

## The Mediating Role of E-Commerce Adoption in the Relationship Between Government Support and SME Performance in Developing Countries



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### ABSTRACT

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In developing countries, SMEs contribute significantly to GDP and employment (up to 33% and 45%, respectively). Governments in developing countries such as Indonesia take initiatives to provide support to MSMEs through facilities and regulations to improve their performance. Previous studies lack theoretical consensus on the relationship between government support (e.g., incentives, training, regulatory changes, technology facilitation) and SME performance. This study uses a quantitative approach. An online survey of 1514 SMEs was conducted for this study. A valid sample of 402 SMEs was collected for this study. This study investigates the government-supported SME performance relationship and explores the mediating role of e-commerce adoption on the government-supported SME performance relationship. The hypotheses were tested using the partial least squares (PLS) approach with the help of SmartPLS 3.2.8 software. This study demonstrates the mediating role of e-commerce marketplace adoption in the relationship between government support and SME performance. The findings provide new insights into the role of government in driving SME performance ( $p < 0.00$ ). This study can have implications for determining government policies to improve the performance of SMEs. This study explains the need for government policies to encourage SMEs to adopt e-commerce. In addition, the government can improve facilities for SMEs to make it easier to adopt the e-commerce marketplace.

## 1. INTRODUCTION

Small and medium enterprises (SMEs) significantly contribute to gross domestic product (GDP) and the provision of employment. SMEs could contribute up to 50% of GDP, provide 60% of employment in developed countries, and contribute up to 33% of GDP and 45% of employment in developing countries [1, 2]. Compared to large-scale companies, SMEs have higher flexibility because they have a specific and specific market [3]. SMEs, however, struggle to compete in the age of the digital economy. Increasing market share with limited resources is one of the issues SMEs encounter [4]. To respond to these issues, SMEs have adopted e-commerce marketplaces to improve their performance. The biggest issue SMEs confront, meanwhile, is also thought to be government support [5]. According to numerous studies, government support for SME performance is important, especially in adopting e-commerce marketplaces [6-8].

SMEs in Indonesia face challenges in improving performance through e-commerce marketplaces. The role of the government in supporting SMEs is needed. In the context of this study, RBV explains the direct and indirect relationship between the use of e-commerce marketplaces and SME performance. On the other hand, intuition theory explains that the government can encourage and force MSMEs to adopt technology (i.e., e-commerce marketplace) [9].

Previous research that attempted to investigate how government support affects SMEs' performance came up with contradictory findings. Previous studies explored the relationship between government support and SMEs' performance by examining country context, environmental conditions, and methodological approaches. Park et al. [10] and Alkahtani et al. [11] found that the performance of SMEs correlates positively with government support. In a developing country setting, Pramaishella et al. [12] found evidence of government support having a relationship with the performance of SMEs. However, on the other hand, Zulu-Chisanga et al. [13] found no relationship between government support and SME performance. These contradictory results show no consensus from previous studies regarding the relationship of government support to the performance of SMEs.

According to institutional theory, the government can influence the behavior of individuals or organizations using institutional pressure in the form of regulation [14, 15]. Government support could be used to influence SME behavior for e-commerce marketplace adoption. From the perspective of the resource-based view (RBV) theory, increasing the ability of organizational resources (SMEs) could encourage organizational performance [16]. SMEs' use of e-commerce marketplaces can have a relationship with SME performance.

Theoretically, as was discussed above, there is a connection between government support and SMEs' performance.

Previous studies have shown a direct relationship between government support and SME performance [10-12]. Institutional theory studies demonstrate a relationship between government support for e-commerce use [17, 18]. On the other hand, the study that adopted the RBV theory discovered a relationship between the use of e-commerce and the performance of SMEs [19, 20]. The role of e-commerce adoption on the relationship between government support and SME performance still has the opportunity to be explored further. Previous studies have not shown a consensus on the role of e-commerce adoption in the relationship between government support and SME performance. The analysis carried out by previous studies still tends to be fragmented. This study tries to fill the research gap of previous studies by exploring the role of e-commerce adoption as a mediating variable of the relationship between government support and organizational performance (SMEs).

Furthermore, this study offers research novelty in reviewing the mediating role of e-commerce adoption through three critical arguments. First, this study investigates the government's role in encouraging SMEs' digitalization through e-commerce adoption. E-commerce adoption signifies a normative change of social structure to create an authoritative atmosphere towards SMEs [17, 18]. In other words, this study investigates the government's commitment to encouraging e-commerce adoption at the SME level. Secondly, the researcher considers e-commerce as a strategic resource to improve the performance of SMEs.

Furthermore, this study examines the adoption of e-commerce to create a competitive advantage in improving their performance. E-commerce adoption is inseparable from the government's role in creating a social structure through policies that support e-commerce adoption [16, 21]. Thirdly, this study revisits the government's intervention in improving SMEs' performance. In other words, this study confirms the government's support to improve the performance of SMEs. The three research novelties have been systematically designed through two main theories, namely institutional theory and RBV.

According to the discussion above, this study specifically aims to investigate the relationship between government support and e-commerce adoption, examine the relationship between e-commerce adoption and SME performance, and explore the role of e-commerce adoption as a mediating variable on the relationship between government support and SME performance. Studies that explore the three issues above comprehensively are still very limited. The results of this study could provide a different point of view on policymakers (government) in improving the performance of SMEs. Theoretically, the study findings could contribute to exploring the relationship between government support and the performance of SMEs.

## 2. THEORETICAL BACKGROUND AND HYPOTHESES DEVELOPMENT

### 2.1 Institutional theory and resource-based view theory

Institutional theory views the behavior of individuals or organizations as being shaped by pressure from the government. The pressure can be coercive, mimetic, and

normative [14, 15]. King et al. [9] found government pressure to encourage the adoption of information technology. Legal rules are one of the implementations of institutional pressure on individuals or organizations [22]. Several studies show the use of coercive pressure or the ability to encourage the adoption of e-government [23-28]. In the context of e-commerce adoption, institutional pressure can make SMEs use e-commerce marketplaces. Thus, government support can make SMEs use e-commerce.

On the other hand, the resource-based view theory perspective views organizational resources as capable of producing outcomes in the form of performance [16, 21]. Organizational resources can be in the form of IS assets or IS Capability [16]. Increasing the ability of organizational resources in the form of technological resources (i.e., e-commerce marketplace) will encourage increased performance. One form of increasing organizational capacity is by adopting new technologies (such as e-commerce marketplaces) that can trigger performance improvements—the relationship between institutional theory and resource-based view theory in adopting e-commerce marketplaces is present in Figure 1.

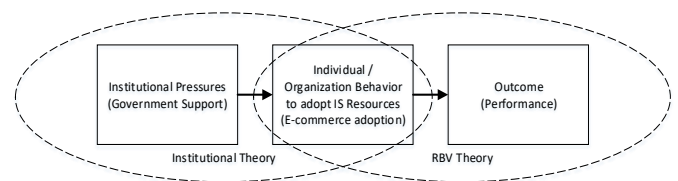


Figure 1. Underlying theories frameworks

### 2.2 Government support relationship with e-commerce marketplace adoption

Institutional theory describes that institutions (like the government) could pressure individuals or organizations to change the behavior of individuals or organizations. The literature mentions at least three types of institutional pressure: coercive, mimetic, and normative [14, 15]. King et al. [9] found that government pressure could encourage IT innovation by putting pressure on the technology adoption process. Governments tend to use various kinds of regulations to influence individuals or organizations to adopt technology [23, 24, 26-28].

The government helps promote the use of technology in business [29]. Government support could be provided through various policies designed to bridge business competition and promote healthy business competitiveness [30, 31]. Previous studies show evidence of government support's importance in using technology in business [32-36]. Specifically, government support has been proven to play a role in the decision to adopt technology (such as e-commerce) by SMEs [17-19, 37-41]

Al Nahian Riyadh et al. [39] investigated the relationship between government support and the use of e-banking by SMEs in Bangladesh using an Institutional theory framework. Al Nahian Riyadh et al. [39] found that government support had a significant role in the decision of SMEs to use e-banking. Nugroho [37] conducted a study on 446 SMEs in Indonesia and discovered that government support was indirectly related to the performance of SMEs. Imre [41] conducted a study of ERP adoption by SMEs in Turkey and revealed that government support (in the form of regulation) has a

substantial role in the decision to overcome ERP. Wong et al. [17] investigated the role of the government on SMEs in Malaysia in adopting blockchain technology, finding evidence that government support has no impact on the decision to adopt blockchain. Lutfi et al. [18] found a significant relationship of government support on SMEs' use of accounting information systems in Jordan. From the discussion above, it can be predicted that government support will have a role in the decision of SMEs to adopt technology (including e-commerce). The discussion above has not shown whether Government support has a positive or negative relationship on e-commerce marketplace adoption.

H1: Government support related to e-commerce marketplace adoption

### 2.3 The relationship between e-commerce marketplace adoption and SME performance

Resource-based view (RBV) theory highlights that the company's resources in the form of information technology can increase competitive advantage and impact performance [16, 42-44]. From the RBV's point of view, the use (adoption) and investment of information technology will be able to drive performance. Technically, the use of information technology will be able to increase productivity so as to encourage performance [45, 46]. The use of technology to assist business processes has been proven to have an impact on productivity [47-49]. Additionally, it has been demonstrated that Internet technology can improve the effectiveness and efficiency of how business organizations operate [50].

Many previous studies have proven the relationship between the adoption of information technology or information systems with performance [51-56]. Yadnya and Santika [53] found that e-commerce impacts marketing performance in Bali, Indonesia, while Ausat et al. [55] proved that e-commerce adoption affects the performance of MSMEs in Subang, Indonesia.

However, the company's size could affect how sound organizations perform [16]. The adoption of information systems by SMEs could increase income [57]. Information systems could improve the efficiency of organizational management [58]. Ramli [59] explored the relationship between adopting information systems and performance, showing that using information systems could increase customer satisfaction. Khayer et al. [19] found the adoption of cloud computing on the performance of SMEs. Lutfi et al. [18] and Suriyapperuma et al. [51] discovered that adopting information systems is significantly related to the performance of SMEs. Chairael et al. [60] and Faisol et al. [20] confirmed the relationship of information technology adoption on the performance of SMEs in Indonesia. Specifically, adopting e-commerce marketplaces has a significant relationship with organizational performance [53-55]. The discussion above has not shown whether e-commerce marketplace adoption has a positive or negative relationship with SME's performance.

H2: e-commerce marketplace adoption related to SME's performance

### 2.4 The role of e-commerce marketplace adoption in the relationship between government support and SME performance

Institutional theory views that the behavior of individuals and organizations could be influenced by the role of

government in the form of rules [23, 24, 26-28]. These rules could be in the form of government support or facilities provided by the government so that organizations improve the ability of information system resources by adopting an information system or application like an e-commerce marketplace. From a resource-based view theory point of view, an increase in information system resources could increase competitive advantage/performance [16, 42-44].

The relationship between government support and adoption of information systems has been proven by previous studies [17, 18, 37, 41]. Nugroho [37] found evidence of an indirect relationship between government support and decisions to adopt information systems in SMEs. Validation of the direct relationship between government support and the adoption of information systems by SMEs was carried out by Imre [41], Wong et al. [17] and Lutfi et al. [18]. On the other hand, the relationship between users of information systems (such as e-commerce marketplaces) has been shown to have a relationship with the performance of SMEs [18-20, 51, 53-55, 60]. According to the discussion above, there is a relationship between government support for SMEs and their performance and the adoption of information technology (like e-commerce). The importance of information system adoption as a mediating factor in SMEs was confirmed by the study [61].

H3: e-commerce marketplace adoption mediates the relationship between government support and SME's performance.

The literature review briefly presents the research framework in Figure 2.

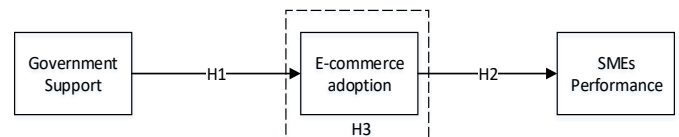


Figure 2. Research framework

## 3. METHODS

### 3.1 Operational definition and measurement of variables

This study uses three main variables: government support, adoption of e-commerce marketplaces, and SME performance. Government support refers to the presence or absence of support provided by both the local government and the central government in the form of financial assistance and support for existing laws and regulations. Adopting an e-commerce marketplace is defined as using an e-commerce marketplace to support company activities. SME performance refers to the relative performance compared to the company's main competitors. All variables were measured using a Likert scale of 1-7, from strongly disagree to agree strongly.

This study adopts a questionnaire used by previous studies in different research settings. The questionnaire was adopted using the questionnaire adoption procedure proposed by Tsang et al. [62]. This study adopts a four-item measure of government support from Wong et al. [17], five-item e-commerce marketplace adoption questions from Chen et al. [63] and Yoon et al. [64], as well as five items of the SME performance questionnaire from the study [65].

### 3.2 Sample

The number of samples could be determined using several approaches. Pallant [66] recommended that the sample size be determined based on the number of indicators and constructs. This study has a total of 15 indicators and five constructs. Thus, a sample size of 75 is appropriate (i.e.,  $15 \times 5$ ). Gefen et al. [67] and Kock and Hadaya [68] used the minimum sample size estimation method in PLS-SEM based on the assumption that the sample size must be greater than ten times the maximum number of inner or outer links leading to latent variables in the model. This study has the maximum number of inner or outer links pointing to the latent variable is 5. Therefore, a sample size of 50 is appropriate (i.e.,  $5 \times 10$ ). Another way to determine the minimum sample size is to use a priori power analysis [69, 70]. In determining the minimum sample using power analysis, researchers need to consider power, alpha, effect size, and the maximum number of predictors pointing to the latent variable. The power value is 0.80, and the alpha is 0.5, considered sufficient for business research [71]. Cohen [72] categorized the effect size into “small,” “medium,” and “large,” where the values are 0.2, 0.5 and 0.8, respectively. Cohen [72] explained that at least the effect size was categorized as small, to gain practical significance. This study uses a power value of 0.8, alpha 0.5, effect size 0.2, and 2, the maximum number of predictors pointing to the latent variable, to calculate the minimum sample size. Power analysis was performed using G\*Power 3.1.9.2 [73] and simulated by Hair et al. [74]. The minimum number of samples is 52 based on power analysis. Based on sample calculations using several of the methods mentioned above, the sample size for this study could range from 52 to 75 samples.

This study has surveyed all SME users of the e-commerce marketplace *SiBakul* *Jogja* (<https://sibakuljogja.jogjaprovo.go.id/app/Beranda>). This study uses a purposive sampling approach by taking a sample of SMEs registered in *SiBakul* *Jogja* and passing curation. The survey was conducted on 1514 SMEs that have passed curation and have been validated by the e-commerce marketplace manager. A collection of data was withdrawn in June-August 2022. Questionnaires were distributed online by contacting SME owners through the WhatsApp Messenger application. Eight enumerators assisted in the distribution of the questionnaires. This study succeeded in contacting and distributing questionnaires to 1431 SMEs. The questionnaire was only distributed once to each respondent to avoid response bias. A total of 402 questionnaires were filled out and could be used for data analysis (response rate 28%). The response rate of this study (28%) is relatively good compared to the average response rate of small company samples of around 14% [75]. Theoretically, the number of respondents has met the minimum required number of samples (52–75).

Respondents (SMEs) are more likely to use more than one e-commerce (63%) and take advantage of free e-commerce facilities (93%). The results show that SMEs still view SME operational costs as an essential factor in deciding the use of e-commerce. Respondents started using e-commerce in the last three years (average 2.42 years), with an average age of SMEs 5.75 years. Respondents (SMEs) have adopted e-commerce as a business strategy since the beginning of their

operation. Briefly, the respondent's profile is presented in Table 1.

**Table 1.** Respondent’s profile

	$\Sigma$	%
<b>Number of e-commerce</b>		
More than one	254	63%
Only one	148	37%
<b>Type of e-commerce</b>		
Free	374	93%
Premium	28	7%
Organization age (in average)	5.74 years	
E-commerce usage (in average)	2.42 years	
Number of employees (in average)	4	

### 3.3 Data analysis techniques

All hypotheses of this study were tested using the Structural Equation Modeling approach using the partial least square (SEM-PLS) method. This research uses Smart PLS 3 developed by Ringle et al. [76] to estimate measurements and structural models for decision-making in hypothesis testing. Ho et al. [77] explained the advantages of using PLS. First, PLS can estimate the model's size regarding validity and reliability. Second, by using construct latent indicators, PLS could produce a structural model that tests the strength of the hypothesized relationship. This study uses interval data to measure all research variables, while PLS can analyze interval data [78]. In analyzing data with PLS, it is important to assess the measurement model before assessing the structural model [79]. Hulland [80] suggested testing measurements and structural models separately and sequentially.

The mediating variable's mediating effect was assessed using the test procedure introduced by Baron and Kenny [81] and developed by Zhao et al. [82]. The mediation effect test was carried out by analyzing the significance of the indirect effect in the model. This study used the approach introduced by Baron and Kenny [81] to test the indirect effect (mediation analysis). This study considers the assessment approach suggested by Hayes [83], MacKinnon et al. [84], and Zhao et al. [82]. It considers the procedure for assessing the mediating variable using the PLS approach proposed by Hair et al. [74].

## 4. RESULTS

### 4.1 Measurement model

The measurement model tests the validity and reliability of the instrument before it is used to test the hypothesis on the structural model. The results of the analysis show that the instrument meets convergent validity because it has a loading value of more than 0.7 ( $>0.7$ ) and an AVE of more than 0.5 ( $>0.5$ ) (see Table 2) [85, 86]. The discriminant validity of the research instrument was met with the results of the analysis showing the HTMT ratio value below 0.9 ( $<0.9$ ) (see Table 3) [79, 87]. Instrument reliability is indicated by the value of Cronbach's alpha ( $\alpha$ ), rho alpha ( $\rho\alpha$ ) and composite reliability ( $\rho_c$ ) more than 0.7 ( $>0.7$ ) (see Table 2) [74, 79, 88].

**Table 2.** Validity and reliability

Constructs	Code	Loading	AVE	$\alpha$	$\rho\alpha$	$\rho c$
SMEs Performance (SP)	SP1	0.85	0.78	0.93	0.93	0.95
	SP2	0.88				
	SP3	0.90				
	SP4	0.91				
	SP5	0.87				
Government Support (GS)	GS1	0.79	0.72	0.87	0.89	0.91
	GS2	0.89				
	GS3	0.89				
	GS4	0.82				
E-commerce Adoption (EA)	EA1	0.83	0.70	0.89	0.90	0.92
	EA2	0.85				
	EA3	0.84				
	EA4	0.86				
	EA5	0.80				

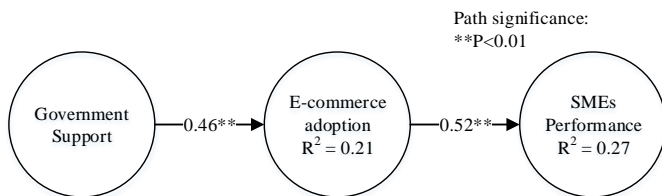
**Table 3.** HTMT ratio

	E-commerce Adoption (EA)	Government Support (GS)
Government Support (GS)	0.51	
SMEs Performance (SP)	0.56	0.30

**4.2 Structural model**

**4.2.1 Direct effect model**

The direct effect is used to examine the relationship between government support and e-commerce adoption (H1) and the relationship between e-commerce adoption and SMEs performance (H2). Direct effect test using a bootstrapping procedure with 500 resamples. Figure 3 presents the test model and test results.



**Figure 3.** Direct effect model

**Table 4.** Direct effect analysis result

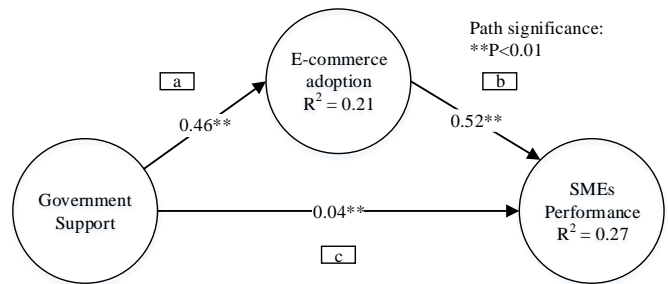
Path	B	Mean	St.Dev.	t	P Value
GS → EA	0.46	0.46	0.05	9.61	0.00
EA → SP	0.52	0.52	0.04	12.94	0.00

The test results show a significant relationship between government support and e-commerce adoption ( $\beta=0.46$ ;  $p<0.01$ ) and a significant relationship between e-commerce adoption and SMEs performance ( $\beta=0.52$ ;  $p<0.01$ ). Government support explained 21% e-commerce variance ( $R^2=0.21$ ), while e-commerce adoption could explain 27%

SMEs performance variance ( $R^2=0.27$ ). Based on the analysis results, it could be concluded that H1 and H2 are supported. The results of the analysis are briefly presented in Table 4.

**4.2.2 Indirect effect model**

The indirect effect estimation adopts a single mediation model because it is suitable for testing the mediation model with one mediating variable [79, 89]. This study examines the role of one mediating variable (e-commerce adoption) in the relationship between government support and SME performance (H3). The test uses a bootstrapping procedure with 500 resamples. Figure 4 presents the test model and indirect effect test results.



**Figure 4.** Indirect effect model

The significance and identification of mediating variables' role are determined by following the Zhao et al. [82] procedure. Zhao et al. [82] developed the model Baron and Kenny [81], considering the significance of the direct and indirect effects. Indirect effect path estimation results (GS → EA → SP) showed significant results ( $\beta=0.23$ ;  $p<0.01$ ). Direct path estimation results (GS → SP) showed insignificant results ( $\beta=0.23$ ;  $p>0.05$ ). The e-commerce adoption (EA) can fully mediate the relationship between government support (GS) and SME performance (SP), according to these findings (H3 is supported). Table 5 displays the outcomes of the indirect effect test.

**Table 5.** Indirect effect analysis result

Path	B	Mean	St.Dev.	t	P Value	Type of Mediation
GS → EA	0.46	0.46	0.05	9.59	0.00	Full (indirect only)
EA → OP	0.50	0.51	0.05	10.83	0.00	
GS → OP	0.04	0.05	0.05	0.95	0.34	
GS → EA → OP	0.23	0.23	0.03	7.24	0.00	

## 5. DISCUSSION

The results of the structural model test show a significant relationship between government support and e-commerce marketplace adoption (H1 is supported). This finding indicates the government's role in determining SME policies, especially in technology adoption. In other words, adopting technology at the SME level requires the government's role in providing an established and future-oriented. This study captures that government support through its policies will provide changes in the behavior of SMEs in the application of new technology (e-commerce). Government support could be realized through mentoring programs or business incubation to increase SMEs' capacity to respond to technological developments and the 4.0 industrial revolution. The findings of this study confirm Institutional theory in the context of SMEs [23, 24, 26-28]. In contrast to Bwalya et al. [23] and Nurdin [28], who look from an individual perspective on the application of e-government, this study looks at the organizational side of e-commerce use. Furthermore, this study looks from the perspective of service users (MSMEs) instead of service providers (government) in contrast to Mundkur and Venkatesh [26], who looked from the government perspective.

Through the policies and facilities provided by the government, SMEs will tend to adopt information technology, especially the e-commerce marketplace, to run business operations. This study is in line with the findings of previous studies [17-19, 37-41]. This study provides more specific insight into the context of SMEs in adopting e-commerce. The strong relationship between government support and e-commerce adoption could be caused by the research sample using e-commerce that the government fully sponsors.

Another study finding is a relationship between adopting e-commerce marketplaces and organizational performance (H2 is supported). The findings of this study confirmed the RBV theory [90-92]. From the perspective of RBV theory, adopting e-commerce is one of the efforts to increase the company's resources that could trigger an outcome in the form of performance [16, 21]. This study finds evidence that using e-commerce marketplaces has a significant relationship with organizational performance. This study confirmed the findings [53-55]. This study strengthens the findings of studies that utilize the RBV theory approach to identify the role of information technology in organizational performance. In the context of SMEs in Indonesia, the strong relationship between e-commerce adoption and organizational performance validates the phenomenon of the e-commerce boom at the B2C level that is currently happening. This study proves that innovation and investment in information technology could trigger the performance of SMEs.

This study discusses the mediating role of e-commerce adoption in the relationship between government support and SME performance. The analysis results show that e-commerce adoption can act as a full mediating variable in the relationship between government support and SME performance (H3 is supported). This finding provides a new perspective on the relationship between government support and organizational performance. Previous studies discovered a direct relationship between government support and SME performance [10-12]. This study shows evidence of the mediating variable of the relationship between government support and organizational performance. In other words, government policies relate to the performance of SMEs either directly or indirectly. The study findings show that the type of mediation is full mediating; this

means that government support alone is not enough to trigger the performance of SMEs. In other words, performance is not directly caused by government support, but adopting government-supported e-commerce can improve the performance of SMEs. Improving the performance of SMEs requires real activities in the form of increasing the ability of information system resources owned by SMEs. Government support in the form of regulations must be able to provide additional capacity for SME resources through investment in the field of information systems, such as the use of e-commerce. The finding follows the premise of Institutional theory and RBV theory. Government support must be made concretely, namely in the context of this study, through pressure on SMEs to adopt e-commerce. The government's role is to ensure that SMEs adopt e-commerce to respond to competition in the 4.0 industrial revolution era to maintain SME performance optimally.

### 5.1 Limitations and future research

In conclusion, this study has several limitations that should be considered by future research. First, this study utilizes an online survey by contacting using WhatsApp messenger. Online surveys could simplify and speed up the data collection process, but controlling who fills out the questionnaires is difficult. It is difficult to know whether the intended respondent completed the questionnaire. Second, this study uses SMEs that the government fully supports in using e-commerce. Thus, there is a tendency for SMEs to give a positive opinion on government support. Future research should use a wider variety of respondents. Finally, the analysis results show that the role of the tested variables (government support and e-commerce adoption) has a relatively small contribution to the model being tested ( $R^2=0.21$  and  $R^2=0.27$ ). This finding indicates that there is an opportunity to use other variables in the model, such as satisfaction [93], Usefulness, Ease of Use [94], risk [95], or exploration variable alignment [96].

## 6. CONCLUSIONS

This study explores the role of e-commerce marketplace adoption in the relationship between government support and SME performance. Specifically, this study aims to investigate the relationship between government support and e-commerce adoption, examine the relationship between e-commerce adoption and SME performance, and explore the role of e-commerce adoption as a mediating variable in the relationship between government support and SME performance. All hypotheses are supported.

The study's results found evidence of a significant role for e-commerce adoption in the relationship between government support and SME performance (H3 is supported). Government support has a significant relationship to the decision of SMEs to adopt an e-commerce marketplace (H1 is supported). In other words, the facilities provided by the government could encourage the adoption of e-commerce marketplaces. On the other hand, this study proves that using an e-commerce marketplace could support the performance of SMEs (H2 is supported). This study can contribute to policy-making to formulate assistance to SMEs in adopting e-commerce to improve SME performance. The government can issue policies to assist SMEs or ask SMEs to join the e-commerce

marketplace platform built by the government.

Theoretically, this study explores the relationship between government support and SME performance. The study findings indicate that intervening variables play a significant role (full mediation), which means that government support could not be directly related to the performance of SMEs. With RBV theory in institutional theory, this study provides insight into an institutional theory that views that the government has the power to force to do something but will not directly impact the performance of SMEs. Furthermore, this study indicates that the future orientation of SME performance will focus on innovation, which becomes a challenge for the government to create a supportive data and information resource environment. Support occurs not only at the level of technical policies but also policies based on data and information resources, such as using data analysts. Adopting information technology will create a new shifting balance in the applicability of Institutional and RBV theories. Future studies can focus on how innovation and usage can be analyzed to influence the use of e-commerce or improve the performance of MSMEs. Furthermore, future studies can involve variables that contribute to e-commerce adoption, such as risk [97] or website quality [98], or variables that contribute to organizational performance, such as information system strategy [96].

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