

Digital Transformation and Small Business Performance

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Abstract

This study aims to examine the relationship between digital transformation and small business performance. This research was conducted in June-July 2023 in Ternate City. The population in this study are all business actors in the city of Ternate. The sample in this study was determined with the condition that to become a respondent, the status of a business leader with total assets of no more than 500 million rupiah and already traded health and care products online. For this reason, the number of respondents involved in this survey was 104 people. The research hypothesis was tested with a simple linear regression analysis statistical tool. The test results indicate confirming the proposed hypothesis. Furthermore, the conclusions and limitations of recommendations for future research are also discussed.

Keywords:

Digital
Transformation,
Small Business,
Performance,
Ternate City,
Simple Linear
Regression

INTRODUCTION

Crises can have devastating effects (Cui, Wang, & Ping, 2016; Bundy, Pfarrer, Short, & Coombs, 2017; Noy, 2009; Martinelli, Tagliazucchi, & Marchi, 2018), including the invalidation of customary activities and rules, massive economic losses, and even humanitarian tragedies (Wasileski, Rodríguez, & Diaz, 2011). These types of crises result in instability, which forces businesses to adjust their resources and capabilities in order to accommodate or function within the shifting environmental conditions (Martinelli et al., 2018). Small-medium enterprises (SMEs) are much more susceptible to the effects of crises than other types of businesses [(Barron, Hultén, & Hudson, 2012; Kitsios & Kamariotou, 2019; Kitsios, & Kamariotou, 2019; Kamariotou & Kitsios, 2019; Kitsios & Kamariotou, 2017; Mayr, Mitter, & Aichmayr, 2017).

Research that has been conducted to date has looked at how factors such as corporate social responsibility, production recovery, and community participation can reduce the impact of the crisis on SMEs (Ballesteros, Useem, & Wry, 2017; Kearins, 2010; Neise & Diez, 2019). However, the Covid-19 that occurred a few years ago is considered digital transformation as the best solution to improve performance both organizationally and individually, especially in the context of SMEs (Hasnin, Muhammad, & Buamonabot, 2022; Yuliantari & Pramuki, 2022; Imam, Zulkifli, & Buamonabot, 2022).

The findings from previous research have proven that the performance of SOEs can be improved by business transformation through competitive advantage (Widjajanti, 2009; Yuliantari & Pramuki, 2022). Other findings also support that when a business person carries out information technology-based transformation, it can automatically increase the competitiveness of MSMEs (Sylvana & Awaluddin, 2017) and business performance (Mubarak, Shaikh, Mubarik, Samo, & Mastoi, 2019; Popović-Pantić, Semenčenko, & Vasilić, 2019). Furthermore, with an increasing competitive advantage, it will further improve business performance (Buil & Omundi, 2017; Isaboke, 2018). Different results were found by (Jamil, Harianto, & Sahara, 2019), that when the transformation process occurs it has a negative impact on

performance, especially of financial performance being down, on the other hand, the impact of digital transformation on employees is the increase in work stress in the employee environment which leads to a decrease in company performance (Winasis & Riyanto, 2020).

Based on the explanation and the previous studies above, a further study is needed to be done. Given the low level of digital transformation for small business actors, it is necessary to study the perceptions of small business actors in responding to the transformation of digitalization into their business. Thus, this study aims to investigate the role of digital transformation in the performance of small businesses in Ternate City.

In general, digital transformation is a radical and comprehensive shift in the use of technology with the aim of improving company performance. One of the definitions of digital transformation is from Kaplan, Truex, Wastell, Wood-Harper, & DeGross, (2006) which states that digital transformation is a change caused or influenced by the use of digital technology in every aspect of human life. When businesses are forced to change due to the Covid-19 pandemic, promotions can be done through online applications. Digital transformation can run if there is a commitment from MSME managers, such as offering products through social media, giving discounts, and so on. There are four things that can be applied to digital transformation, including 1) ensuring the business remains competitive, 2) providing efficiency in business processes, 3) Increasing customer satisfaction and 4) making it easier for business people to make various strategic decisions (Winarsih, Indriastuti, & Fuad, 2021).

The digital revolution and platforms have transformed businesses and provided immense opportunities for entrepreneurs (Nambisan, Wright, & Feldman, 2019; Sturgeon, 2021; Bouncken & Barwinski, 2021). Dethine, Enjolras, & Monticolo, (2020) define digital transformation, as per the use of academia and industry, "as a key term to express organizational changes influenced by digital technologies." Digital transformation is embedded in the fourth industrial revolution, also known as Industry 4.0 (Alcácer & Cruz-Machado, 2019; Weking, Stöcker, Kowalkiewicz, Böhm, & Krcmar, 2020). Digitalization of business processes and digital strategies of Industry 4.0 link advanced techniques and disruptive technologies in the production of goods and services with the management and governance of business and allows communication and cooperation between industries world- wide. Digital technologies and strategies enable the emergence of new products and services (Kohtamäki, Parida, Oghazi, Gebauer, & Baines, 2019; Kohtamäki, Rabetino, Einola, Parida, & Patel, 2021) that would cross international borders quickly and significantly impact the economic activities and the institutional framework of both home and host countries. Moreover, they could affect the internationalization process in terms of time, pace, location, entry mode method, learning and recombination of foreign markets (Vadana, Kuivalainen, Torkkeli, & Saarenketo, 2021), and accessibility to the local market's resources and capabilities (Coviello, Kano, & Liesch, 2017). In addition, through "digitization, modern data science, and business intelligence techniques" (Lederer & Riedl, 2020), knowledge-intensive services and processes will succeed when businesses decide to operate locally or abroad. Digital transformation re-news the industry and empowers the use of emerging "technologies, changing the way of living, creating new business models and new ways of manufacturing" (Alcácer & Cruz-Machado, 2019). This shift towards digital transformation profoundly impacts business

models, as it will re-conceive the interaction among consumers, businesses, and suppliers.

In general, performance is the result or assessment of industrial work that has been achieved by a person or group with the division of activities in the form of tasks and positions at a certain time with guidelines from the industry that have been determined (Nyamboga, Nyamweya, Abdi, Njeru, & George, 2014).

According to the European Union (EU) Commission, small businesses are defined as businesses that employ up to 50 employees (European Commission, 2023) and are often characterized by limited regional activity and relatively small market share (Yew Wong & Aspinwall, 2004). Small businesses often operate in niche and highly specific markets and are able to provide something different from standardized products and services offered by large companies (Harel, 2021). In industry sectors particularly, many small businesses act as specialist suppliers of parts, components and subassemblies (Yew Wong & Aspinwall, 2004), and many large companies are using small businesses as subcontractors to incorporate specialized skills and to perform tasks that are not part of their core business (Tudorneau, Franklin, Rego, Wu, & Wang, 2018). Small businesses are perceived as an important growth driver in the economy (Henrekson & Johansson, 2010; OECD, 2009), and in the ever-changing economic environment, their advantages are expressed in flexibility, rapid response, adaptability to market changes and quick decision-making (Bommer, & Jalajas, 2004; Tzadik, 2007; Vossen, 1998).

As digital transformation accelerates, companies can achieve improved customer offerings through greater customization, increased customer satisfaction and reduced cost of sales (Brynjolfsson & Hitt, 2000; Mithas, Krishnan, & Fornell, 2005). Previous studies on the implications of digital technology have shown that digitization can positively affect a company's performance. Companies that use more digitally embedded business processes benefit from the higher performance from their information technology capabilities (Brynjolfsson & Hitt, 2000). Furthermore, it was also found that many SOEs that have been privatized in Indonesia utilize digital technology because they seek to improve performance through the transformation of customer-side business operations and synchronization of data, information, and ideas (Widjajanti, 2009). To that end, the hypothesis proposed is: Digital transformation has a positive effect on small business performance

METHOD

This research was conducted in the city of Ternate in June-July 2023. The population in this study were all businesses that run their business in the city of Ternate. The sample in this study was determined based on the requirements that only small business leaders with total assets of less than 500 million rupiah and business focus only on care and health products that have been traded online. It aims to see the application of digital transformation in small businesses. Furthermore, for the testing stage of the research instrument using factor analysis with a minimum value of 0.5 and reliability testing using a Cronbach alpha value of more than 0.7 (Ghozali, 2018). In addition, related to testing the hypothesis of this study using simple linear regression analysis with reference to Hair, Babin, Anderson, & Black, (2018). Finally, the questionnaire used comes from previous research. The digital transformation questionnaire adopts research Sylvana & Awaluddin, (2017), while the small business performance questionnaire refers to research Widjajanti, (2009).

RESULTS AND DISCUSSION

Based on the distribution of questionnaires, the results showed that of the 127 questionnaires distributed, 111 questionnaires or 87.4% were returned and the remaining 104 questionnaires or 81.89% were declared eligible for further testing, so the response rate in this study was 87.84%. For the description of respondents this study uses two categories, namely gender and age. For gender, the respondents in this study were generally 97 women or 93.27% compared to 7 men or 6.73. Furthermore, for the age of the respondents in this study, most of them were under 25 years old, as many as 81 people or 77.88%, compared to those aged over 25 years, which amounted to 23 people or 22.12%. The results of the description of the respondents are in accordance with the results of the study Arilaha, Fahri, & Buamonabot, (2021) and Bailusy, Buamonabot, Fahri, & Arilaha, (2022)

The results in table 1 show that the results of testing the validity and reliability of digital transformational variables and small business performance. The results show that for the digital transformational variables which consist of seven question items all meet the required factor loading value of 0.5 (TD1 = 0.718, TD2 = 0.837, TD3 = 0.854, TD4 = 0.713, TD5 = 0.757, TD6 = 0.657 and TD7 = 0.541). Similar to digital transformational variables, the small business performance variable which consists of five question items also indicates that there are no questions that must be asked because all question items have met the required factor loading value of 0.5 (SBP1 = 0.841, SBP2 = 0.793, SBP3 = 0.796, SBP4 = 0.887 and SBP5 = 0.838). Furthermore, for testing the reliability of digital transformational variables it indicates that all of them have met the reliable requirements. This can be seen from the Cronbach alpha value which is above 0.7 (0.845). The results of the reliability test for the small business performance variable are the same as for the digital transformational variable. This can be seen from the Cronbach alpha value of more than 0.7 (0.866).

Table 1. Validity and Reliability Testing Results

Factor and Scale	Factor-1	Factor-2
TD1	0,718	
TD2	0,837	
TD3	0,854	
TD4	0,713	
TD5	0,757	
TD6	0,657	
TD7	0,541	
Transformational Digital (TD) = Cronbach α = 0,845		
SBP1		0,841
SBP2		0,793
SBP3		0,796
SBP4		0,887
SBP5		0,838
Small Business Performance (SBP) = Cronbach α = 0,886		

Source: data processed

Descriptive analysis for digital transformational variables shows that most of the owners agree that they have done digital transformational in their respective businesses. This can be seen from the results of the respondents' perceptions in table 2 that the digital transformational variable has an agree mode or 65%. In addition, small business owners also admit that the performance of their business is also in

good condition. The perception of these business owners can be seen from the agree mode value or 53.85% in table 2.

Table 2: Respondents Perception

Variables	(%) Strongly Disagree	(%) Disagree	(%) Neutral	(%) Agree	(%) Strongly Agree	Mode
Transformation Digital	-	5	14	65	16	Agree
Small Business Performance	-	-	18,27	53,85	27,88	Agree

Source: data processed

Based on the results of hypothesis testing in table 3, it shows that small business performance is affected by digital transformation ($\beta = 0.711$, $t = 10.403$, $P < 0.05$). This means that the proposed hypothesis is declared supported in this study.

Table 3: Hypotheses Testing

Independent Variable	Small Business Performance		
	β	t	Sig
Digital Transformation	0,711	10,403	0,000

Source: data processed

Hypothesis 1 predicts that there is a positive relationship between digital transformation and small business performance. The results of data processing support the hypothesis of this study. The findings of this study indicate that small business performance owner who implement digital transformation at a high level, small business performance tends to increase which is reflected in sales growth, capital growth, additional workforce, market growth and profit growth compared to its competitors. As an alternative to the lower implementation of digital transformation by small business performance owner, small business performance tends to experience a decline which is reflected in the form of sales growth, capital growth, additional workforce, market growth and profit growth compared to its competitors.

Furthermore, the perception of MSME managers who have carried out various product innovations, process innovations and information and technology-based organizational innovations believes that with increasing digital transformation, companies can achieve increased customer offerings through greater customization, increased customer satisfaction and reduced sales costs (Mubarak et al., 2019). These findings also successfully support the results of previous research that the application of digital transformation can positively affect company performance that companies that use more digitally embedded business processes gain higher performance benefits (Popović-Pantić et al., 2019; Avirutha, 2018; Yuliantari & Pramuki, 2022).

CONCLUSION

Based on the discussion above, it indicates that the proposed hypothesis is supported, namely digital transformation has an effect on small business performance. Furthermore, this study also has a number of limitations, namely the sample distribution. In this study, the sample came from only one city, namely Ternate City. For this reason, future research can be expanded both within the administrative scope of North Maluku Province or further extended to other provinces. In addition, this research focuses more on the small business context. It is best if future research is

carried out in the business context for the micro and large categories or it could also be in the context of local government. Finally, future research can also add a number of variables that become antecedents, namely strategic leadership, organizational innovation, organizational capabilities and tacit knowledge.

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