Ingénierie des Systèmes d'Information
Vol. 31, No. 3, March, 2026, pp. 675-683
Journal homepage: http://iieta.org/journals/isi

The Impact of Government Support on Small, and Medium Enterprise Performance: The Moderating Role of Information System Strategy

Mahendra Adhi Nugroho[1*], Siswanto[1], Didik Hariyanto[2]

[1] Fakultas Ekonomi dan Bisnis, Universitas Negeri Yogyakarta, Yogyakarta 55281, Indonesia
[2] Fakultas Teknik, Universitas Negeri Yogyakarta, Yogyakarta 55281, Indonesia

Corresponding Author Email: mahendra@uny.ac.id

https://doi.org/10.18280/isi.310302

Received: 1 August 2025
Revised: 1 November 2025
Accepted: 20 March 2026
Available online: 31 March 2026

Keywords:
government support, small, and medium enterprise performance, information system strategy, moderating effect, SEM-PLS, contingency theory

ABSTRACT

This study investigates the impact of government support on the performance of micro, small, and medium enterprises (SMEs) and explores whether information system strategy moderates this relationship. Using Structural Equation Modeling (SEM-PLS), data were collected from 1,514 SMEs engaged in e-commerce, with 402 valid responses analyzed. The results reveal a significant positive relationship between government support and SME performance, supporting the first hypothesis (H1). However, the moderating effect of information system strategy on this relationship was not found to be statistically significant (H2 not supported). This suggests that government interventions, rather than internal information system strategies, primarily drive improvements in small, and medium enterprise (SME) performance. The findings underscore the importance of government policies and support programs, such as financial aid, training, and infrastructure, in enhancing the competitiveness of SMEs. The research emphasizes that, in contexts with substantial government involvement, the strategic autonomy of SMEs is limited, and their performance improvements are largely dictated by external interventions rather than internal strategic decisions. This study contributes to the understanding of how government backing can affect SMEs' operational and financial outcomes, particularly in developing countries. It also suggests that, in environments where government support dominates, the role of internal information systems strategy becomes less relevant in moderating the relationship between government support and SME performance.

1. INTRODUCTION

Small and medium enterprises (SMEs) are recognized as critical contributors to the economy in developing nations. Their involvement is substantial in terms of GDP, employment, and fostering economic dynamism [1, 2]. Globally, SMEs contribute an estimated 55% to 70% of production, employment, and GDP [3], signifying their pivotal role in economic development [4]. In Indonesia, SMEs contribute approximately 61.1% to the national GDP [5, 6] and can absorb up to 96.71% of the labor force [7]. Their ability to create jobs, stimulate economic activity, and enhance income underscores their significance in strengthening national economic resilience and competitiveness [8]. SMEs have shown remarkable endurance during crises, such as financial downturns, positioning them as the backbone of Indonesia's economy. However, challenges remain, particularly regarding accounting literacy and information system use [9]. To improve SME performance and sustain economic growth, targeted government support through well-crafted policies is crucial. Nonetheless, inconsistent or inadequate government support is also cited as a significant concern among SMEs [10, 11]. Prior research affirms the critical role of government backing, particularly in the successful adoption of e-commerce platforms. Effective government interventions are necessary in aligning information system strategies with SME operations, especially in developing countries [12, 13].

According to institutional theory, governmental influence can steer individuals and organizations toward desired actions through policy enforcement [14]. Such interventions include strengthening cybersecurity and supporting SME performance through e-commerce platforms [15]. Nonetheless, empirical evidence on the connection between government support and SME performance remains inconclusive. For instance, while Khan et al. [16], and Najib et al. [17] reported a positive correlation, Jeong et al. [18] observed a negative impact from financial incentives and tax breaks. Additionally, Zulu-Chisanga et al. [19] found no significant association. These divergent findings suggest that other influencing variables may affect the relationship, creating an avenue for deeper investigation.

Contingency theory suggests that no universal method exists for managing organizations, as each must adapt to its specific environment. It posits that various situational factors shape how organizations respond to external support. Within this framework, the information system strategy is considered a critical contingency factor that may mediate the relationship between government support and SME outcomes [15, 20].

Some scholars, such as Ukko et al. [21], and Galbreath et al. [22], argue that the information system strategy can enhance this relationship, acting as a moderating variable. Based on these theoretical premises, this study seeks to address two core questions: First, does government support significantly impact SME performance? Second, does the information system strategy function as a moderator in that relationship?

2. LITERATURE BACKGROUND AND HYPOTHESIS FORMULATION

2.1 Institutional and contingency theoretical framework

Institutional theory and contingency theory provide complementary perspectives in explaining how organisations, particularly SMEs, respond to environmental pressures and align their internal strategies to achieve superior performance. Institutional theory argues that organisational behaviour is influenced by regulatory pressures, norms, and imitation stemming from government policies, professional expectations, and competitive dynamics [14, 23]. In the context of SMEs, government incentives, digitalisation mandates, preferential tax policies, and technology subsidies function as coercive institutional pressures that drive the adoption of information systems and business process modernization [24, 25]. Institutional support provides legitimacy and resources that enable SMEs to enhance their digital capabilities, which are closely related to improved operational and financial performance [26, 27].

While institutional theory explains why SMEs respond to external pressures, contingency theory explains how these organisations must adapt their internal strategies to environmental conditions to maximise performance outcomes. According to contingency theory, there is no universally practical management approach; organisational effectiveness depends on the extent to which internal capabilities—such as information system resources—are aligned with external variables, including environmental uncertainty, policy intervention, and industry dynamics [28, 29]. In information systems research, contingency theory has been widely applied to show that information systems planning, information systems capabilities, and digital adoption yield performance benefits only when they are strategically aligned with situational factors. For SMEs facing resource constraints and rapid technological change, this alignment becomes even more critical [30].

Nugroho et al. [20] identify information system strategy as an important contingency factor that shapes how information system capabilities contribute to organisational outcomes. In this view, the effectiveness of IS capabilities does not stand alone, but depends on how well they are directed, aligned, and implemented through an appropriate information system strategy. For SMEs, information system strategy serves as a mechanism to reduce operational risks and as a mediator between government support and business performance [31]. Figure 1 illustrates how institutional theory and contingency theory intersect to explain the theoretical framework.

2.2 The linkage between government support and SME's performance

Government support encompasses creating legal frameworks, formulating strategic policies, and providing various forms of assistance to foster the development of the business sector, particularly SMEs [16]. Beyond regulatory efforts, such support is also perceived as an external driver facilitating access to tangible and intangible resources, including advanced equipment, innovation in products or processes, and technological tools [32]. The government supports SMEs through tax breaks, credit facilities, social programs, and direct financial aid. This assistance is pivotal in enhancing SME competitiveness and enabling sustainable growth [33]. A key constraint commonly faced by SMEs is the limited availability of essential resources to support daily operations, leading to a dependency on public sector intervention [34]. Moreover, government efforts to empower SMEs are driven by broader objectives such as employment creation, strengthening business competitiveness, promoting consumer access to innovative products, and fueling macroeconomic expansion in developed and developing economies [19].

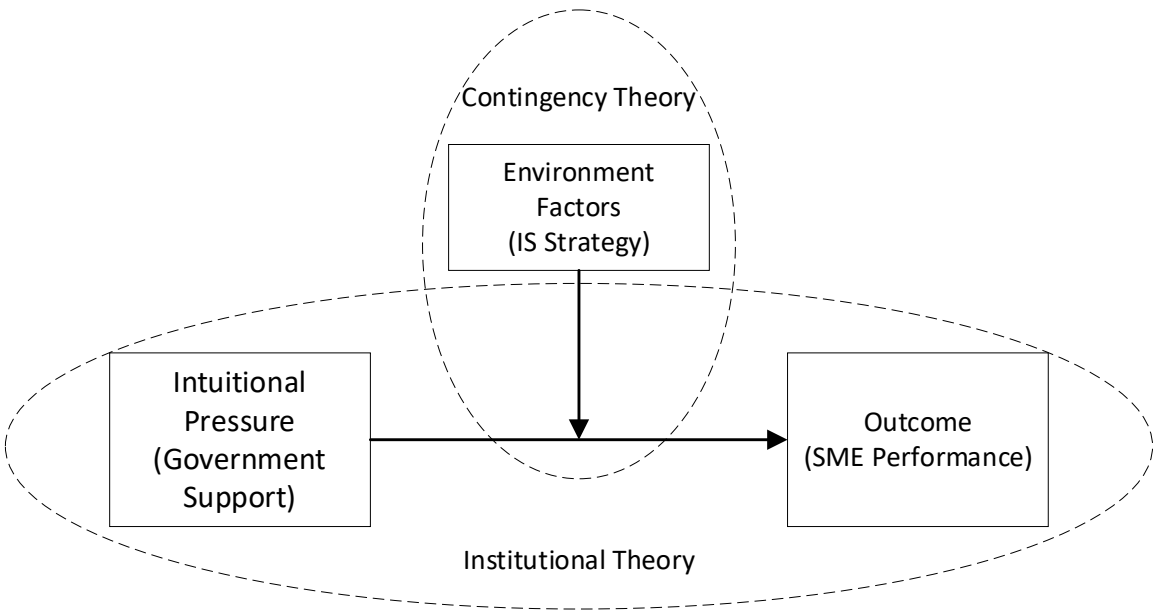

Figure 1. Conceptual framework

Nevertheless, the empirical literature does not always yield consistent results regarding the impact of government support on SME performance. For instance, Zulu-Chisanga et al. [19] reported that government support does not have a significant relationship with the financial performance of SMEs. This finding differs from many previous studies that highlight the important contribution of government programs in improving business outcomes, strengthening competitiveness, and supporting the growth of small enterprises [16, 33]. In a more nuanced perspective, Pergelova and Angulo-Ruiz [35] argued that while direct financial assistance from the government may not have an immediate or measurable effect on firm performance, it can exert an indirect influence by strengthening both general and specific competitive advantages. Similarly, Khan et al. [16] provided evidence of a strong positive effect of government intervention on SME success, reinforcing the notion that public sector involvement can yield tangible benefits. Given these contradictory findings in the literature, the need arises to further investigate the conditions under which government support is most effective. Therefore, to address this gap and explore possible moderating influences, the following hypothesis is proposed:

H1: There is a relationship between government support and SME performance.

2.3 The influence of information system strategy as a moderator between government support and SME performance

Government support has long been recognised as an external factor that plays an important role in improving the performance of small and medium-sized enterprises (SMEs). From an institutional theory perspective, government intervention—through subsidies, financial assistance, tax incentives, training, and support for digital infrastructure—exerts coercive and normative pressure, encouraging organisations to adopt more modern, technology-oriented practices [16, 35]. This support not only reduces financial barriers but also strengthens SMEs' legitimacy in an increasingly technology-based business ecosystem [36, 37]. However, some studies show that government assistance does not always lead to better performance when SMEs lack the internal capacity to make optimal use of this support [32]. These findings suggest that internal organisational factors play a key role in determining the success of external interventions.

The contingency theory framework provides a basis for understanding these variations. This theory asserts that the influence of government support on SME performance depends on internal conditions and organisational strategies [28, 38]. Previous studies show that strategic orientation can strengthen the relationship between managerial capabilities and performance [21] and the interaction between exploration activities and company results [39]. Thus, organisational strategy acts as a determining factor in the extent to which organisations can align external support with internal capabilities.

In this context, information system strategy emerges as a critical moderating variable. A mature information system strategy enables SMEs to translate government support into increased digital capabilities, operational efficiency, and innovation [40]. Information system strategy strengthens SMEs' ability to utilise technology for planning, decision-making, and information management, thereby maximising the benefits of government support. However, when SMEs lack a clear information system strategy, the potential of government support is suboptimal, as demonstrated in studies of developing countries [41]. Thus, the effectiveness of government support is not independent but is highly dependent on SMEs' strategic capabilities for managing and integrating information systems. Accordingly, the following hypothesis is formulated:

H2: Information system strategy moderates the relationship between government support and SME performance.

The preceding discussion highlights the existence of a relationship between government intervention and the performance of small and medium-sized enterprises (SMEs). However, findings in the existing literature reveal inconsistencies concerning both the strength and the direction of this relationship, as noted in several prior studies [16, 19, 33, 35]. These divergent results imply that additional factors may play a role in shaping or moderating this interaction. From a theoretical standpoint, one such factor is organizational strategy—more specifically, the strategy related to information systems. This variable is increasingly viewed as a critical contingency element that can potentially account for the observed variability in how government support influences SME performance [15, 20]. The role of strategy in this context is not merely operational but strategic, as it may determine the extent to which external support is effectively translated into improved organizational outcomes. Guided by this rationale, the current study proposes a conceptual framework that integrates these insights. This framework, depicted in Figure 2, reflects the synthesis of previous research and theoretical underpinnings, offering a structured approach to examine the moderating role of information system strategy in the government support–performance linkage within the SME sector.

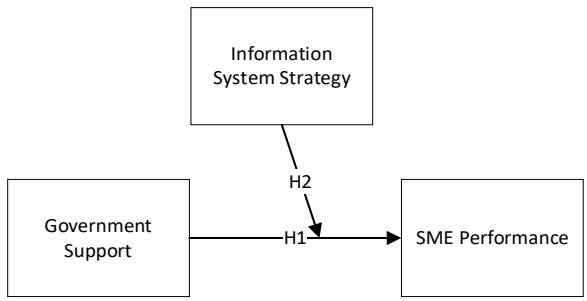

Figure 2. Framework of the study

3. RESEARCH METHODOLOGY

3.1 Research sample

This research specifically focuses on SMEs operating through e-commerce marketplace platforms in the Special Region of Yogyakarta, Indonesia, as the target population of the study. By concentrating on SMEs that actively use online marketplace platforms, this research aims to capture business actors that have already integrated digital channels into their commercial activities. Kock and Hadaya [42] propose that, for studies applying the PLS-SEM approach, the minimum required sample size is typically determined by multiplying by ten the greatest number of indicators or structural paths associated with a single latent variable. In the context of this study, the largest number of structural paths directed toward a

single construct is five. Following the minimum sample size rule, this results in a recommended minimum sample of 50 respondents, calculated by multiplying five paths by ten observations. Therefore, based on the application of these two sample size determination approaches, a sample size of at least 50 participants is considered adequate and appropriate for conducting the analysis. Nonetheless, this research conducted a survey involving the entire population of 1,514 SMEs, ultimately collecting 402 valid responses for further statistical analysis.

3.2 Variable definition and measurement

This research focuses on three core constructs: government support, information system strategy, and SME performance. Government support encompasses regulatory development, policy formulation, and assistance to foster the business sector's growth. The concept of strategy in this context pertains to the effective use of information systems to facilitate shared perspectives among system components, thereby driving innovation. On the other hand, SME performance is evaluated by comparing a firm's outcomes with those of its principal competitors. To measure these variables, this study adopts four items on government support from Nugroho et al. [15] and Wong et al. [43], four indicators of information system strategy from Sabherwal and Chan [44], Chen et al. [45] and Nugroho et al. [20], as well as five items assessing SME performance sourced from Heeseok and Byounggu [46] and Nugroho et al. [15]. All constructs are evaluated using a 7-point Likert scale, ranging from 1 (strongly disagree) to 7 (strongly agree). All measurement constructs were adopted and adapted to fit the context of SMEs in Indonesia, while carefully considering the country's cultural characteristics and contextual conditions. This adjustment was carried out to ensure that each measurement item was relevant, understandable, and appropriate for Indonesian SME respondents. The process of adopting and adapting the measurement instruments followed the procedures proposed Tsang et al. [47].

3.3 Method of analyzing data

This study adopts a Structural Equation Modeling (SEM) approach to examine and test the hypotheses proposed in the research model. In conducting the analysis, the study uses the Partial Least Squares (PLS) technique as the main analytical method, as it is considered suitable for evaluating relationships among constructs and assessing the overall structure of the proposed model. Specifically, both the measurement model and the structural model are estimated using SmartPLS 4 software. This estimation process follows the procedures outlined by Hair et al. [48], ensuring that the assessment of construct validity, reliability, and structural relationships is conducted systematically and in accordance with established PLS-SEM guidelines. The constructs incorporated into the research model are measured using data obtained through an interval scale. This scale is considered appropriate because it supports quantitative analysis and is consistent with the analytical assumptions, procedures, and methodological requirements commonly applied in the Partial Least Squares (PLS) approach [48]. When applying the PLS approach, it is important to treat the measurement model and the structural model as two separate components of the analysis. The measurement model focuses on assessing the quality of the indicators, including their validity and reliability, while the structural model examines the relationships among the latent constructs and evaluates the proposed hypotheses. Hulland [49] advocates for a sequential testing process to ensure the robustness and validity of the results. This stepwise evaluation helps to maintain analytical rigor and ensures that both the reliability of the measurement instruments and the hypothesized relationships among constructs are thoroughly assessed.

4. RESEARCH RESULTS

4.1 Construct measurement

The assessment process begins by examining the measurement model to ensure that the research instrument meets the required standards of validity and reliability. This step is important because the quality of the measurement items must be confirmed before proceeding to the next stage of analysis. After the instrument has been shown to be valid and reliable, the study then continues with the evaluation of the structural model to test the proposed hypotheses and examine the relationships among the constructs. The indicators employed in this study fulfill the criteria for convergent validity, as demonstrated by factor loadings greater than 0.7 and Average Variance Extracted (AVE) values exceeding 0.5 [48]. Discriminant validity is also satisfied if the Heterotrait-Monotrait (HTMT) ratio is below 0.9, or if the square root of a construct's AVE is higher than its correlations with other constructs (see Table 1) [50, 51]. Furthermore, the reliability of the instrument is confirmed when Cronbach's alpha (α), rho alpha (ρα), and Composite Reliability (ρc) scores all surpass the 0.7 threshold (see Table 2) [48, 52].

4.2 Structural model

This study investigates the influence of government support on SME performance, with information system strategy considered a moderating factor (see Figure 3). Hypothesis testing uses the SEM-PLS method with 5,000 bootstrap resamplings [50]. The analysis reveals that government support has a significant positive effect on SME performance ($\beta = 0.280$; $p < 0.01$), thereby confirming the first hypothesis (H1). However, the role of information system strategy as a moderator in the relationship between government support and SME performance is not statistically significant ($\beta = -0.044$; $p > 0.05$), resulting in the rejection of the second hypothesis (H2). A detailed summary of the hypothesis testing outcomes is presented in Table 3.

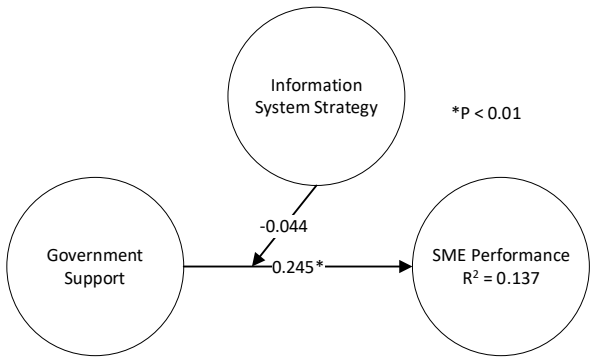

Figure 3. Path model

Table 1. Discriminant validity test result

	Fornell-Larcker			HTMT	
	GS	**ISS**	**OP**	**GS**	**ISS**
GS	0.848				
ISS	0.675	0.890		0.756	
OP	0.279	0.364	0.882	0.304	0.386

Table 2. Validity and reliability test results

Constructs	Code	Loading	Average Variance Extracted (AVE)	α	ρα	ρc
Government support	GS1	0.793	0.719	0.870	0.873	0.911
	GS2	0.876				
	GS3	0.884				
	GS4	0.838				
Information system strategy	ISS1	0.871	0.792	0.912	0.915	0.938
	ISS2	0.901				
	ISS3	0.903				
	ISS4	0.884				
SME Performance	OP1	0.842	0.777	0.929	0.939	0.946
	OP2	0.884				
	OP3	0.905				
	OP4	0.908				
	OP5	0.867				

Table 3. Hypothesis test result

Path	β	Mean	St.Dev	t	P values
GS➔ OP	0.280	0.287	0.048	5.885	0.000
ISS x GS➔ OP	-0.044	-0.044	0.043	1.024	0.306

5. DISCUSSION

Because of its important contribution to economic development, SME performance in many developing countries has increasingly become a major concern for scholars, policymakers, and the wider public. This growing attention reflects the strategic role of SMEs in supporting employment, income generation, innovation, and overall economic resilience. This condition emphasizes the importance of identifying the key factors that can improve SME performance. [19]. Understanding these factors is essential because they can help SMEs strengthen their competitiveness, increase productivity, and achieve more sustainable business growth. In the context of Indonesia, this study presents notable findings. While some results are consistent with previous research, others present opposing evidence. A statistically significant positive correlation was found between government support and SME performance (p-value: 0.000), supporting earlier findings that emphasize the beneficial impact of government involvement in fostering SME growth [16, 17, 33, 53]. For instance, Khan et al. [16] stressed that SMEs in Pakistan gained access to critical resources such as financing, training, subsidies, and collaborations with professional bodies through government initiatives. Similarly, Najib et al. [17] observed that financial and technical support provided by the Indonesian government positively influenced innovation and SME performance.

Conversely, several studies present conflicting findings, suggesting that government support may have no or even a detrimental effect on SME performance [18, 19, 54]. Jeong et al. [18] reported that government tax incentives and financial aid may adversely affect firm performance, often due to inadequate technical infrastructure. In addition, resource constraints and technological capabilities may hinder SMEs from accessing and utilizing transformative technologies. Zulu-Chisanga et al. [19] also reported that institutional support does not have a significant relationship with SME performance. They explained that this condition may occur because market support structures in developing economies are still relatively weak, while SMEs often have limited access to strategic resources needed to convert institutional support into improved business outcomes. As a result, firms in such environments often rely more on external networks and inter-firm collaboration than on government support.

The current study revealed that information system strategy does not moderate the relationship between government support and SME performance (p-value = 0.306), indicating that the second hypothesis is not supported. This finding aligns with the studies by Yayla and Hu [55] and Huo et al. [56], who argued that organizational performance is largely process-oriented and shaped by the effectiveness of internal operational practices rather than strategy alone. Despite this, other research has shown that strategy may significantly influence performance outcomes [21, 39, 57, 58]. However, in this case, the results suggest that strong and direct government support may render the influence of information system strategy negligible. Due to heavy governmental involvement, SMEs may not rely on internal strategic planning for adopting information systems, particularly e-commerce platforms [15]. Government agencies often implement mandatory regulations and offer consistent assistance and oversight, thereby reducing the autonomy of SMEs in developing and executing their system strategies. In this scenario, government support dominates strategic decision-making and potentially limits the implementation of independent information system strategies. The structured mentoring and regulatory guidance provided by the government may suppress innovation or adaptation of system strategies at the firm level.

In practical implementation, these findings underscore the

critical role of strong government policies and well-structured regulatory frameworks in boosting the competitiveness of small, and medium-sized enterprises (SMEs). This becomes particularly important when SMEs must compete with larger corporations that generally possess more established resources and internal strategies. In situations where SMEs are still lacking in well-developed internal strategic capabilities, active government involvement—through practical forms of support such as funding, training, access to digital technologies, and managerial assistance—can serve as an effective substitute. Moreover, government oversight and strategic guidance can provide a more stable foundation for SMEs to navigate the challenges of digital transformation. Therefore, the government's strategic role is not merely complementary, but can be a decisive factor in enabling MSMEs to adapt and grow amid increasingly complex and digital business competition.

The finding that information system strategy does not moderate the relationship between government support and SME performance can be understood from the perspective of Contingency Theory. This perspective suggests that the effectiveness of a strategy depends on how well it fits with external conditions, so the role of information system strategy may not be strong enough to change the impact of government support on SME performance in this context. Government support is not always provided as fully flexible or discretionary assistance that SMEs can use according to their own strategic preferences. Instead, such support is often accompanied by specific regulatory requirements, the obligation to use standardized digital platforms, and strict reporting procedures that businesses must follow to remain compliant. These conditions encourage SMEs to adopt a compliance-oriented strategic stance, in which many strategic decisions are ultimately determined by external policies rather than internal organisational considerations [59]. This government dominance effectively suppresses the strategic autonomy of SMEs: managerial discretion is reduced, decisions related to information systems become homogeneous across businesses, and IS strategies are used primarily to meet regulatory obligations rather than to create differentiation or competitive advantage [59]. In such situations, the performance benefits of government support appear more as a direct effect of resource provision (e.g., funding, training, legitimacy, or infrastructure), so that variations in IS strategies do not have sufficient scope to strengthen or weaken these relationships. In other words, the moderating role of information system strategies does not appear empirically, as the institutional logic driven by government support tends to override the internal strategic logic that underpins information system strategy formation [60].

6. LIMITATIONS AND PROSPECTS FOR FUTURE RESEARCH

This study recognizes that there are several limitations that should be carefully considered when interpreting the findings. These limitations do not reduce the value of the study, but they indicate that the results should be understood within certain methodological and contextual boundaries. At the same time, these constraints offer useful directions for future research by highlighting areas that require further investigation, refinement, or broader empirical testing. First, the data were gathered using an online survey disseminated via the WhatsApp Messenger platform. While this method offers efficiency and wide reach, it introduces a potential weakness in confirming whether the individuals who responded were indeed the intended and appropriately qualified participants. This raises concerns about the validity and reliability of the responses collected. Second, the research sample was limited to SMEs that had received comprehensive government assistance in adopting e-commerce marketplace platforms. This specific context could potentially result in biased responses, as the participants' perspectives might have been influenced by the benefits and support they received, thereby not fully representing the broader population of SMEs. Third, the analytical findings indicate that information system strategy does not serve as a mediating variable in the relationship between the use of e-commerce platforms and SME performance outcomes. In other words, the adoption of e-commerce platforms does not appear to improve SME performance indirectly through information system strategy, suggesting that this strategy may not be the main pathway through which e-commerce use contributes to business results. This unexpected result suggests that other factors may be at play and highlights the need for future studies to explore alternative explanatory variables. Researchers are encouraged to examine constructs such as website quality, perceived usefulness and ease of use, perceived risk, or the degree of strategic alignment [20], as these elements may offer deeper insights into the dynamics between digital platform usage and SME performance.

7. RESEARCH CONCLUSION

This study underscores the critical role of government support in enhancing SME performance in developing countries like Indonesia, where a strong positive correlation was found between such support and performance outcomes, particularly through access to financing, training, and technical assistance. While this aligns with previous findings, some studies report contrasting results, indicating that government incentives may have limited or negative effects when technical infrastructure is lacking or market systems are underdeveloped. In addition, the study shows that information system strategy does not strengthen or weaken the relationship between government support and SME performance. This finding indicates that when institutional intervention is strong, external pressures and policy-driven support may become more dominant than internal strategic efforts, including the adoption of e-commerce or other information system initiatives within SMEs. In such contexts, government oversight may replace internal planning but potentially hinder innovation. The study also notes several limitations, including the use of WhatsApp-based online surveys, which may affect respondent validity, and a sample limited to SMEs receiving full government support, possibly biasing perceptions. Furthermore, the analysis indicates that information system strategy does not play a moderating or mediating role in explaining SME performance. This result suggests that the contribution of information system strategy may be limited in the current model, thereby opening opportunities for future studies to examine other relevant factors, such as website quality, perceived usefulness, perceived risk, and strategic alignment, which may provide a stronger explanation of SME performance. Overall, the findings suggest that in environments dominated by institutional support, contingency

variables like information system strategy may lose relevance, emphasizing the need for strong, well-structured public policies to drive digital transformation and SME competitiveness.

ACKNOWLEDGEMENT

The authors express their sincere gratitude to the Office of Cooperatives and SMEs of the Special Region of Yogyakarta and to all SMEs who generously participated as respondents in this study. This research was supported by funding from the DIPA UNY PTBH under contract number T/17.4.2/UN/34.9/PT.01.03/2024.

REFERENCES

[1] Singh, A.K. (2022). A study on the growth and role of SMEs in Indian economy. International Journal of Financial Management and Economics, 5(2): 114-117. https://doi.org/https://www.doi.org/10.33545/26179210.2022.v5.i2.158

[2] Amoah, J., Belas, J., Dziwornu, R., Khan, K.A. (2022). Enhancing SME contribution to economic development: A perspective from an emerging economy. Journal of International Studies, 15(2): 63-76. https://doi.org/10.14254/2071-8330.2022/15-2/5

[3] Glonti, V., Manvelidze, R., Surmanidze, I. (2021). The contribution of SME to regional economic development: On example of Adjara Autonomous Republic. European Journal of Sustainable Development, 10(1). https://doi.org/10.14207/ejsd.2021.v10n1p513

[4] Alaghbari, M.A. (2022). Impact of SMEs on economic development: A systematic review of literature. International Journal of Green Management and Business Studies, 2(1). https://doi.org/https://doi.org/10.56830/SLGT4118

[5] Tresnasari, R., Zulganef. (2023). Increasing MSME performance through institutional strengthening, entrepreneurship, and digital marketing. International Journal of Research in Community Service, 4(1): 11-17.

[6] Kurniadi, K., Ibrahim, S., Badruzzaman, B., Purnama, H. (2022). Small and medium enterprises business model in Indonesia. Journal of Economics and Business, 5(3): 153-165. https://doi.org/10.31014/aior.1992.05.03.444

[7] Lestari, I.A. (2022). The role of owner accounting knowledge on MSME performance and the use of accounting Information Systems. BASKARA: Journal of Business and Entrepreneurship, 5(1): 47-56. https://doi.org/https://doi.org/10.54268/baskara.v5i1.12058

[8] Raden Ariansyah, K. (2022). Research on MSMEs in Indonesia: Bibliometric analysis. International Journal of Scientific Research in Science and Technology: 171-178. https://doi.org/10.32628/ijsrst229527

[9] Hayati, S., Fatarib, H. (2023). The role of Small and Medium Micro Enterprises (MSMEs) In economic development in Bandar Lampung. International Journal of Environmental, Sustainability, and Social Science, 3(3): 571-576. https://doi.org/https://doi.org/10.38142/ijesss.v3i3.247

[10] Zakirova, M., Shaikin, D., Kussainova, A., Ashimova, I. (2026). Perceptions of government support and development constraints among SMEs in the emerging market. Journal of Governance and Regulation, 15(2): 281-288. https://doi.org/10.22495/jgrv15i2art24

[11] Basson, N., Omoruyi, O. (2025). Internal and external factors affecting the growth of SMMEs: A qualitative study. The Southern African Journal of Entrepreneurship and Small Business Management, 17(1). https://doi.org/10.4102/sajesbm.v17i1.919

[12] Elohor Katherine, I., Olabode, O., Alaba, O.P.S.O.F. (2022). Government intervention and support on SMES firm performance. Journal of Economic Science Research| Volume, 5(2): 577. https://doi.org/10.30564/jesr.v5i2.4276

[13] Ajibade, P., Mutula, S. (2020). Promoting SMEs effectiveness through innovative communication strategies and business-IT alignment. Problems and Perspectives in Management, 18(3): 233-244. https://doi.org/10.21511/ppm.18(3).2020.20

[14] DiMaggio, P.J., Powell, W.W. (2000). The iron cage revisited institutional isomorphism and collective rationality in organizational fields. Economics Meets Sociology in Strategic Management, 17: 143-166. https://doi.org/10.1016/S0742-3322(00)17011-1

[15] Nugroho, M.A., Novitasari, B.T., Timur, R.P. (2024). The mediating role of E-Commerce adoption in the relationship between government support and SME performance in developing countries. International Journal of Sustainable Development and Planning, 19(3): 1023-1032. https://doi.org/10.18280/ijsdp.190320

[16] Khan, I., Ming, J., Ali, M., Zhang, Z. (2020). Influence of government supports on small and medium enterprises development: Case study of Swat Valley. Journal of Small Business Management, 60(6): 1484-1515. https://doi.org/10.1080/00472778.2020.1767487

[17] Najib, M., Abdul Rahman, A.A., Fahma, F. (2021). Business survival of small and medium-sized restaurants through a crisis: The role of government support and innovation. Sustainability, 13(19). https://doi.org/10.3390/su131910535

[18] Jeong, H., Shin, K., Kim, S., Kim, E. (2021). What types of government support on food SMEs improve innovation performance? Sustainability, 13(16): 9461. https://doi.org/10.3390/su13169461

[19] Zulu-Chisanga, S., Chabala, M., Mandawa-Bray, B. (2020). The differential effects of government support, inter-firm collaboration and firm resources on SME performance in a developing economy. Journal of Entrepreneurship in Emerging Economies, 13(2): 175-195. https://doi.org/10.1108/jeee-07-2019-0105

[20] Nugroho, M.A., Jusoh, R., Salleh, N.A.M. (2020). The role of alignment between IS strategy and social capital on the IS capability and business performance relationship: A cross-sectional survey. IEEE Access, 8: 152760-152771. https://doi.org/10.1109/access.2020.3018036

[21] Ukko, J., Nasiri, M., Saunila, M., Rantala, T. (2019). Sustainability strategy as a moderator in the relationship between digital business strategy and financial performance. Journal of Cleaner Production, 236: 117626. https://doi.org/10.1016/j.jclepro.2019.117626

[22] Galbreath, J., Lucianetti, L., Thomas, B., Tisch, D. (2020). Entrepreneurial orientation and firm performance

in Italian firms: The moderating role of competitive strategy. International Journal of Entrepreneurial Behavior & Research, 26(4): 629-646. https://doi.org/10.1108/ijebr-07-2019-0457
[23] Scott, W.R. (1987). The adolescence of institutional theory. Administrative Science Quarterly, 32(4): 493-511. https://doi.org/https://doi.org/10.2307/2392880
[24] King, J.L., Gurbaxani, V., Kraemer, K.L., McFarlan, F.W., Raman, K.S., Yap, C.S. (1994). Institutional factors in information technology innovation. Information Systems Research, 5(2): 139-169. https://doi.org/10.1287/isre.5.2.139
[25] Gil-Garcia, J.R. (2012). Electronic government success: Definition, measures, and factors. In Enacting Electronic Government Success: An Integrative Study of Government-wide Websites, Organizational Capabilities, and Institutions, pp. 1-32. Boston, MA: Springer US.
[26] Mata, F.J., Fuerst, W.L., Barney, J.B. (1995). Information technology and sustained competitive advantage: A resource-based analysis. MIS Quarterly, 19(4): 487-505.
[27] Wade, M., Hulland, J. (2004). Review: The resource-based view and Information Systems research: Review, extension, and suggestions for future research. MIS Quarterly, 28(1): 107-142. https://doi.org/10.2307/25148626
[28] Donaldson, L. (2015). Structural Contingency Theory. In International Encyclopedia of the Social & Behavioral Sciences (2nd ed.), pp. 609-614.
[29] Chapman, C.S. (1997). Reflections on a contingent view of accounting. Accounting, Organizations and Society, 22(2): 189-205. https://doi.org/https://doi.org/10.1016/S0361-3682(97)00001-9
[30] Maletič, M., Maletič, D., Gomišček, B. (2018). The role of contingency factors on the relationship between sustainability practices and organizational performance. Journal of Cleaner Production, 171: 423-433. https://doi.org/10.1016/j.jclepro.2017.09.172
[31] Abdullah, N.H.N., Mirza, N.M.A., Krishnan, S., Zakaria, A.A.M., Morris, G. (2022). A framework of contingencies factors government support and management accounting practices in malaysian small and medium-sized enterprises. Indonesian Journal of Economics, Social, and Humanities, 4(1): 1-13. https://doi.org/10.31258/ijesh.4.1.1-13
[32] Jayeola, O., Sidek, S., Sanyal, S., Hasan, S.I., An, N.B., Ajibade, S.S.M., Phan, T.T.H. (2022). Government financial support and financial performance of SMEs: A dual sequential mediator approach. Heliyon, 8(11): e11351. https://doi.org/10.1016/j.heliyon.2022.e11351
[33] Alkahtani, A., Nordin, N., Khan, R.U. (2020). Does government support enhance the relation between networking structure and sustainable competitive performance among SMEs? Journal of Innovation and Entrepreneurship, 9(1): 14. https://doi.org/10.1186/s13731-020-00127-3
[34] Charoensukmongkol, P. (2016). The interconnections between bribery, political network, government supports, and their consequences on export performance of small and medium enterprises in Thailand. Journal of International Entrepreneurship, 14(2): 259-276. https://doi.org/10.1007/s10843-016-0164-1
[35] Pergelova, A., Angulo-Ruiz, F. (2014). The impact of government financial support on the performance of new firms: The role of competitive advantage as an intermediate outcome. Entrepreneurship & Regional Development, 26(9-10): 663-705. https://doi.org/10.1080/08985626.2014.980757
[36] Novandari, W., Gunawan, D.S., Bawono, I.R., Naufalin, R., Maryani, S., Jajang, J., Sulasih, S. (2023). Social media adoption and SMEs business performance: Examining entrepreneurship orientation and government support policies in Central Java. Journal The Winners, 24(1): 57-67. https://doi.org/10.21512/tw.v24i1.9262
[37] Songling, Y., Ishtiaq, M., Anwar, M., Ahmed, H. (2018). The role of government support in sustainable competitive position and firm performance. Sustainability, 10(10): 3495. https://doi.org/10.3390/su10103495
[38] Otley, D. (1999). Performance management: A framework for management control systems research. Management Accounting Research, 10(4): 363-382. https://doi.org/10.1006/mare.1999.0115
[39] Su, Z., Guo, H., Sun, W. (2017). Exploration and firm performance: The moderating impact of competitive strategy. British Journal of Management, 28(3): 357-371. https://doi.org/10.1111/1467-8551.12218
[40] Koerniawan, I., Triatmanto, B., Zuhroh, D. (2024). Increasing SME performance through quality information technology and top management support. Innovation Business Management and Accounting Journal, 3(1): 63-69. https://doi.org/https://doi.org/10.56070/ibmaj.2024.008
[41] Makiwa, P., Steyn, R. (2018). An investigation of the government-related factors that inhibit small to medium enterprises' adoption and effective use of information and communication technology in developing countries: The case of Zimbabwe. International Development Informatics Association Conference, 933: 3-16. https://doi.org/10.1007/978-3-030-11235-6_1
[42] Kock, N., Hadaya, P. (2016). Minimum sample size estimation in PLS-SEM: The inverse square root and gamma exponential methods. Information System Journal, 28(1): 227-261. https://doi.org/10.1111/isj.12131
[43] Wong, L.W., Leong, L.Y., Hew, J.J., Tan, G.W.H., Ooi, K.B. (2020). Time to seize the digital evolution: Adoption of blockchain in operations and supply chain management among Malaysian SMEs. International journal of Information Management, 52: 101997. https://doi.org/https://doi.org/10.1016/j.ijinfomgt.2019.08.005
[44] Sabherwal, R., Chan, Y.E. (2001). Alignment between business and IS Strategies: A study of prospectors, analyzers, and defenders. Information Systems Research, 12(1): 11-33. https://doi.org/10.1287/isre.12.1.11.9714
[45] Chen, D.Q., Mocker, M., Preston, D.S., Teubner, A. (2010). Information systems strategy: Reconceptualization, measurement, and implications1. MIS quarterly, 34(2): 233-259. https://doi.org/https://dl.acm.org/doi/abs/10.5555/2017458.2017461
[46] Heeseok, L., Byounggu, C. (2003). Knowledge management enablers, processes, and organizational performance: An integrative view and empirical examination. Journal of Management Information Systems, 20(1): 179-228.

https://doi.org/10.1080/07421222.2003.11045756
[47] Tsang, S., Royse, C.F., Terkawi, A.S. (2017). Guidelines for developing, translating, and validating a questionnaire in perioperative and pain medicine. Saudi Journal of Anaesthesia, 11(Suppl 1): S80-S89. https://doi.org/http://doi.org/10.4103/sja.SJA_203_17
[48] Hair, J.F., Hult, G.T.M., Ringle, C.M., Sarstedt, M., Danks, N.P., Ray, S. (2021). Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R: A Workbook. https://doi.org/https://doi.org/10.1007/978-3-030-80519-7
[49] Hulland, J. (1999). Use of partial least squares (PLS) in strategic management research: a review of four recent studies. Strategic Management Journal, 20(2): 195-204. https://doi.org/ http://www.jstor.org/stable/3094025
[50] Henseler, J., Ringle, C.M., Sarstedt, M. (2014). A new criterion for assessing discriminant validity in variance-based structural equation modeling. Journal of the Academy of Marketing Science, 43(1): 115-135. https://doi.org/10.1007/s11747-014-0403-8
[51] Fornell, C., Larcker, D.F. (1981). Evaluating structural equation models with unobservable variables and measurement error. Journal of Marketing Research, 18(1): 39-50. https://doi.org/https://doi.org/10.2307/3151312
[52] Dijkstra, T.K., Henseler, J. (2015). Consistent partial least squares path modeling. MIS Quarterly, 39(2): 297-316. https://doi.org/https://doi.org/10.25300/MISQ/2015/39.2.02
[53] Cin, B.C., Kim, Y.J., Vonortas, N.S. (2016). The impact of public R&D subsidy on small firm productivity: Evidence from Korean SMEs. Small Business Economics, 48(2): 345-360. https://doi.org/10.1007/s11187-016-9786-x
[54] Joo, H.Y., Suh, H. (2017). The Effects of government support on corporate performance hedging against international environmental regulation. Sustainability, 9(11). https://doi.org/10.3390/su9111980
[55] Yayla, A.A., Hu, Q. (2011). The impact of IT-business strategic alignment on firm performance in a developing country setting: Exploring moderating roles of environmental uncertainty and strategic orientation. European Journal of Information Systems, 21(4): 373-387. https://doi.org/10.1057/ejis.2011.52
[56] Huo, B., Qi, Y., Wang, Z., Zhao, X. (2014). The impact of supply chain integration on firm performance: The moderating role of competitive strategy. Supply Chain Management: An International Journal, 19(4): 369-384. https://doi.org/10.1108/scm-03-2013-0096
[57] Zaridis, A., Vlachos, I., Bourlakis, M. (2020). SMEs strategy and scale constraints impact on agri-food supply chain collaboration and firm performance. Production Planning & Control, 32(14): 1165-1178. https://doi.org/10.1080/09537287.2020.1796136
[58] Ouakouak, M.L., Ouedraogo, N. (2013). The mediating role of employee strategic alignment in the relationship between rational strategic planning and firm performance: A European study. Canadian Journal of Administrative Sciences / Revue Canadienne des Sciences de l'Administration, 30(3): 143-158. https://doi.org/10.1002/cjas.1259
[59] Balzano, M., Marzi, G., Turzo, T. (2024). SMEs and institutional theory: Major inroads and opportunities ahead. Management Decision, 63(13): 1-27. https://doi.org/10.1108/md-05-2023-0734
[60] Liu, N., Hu, H., Wang, Z. (2022). The relationship between institutional pressure, green entrepreneurial orientation, and entrepreneurial performance—The Moderating effect of network centrality. Sustainability, 14(19): 12055. https://doi.org/10.3390/su141912055