientation enables them to mitigate these challenges by fostering a culture of innovation, strategic foresight, and calculated risk-taking. Consequently, MSMEs with a strong entrepreneurial orientation are better positioned to achieve superior performance outcomes compared to their less entrepreneurial counterparts.

Based on these insights, this study argues that entrepreneurial orientation positively influences the performance of newly established MSMEs. This leads to the formulation of the following hypothesis:

H1: Entrepreneurial orientation has a positive and significant impact on newly established MSME's performance.

Entrepreneurial Orientation and Social Media Adoption

Entrepreneurial orientation also plays a significant role in driving the adoption of social media technologies (Anim et al., 2024). Social media platforms provide MSMEs with cost-effective tools to engage customers, promote products, and expand their market presence. Studies have highlighted the direct relationship between entrepreneurial orientation and social media adoption. Fan et al. (2021) demonstrated that MSMEs with high entrepreneurial orientation are more likely to adopt social media as part of their strategic initiatives due to their proclivity for innovation and responsiveness to technological advancements. Similarly, Susanto et al. (2023) found that entrepreneurial orientation fosters the integration of social media into marketing practices, enabling MSMEs to enhance customer interaction and improve operational efficiency.

Fang et al. (2022) extended these findings by showing that entrepreneurial orientation-driven MSMEs not only adopt social media more readily but also leverage its capabilities to foster innovation and market adaptability. Their study underscores the role of entrepreneurial orientation in shaping organizational behaviour toward embracing digital tools, critical for sustaining competitiveness in emerging economies. The innovative and proactive nature of entrepreneurial orientation aligns closely with the dynamic features of social media, making it a natural extension of entrepreneurial strategies.

Given the alignment between entrepreneurial orientation and the strategic value of social media, we posit that MSMEs with higher entrepreneurial orientation are more inclined to adopt social media technologies as part of their operational and marketing efforts. Thus, this study proposes the following hypothesis:

H2: Entrepreneurial orientation has a positive and significant impact on social media adoption in newly established MSMEs.

Entrepreneurial Orientation and Opportunity Recognition

Entrepreneurial orientation significantly influences opportunity recognition, a critical process in the entrepreneurial journey (Anim et al., 2024). Opportunity recognition refers to the ability to identify viable business opportunities in the environment. Entrepreneurial orientation fosters a proactive and innovative mindset, equipping entrepreneurs to detect and exploit opportunities effectively. Anwar et al. (2022) demonstrated that entrepreneurial orientation positively impacts opportunity recognition, mediating its effect on the success of startups in developing economies. They suggested that companies with a robust entrepreneurial orientation are more capable of spotting market opportunities and creating innovative solutions.

Ma and Yang (2022) further supported this by highlighting entrepreneurial orientation's role in facilitating entrepreneurial bricolage and opportunity recognition. Their study on Chinese new ventures revealed that entrepreneurial orientation enables entrepreneurs to creatively combine limited resources and uncover opportunities that others might overlook. This is particularly valuable in resource-constrained environments where traditional approaches may not suffice.

Similarly, Anim et al., (2024) emphasized that entrepreneurial orientation enhances MSMEs' capacity to leverage social media for opportunity recognition. Their findings suggest that MSMEs with high entrepreneurial orientation are more attuned to emerging market trends and customer needs, enabling them to identify and capitalize on new opportunities effectively. This aligns with the proactive and risk-taking dimensions of entrepreneurial orientation, encouraging exploration and innovative solutions.

Based on these insights, this study argues that entrepreneurial orientation positively influences opportunity recognition by fostering a mindset focused on innovation, proactiveness, and adaptability. Thus, the following hypothesis is proposed:

H3: Entrepreneurial orientation has a positive and significant impact on opportunity recognition in newly established MSMEs.

Entrepreneurial Orientation and Opportunity Exploitation

Entrepreneurial orientation also plays a vital role in opportunity exploitation, referring to the process of leveraging identified opportunities to create value (Anim et al., 2024). Entrepreneurial orientation fosters a proactive and risk-tolerant mindset, enabling firms to act decisively and implement strategies that transform opportunities into tangible outcomes. Mathafena & Msimango-Galawe (2023) highlighted that entrepreneurial orientation enhances opportunity exploitation by emphasizing innovation and market orientation, driving firms to develop and implement strategies for capitalizing on market gaps.

Makhloufi et al., (2024) demonstrated that entrepreneurial orientation, combined with absorptive capacity, facilitates MSMEs' ability to exploit opportunities effectively. Their findings suggest that entrepreneurial orientation promotes strategic agility and resource reconfiguration, enabling firms to maximize the potential of identified opportunities. This is particularly valuable in dynamic markets where swift action is crucial for maintaining competitiveness.

Similarly, Anim et al., (2024) emphasized entrepreneurial orientation's role in leveraging social media and other technological tools for opportunity exploitation. Their findings suggest that MSMEs with high entrepreneurial orientation are more adept at transforming opportunities into performance gains by employing innovative approaches and leveraging networks. These findings highlight the importance of entrepreneurial orientation in fostering an action-oriented mindset that prioritizes resource utilization and strategic decision-making.

This study argues that entrepreneurial orientation positively influences opportunity exploitation by enabling firms to act decisively and strategically in transforming opportunities into value. Therefore, we propose the following hypothesis:

H4: Entrepreneurial orientation has a positive and significant impact on opportunity exploitation in newly established MSMEs

Opportunity Recognition and Newly Established MSMEs Performance

Opportunity recognition plays a critical role in driving the performance of newly established MSMEs. It refers to the process of identifying viable business opportunities in the market, essential for growth and competitive advantage. Hartono and Ardini (2022) emphasized that opportunity recognition significantly influences MSME performance by aligning strategies with market demands and customer preferences. Their study highlights that the ability to identify opportunities is particularly valuable in dynamic, competitive environments.

Similarly, Anim et al., (2024) found that opportunity recognition mediates the relationship between entrepreneurial orientation and MSME performance. They argued that firms with strong opportunity recognition capabilities are better equipped to respond to market changes and leverage emerging trends for competitive advantage. This ability is critical for newly

established MSMEs, which often operate in resource-constrained settings and require strategic agility to survive and grow (Anim et al., 2024).

Zhang and Li (2021) provided further evidence, showing that sustainable opportunity recognition positively impacts the performance of agricultural ventures in China. Their findings suggest that recognizing opportunities enables firms to innovate and adapt their business models to meet evolving market needs, driving short-term performance gains and long-term sustainability.

This study argues that opportunity recognition positively influences the performance of newly established MSMEs by enabling them to identify and capitalize on market opportunities. Thus, the following hypothesis is proposed:

H5: Opportunity recognition has a positive and significant impact on the performance of newly established MSMEs

Opportunity Exploitation and Newly Established MSMEs Performance

Opportunity exploitation, which involves leveraging identified opportunities through strategic actions, plays a crucial role in improving the performance of newly established MSMEs. Effective opportunity exploitation enables firms to maximize value creation by transforming opportunities into tangible outcomes such as increased revenue, market share, and competitive advantage (Anim et al., 2024). Newly established MSMEs, operating in dynamic and resource-constrained environments, benefit from strategic opportunity exploitation, as it allows them to optimize limited resources and develop innovative solutions tailored to market needs.

The relationship between opportunity exploitation and performance is emphasized in the context of positive affect and entrepreneurial alertness. Levasseur et al., (2020) highlight that opportunity exploitation, when coupled with heightened alertness and proactive behaviours, significantly enhances a firm's ability to innovate and adapt to changing market conditions. These capabilities are especially critical for MSMEs navigating the complexities of emerging markets.

Additionally, proactive market strategies underpin the importance of opportunity exploitation in achieving superior performance. Brege and Kindström (2020) argue that firms that actively exploit opportunities by aligning strategies with market trends and customer demands are more likely to achieve sustained growth and success. This perspective is particularly relevant for newly established MSMEs, which often face intense competition and need to act decisively to capitalize on emerging opportunities (Anim et al., 2024).

In light of these insights, it can be hypothesized that:

H6: Opportunity exploitation has a positive and significant impact on the performance of newly established MSMEs.

Social Media Adoption and Newly Established MSMEs Performance

The adoption of social media technologies has emerged as a critical driver of performance improvement for newly established MSMEs (Munawar et al., 2024). Social media platforms provide an accessible and cost-effective means for firms to engage customers, enhance brand visibility, and improve operational efficiency. Anim et al., (2024) highlighted that social media adoption enables MSMEs to reach broader markets, build customer relationships, and respond dynamically to market trends. Their study underscores the pivotal role of social media in enhancing performance for firms operating in resource-constrained and competitive environments. Social media adoption can serve as a solution for improving financial literacy among MSMEs by providing access to educational content, financial management tools, and real-time market insights. Platforms like YouTube, Instagram, and LinkedIn offer financial literacy resources, including tutorials, expert discussions, and digital financial planning strategies that help MSME owners make informed decisions. Additionally, social media facilitates peer learning and networking, enabling entrepreneurs to share best practices, gain insights from industry leaders, and adopt innovative financial management approaches to enhance business sustainability.

Similarly, Ahmad et al., (2019) demonstrated that social media adoption significantly improves firm performance by facilitating customer engagement, increasing sales, and streamlining communication processes. This aligns with Wulandari et al., (2020), who identified social media as a strategic tool for newly established MSMEs to overcome traditional market barriers and achieve sustainable growth. By leveraging social media, newly established MSMEs can access real-time market insights, tailor offerings to customer preferences, and foster innovation.

The integration of social media into business operations also enhances the strategic capabilities of newly established MSMEs (Anim et al., 2024). Social media platforms enable firms to gather and analyze customer feedback, identify emerging trends, and refine marketing strategies. This adaptability is particularly beneficial for newly established MSMEs operating in dynamic and unpredictable markets. The proactive use of social media supports the development of competitive advantages, contributing to long-term performance improvements.

Given the substantial benefits associated with social media adoption, this study argues that its implementation positively influences the performance of newly established MSMEs. Thus, the following hypothesis is proposed:

H7: Social media adoption has a positive and significant impact on the performance of newly established MSMEs

AIMS AND OBJECTIVES

This study aims to investigate the linkages among entrepreneurial orientation, opportunity recognition, opportunity exploitation, and social media adoption, and their collective impact on the performance of newly established MSMEs in Indonesia, focusing on three provinces: West Java, Jakarta, and Lampung. It explores how entrepreneurial orientation, characterized by innovation, proactivity, and risk-taking, drives the adoption of digital tools, facilitates the identification and utilization of business opportunities, and enhances MSME performance. Additionally, the study examines the role of social media adoption in improving service quality, expanding market reach, enhancing customer engagement, and strengthening brand reputation. Opportunity recognition and exploitation are also assessed for their ability to align MSME strategies with market trends, boosting market share and customer loyalty. By integrating entrepreneurial and digital strategies, this research provides new insights into how these factors synergize to foster growth and competitiveness in developing economies. It also highlights the limitations of existing studies and calls for future research to address broader contexts and adopt more diverse data collection methods to improve the generalizability and applicability of findings.

METHODS

The primary data for this study were collected through an online questionnaire distributed via Google Forms. The questionnaire utilized a Likert scale (1 = Strongly Disagree to 5 = Strongly Agree), with measurement items for each variable outlined in Table 1. The study population comprised 2,154 MSMEs participating in the Self-Employed Workforce program by the Ministry of Manpower of the Republic of Indonesia, located in West Java, Jakarta, and Lampung. A total of 523 MSMEs responded, yielding a margin of error of 3.2% ($P = 2,154, z = 1.960, n = 523, \hat{p} = 0.243$).

Table 1. Measurement.

Variable	Item	Source
Entrepreneurial orientation	Tendency for innovation and novelty	Lumpkin, and Pidduck, (2021); Anim et al., (2024)
	Proactively drives market responses	
	Financial literacy-driven risk-return preference	
	Desire for market leadership	
	Frequent new product introductions	
Opportunity recognition	Interest in innovative business strategies	Anim et al., (2024)
	Frequent identification of business opportunities	
	Generated numerous business ideas recently	
	Identifies potential product/service ideas	
	Explores gaps in the market environment	
Opportunity exploitation	Established organization for business opportunity	Mathafena and Msimango-Galawe, (2023); Anim et al., (2024)
	Developed new market from opportunity	
	Formed a team for the identified opportunity	
	Secured funding through financial literacy	
	Consistently capitalizes on business opportunities	

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Table 1. Continued.

Variable	Item	Source
Social media adoption	Social media aids marketing research	Anim et al., (2024); Susanto et al., (2023)
	Social media facilitates referral acquisition	
	Social media supports product/service promotion	
	Social media supports customer service delivery	
	Persistent use of social media channels	
MSMEs performance	Enhanced service quality	Anim et al., (2024)
	Market expansion with net profit growth	
	Customer engagement growth	
	Customer retention and loyalty growth	
	Company/brand exposure and reputation increase	

Convenience sampling, a non-random sampling technique, was employed to gather data from accessible and willing respondents. The questionnaire was disseminated online to program participants through group coordinators using internet-based instant messaging applications, ensuring efficient distribution given time, accessibility, and logistical constraints. To complement the survey data, two MSMEs from each region—West Java, Jakarta, and Lampung—were voluntarily selected for in-depth interviews. These interviews aimed to explore their efforts in improving financial literacy and how such initiatives enhance their entrepreneurial orientation in shaping both financial and non-financial performance. Through this qualitative approach, the study sought to gain deeper insights into the practical strategies MSMEs employ to strengthen financial decision-making, manage risks, and leverage digital tools for business growth. The findings from these interviews provide a nuanced understanding of the role of financial literacy in fostering entrepreneurial agility and long-term sustainability within MSMEs.

The study hypotheses were tested using Partial Least Squares Structural Equation Modelling (PLS-SEM), a robust statistical approach commonly applied to examine complex predictive models and latent variable relationships. Data analysis was conducted using SmartPLS version 4.0, a software specifically designed for PLS-SEM computations, offering detailed insights into both measurement and structural model evaluations.

RESULTS

Respondent's profile

The MSME profile in this study provides several key insights (Table 2). Women slightly outnumber men as business owners, reflecting a relatively balanced gender distribution. Most entrepreneurs fall within the age range of 28–43 years, indicating that the sector is predominantly driven by individuals in their most productive years. The majority have completed senior high school, suggesting that while higher education is less prevalent, basic education remains critical for business operations.

Category	f	%
Gender		
Female	275	52.6
Male	248	47.4
Age		
17 – 27 years old	125	23.9
28 – 43 years old	242	46.3
44 – 59 years old	155	29.6
60 years above	1	.2
Formal education		
Elementary School Graduate	28	5.4

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Table 2. Continued.

Category	f	%
Junior High School Graduate	117	22.4
Senior High School Graduate	271	51.8
Diploma Graduate	15	2.9
Bachelor's Degree Graduate	86	16.4
Master's Degree Graduate	6	1.1
Business Sector		
Commerce	219	41.9
Services	41	7.8
Food and Beverage	133	25.4
Agriculture, Forestry, and Fisheries	103	19.7
Manufacturing or Production	27	5.2
Year of Business Establishment		
2013 – 2014	40	7.65
2015 – 2017	42	8.03
2018 – 2020	109	20.84
2021 – 2023	180	34.42
2024	152	29.06

Commerce emerges as the dominant sector, followed by food and beverage and agriculture, underscoring the economic significance of these industries to the local community. A notable proportion of businesses were established within the last three years, indicating a dynamic and evolving entrepreneurial landscape shaped by emerging opportunities and challenges.

These findings highlight the diversity, resilience, and adaptability of the MSME sector, emphasizing its role in fostering economic growth and responding to local needs.

Confirmatory Factor Analysis

The confirmatory factor analysis (CFA) results validate the robustness of the measurement model, confirming the reliability and validity of all constructs in the study (Table 3). Entrepreneurial orientation captures the innovative, proactive, and risk-taking behaviours of MSMEs, as evidenced by consistently high factor loadings across its indicators, underscoring its relevance as a cohesive construct. This orientation is reflected in the tendency for innovation and novelty, as MSMEs proactively drive market responses, make financial literacy-driven risk-return preferences, and pursue a desire for market leadership through frequent new product introductions. Similarly, opportunity recognition is strongly validated, reflecting MSMEs' ability to identify and evaluate market opportunities, while opportunity exploitation highlights its critical role in transforming identified opportunities into tangible business outcomes.

Table 3. Evaluation of the measurement model.

Items	Loadings	Cronbach's alpha	Composite Reliability (CR)	Average variance extracted (AVE)
Entrepreneurial Orientation (EO)		0.942	0.956	0.813
eo1	0.891			
eo2	0.891			
eo3	0.823			
eo4	0.937			
eo5	0.960			
Opportunity Recognition (OR)		0.975	0.975	0.908

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Table 3. Continued.

Items	Loadings	Cronbach's alpha	Composite Reliability (CR)	Average variance extracted (AVE)
or1	0.952			
or2	0.952			
or3	0.962			
or4	0.940			
or5	0.960			
Opportunity Exploitation (OE)		0.962	0.964	0.867
oe1	0.947			
oe2	0.920			
oe3	0.924			
oe4	0.957			
oe5	0.907			
Social Media Adoption (SMA)		0.967	0.970	0.884
sma1	0.952			
sma2	0.920			
sma3	0.963			
sma4	0.935			
sma5	0.930			
MSMEs Performance (PER)		0.961	0.963	0.866
per1	0.921			
per2	0.941			
per3	0.903			
per4	0.933			
per5	0.953			

Social media adoption is shown to be a well-defined construct, emphasizing the strategic integration of digital platforms by MSMEs to enhance market presence, customer engagement, and operational efficiency. Lastly, MSMEs' performance is reliably measured, encompassing dimensions such as financial performance, customer satisfaction, and overall competitiveness.

These findings confirm the appropriateness of the constructs in capturing the multidimensional dynamics of entrepreneurial activities and MSMEs' performance, providing a robust foundation for subsequent structural model analysis.

The discriminant validity (Table 4) and cross-loadings analysis (Table 5) confirm the distinctiveness of the constructs in the study and their alignment with the theoretical framework. Discriminant validity, assessed using the Fornell-Larcker criterion, indicates that the square roots of the Average Variance Extracted (AVE) for all constructs exceed their correlations with other constructs, confirming the constructs' unique identities. Entrepreneurial Orientation (EO) shows moderate correlations with Opportunity Recognition (OR), Opportunity Exploitation (OE), Social Media Adoption (SMA), and newly established MSME performance (PER), highlighting its central but distinct role in the model. Similarly, OR, OE, SMA, and PER maintain high internal consistency and low correlations with other constructs, further supporting their discriminant validity.

Table 4. Discriminant Validity.

Variable	EO	OR	OE	SMA	PER
EO	0.901				
OR	0.631	0.953			
OE	0.614	0.625	0.931		
SMA	0.607	0.636	0.602	0.940	
PER	0.614	0.611	0.589	0.592	0.930

Table 5. Cross Loadings.

	EO	OR	OE	SMA	PER
eo1	0.891	0.541	0.512	0.524	0.524
eo2	0.891	0.482	0.486	0.475	0.482
eo3	0.823	0.617	0.555	0.563	0.545
eo4	0.937	0.602	0.610	0.586	0.610
eo5	0.960	0.581	0.586	0.571	0.588
or1	0.616	0.952	0.609	0.620	0.594
or2	0.605	0.952	0.609	0.619	0.587
or3	0.614	0.962	0.611	0.611	0.591
or4	0.583	0.940	0.565	0.582	0.561
or5	0.587	0.960	0.583	0.601	0.578
oe1	0.610	0.564	0.947	0.559	0.583
oe2	0.541	0.534	0.920	0.513	0.505
oe3	0.537	0.587	0.924	0.566	0.521
oe4	0.602	0.580	0.957	0.567	0.575
oe5	0.562	0.645	0.907	0.598	0.553
sma1	0.607	0.590	0.583	0.952	0.582
sma2	0.518	0.590	0.538	0.920	0.521
sma3	0.591	0.612	0.578	0.963	0.581
sma4	0.595	0.611	0.575	0.935	0.574
sma5	0.535	0.590	0.555	0.930	0.523
per1	0.535	0.500	0.505	0.503	0.921
per2	0.594	0.585	0.547	0.542	0.941
per3	0.572	0.628	0.587	0.606	0.903
per4	0.545	0.548	0.521	0.536	0.933
per5	0.602	0.568	0.570	0.560	0.953

The cross-loadings analysis substantiates these findings, as all indicator loadings are higher on their respective constructs than on others. For example, indicators of EO (e.g., eo1, eo2) consistently exhibit higher loadings on EO than on OR, OE, SMA, or PER, confirming the robustness of the measurement model. Likewise, indicators for OR, OE, SMA, and PER follow the same pattern, demonstrating clear construct separation. These results validate the theoretical structure of the model, ensuring that the constructs are accurately represented and their relationships can be interpreted without concern for overlap or conflation.

Consequently, the data establish strong discriminant validity, providing a solid foundation for further structural model analysis.

Structural model and hypothesis testing

Before analyzing the structural model, a collinearity check was conducted by assessing the Variance Inflation Factor (VIF) values. The results indicated that all VIF values fell within the thresholds recommended by Hair et al. (2013), confirming the absence of multicollinearity within the model (Table 6). All paths demonstrated acceptable VIF values, supporting the structural validity of the model. Consequently, the relationships between variables can be interpreted independently, without concerns about distortion caused by multicollinearity.

Table 6. Collinearity Diagnostic.

Path	VIF
Entrepreneurial Orientation → MSMEs Performance	2.041
Entrepreneurial Orientation → Opportunity Recognition	1.000
Entrepreneurial Orientation → Opportunity Exploitation	1.000
Entrepreneurial Orientation → Social Media Adoption	1.000
Opportunity Recognition → MSMEs Performance	2.168
Opportunity Exploitation → MSMEs Performance	2.011
Social Media Adoption → MSMEs Performance	2.029

The R-Square analysis demonstrates the explanatory power of the model for each dependent variable. Opportunity exploitation and opportunity recognition exhibit R-Square values of 0.377 and 0.398, respectively, indicating that the model accounts for 37.7% and 39.8% of their variance, with the remainder attributable to external factors. Social media adoption has an R-Square value of 0.368, explaining 36.8% of its variance. MSMEs' performance shows the highest explained variance, with an R-Square of 0.507, indicating that 50.7% of its variability is explained by the model. The adjusted R-Square values are slightly lower but remain consistent, reinforcing the model's robustness. These findings suggest that the model provides moderate explanatory power, with predictors significantly contributing to the variance of the dependent variables, particularly newly established MSMEs' performance (Table 7).

Table 7. R-square.

	R Square	R Square Adjusted
Opportunity Exploitation	0.377	0.376
Opportunity Recognition	0.398	0.396
Social Media Adoption	0.368	0.367
Newly Established MSMEs Performance	0.507	0.503

The Goodness-of-Fit (GoF) test confirms an acceptable level of model fit, particularly for the saturated model (Table 8). The Standardized Root Mean Square Residual (SRMR) for the saturated model is 0.049, well below the 0.08 threshold, indicating a strong fit to the data. While the SRMR for the estimated model is 0.120, slightly exceeding the threshold, this does not significantly compromise the overall model fit, as other fit indicators remain within acceptable ranges. The d_{ULS} and d_G values suggest structural alignment, with minor discrepancies reflecting manageable levels of tension. The Normed Fit Index (NFI) values, at 0.819 (saturated) and 0.811 (estimated), approach the threshold of 0.90, indicating that the model explains a substantial portion of the variance. Although the Chi-square values are high, as expected in large datasets, the results collectively demonstrate that the model is structurally sound and effectively captures the underlying relationships, supporting its validity.

Table 8. Goodness-of-fit test.

Parameter	Saturated model	Estimated model
SRMR	0.049	0.120
d_{ULS}	0.776	4,661
d_G	1,323	1,463
Chi-square	3,725,717	3,904,643
NFI	0.819	0.811

The hypothesis testing results confirm statistically significant relationships among the variables, emphasizing their critical roles in the model (Table X). Entrepreneurial orientation positively impacts newly established MSMEs' performance ($H1: \beta = 0.245, t = 6.261, p < 0.05$), suggesting that entrepreneurial initiatives enhance outcomes by fostering innovation and

strategic decision-making. The significant positive impact of entrepreneurial orientation on newly established MSMEs' performance indicates that firms demonstrating a tendency for innovation and novelty and proactively driving market responses are more likely to achieve enhanced service quality and market expansion with net profit growth. Moreover, MSMEs that exhibit a financial literacy-driven risk-return preference and a desire for market leadership tend to make more informed strategic decisions, leading to customer engagement growth and customer retention and loyalty growth. The frequent introduction of new products further strengthens company/brand exposure and reputation, ensuring competitive advantage in dynamic markets. These findings highlight the crucial role of entrepreneurial orientation in shaping MSMEs' growth trajectories, particularly in resource-constrained environments where adaptability and innovation drive long-term sustainability.

Entrepreneurial orientation also significantly influences social media adoption (H2: $\beta = 0.607$, $t = 16.109$, $p < 0.05$), indicating that an entrepreneurial mindset promotes the use of digital tools to expand market reach. The significant influence of entrepreneurial orientation on social media adoption suggests that MSMEs with a tendency for innovation and novelty actively leverage digital platforms to enhance business operations. Newly established MSMEs that proactively drive market responses utilize social media for marketing research, enabling them to identify trends and consumer preferences more effectively. A financial literacy-driven risk-return preference allows MSMEs to allocate resources efficiently for social media-supported product/service promotion, maximizing outreach and customer engagement. Additionally, businesses with a desire for market leadership integrate persistent use of social media channels to strengthen their brand presence and build competitive advantage. The frequent introduction of new products is further supported by social media facilitating referral acquisition and customer service delivery, ensuring sustained customer interaction and loyalty. These findings reinforce the strategic role of social media adoption in enhancing market reach and performance for entrepreneurial MSMEs.

Entrepreneurial orientation further drives opportunity recognition (H3: $\beta = 0.631$, $t = 17.487$, $p < 0.05$) and opportunity exploitation (H4: $\beta = 0.614$, $t = 15.979$, $p < 0.05$), highlighting its role in identifying and utilizing business opportunities effectively. Opportunity recognition significantly contributes to MSMEs' performance (H5: $\beta = 0.216$, $t = 5.871$, $p < 0.05$), demonstrating the importance of identifying potential opportunities. Similarly, opportunity exploitation positively influences performance (H6: $\beta = 0.187$, $t = 5.107$, $p < 0.05$), emphasizing the necessity of converting opportunities into measurable outcomes. The strong impact of entrepreneurial orientation on opportunity recognition and opportunity exploitation underscores the critical role of an entrepreneurial mindset in identifying and capitalizing on business prospects. MSMEs with a tendency for innovation and novelty are more likely to recognize emerging market gaps and consumer needs, enabling them to develop competitive offerings. Those who proactively drive market responses can swiftly adapt to industry trends, enhancing their ability to exploit opportunities effectively. A financial literacy-driven risk-return preference ensures that MSMEs make informed investment decisions when seizing new business prospects, optimizing resource allocation for maximum returns. The desire for market leadership motivates firms to pursue high-potential opportunities aggressively, fostering growth and differentiation. Furthermore, frequent new product introductions reflect a dynamic approach to opportunity exploitation, allowing MSMEs to translate market insights into tangible innovations that enhance performance, particularly in service quality, market expansion, and brand reputation. These findings confirm that entrepreneurial orientation strengthens both the recognition and utilization of opportunities, leading to sustained business success.

Social media adoption also shows a significant positive effect on MSMEs' performance (H7: $\beta = 0.193$, $t = 5.329$, $p < 0.05$), underscoring its role in enhancing visibility, customer engagement, and overall business success. These findings collectively highlight the centrality of entrepreneurial strategies, opportunity management, and resource utilization in driving the success of newly established MSMEs. The significant positive effect of social media adoption on MSMEs' performance highlights the importance of leveraging digital platforms for business growth. Social media aids marketing research by providing real-time consumer insights, allowing MSMEs to tailor their offerings to market demands. Additionally, social media facilitates referral acquisition, enabling businesses to expand their customer base through organic recommendations and user-generated content. The ability of social media to support product/service promotion enhances brand awareness and attracts potential buyers, while its role in customer service delivery fosters stronger relationships and improves customer retention. Furthermore, persistent use of social media channels ensures sustained engagement, reinforcing brand loyalty and driving market expansion, customer retention, and brand reputation growth. These findings underscore the necessity of integrating social media into MSME strategies to optimize performance and sustain competitive advantage.

Table 9. Hypothesis testing.

Path		Estimate (b)	Standard deviation (SD)	t-statistics	P-values	Conclusion
H1	EO → PER	0.245	0.245	0.039	6,261	Supported
H2	EO → SMA	0.607	0.608	0.038	16,109	Supported
H3	EO → OR	0.631	0.631	0.036	17,487	Supported
H4	EO → OE	0.614	0.616	0.038	15,979	Supported
H5	OR → PER	0.216	0.215	0.037	5,871	Supported
H6	OE → PER	0.187	0.188	0.037	5,107	Supported
H7	SMA → PER	0.193	0.193	0.036	5,329	Supported

DISCUSSION

The findings confirm that entrepreneurial orientation significantly enhances newly established MSMEs' performance by fostering innovation, strategic decision-making, and adaptability in competitive markets. Key indicators of entrepreneurial orientation—such as innovation, proactive market responses, risk-taking, market leadership, and frequent product introductions—drive performance outcomes (Ma & Yang, 2022; Pulka et al., 2021; Aftab et al., 2024; Susanto et al., 2023). Innovation improves service quality and aligns offerings with evolving customer needs, while proactive strategies strengthen customer engagement and loyalty (Anim et al., 2024). Risk-taking facilitates access to high-growth opportunities, supporting market share expansion. Market leadership enhances brand reputation, and frequent product introductions maintain customer interest and reinforce an innovative image. These dynamics highlight entrepreneurial orientation's critical role in overcoming challenges, optimizing resources, and driving sustainable growth.

The findings from interviews with selected MSMEs further validate the hypothesis that entrepreneurial orientation plays a crucial role in enhancing the performance of newly established MSMEs. Business owners demonstrated a tendency for innovation and novelty, continuously adapting to market trends and developing products that align with evolving consumer demands, thereby contributing to enhanced service quality. Their proactive approach to market responses enabled them to swiftly adjust marketing and distribution strategies based on market data and customer feedback, fostering customer engagement growth and customer retention and loyalty. Moreover, financial literacy-driven risk-return preferences empowered MSMEs to make informed financial decisions, optimizing resource allocation and facilitating market expansion with net profit growth. The aspiration for market leadership was evident as entrepreneurs actively sought to build strong brand identities through product quality enhancement, customer service excellence, and brand positioning, leading to improved company/brand exposure and reputation. Additionally, frequent new product introductions proved instrumental in sustaining customer interest and demand, ensuring long-term competitiveness. These findings underscore the critical role of entrepreneurial orientation in overcoming market challenges, leveraging financial literacy for strategic decision-making, and driving sustainable business growth within resource-constrained environments.

The results also reveal that entrepreneurial orientation significantly influences social media adoption. An entrepreneurial mindset fosters the adoption of digital tools through innovation, proactivity, and risk-taking, enabling businesses to leverage social media for marketing and customer engagement (Fan et al., 2021; Fang et al., 2022). Innovation drives social media research to gather insights, while proactive strategies encourage online promotion (Anim et al., 2024). Risk-taking aligns with experimenting on digital platforms to expand market reach. Social media facilitates customer service and referral acquisition, reflecting entrepreneurial adaptability and efficiency in digital integration.

Interviews with selected MSMEs further substantiate the hypothesis that entrepreneurial orientation significantly drives social media adoption, enabling businesses to enhance marketing strategies and customer engagement. Entrepreneurs demonstrated a tendency for innovation and novelty, utilizing social media for marketing research to gather insights on consumer preferences and market trends. Their proactive approach to market responses was evident in their strategic use of social media for product and service promotion, ensuring real-time engagement with potential customers. Moreover, financial literacy-driven risk-return preferences allowed business owners to experiment with digital advertising and paid promotions, optimizing their investment in social media marketing. The desire for market leadership encouraged MSMEs to build strong brand identities through the persistent use of social media channels, fostering brand recognition and differentiation. Additionally, frequent new product introductions were effectively marketed through social media, leveraging its ability to facilitate referral acquisition and expand customer networks. Entrepreneurs also recognized the role of digital platforms in customer service delivery, utilizing interactive features to address inquiries, manage complaints, and build

lasting relationships with consumers. These findings underscore the importance of entrepreneurial orientation in accelerating social media adoption, thereby enhancing MSME competitiveness and long-term sustainability.

Moreover, entrepreneurial orientation positively affects opportunity recognition. Innovation enables businesses to explore market gaps, while proactivity supports the identification of emerging opportunities (Anim et al., 2024; Anwar et al., 2022; Ma & Yang, 2022). Risk-taking encourages the exploration of uncharted areas, and a focus on market leadership promotes continuous evaluation of competitive environments. These traits enhance the ability to identify opportunities, allowing businesses to adapt to market dynamics and gain strategic advantages (Anim et al., 2024).

Interviews with selected MSMEs reinforce the hypothesis that entrepreneurial orientation significantly enhances opportunity recognition, enabling businesses to identify and capitalize on market gaps. Entrepreneurs exhibiting a tendency for innovation and novelty actively explore unmet consumer needs, leveraging creative solutions to differentiate their offerings. Their proactive approach to market responses allows them to anticipate industry trends, swiftly recognizing emerging opportunities before competitors. Additionally, financial literacy-driven risk-return preferences empower business owners to assess the financial feasibility of new ventures, ensuring informed decision-making when pursuing high-potential opportunities. The desire for market leadership motivates continuous market evaluation, fostering strategic positioning and competitive advantages. Furthermore, MSMEs with frequent new product introductions demonstrate heightened opportunity recognition, as they consistently seek to innovate and expand their product lines in response to shifting consumer demands. These findings highlight the pivotal role of entrepreneurial orientation in shaping MSMEs' ability to navigate dynamic market conditions, ultimately driving growth and sustainability.

The findings further demonstrate that entrepreneurial orientation significantly influences opportunity exploitation. Businesses focused on innovation capitalize on opportunities by developing creative strategies (Mathafena & Msimango-Galawe, 2023; Makhloufi et al., 2024; Anim et al., 2024). Proactivity enables efficient resource allocation, while risk-taking drives investment in new ventures despite uncertainties. Market leadership fosters team formation to implement initiatives, and frequent product introductions facilitate new market development (Anim et al., 2024). These entrepreneurial attributes collectively enable businesses to transform opportunities into tangible outcomes, driving growth and competitiveness.

Interviews with selected MSMEs confirm that entrepreneurial orientation plays a crucial role in opportunity exploitation, enabling businesses to convert identified opportunities into measurable success. Entrepreneurs demonstrating a tendency for innovation and novelty develop creative strategies to differentiate their products and services, ensuring market relevance and competitive positioning. Their proactive approach to market responses allows for the efficient allocation of resources, ensuring that opportunities are swiftly acted upon with optimal deployment of financial and human capital. Furthermore, financial literacy-driven risk-return preferences enable informed investment decisions, where entrepreneurs strategically assess potential gains against associated risks, ensuring sustainability in uncertain market conditions. The desire for market leadership fosters the development of strong teams and organizational structures to implement strategic initiatives effectively. Lastly, frequent new product introductions support the expansion into new markets, leveraging innovation to meet evolving customer needs and sustain long-term business growth. These findings highlight the transformative impact of entrepreneurial orientation in driving opportunity exploitation, reinforcing its importance in enhancing MSME resilience and performance.

Opportunity recognition significantly contributes to newly established MSMEs' performance. Identifying innovative strategies allows businesses to align operations with market trends, enhancing service quality and customer satisfaction (Hartono & Ardini, 2022; Anim et al., 2024; Zhang & Li, 2021). Frequent identification of business opportunities supports market expansion while exploring market gaps positions businesses uniquely, boosting brand reputation. These capabilities enable MSMEs to achieve superior performance by leveraging identified opportunities. Interviews with selected MSMEs confirm that opportunity recognition significantly enhances business performance by enabling firms to align their strategies with dynamic market conditions. Entrepreneurs who effectively identify and implement innovative strategies improve service quality, leading to higher customer satisfaction and retention. The frequent recognition of business opportunities facilitates market expansion and net profit growth, as businesses capitalize on emerging demands and optimize their operational efficiency. Additionally, exploring market gaps allows MSMEs to differentiate themselves from competitors, strengthening brand exposure and reputation. These proactive efforts also foster customer engagement growth, as businesses develop tailored offerings and maintain strong relationships with their target markets. Ultimately, leveraging identified opportunities enables MSMEs to sustain long-term competitiveness and performance growth in both financial and non-financial aspects.

Opportunity exploitation also significantly improves MSMEs' performance. Structured resource allocation enhances service quality while developing new markets expands customer bases (Brege & Kindström, 2020; Lévassieur et al., 2020). Dedicated teams ensure focused execution, and securing funding provides resources for innovation. Acting consistently on

opportunities strengthens brand reputation and customer loyalty. These actions collectively enhance performance, highlighting opportunity exploitation's role in driving growth (Anim et al., 2024). Interviews with selected MSMEs reveal that opportunity exploitation plays a crucial role in driving business performance by ensuring that identified opportunities are effectively transformed into tangible outcomes. Structured resource allocation significantly enhances service quality, allowing businesses to meet customer expectations with improved efficiency. Additionally, expanding into new markets broadens the customer base and drives market expansion with net profit growth, as businesses capitalize on emerging opportunities. The presence of dedicated teams ensures focused execution of strategic initiatives, reinforcing customer engagement growth through targeted marketing and personalized services. Furthermore, securing funding for innovation supports the development of new products and services, strengthening brand exposure and reputation. Consistently acting on opportunities fosters customer retention and loyalty growth, as businesses demonstrate reliability and adaptability in addressing market needs. Collectively, these efforts underscore the pivotal role of opportunity exploitation in sustaining long-term MSME growth and competitiveness.

Finally, the findings emphasize the positive impact of social media adoption on MSMEs' performance. Social media aids marketing research by enabling businesses to understand customer preferences and trends, improving service quality (Ahmad et al., 2019; Anim et al., 2024; Munawar et al., 2024; Wulandari et al., 2020). It supports referral acquisition through customer recommendations and word-of-mouth promotion. Social media platforms also enhance customer engagement through dynamic communication channels and responsive service delivery, boosting retention and loyalty (Anim et al., 2024). Persistent use of these tools ensures continuous brand exposure, reinforcing social media's role as a strategic resource for sustainable growth and competitiveness. Interviews with selected MSMEs reveal that social media adoption plays a crucial role in enhancing business performance by improving market understanding, customer engagement, and financial literacy. Business owners reported that social media aids marketing research, allowing them to analyze customer preferences, track industry trends, and adjust their offerings accordingly, leading to enhanced service quality. Additionally, referral acquisition through customer recommendations and word-of-mouth promotion has been instrumental in attracting new customers, and supporting market expansion with net profit growth. The dynamic communication channels of social media facilitate direct engagement with customers, strengthening relationships and boosting customer retention and loyalty growth. Furthermore, persistent use of social media platforms ensures continuous company/brand exposure and reputation increase, keeping businesses competitive and visible in the digital marketplace. Importantly, social media also enhances financial literacy among newly established MSMEs by providing access to digital financial tools, online business education, and real-time analytics on revenue streams and customer behaviours. This improved financial awareness enables MSMEs to make informed budgeting, pricing, and investment decisions, further strengthening their long-term sustainability and performance. These findings underscore social media adoption as a strategic enabler for MSMEs, not only in customer engagement and branding but also in financial decision-making and business growth.

CONCLUSIONS

The findings of this study confirm that entrepreneurial orientation significantly enhances the performance of newly established MSMEs by fostering innovation, strategic decision-making, and adaptability in competitive markets. Key indicators such as innovation, proactive market responses, risk-taking, market leadership, and frequent product introductions contribute to improved service quality, increased customer engagement, and market expansion. Furthermore, financial literacy plays a crucial role in optimizing resource allocation, facilitating informed investment decisions, and enabling businesses to navigate market uncertainties more effectively. A strong financial understanding empowers MSMEs to manage risks prudently and leverage growth opportunities efficiently. Additionally, entrepreneurial orientation positively influences social media adoption, accelerating marketing strategies, customer interaction, and brand positioning. In this context, financial literacy through social media provides MSMEs with access to digital financial tools, online business education, and real-time data analytics, thereby supporting more strategic financial decision-making. Overall, this study underscores that the interplay between entrepreneurial orientation and financial literacy not only strengthens MSME competitiveness and sustainability but also enables them to identify, exploit, and optimize business opportunities in dynamic market environments.

The findings of this study provide a significant contribution to entrepreneurial research by elucidating the critical role of entrepreneurial orientation in enhancing MSME performance, particularly through innovation, proactive market strategies, and risk-taking behaviour. This study extends existing literature by demonstrating how financial literacy serves as a key enabler in optimizing resource allocation, mitigating financial risks, and facilitating strategic investment decisions, thereby strengthening business sustainability. Additionally, by establishing a clear link between entrepreneurial orientation, social media adoption, and financial literacy, this research offers novel insights into how digital platforms can function as both marketing tools and financial education resources for MSMEs. These insights have profound implications for future studies,

particularly in exploring the intersection of digital transformation, financial decision-making, and entrepreneurial success. By highlighting the strategic integration of financial literacy within entrepreneurial activities, this study provides a foundation for policymakers, educators, and business practitioners to develop targeted interventions that enhance MSME resilience, competitiveness, and long-term growth.

The managerial implications of this study emphasize the necessity for MSME leaders to cultivate a strong entrepreneurial orientation by fostering innovation, proactive market strategies, and risk-taking behaviours to drive business growth and sustainability. Given the significant impact of financial literacy on resource optimization and informed decision-making, business owners should prioritize financial education programs to enhance their ability to assess risks, allocate capital effectively, and seize high-growth opportunities. Furthermore, the findings underscore the importance of leveraging digital platforms, particularly social media, not only as marketing tools but also as channels for financial learning and customer engagement. Managers should integrate digital strategies to enhance brand positioning, customer loyalty, and market reach while simultaneously utilizing financial insights from digital analytics for strategic planning. Policymakers and business development agencies can also play a crucial role by designing training initiatives that equip MSMEs with the financial and digital competencies needed to navigate competitive market environments effectively. Ultimately, these managerial insights provide a roadmap for MSME leaders to enhance business agility, financial resilience, and long-term profitability in dynamic economic landscapes.

This study has several limitations that present opportunities for future research. First, the findings are based on a specific sample of newly established MSMEs, which may limit their generalizability to larger or more mature enterprises operating in different economic contexts. Future studies could expand the scope by including diverse business sizes, industries, and geographic regions to enhance the external validity of the results. Second, the research primarily relies on self-reported data from entrepreneurs, which may introduce biases related to personal perceptions and recall accuracy. Employing longitudinal data or mixed-method approaches could provide deeper insights into the causal relationships between entrepreneurial orientation, financial literacy, and MSME performance. Additionally, while this study highlights the role of digital platforms in enhancing financial decision-making, further research could explore the effectiveness of specific digital financial tools and their impact on entrepreneurial success. Investigating external factors such as policy interventions, access to financial resources, and technological advancements could also enrich the understanding of how MSMEs can optimize entrepreneurial orientation and financial literacy to achieve sustainable growth.

ADDITIONAL INFORMATION

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CONFLICT OF INTEREST

The Authors declare that there is no conflict of interest.

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ПІДВИЩЕННЯ ПРОДУКТИВНОСТІ НОВОСТВОРЕНИХ ММСП ШЛЯХОМ ПІДПРИЄМНИЦЬКОЇ ОРІЄНТАЦІЇ ТА ДИДЖИТАЛІЗАЦІЇ

У цьому дослідженні розглянуто вплив підприємницької орієнтації, визнання можливостей, використання можливостей і прийняття соціальних медіа на продуктивність новостворених ММСП в Західній Яві, Джакарті та Лампунгу. Використовуючи змішаний підхід, кількісні дані 523 ММСП автори проаналізували за допомогою PLS-SEM, а глибинні інтерв'ю з шістьма ММСП досліджували роль фінансової грамотності в підвищенні підприємницької орієнтації та ефективності бізнесу. Результати підтверджують, що підприємницька орієнтація значно покращує ефективність ММСП шляхом заохочення інновацій, прийняття ризиків і проактивних стратегій. Це також покращує прийняття соціальних мереж, дозволяючи компаніям розширювати охоплення ринку, зміцнювати позиціонування бренду та підвищувати залученість клієнтів. Визнання та використання можливостей сприяють досягненню конкурентних переваг і стійкості ринку. Фінансова грамотність відіграє вирішальну роль в оптимізації розподілу ресурсів, управлінні ризиками та стратегічних інвестиційних рішеннях. Крім того, соціальні мережі служать і маркетинговим інструментом, і фінансовою платформою для навчання, підтримуючи ухвалення обґрунтованих рішень. Це дослідження сприяє підприємницьким дослідженням шляхом інтеграції фінансової грамотності в підприємницьку орієнтацію, демонструючи її важливість у зміцненні стійкості та зростанні ММСП. Управлінські наслідки наголошують на необхідності для лідерів ММСП розвивати підприємницьку орієнтацію, інтегрувати цифрові стратегії та підвищувати фінансову грамотність за допомогою цільових освітніх програм. Політики повинні підтримувати ММСП у фінансових та цифрових навчальних ініціативах для підвищення конкурентоспроможності. Обмеження включають зосередженість дослідження на нещодавно створених ММСП та залежність від даних, отриманих самостійно, що передбачає майбутні дослідження різних розмірів бізнесу, лонгїтюдного аналізу та ефективності цифрових фінансових інструментів.

Ключові слова: підприємницька орієнтація, визнання можливостей, використання можливостей, соціальні медіа, ефективність ММСП, фінансова грамотність

JEL Класифікація: L21, L25, L26, M13, M21