



# PERFORMANCE IMPROVEMENT THROUGH STRENGTHENING ENTREPRENEURSHIP, INNOVATIVENESS, AND E-COMMERCE IMPLEMENTATIONS OF MSMEs TO OPERATIONAL MANAGER IN SERANG, BANTEN PROVINCE

Ahmad Mukhlis<sup>1,3</sup>, Anoesyirwan Moeins<sup>2</sup>, Widodo Sunaryo<sup>3</sup>

<sup>1</sup>Bina Bangsa University, Indonesia

<sup>2</sup>Persada Indonesia University YAI, Indonesia

<sup>3</sup>Pakuan University, Indonesia

Email: [ahmuk999@gmail.com](mailto:ahmuk999@gmail.com)<sup>1</sup>

## Abstract

*Indonesia is one of the countries supported by the MSME sector. The significance of factors that encourage mitigation and economic recovery in Serang, Banten, by increasing the performance of MSMEs has been the subject of some studies, and these studies all reach the same conclusion. This research aims to identify methods and approaches to performance enhancement that are suitable for small groups of MSME Operations Managers in Serang City. Research must carry out on the factors that have an impact on performance. These factors include entrepreneurship, innovation, and e-commerce.*

*Methods from multiple research traditions combine to form this study (mixed methods). This study used a multistage random sampling technique to collect data from 240 MSME business owners from the small business group in the city of Serangby. The findings of quantitative research indicate that there is a significant direct effect between entrepreneurship and performance; between innovation and performance; between e-commerce and performance; between entrepreneurship and e-commerce; between creation to e-commerce; and that there is a significant indirect effect between entrepreneurship and performance through e-commerce; between innovation and performance through e-commerce. The findings of the qualitative research lend credence to the results of the quantitative study, which found that the low indicators of the effectiveness of education and training in the dimension of work effectiveness need to be improved to strengthen the performance of the MSME Operational Managers of small business groups in the city of Serang. According to the study's findings, the performance of MSME Operational Managers for small business groups can improve by boosting entrepreneurialism and innovation through implementing e-commerce. It is one of the recommendations made by the researchers.*

**Keywords:** E-Commerce, Innovation, Performance, Entrepreneurship

## INTRODUCTION

The pandemic caused by the Covid-19 virus has significantly impacted essential industries that drive the domestic economy and employment worldwide. This economic crisis's impact has dramatically reduced social welfare (World Bank, 2020). Studies state that the economic consequences of the Covid-19 outbreak require preparedness (Elyassi, 2021; Pak et al., 2020; Mofijur et al., 2020). One of the goals is to encourage the implementation of development strategies for the national economy through digital transformation and entrepreneurial innovation to accelerate the sustainability of MSMEs in Industry 4.0 (Denysov et al., 2021).

The above conditions can occur because Indonesia is one of the countries supported by the MSME sector. The Ministry of Finance of the Republic of Indonesia (2020) revealed that the government had made efforts to improve the performance of MSMEs, including 1) simplifying the One Single Submission (OSS) licensing procedure; 2) relief of licensing fees for MSMEs, exemption of MSME licensing fees; 3) supply chain partnerships; and 4) affordable financial support.

According to LIPI's economic research center regarding the rapid assessment survey of the impact of Covid-19 on MSME performance, the MSME sector is currently experiencing uncertainty and trade-offs between health and economic problems. At this time, the government is actively carrying out the recovery of MSMEs. A survey in May 2021 of 679 respondents to business actors showed that during the pandemic, 94.69% of businesses experienced a decline in sales. 49.01% of ultra micro businesses experienced MSME sales performance of more than 75%, 43.3% micro businesses, 40% small businesses, and 45.83% medium businesses. The following is the survey data on the impact of the pandemic on MSMEs.

This research is important given the priority mitigation and recovery in the short, medium, and long term. According to the Directorate of Cooperative and UKM Empowerment Bappenas (2014), MSMEs do not yet have sufficient capacity to deal with problems, especially facing an economic crisis. In addition, along with the rapid development of technology in the industrial era 4.0 and high competition in the global market, this has created polemics for the performance of MSMEs. Encouraging efforts to find the right strategy for sustainability, digital transformation, and entrepreneurial innovation can support this goal. Studies state that if the digital literacy skills of SMEs are high, then it will affect their progress of SMEs (Ollerenshaw. et al., 2021; Omiunu, 2019). Digital literacy can support knowledge transfer, learning, and skills development and foster confidence in technology's ability to support performance (Kulathunga. et al., 2020). Individual attitudes in the entrepreneurial ecosystem can support the transformation of MSMEs and benefit the sustainability of MSME businesses in the digital era (Purbasari. et al., 2021). Other literature studies support this theme by offering several variables that influence MSME performance, for example, digital literacy for strategies to maintain MSMEs in the pandemic era (Sulistyowati, 2021); Entrepreneurial attitudes determine the progress of MSMEs (Pramono et al., 2021); work skills, digital literacy, and economic literacy are important references in the development of MSMEs in the industrial era 4.0 (Sariwulan & Suparno, 2020).

This research contributes to the efforts of the regional government of Banten Province to create innovative and globally competitive MSMEs through digitizing MSMEs. The study states that it is essential that MSME actors run a business with a robust, independent, and resilient business orientation. In this case, the development of the digital sector can support MSMEs because it has great potential in Indonesia's market share, reaching 180 million people, where Indonesia is included in the 20 countries with the most significant number of internet users in the world. The aspect of MSME financing also requires financial support per the scale of its growth. Accelerating the adoption of digital technology in economic transactions by utilizing important e-commerce platforms to reach online customers.

There are several possible factors related to the low performance of the MSME Operations Manager for small business groups in Serang city, such as entrepreneurship, innovativeness, E-Commerce implementation, job satisfaction, organizational climate, organizational commitment, and

other variables or factors. To examine and observe the performance of the MSME Operational Manager for small business groups in the city of Serang, the researchers selected the variables of entrepreneurship, innovation, and the application of exciting E-Commerce for further study.

From the background of the problems that have been raised, this study analyzes performance improvement through strengthening entrepreneurship, innovation, and implementing e-commerce.

## **LITERATURE REVIEW**

### **Performance**

According to Stephen P. Robbins and Mary Coulter (2012:492), performance is the result of an activity, with the criteria of whether these results can be said to be efficient and effective. According to Hidayat et al. (2017: 290), performance has a broader meaning in terms of work results and how the work process takes place.

In line with Aribawa's theory, Dwitya. (2016:1) says that performance is the result of work that an individual achieves and can be completed by the individual's tasks within the company and for a certain period and will be linked to the value or standard of the company where the individual works. In line with previous theories, Fitriadi et al. (2020:1025) stated that performance is an embodiment of achieving goals and achieving strategic planning through a measurement and performance assessment to realize good, effective, and efficient governance.

### **The Nature of Entrepreneurship**

JR Schermerhorn Jr. claims (2005:143). Entrepreneurship is a behavior pattern based on the ideas of strategic thinking and taking risks that can open up new opportunities and is focused on the progress or improvement of both organizations and individuals. Internal locus of control: self-directed and making independent efforts while controlling the goals to be achieved. In line with the theory above, the Organization for Economic and Cooperative Development (OECD) (2015:7) argues that Entrepreneurship is innovative, creative, proactive, and oriented toward success opportunities.

The same thing was also stated by Rowena Barrett and Susan Mayson (Eds.) (2008:384), which describes Finding, evaluating, and seizing opportunities to create new businesses or organizations as what entrepreneurship is all about. Entrepreneurship is about (behavior or action) discovery, evaluation, and exploitation of options, to make an organization or company emerge. Likewise, Virginia Barba-Sanchez and Carlos Atienza-Sahuquillo (2012:132) mentions that Individual characteristics, traits, and skills of aspiring entrepreneurs often play a significant role in the decision to pursue self-employment (entrepreneurship is a set of personal qualities, skills, and the trend leading people to launch their own (self-employed) businesses).

In line with Owoseni Omosolape Olakitan's theory (2011:132) describes visionary, goal-driven, and inventiveness are traits of entrepreneurs who create successful new businesses (business)

(entrepreneurial characteristics are creative, goal-oriented and innovative in developing new businesses and generating business profitable). In line with the theory of Vivek et al. (2009:1) defines entrepreneurship as the characteristics of a person (entrepreneur) who has the freedom (celebrated) to start his own business (become a founder), innovate (as an innovator), and has a competitive advantage (competitive advantage). Edges). Mention the following as additional motivators for starting a business: (a) wanting to become wealthy (motivation for a prosperous life),

### **Innovativeness**

J. Greenberg and RA Baron (2008:568) define innovation as the act (process) of changing something that has been formed into something new. In line with the theory of John R. Schermerhorn, Jr. (2005:466), innovation is transforming a new idea into something that has a practical use. The approach above was also put forward by Stephen P. Robbins (2003: 571), who explained that innovation applies a novel idea to the creation or improvement of a product, process, or service. , or process).

A similar theory was also put forward Wahyono (2002:23), arguing that innovation is a breakthrough activity that becomes a basic need which in turn will lead to the creation of new products with a competitive advantage. A similar theory was also put forward by Kotler, Philip, and Kevin Lane Keller (2016), describing product innovation as any item, service, or idea that is considered new by someone, no matter how long its history is, the spread of new opinions from sources of invention or creation to users or adopters. Mainly.

Likewise, the theory put forward by Fadhillah, S, & Kurnia, J, (2018:235) describes innovation as the implementation of products or services, processes, marketing methods, and organizational methods that are new or significantly improved (improved) on business practices, places work or in fostering external relations. The next thing that cannot be separated from innovation is innovativeness. It is defined as the degree to which an individual or organization is relatively earlier in using or adopting new ideas, methods, or goods than other members of society.

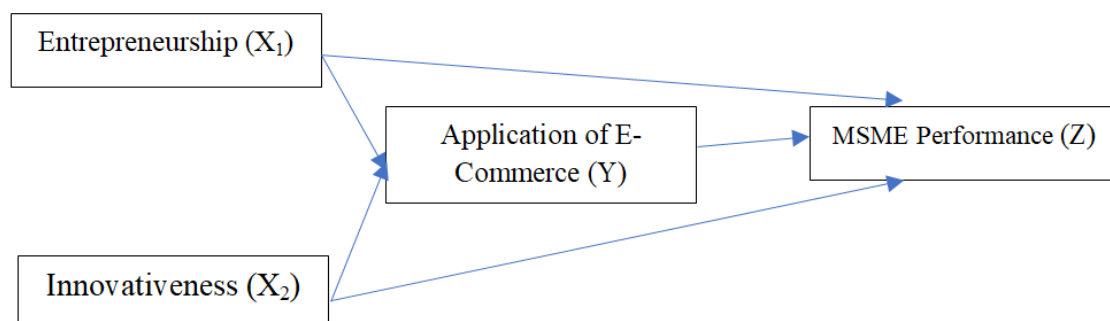
### **E-Commerce**

Raymond McLeod, Jr. and George P. Schell (2008:76) define E-Commerce as business transactions between organizations with customers and suppliers that are carried out using computer devices and internet networks. Business to Consumer (B2C) transactions between organizations and consumers who use services. Business to Business (B2B) is transactions between organizations and other organizations that wish to resell or act as intermediaries with consumer users. Sabah A. Al-Somali, Roya Gholami, and Ben Clegg (2011:406) explained that E-commerce is commonly defined as sharing business information, maintaining business relationships, and conducting business transactions through telecommunications networks. (E-commerce is generally defined as any form of business that emphasizes business information,

Likewise, the theory of Amit, R., and Zott, C. (2001:493) describe virtual markets are markets that use internet tools, with goods and services being sold in real terms with addresses that can track in real terms, and do not rule out the existence of counterfeit goods and services. In line with Hitt's theory, et al. (2001) explained *commerce* as a new marketing model that relies on marketing with the internet network through start-ups, marketplaces, social media, Facebook, and others currently multiplying, along with internet use.

Likewise, a similar theory from Explanation, T., Enders, A. (2005) defines *commerce* -or e-commerce as facilitating transactions and selling products and services online via the internet or other telecommunications networks. In line with theoryPorter, of EM (1985), E-Commerce is a new model of marketing using technology and information with attention to differentiation, cost efficiency strategies, and product development innovation differentiation, new services. Isoraite, M, & Miniotiene also put forward the aligned theory, N. (2018:77), which states-*commerce* that is a business in which information technology is used to increase sales and business efficiency and provide the basis for new products and services. Through e-commerce activities, every company communicates with many other entities, such as personal or corporate clients, business partners, and suppliers, all of which are carried out with the help of information technology.

### Research Hypothesis



**Figure 1 Research Constellation**

Based on the theoretical review and the research constellation, the following research hypotheses can be proposed:

1. There is a direct influence of Entrepreneurship on the Performance of MSME Operational Managers.
2. There is a direct effect of innovativeness on the performance of MSME Operational Managers.
3. The Implementation of E-Commerce has a direct effect on the Performance of MSME Operational Managers.

4. There is a direct influence of Entrepreneurship on the implementation of E-Commerce MSME Operations Managers.
5. There is a direct influence of innovativeness on implementing E-Commerce MSME Operations Managers.
6. There is an indirect effect of Entrepreneurship on the Performance of MSME Operational Managers through the Implementation of E-Commerce.
7. There is an indirect effect of innovativeness on the performance of MSME operational managers through implementing e-commerce.

## **METHOD**

### **Place, Time of Research, and Research Object**

This research is conducted on Micro, Small, and Medium Enterprises (MSMEs), a group of small businesses in the city of Serang, which consists of 6 (six) subdistricts, namely Curug District, Walantaka District, Cipocok Jaya District, Serang District, Takakan District, and Kasemen District. This research was conducted for 9 (nine) months, from September 2021 to June 2022.

The research object is a research variable or something construct that can produce variable characteristics and traits that will be the center of attention of researchers (Sugiyono, 2010). Referring to this opinion, the object of research is improving the performance of MSME Operational Managers for small business groups in Serang City through entrepreneurship, innovation, and the application of e-commerce.

### **Research Methods**

This study uses a quantitative and qualitative combination research approach (Mixed-Methods). Quantitative research was carried out using survey research, and qualitative research was carried out using qualitative description methods. Mixed methods studies are studies in which researchers collect and analyze data, integrate findings, and draw conclusions using quantitative and qualitative research approaches or methods in one study, according to Tashakkori and Creswell in Donna M. Martens (2010). 2005: Sugiyono, 2019).

This approach is based on the idea that combining quantitative and qualitative approaches will result in a deeper understanding of the problem and research question than either approach used separately. Qualitative data collection methods, such as interviews and observation, are combined with quantitative data collection when more detailed reviews, studies, or additional data are needed.

This research was conducted using quantitative methods in the first stage, qualitative methods in the second stage, sequential explanatory designs, and combination research methods that combine quantitative and qualitative research methods sequentially (Sugiyono, 2014: 486). Quantitative data is used to obtain descriptive, comparative, and measurable associative data. In contrast, qualitative

information is used to validate, deepen, expand, strengthen, and refute the quantitative data obtained (Sugiyono 2014: 486). Quantitative data is used in this study to determine the impact of entrepreneurship, innovation, and e-commerce implementation on performance. In contrast, qualitative information determines how these factors affect performance.

### Population and Sample

The population is a generalized area consisting of objects/subjects with specific quantities and characteristics determined by the researcher (Sugiyono 2014: 148). The people in this study are SMEs in the city of Serang, Banten. This population is spread over 6 (six) Districts, namely, Serang District, Kasemen District, Walantaka District, Curug District, Cipocok Jaya District, and Takakan District, which consists of 67 (sixty-seven) villages.

The MSME population is divided into 3 (three) groups, namely 1) Micro Business Group, 2) Small Business Group, and 3) Medium Business Group. The population chosen by the researcher is the small business group population.

The sample is part of the population (Sekaran, 2011). Many individuals selected from a specific population or subgroup within the people are the sample. An example is a portion of the entire population that is carefully chosen to represent the population. The method used in this research is multistage random sampling. Determining the number of samples from the reachable population uses the Slovin formula at a 5% margin of error, as follows where:

|                            |                                                                                                   |
|----------------------------|---------------------------------------------------------------------------------------------------|
| $n = \frac{N}{1 + N(e)^2}$ | n = number of samples taken<br>N = sample population<br>e = percentage of error tolerance of 0.05 |
|----------------------------|---------------------------------------------------------------------------------------------------|

Reachable population = 600

$$n = \frac{600}{(600 \times (0.05)^2) + 1} = 240 \text{ (research sample)}$$

### Data Collection Technique

For this study, data is collected through a survey, interviews, and documentation. The survey is a data collection method that involves methodically compiling a list of questions as a questionnaire. Respondents were provided with a list of questions to respond to quickly. According to Sekaran (2011), a questionnaire is a series of written questions that respondents will answer, usually using clearly defined options (Sekaran, 2011). Data for this study was collected through documentation, gathering information from written sources such as books, magazines, websites, and the internet.

This study's data collection was carried out through surveys, interviews, and documentation. The survey, namely compiling a list of questions systematically in the form of a questionnaire to obtain the desired data. A list of questions was circulated to respondents to be answered. According to Sekaran

(2011), a questionnaire is a list of written questions that respondents will respond to in clearly defined alternatives (Sekaran, 2011). Documentation is the method used to obtain data from writing, such as books, magazines, websites, or the internet, and other data related to this research.

## **RESEARCH RESULT**

### **1. The Effect of Entrepreneurship on Performance**

Testing the first hypothesis is whether entrepreneurship has a positive effect on performance. The results of this study prove that entrepreneurship has a positive impact on performance.

Olakitan (2011) describes the characteristics of entrepreneurship as visionary, goal-oriented, and innovative in developing new businesses and generating profitable companies. The higher the entrepreneurship, the higher the predicted performance (Subagyo, Kumar, V., & Ernestivita, G., 2020; Gyanwali, S., & Bunchapattanasakda, C., 2020). The research results of Amaliawati, S., Martono, T. & Indrawati, CDS (2019) and Tanzil, SN, Sunarya, E., & Jhoansyah, D. (2021) found that there is a significant positive effect between entrepreneurship on MSME performance.

### **2. The Effect of Innovation on Performance**

Testing the second hypothesis is whether innovation has a positive effect on performance. The results of this study prove that innovation has a positive impact on performance. Innovation is an act of processing new ideas in the form of breakthroughs to make changes from something that has been formed into something new so that it has a perfect practical use, both in the areas of products, ideas, processes, marketing, and services, through a process of innovative and creative thinking that starting from the innovation of vision, mission, organizational culture, competency and knowledge, organizational structure, and research and development activities which in turn will lead to the creation of new products that have competitive advantages. Wahyono (2002) argued that innovation is a breakthrough activity that becomes a basic need that will lead to the creation of new products with a competitive advantage.

The results of this study are consistent with the research findings of Chege, SM, & Wang, D. (2020), Khalil, M., Khalil, R., & Khan, S. (2019), Nwankwo, AA, & Ezeibe, CV (2021) and Anwar, M. (2018) that innovation influences the performance of MSMEs.

### **3. Effect of E-Commerce on Performance**

The third hypothesis testing is the whether-commerce positive effect on performance. The results of this study prove that e-commerce has a positive impact on performance. Isoraite, M, & Miniotiene, N. (2018) argues that e-commerce is a business in which information technology increases sales and business efficiency and provides the basis for new products and services. E-commerce strategy with indicators should focus on how a company deploys its resources to facilitate achieving and maintaining

competitive advantage in virtual markets (T., Enders, A., 2005). The higher the applicability *e-commerce* it is predicted that the performance of MSMEs will also be higher (Kimathi, DK, Mukulu, E., & Odhiambo, R., 2019; Subawa, NS, & Mimaki, CA, 2019; Hasan, A., & Mardhani, M., 2021).

The research findings are consistent with the study from Priambodo, IT, Sasmoko, S., Abdinagoro, S., B., & Bandur, A. (2021) and cassia, F. and Magno, F. (2021), which states that the application of *e-commerce* has a positive and significant effect on the performance of MSMEs.

#### **4. The Influence of Entrepreneurship Against *E-Commerce***

The fourth hypothesis testing is whether entrepreneurship has a positive effect *one-commerce*. The results of this study prove that entrepreneurship has a positive impact on *e-commerce*.

In entrepreneurship, their *itself-efficacy*, namely the belief or level of faith that a person can successfully perform a task, goal setting, namely goals that should help motivate people to use appropriate task strategies or to seek appropriate methods. Thus, *e-commerce* is one of the proper strategies to be implemented in an all-digital world so that the products offered by MSMEs become better known, not only in local, regional, and even international markets.

The higher the entrepreneurship, the higher the application of *e-commerce*. The results of this study align with Kiradoo's (2019) findings and Hadi et al. (2020), which concluded that entrepreneurship has a significant favorable influence on the implementation of *e-commerce*.

#### **5. The Effect of Innovation on *E-Commerce***

Testing the fifth hypothesis is whether handling the invasion positively affects *one-commerce*. The results of this study prove that innovation has a positive effect on *e-commerce*. It demonstrates that the higher the invention, the higher the usage *e-commerce*.

According to Porter, EM (1985), *e-Commerce* is a form of a new model of marketing using technology and information with attention to differentiation, cost efficiency strategies, and product development innovation differentiation, new services. So, *e-commerce* must be distinct from the application of innovation. The higher the innovativeness, the higher the application of *e-commerce* is predicted. This study's results align with the findings of Subawa & Mimaki (2019) and Hasan & Harris (2016) that there is a positive and significant influence between innovation and *e-commerce* implementation. Has a significant favorable impact on the performance of *e-commerce*.

#### **6. The Effect of Entrepreneurship on MSME Performance Through Mediation *E-Commerce***

Testing the sixth hypothesis is whether entrepreneurship affects performance through mediation *commerce*. The results of this study indicate that the use of *e-commerce* partially mediates entrepreneurship and performance. Or it means that entrepreneurial variables can directly influence performance without going through or involving *e-commerce* variables. Because the direct effect of

entrepreneurship on performance is greater than the indirect effect of entrepreneurship on performance through e-commerce, e-commerce does not function effectively as an intervening variable (mediating) entrepreneurship on performance. It shows that entrepreneurship can directly affect performance or indirectly through the mediation of the use of e-commerce. The higher the entrepreneurship by strengthening the application of e-commerce, the higher the performance.

The above is supported by the theory put forward by Colquitt (2009: 8), which explains that an individual outcome variable does not stand alone and happens but is influenced by various factors, including variables that are part of organizational mechanisms, variables that are included in the group mechanisms and variables that are included in the individual characteristics section and are bridged by variables that are part of the particular mechanisms.

Entrepreneurs who want success must carry out the prerequisites to support entrepreneurial success. The requirements are to have motivation and optimism about the future. If there is a change in something, an entrepreneur must be prepared to face it, so the business continues and develops. In addition, it must be able to keep up with the progress and developments of the times. Therefore, using e-commerce in entrepreneurship is an absolute must to keep up with the competition by considering the various risks that will be faced so that you can anticipate and deal with them appropriately.

The results of this study are consistent with the findings of research by Yacob et al. (2021) and Suparlinah et al. (2019), which concluded that entrepreneurship has a significant positive effect on performance by strengthening the application of e-commerce.

## **7. The Influence of Innovation on Performance Through E-Commerce Mediation**

Testing the seventh hypothesis is whether innovation affects performance through e-commerce mediation. The results of this study indicate that the use of e-commerce partially mediates between innovation and performance. Or it means that innovation variables can directly influence performance without going through or involving e-commerce variables. Because the direct effect of innovation on performance is greater than the indirect effect of invention on performance through e-commerce, it means that e-commerce does not function effectively as an intervening variable (mediating) innovation on performance. It shows that innovation can directly affect performance or indirectly through the mediation of the use of e-commerce.

The above is supported by the theory put forward by Colquitt (2009: 8), which explains that an individual outcome variable does not stand alone and happens but is influenced by various factors, including variables that are part of organizational mechanisms, variables that are included in the group mechanisms and variables included in the individual characteristic section are bridged by variables that are part of the separate mechanisms, based on the explanation above it can be seen that this mediation is only partial or partial (partially mediating) meaning that the independent variable can directly influence the dependent variable without going through or involving intervening variables.

Applications-commerce innovation in the digital era is urgently needed to expand market share and assist MSMEs significantly in reducing capital costs because using e-commerce allows MSMEs not to need buildings or shops to display their products. In addition, MSMEs can create new distribution channels that can reach many customers in all regions. Also, e-commerce can encourage MSME actors to keep abreast of the market, in other words, the ability to innovate to compete with other traders so that their business can continue.

The findings from this research align with the investigation of Siregar et al. (2021) and Esubalew & Raghurama (2020), who concluded that innovation has a significant positive effect on performance by strengthening e-commerce implementation.

## CONCLUSION

This research has succeeded in finding ways and strategies to improve performance by identifying the strength of the relationship between the magnitude of the influence of the independent variables and "intervening" on the dependent variable of this study. It has also been proven that data from quantitative research results have similarities with data from qualitative research results. Furthermore, this research has produced findings about research variable indicators that need to be repaired and maintained. In detail, the conclusions of this study are as follows:

1. There is a significant positive direct effect with the path coefficient value ( $\beta_1 = 0.315$ ) between entrepreneurship and performance. The similarity of entrepreneurship and performance data on the results of quantitative research with the results of qualitative research also supports it. Thus strengthening entrepreneurship will increase the performance of MSME Operational Managers for small business groups in the City of Serang.
2. There is a significant positive direct effect with the path coefficient value ( $\beta_2 = 0.152$ ) between innovation and performance. The similarity of innovation and performance data on the results of quantitative research with the results of qualitative research also supports it. Thus strengthening innovativeness will improve the performance of MSME Operational Managers for small business groups in the City of Serang.
3. There is a significant positive direct effect with the path coefficient value ( $\beta_3 = 0.499$ ) between e-commerce on performance. The similarity of e-commerce data and performance in quantitative and qualitative research results also supports it. Thus strengthening the application of e-commerce will improve the performance of MSME Operational Managers for small business groups in the City of Serang.
4. There is a significant positive direct effect with the path coefficient value ( $\beta_4 = 0.107$ ) between entrepreneurship and e-commerce. It is further supported by the fact that the data on entrepreneurship and online commerce found in the quantitative research results are very similar to

the data found in the results of qualitative research. Thus strengthening entrepreneurship will increase the application of e-commerce to the MSME Operational Managers of small business groups in the City of Serang.

5. There is a significant positive direct effect with the path coefficient value ( $\beta_5 = 0.827$ ) between innovation and e-commerce. The similarity of innovation and e-commerce data on the results of quantitative research with the results of qualitative research also supports this. Thus strengthening innovativeness will increase the application of e-commerce to the MSME Operational Managers of small business groups in the City of Serang.
6. There is a significant positive indirect effect with the path coefficient value ( $\beta_1 = 0.054$ ) between entrepreneurship on performance through e-commerce. The similarity of entrepreneurship and performance data on the results of quantitative research with the results of qualitative research also supports this. Comparison of the value of direct influence and indirect influence obtained by calculating the indirect effect of  $0.054 < \beta_1 = 0.368$ , so it can be concluded that the e-commerce variable functions ineffectively on performance as an intervening variable on the influence of entrepreneurship on performance. It means that performance improvement cannot carry out jointly between entrepreneurship and the application of e-commerce in the MSME Operations Manager for small business groups in the City of Serang.
7. There is a significant positive indirect effect with the path coefficient value ( $\beta_1 = 0.412$ ) between innovation and performance through e-commerce. The similarity of innovation and performance data on the results of quantitative research with the results of qualitative research also supports it. Comparison of the value of direct and indirect influence obtained by calculating the indirect effect of  $0.412 < \beta_2 = 0.565$  so that a conclusion can be drawn that the e-commerce variable functions ineffectively on performance as an intervening variable on the impact of innovation on performance. It means that performance improvement cannot occur jointly between innovativeness and the application of e-commerce in the MSME Operations Manager for small business groups in the City of Serang.

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