



Optimizing the performance and governance of MSMEs in the Special Region of Yogyakarta through digitalization

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A B S T R A C T

A significant feature of technology is its capacity to change the routines and behavior of business players, especially MSMEs actors. MSMEs players in the Special Area have been impacted by the Covid-19 outbreak and are now looking to the MSMEs sector for business opportunities. It is necessary to overcome the difficulty of attaining the digitization of MSMEs. The fact that the MSMEs actors are not fundamentally and mentally equipped is another problem. The study's objective is to evaluate the effectiveness of using digital literacy, e-commerce, and skills as a tactic to enhance MSMEs governance and performance. The main sources of data for the study were imaginative MSMEs Daerah Istimewa Yogyakarta actors. The analytical unit of the study is the manager or owner of MSMEs in Daerah Istimewa Yogyakarta. In this study, primary data are gathered by a questionnaire. The sample size was established using a simple proportionate random sampling approach. The AMOS SEM analysis tool and a sample of 20% of all MSMEs in each district and city of the Daerah Istimewa Yogyakarta are used to achieve this. According to the study's findings, E-Commerce affects the MSMEs Governance, Digital Expertise affects MSMEs Governance and Performance, MSMEs Governance the performance of MSMEs. However, E-Commerce has no effect on the performance of MSMEs.

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INTRODUCTION

In Indonesia, MSMEs serves as a keystone for the overall economic system. As is often known, the 99% of Indonesian businesspeople work in the UMKM sector. In contrast, only 16 percent of the existing MSMEs population has entered the digital economic system. According to Indonesian context, the MSMEs sector is the single most important cornerstone of the country's economy (accessed 4 April 2023 on mediaindonesia.com). Three pillars of the primary business strategy are digitalization, internationalization, and momentum (Ardito et al., 2021). According to a recent study

by Gavrilă Gavrilă and de Lucas Ancillo (published in 2021) on contemporary economic theory, the relevance of digital transformation as the key factor in business expansion is particularly important for small and medium-sized enterprises (Gavrilă Gavrilă and de Lucas Ancillo, 2021).

The important role of technology is being able to change the habits and behavior of business actors, especially MSMEs actors (Saridakis et al., 2018). MSMEs players in the Special Region have felt the impact of the Covid-19 pandemic, turning to seize business opportunities from the MSMEs sector. Around 22,000 MSMEs actors are registered at the Yogyakarta Cooperative and MSMEs Industry Service, of course this is a potential economic driving force in the future. In the era of technology and the pandemic, data shows that 59 percent of MSMEs have shifted their focus to e-commerce, achieved 69 percent of the benefits of bold transactions and the use of digital payments has jumped 65 percent. Digital expertise is a challenge that must be faced in realizing the digitization of MSMEs. In addition, one of the problems that has arisen is that there is no fundamental and mental readiness for MSMEs, the majority of MSMEs are still managing their business by convention and have not implemented corporate governance guidelines. This underlies this research to find out the optimization of the performance and governance of MSMEs in the Special Region of Yogyakarta through the use of e-commerce and digital expertise.

The need for coaching for MSMEs actors who have limited literacy will certainly be greatly assisted (Kurnia et al., 2015). Digital transformation and sustainability are challenges for MSMEs players. Digital technology is changing the market environment, opening up new challenges and opportunities for MSMEs (Hunt, 2021). The role of MSMEs is very important in development and economic growth, not only in developing countries, but also in developed countries (Scuotto et al., 2021).

Previous research has shown positive findings about the importance of digital expertise, the use of E-Commerce, MSMEs governance and MSMEs performance (Amaral and Peças, 2021) (Briozzo, Albanese and Santoliquido, 2017) (Tajeddini, Martin and Ali, 2020) (Kabanda and Brown, 2017). Contradictory with several findings that government support is needed so that MSMEs can take advantage of E-Commerce so that MSMEs are able to compete in the global market (Dogan, 2015) (Rahayu and Day, 2015) (Ulas, 2019). In addition, governance is indeed not a solution to all problems faced by MSMEs, but governance is something that cannot be questioned anymore to achieve business success. The issue regarding the implementation of governance in MSMEs is still being debated (Jaswadi, Iqbal and Sumiadji, 2015) dan (Ștefănescu, 2015).

Previous research has been conducted in several countries (Niemand et al., 2021) (Basco, Hernández-Perlines and Rodríguez-García, 2020). Some of the potential impacts of digitalization for MSMEs, starting from increased productivity; product quality improvement; efficiency and effectiveness; better decision-making processes; superior flexibility; reduced time to market; business model innovation; and no less important is

concern for environmental sustainability (Liu, Nandhakumar and Zachariadis, 2018). E-Commerce is also important for MSMEs because it can provide sales flexibility (Tolstoy et al., 2021). E-Commerce allows faster delivery to customers without having to meet the buyer face to face (Agyekum et al., 2021). E-Commerce offers real-time information and facilitates transactions for MSMEs (Tolstoy, Nordman and Vu, 2021). The previous research gap then attracted researchers to integrate the relationship pattern of the research model. This research is expected to 1) increase knowledge of the use of E-Commerce and digital expertise in MSMEs managers to improve MSMEs governance and performance; 2) provide insight for stakeholders, decision makers and government support so that MSMEs can take advantage of E-Commerce so that MSMEs can compete in the global market.

LITERATURE REVIEW

Digital Skills and MSMEs Performance

The reason for focusing on individual digital capabilities lies in the awareness of digital transformation as a dynamic force behind many socio-economic changes and an important driver for growth, productivity, competitiveness and innovation for companies in the current economic scenario (Sahaym, (Avi) Datta and Brooks, 2021). While studies on individual level characteristics, abilities, and human capital have received attention in the strategy literature (Covin et al., 2020). More work is needed to explicitly define how individual digital capabilities affect performance and growth in organizations (Santos, Marques and Ferreira, 2020). Digital markets are reshaping the global economic environment, radically changing the way companies operate (Matarazzo et al., 2021). Adoption of new digital technologies creates new business opportunities and managerial and organizational advantages (Kohtamäki et al., 2020). In this scenario, individual digital capabilities become the driving force for the adoption of new technologies as a center for rapid adaptation to the digital revolution. The MSMEs business environment, individual digital capabilities are more decisive than large companies, because in small businesses a larger proportion of workers than in large companies are involved in implementing business performance (Donbesuur, Boso and Hultman, 2020).

Individual abilities can be divided into information, communication, problem solving, and software categories (Gölgeci, Larimo and Arslan, 2017). Information capabilities mean identifying, finding, retrieving, storing, organizing and analyzing digital information, assessing its relevance and purpose; communication skills concern how to communicate in a digital environment, share resources through online tools, connect with others and collaborate through digital tools, interact with and participate in communities and networks, cross-cultural awareness; problem-solving abilities aim to identify digital needs and resources, make informed decisions about which digital tools best suit goals or needs, solve conceptual problems through digital means, use

technology creatively, solve technical problems, self-update and people skills other; and software capabilities refer to ways to 'create and edit new content. These abilities are connected to how an individual thinks, solves problems, communicates, and learns and goes beyond technical skills (Ciampi et al., 2021). In a technology-based business environment, this is a capability that can have a major impact on product development and innovation and thus impact the performance of MSMEs (Chatterjee, Dutta Gupta and Upadhyay, 2020).

Utilization of E-Commerce and MSMEs Performance

All aspects of life are experiencing very rapid changes in the current era of globalization, which is marked by technological advances (Budiarto, Vivianti and Diansari, 2021). E-commerce, for example, has revolutionized and changed traditional trade and transcends space and time (Arianto, 2020). The most significant function of e-commerce is to quickly recruit users with manageable costs wherever they are located. E-commerce is beneficial for MSMEs to expand the market without difficulties both in terms of finance and organizational resources. E-commerce is one of the scientific achievements of the 20th century that has an impact on business and people's lifestyles. E-Commerce is also important for MSMEs because it can provide sales flexibility (Adella and Rio, 2021). E-commerce allows faster delivery to customers without having to meet the buyer face to face. E-commerce offers real-time information and facilitates transactions for MSMEs. E-commerce can improve the performance of MSMEs by reducing promotion costs through marketplaces because it can present various sales promotion programs with broad and efficient potential reach (Lee et al., 2016).

Digital Expertise and MSMEs Governance

The role of MSMEs is very strategic, but intense competition, especially in dealing with large companies, has placed MSMEs in a position that continues to be threatened (Zhao, Ishihara and Jennings, 2020). MSMEs that continue to grow can broaden the economic base and make a significant contribution to accelerating structural change, namely increasing the regional economy and national economic resilience. So that MSMEs can continue to be sustainable. Under these conditions, information technology can help MSMEs increase their competitiveness, process and transmit information effectively and efficiently and improve the quality of services to support business processes. The ability of managers to information technology is widely considered an important factor in improving organizational performance (Vásquez et al., 2021).

Utilization of E-Commerce and MSMEs Governance

E-Commerce has great potential to encourage the growth of MSMEs in developed and developing countries (Saridakis et al., 2018). However, the adoption of E-Commerce by MSMEs in developing countries has faced many challenges that have not been adequately addressed due to the complex nature of E-Commerce adoption (Gavrila Gavrila and de Lucas Ancillo, 2021). The need for specific guidelines on corporate governance in the MSMEs sector. Their discussion also stated that there was

an opinion that emphasized that there was no need for special arrangements, because agency problems did not exist in MSMEs (Denicolai, Zucchella and Magnani, 2021). Furthermore, MSMEs only consist of owners and several employees as owners and managers. MSMEs tend to have little separation between ownership and control that occurs. The voluntary practice of corporate governance mechanisms assists MSMEs in increasing their prospects for obtaining alternative funding from both investors and financial institutions. This is due to the fulfillment of the criteria for implementing good bookkeeping and accounting as well as information disclosure which increases investor confidence. MSMEs will be more committed to efficiency with supervision (Kurnia et al., 2015).

MSMEs Governance and MSMEs Performance

Performance measurement is essential for identifying problems, monitoring the business, and maximizing the use of resources. Proper strategic planning is a vital tool for MSMEs towards good performance to ensure their survival and growth. In general, performance measurement in MSMEs uses two approaches, namely financial performance and non-financial performance. Financial performance uses financial data while non-financial uses subjective statements from MSMEs owners.

It is common knowledge that one of the obstacles faced by MSMEs is the limited use of technology. To solve technical problems, organizations usually employ experts, but MSMEs have limited resources, so that will be the next problem. Therefore, a strategy is needed to implement technology at an affordable cost, namely online media. Online media or e-commerce is the most appropriate alternative because it has the most accessible tools to influence consumer behavior. Business strategy is very important for MSMEs in dealing with environmental uncertainty. Small companies can expand their business network by maintaining good relations with suppliers or buyers to ensure product quality to increase revenue.

METHOD

This type of research uses a quantitative inferential method which is used to prove the Optimization of Performance and Management of MSMEs in the Special Region of Yogyakarta through the Utilization of E-Commerce and Digital Expertise. Effect test using SEM AMOS. The research subjects consisted of business actors or MSMEs managers. The research location is in the Special Region of Yogyakarta. Market conditions are increasingly competitive and natural resources are increasingly limited, so new breakthroughs are needed to create creative and innovative products. The creative industry has great potential to be developed (Resmi et al., 2020). The unit of analysis refers to the level of unity of the data collected during the research (Sekaran & Bougie, 2017). The unit of analysis in this study is the manager or owner of MSMEs in the Special Region of Yogyakarta. This study uses primary data through a

questionnaire. The determination of the sample was carried out using a simple proportional random sampling technique. This is done by taking a sample of 20% of the total MSMEs in each district/city of the Special Region of Yogyakarta. Data collection techniques in this study were interviews and questionnaires. Interviews are an effective data collection method for obtaining more in-depth data about the subject to be studied. Meanwhile, questionnaires are written questions that have been formulated previously where respondents choose their answers and alternative answers are more clearly defined (Sekaran & Bougie, 2017).

The questionnaire uses a model developed by Likert with an interval scale of 6, namely: 1. strongly disagree, 2. disagree, 3. somewhat disagree, 4. somewhat agree, 5. agree, 6. strongly agree. The Likert scale chosen is 6 not 5 intended to avoid floating answers as an element of intent. The statistical technique for analyzing data is Structural Equation Modeling (SEM) with the help of AMOS software.

RESULT AND DISCUSSION

The results of the validity test based on calculations can be seen in the following table:

Table 1 Validity and Reliability Test Results

Variable	Indicator	<i>Pearson Correlation</i>	Significance	Result	Cronbach's Alpha
E-Commerce	EC1	0.573	0.000	Valid	0.738
	EC2	0.509	0.000	Valid	
	EC3	0.501	0.000	Valid	
	EC4	0.648	0.000	Valid	
	EC5	0.642	0.000	Valid	
Digital Expertise	DE1	0.511	0.000	Valid	0.890
	DE2	0.547	0.000	Valid	
	DE3	0.486	0.000	Valid	
	DE4	0.552	0.000	Valid	
	DE5	0.314	0.000	Valid	
	DE6	0.637	0.000	Valid	
MSMEs Governance	Gov1	0.702	0.000	Valid	0.826
	Gov2	0.788	0.000	Valid	
	Gov3	0.831	0.000	Valid	
	Gov4	0.802	0.000	Valid	
	Gov5	0.788	0.000	Valid	
	Gov6	0.798	0.000	Valid	
Performance	PF1	0.311	0.000	Valid	0.735
	PF 2	0.756	0.000	Valid	
	PF 3	0.803	0.000	Valid	
	PF 4	0.804	0.000	Valid	
	PF 5	0.813	0.000	Valid	

*Significance at 5% level

Based on the table above, the calculated values of all questionnaire items including research variables, namely E-Commerce, MSMEs Governance, Digital Expertise and Performance show a probability value (sig) <0.05. So the questionnaires of the research variables are all valid, and the Cronbach Alpha value is obtained from all results including the research

variable which shows a value greater than 0.6. and that means reliable.

Furthermore, the model that has been presented in the form of a path diagram is then expressed in structural equations and equations that state the specification of the measurement model. Model testing in the Structural Equation Model is carried out by two tests, namely the model fit test and the causality significance test through the regression coefficient test. Testing the fit model using various criteria, namely Chi-square / degree of freedom (CMIN / DF), Adjusted Goodness-Of-Fit Index (AGFI), Goodness-Of-Fit Index (GFI), Comparative Fit Index (CFI), Tucker Lewis Index (TLI) and Root Mean Square Error Approximation (RMSEA).

Table 2 Goodness Of Fit Model

Criteria	Cut of Value	Result	Information
<i>Chi-Square</i>	37.65	92.677	Good
<i>Probability</i>	≥ 0.05	0.061	Good
<i>CMIN/DF</i>	≤ 2.00	1.852	Good
<i>GFI</i>	≥ 0.90	0.801	Moderate
<i>AGFI</i>	≥ 0.90	0.891	Moderate
<i>TLI</i>	≥ 0.95	0.904	Good
<i>CFI</i>	≥ 0.95	0.977	Good
<i>RMSEA</i>	≤ 0.08	0.074	Good

The results of the feasibility test of the research model show that all goodness of fit criteria are acceptable even though there is a marginal value at AGFI. This marginal value is due to the fact that the GFI and AGFI values are in the range 0.8 - 0.9, which means that the model is quite good. This also illustrates that almost all instructions in the model have met the recommended value. Thus, the final model developed is fit (fit) with the data. Overall the model can be accepted and the next step is to analyze the estimate parameter.

Table 3 Hypothesis Testing Results

		Standardized direct effect	C.R.	p-value	Result
Model 1: $ZY_1 = \gamma_{1.1}X_1 + \gamma_{1.2}X_2 + \varepsilon_1$					
E-Commerce	MSMEs Governance	0.061	4.283	0.004	Significant
Digital Expertise	MSMEs Governance	0.623	4.526	0.025	Significant
Model 2 : $ZY_2 = \gamma_{2.1}Y_1 + \gamma_{2.2}X_1 + \gamma_{2.3}X_2 + \varepsilon_2$					
E-Commerce	Performance	0.040	0.248	0.104	Not Significant
Digital Expertise	Performance	0.375	4.189	0.033	Significant
MSMEs Governance	Performance	0.338	4.533	0.001	Significant

*Significance at 5% level

The following table provides brief information on the coefficient (effect) prices of the total effect of the E-Commerce, MSMEs Governance, Digital Expertise and Performance variables.

Table 4 Effect of Total Between Independent Variables on Variables

Direct Effect	Total Effect
$X_1 \rightarrow Y_1 \rightarrow Y_2$	0.060
$X_2 \rightarrow Y_1 \rightarrow Y_2$	0.585

X_1 : E-Commerce

X_2 : Digital Expertise

Y_1 : MSMEs Governance

Y_2 : Performance

The total effect, direct effect and indirect effect between the E-Commerce (X_1), Digital Expertise (X_2) MSMEs Governance (Y_1) and Performance (Y_2) variables can be presented in the model in the following table:

Table 5 Total Effect, Direct Effect and Indirect Effect Between Exogenous and Endogenous Variables

	Direct Effect		Indirect Effect	Total Effect
	MSMEs Governance (Y_1)	Performance (Y_2)	Performance (Y_2)	Performance (Y_2)
E-Commerce (X_1)	0.061		0.021	0.060
Digital Expertise (X_2)		0.040		
MSMEs Governance (Y_1)	0.623	0.375	0.211	0.585
	-	0.338	-	0.338

CONCLUSION

Based on the results of the analysis and discussion, it can be concluded that E-Commerce affects the MSMEs Governance, Digital Expertise affects MSMEs Governance and Performance, MSMEs Governance the performance of MSMEs. However, E-Commerce has no effect on the performance of MSMEs. The limitations of this study can be used as a reference for further research so that better results will be obtained, namely that this study has not classified the business scale and type of MSMEs business. Based on these conclusions and limitations, in order to obtain better research results in future research, the suggestions that need to be considered include classifying the scale of MSMEs into small and large-scale MSMEs and classifying them based on the types of MSMEs. Thus, it is hoped that the results of the research can be compared how the effect is based on the scale of the business.

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