

## Digitalization Capability and Organizational Performance: The Mediating Role of Organizational Agility

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**Abstract:** Digitalization is prominent for companies and businesses, especially in the era of modern information technology. Digitalization can increase efficiency in business processes, including manufacturing, supply chains, inventory management, and administrative processes. Hence, this study aims at investigating the role of organizational agility in mediating the relationship between digitalization capability and business performance. A purposive sampling was used to gather the data from managers in PT. Mayora Indah Tbk. Furthermore, the data were analyzed using structural equation modeling. The findings indicate that digitalization capability has a significant effect on organizational performance and organizational agility. In addition, this study showed that digitalization capability has an effect on organizational agility. This study also confirms the role of organizational agility in mediating the link between digitalization capability and organizational performance. This study provides implications for the need for organizational agility in supporting digitalization capability and organizational performance.

**Keywords:** Organizational performance, Organizational agility, Digitalization capability

### INTRODUCTION

Digitalization in the business world is considered part of industry 4.0 and is rapidly changing the business environment (Güven, 2020). In addition, digitalization creates challenges for many companies, and to survive in a competitive digital environment, companies must have digital capabilities and readiness (Machado et al., 2019). Many organizations also realize the importance and need for digitalization, but some of them lack sufficient knowledge to initiate digital transformation (Brunetti et al., 2020). Digitalization helps enable digital transformation by providing the necessary technological foundation (Nambisan et al., 2019). Widespread use of digital technologies in organizations opens up new opportunities and provides tools to drive innovation, transform traditional business models, and create superior customer experiences (Schwertner, 2017).

Previous research has found the positive impact of technology on customer experience (e.g., Foroudi et al., 2018; Gao et al., 2022). In addition, Spiess et al. (2014) stated that integrating big data insights with process automation at different customer touchpoints improves customer experience. This means that by analyzing big data and using it to automate or direct processes that interact with customers, companies can provide better experiences to customers. Furthermore, Huseynov et al. (2023) discussed how the use of big data can transform crucial business operations by enhancing better decision-making capabilities. Apart from that, Zhao et al. (2019) suggested that using big data to analyze customer online reviews and taking appropriate action based on those reviews can increase electronic “word-of-

mouth". By analyzing customer reviews in depth, companies can better respond to customer input, reputation, and relationships with customers.

Digitalization capabilities are the foundation needed to drive digital transformation. Digitalization capability refers to an organization's level of maturity and skill in using digital technology (Ritter & Pedersen, 2020). Through digitalization, organizations adopt digital technologies to automate business processes, increase operational efficiency, collect and analyze data, and improve collaboration and communication (Yang et al., 2021). Strong digitalization capabilities provide organizations with a solid foundation to move toward digital transformation. According to Annarelli et al. (2021), digitization capability refers to the extent to which a company's management system allows data integration. Companies with high digitalization capabilities can obtain data related to customers, orders, production, and more diversified markets (Bharadwaj et al., 2007).

According to Papadopoulos et al. (2020), because data is a new element in production, a fundamental resource, and a strategic resource in the digital era, some researchers believe that digitalization capabilities should improve company performance even in the face of the COVID-19 pandemic (Sharma et al., 2020). Digitalization can automate business processes, companies can reduce dependence on manual work, optimize workflows, and save valuable time and resources (Belli et al., 2019). This contributes to increased productivity, reduced operational costs, and more efficient management of company resources. Additionally, digitalization is important in providing competitive advantages to companies (Tsvok & Toczynska, 2018). By adopting digital technology and utilizing it effectively, companies can deliver a better customer experience.

On the other hand, digital transformation is a complex process and can present several challenges for organizations. First, data is not always accurate (Ghasemaghaei et al., 2020; Cappa et al., (2021), and even if it is, it can easily be misused (Cohen, 2021). Second, massive data can expose companies to more risks, such as privacy data, data security, and loss of capabilities (Ralston & Blackhurst, 2020; Hajli et al., 2021). The technological environment continues to evolve rapidly, and organizations are often faced with challenges in keeping up with these changes. Technologies adopted today may be obsolete in a few years in the future. Therefore, organizations need to adapt to technological advances and develop the ability to identify and evaluate relevant solutions. Thus, companies need to have organizational agility.

Organizational agility is defined as an organization's ability to respond quickly and innovatively to unexpected changes in the business environment, and this is one of the necessary conditions for companies to grow and develop in a dynamic environment (Lu & Ramamurthy, 2011). The aforementioned study mentioned there are two types of agility: market capitalization agility and operational adjustment agility. Market capitalization agility is defined as a company's ability to identify the right things to act to meet customer needs, while operational adjustment agility refers to a company's ability to adapt quickly to demanding changes in internal business processes (Caesari et al., 2023). Organizational agility allows companies to anticipate and respond quickly to these changes, maintain competitive advantage, and take advantage of emerging opportunities (Saha et al., 2017).

Therefore, this present study sought to investigate the role of organizational agility in mediating the link between digitalization capability and organizational performance. This study proposes some contributions. First, this research contributes to the literature on economics and management by empirically investigating the role of organizational agility in mediating the relationship between digitalization and company performance, which is missing in the prior studies. The role of organizational agility has been recognized among scholars as a mediator for e-commerce and a firm's performance (Bahrami et al., 2016; Li et al., 2020), as well as knowledge management and organizational effectiveness (Mehdibeigi et al., 2016; Cegarra-Navarro et al., 2016). In addition, this study will add insight into the matter of digitalization capability that is essential in this fourth industrial era. Thus, it provides contributions in both practical and managerial settings.

The rest of the paper is presented as follows. The next section provides the method and materials used in dealing with the research purposes, followed by results and discussion in the following chapter. The last section concerns the conclusion, limitations, and future direction.

## METHODS

### Research Design

This research uses a quantitative approach to test and analyze the influence of digitalization capabilities on company performance mediated by organizational agility. This study concerned PT. Mayora Indah Tbk for several reasons. PT. Mayora Indah Tbk is an Indonesian company operating in the consumer goods industry. PT. Mayora Indah Tbk has actively invested in digitalization to improve its business operations, increase customer engagement, and remain competitive in the digital era. PT. Mayora Indah Tbk has expanded its e-commerce presence in recent years to sell its products online; in addition, PT. Mayora Indah Tbk has used digital marketing strategies to promote its brands and products. The company has a strong social media presence and has run various digital marketing campaigns to engage with its customers. PT. Mayora Indah Tbk has implemented digital solutions to improve its supply chain management processes.

### Operational Definition and Measurement

The measurement of variables in this research was adopted from preliminary studies. Digitalization capability is the organizational capability that enables companies to broadly combine digital assets and business resources and leverage digital networks to innovate products, services, and processes for organizational learning and customer value creation and manage innovation to ensure sustainable competitive advantage. This study used instruments from Bharadwaj et al. (2007), consisting of manufacturing-marketing coordination, manufacturing-IS coordination, manufacturing-supply chain coordination, and integrated IS capabilities.

In addition, organizational performance is seen as the ability of an organization to achieve its stated goals and objectives from the limited resources it has and, in the process, also meet the needs of stakeholders. In this study,

organizational performance was measured using instruments from Schilke (2014), which covers strategic performance and financial performance. Furthermore, Organizational agility can help companies to quickly adapt their structures, configure resources, and respond to market changes. We adopted instruments from Lu and Ramamurthy (2011) to measure organizational performance, which consists of market capitalization agility and operational adjustment agility.

### **Data Collection**

This study involved primary data using online questionnaires distributed to managers in PT. Mayora Indah Tbk. Distribution of questionnaires to managers was carried out because managers have essential information and insights about company operations, strategy, and performance. To collect data, we involved a purposive sampling using certain criteria. The sample criteria in this research are middle to upper-level managers who have worked at least five years at PT. Mayora Indah Tbk. Mid- to upper-level managers have a deep understanding of company operations, strategy, and culture. Middle and upper-level managers contribute to the formulation and implementation of corporate strategy. They have critical strategic views and are able to provide insight into the long-term direction of the company. Their experience of having worked for at least five years will ensure that they have deep insight into the company and the impact of the decisions taken.

### **Data Analysis**

In this research, data analysis was carried out using the partial least squares structural equation modeling (PLS-SEM) method. According to Hair et al. (2017), various studies in the business sector use the PLS-SEM method. Hair et al. (2017) states that PLS-SEM can work efficiently with small sample sizes or complex models. The direct effect can be described as a relationship between two constructs connected by a single arrow. Indirect effects occur when there is a structural model path involving a sequence of relationships and at least one intervening construct.

## **RESULTS AND DISCUSSION**

### **Outer Model Evaluation**

Outer model evaluation aims to evaluate how well these indicators represent the latent variable measured in this study. This stage covers reliability and validity estimations. The reliability testing process is aimed at testing the consistency of questionnaire items used in research when carrying out repeated measurements. The reliability of the research variable questionnaire instrument in this study was assessed using internal consistency reliability, or what is known as Cronbach's Alpha method. According to Sekaran and Bougie (2016), if the Cronbach's Alpha value is greater than 0.6, the instrument is considered acceptable, while a value above 0.80 indicates reliability in the very good category. According to Bagozzi and Yi (1988), a composite reliability value greater than 0.6 for an instrument is considered acceptable. In addition, AVE values exceeding 0.5 are considered acceptable, as explained by Fornell and Larcker (1981).

**Table 1.** The Result of Validity and Reliability Estimation

<b>Variable</b>	<b>Loading Factor</b>	<b>Cronbach's Alpha</b>	<b>Composite Reliability</b>	<b>AVE</b>
Digitalization capability				
Item 1	0.903	0.940	0.952	0.769
Item 2	0.845			
Item 3	0.880			
Item 4	0.900			
Item 5	0.880			
Item 6	0.853			
Organizational performance				
Item 1	0.795	0.900	0.921	0.625
Item 2	0.787			
Item 3	0.830			
Item 4	0.838			
Item 5	0.756			
Item 6	0.808			
Item 7	0.714			
Organizational agility				
Item 1	0.854	0.879	0.912	0.675
Item 2	0.817			
Item 3	0.842			
Item 4	0.759			
Item 5	0.832			

Table 1 informs that the Cronbach's alpha reliability coefficient of the digitalization capability, company performance, and organizational agility variables, respectively, is 0.940, 0.900, 0.879 ( $>0.80$ ). The composite reliability coefficient of the digitalization capability, company performance, and organizational agility variables is 0.952, 0.921, and 0.912 ( $>0.60$ ), respectively, indicating to achieve composite reliability. The average variance extracted (AVE) reliability coefficient of the digitalization capability, company performance, and organizational agility variables, respectively, is 0.769, 0.625, 0.675, which is greater than 0.50. As informed in Table 1, the loading factors range from 0.714 to 0.903, indicating to meet convergent validity.

In addition, this study also performed discriminant validity. Discriminant validity aims to evaluate whether items are valid in explaining or reflecting latent variables. In this criterion, cross loading and square root of average are used in testing. According to Hair et al. (2017) if the loading factor value for each item of the variable being tested is greater than the cross-loading value of the other variables, then the item is considered valid. If root square of AVE is greater than the correlation with other variables, then the instrument is declared to have good discriminant validity. The test results show that the discriminant validity value of a variable is greater than the correlation value between variables (see Table 2).

**Table 2.** Discriminant Validity

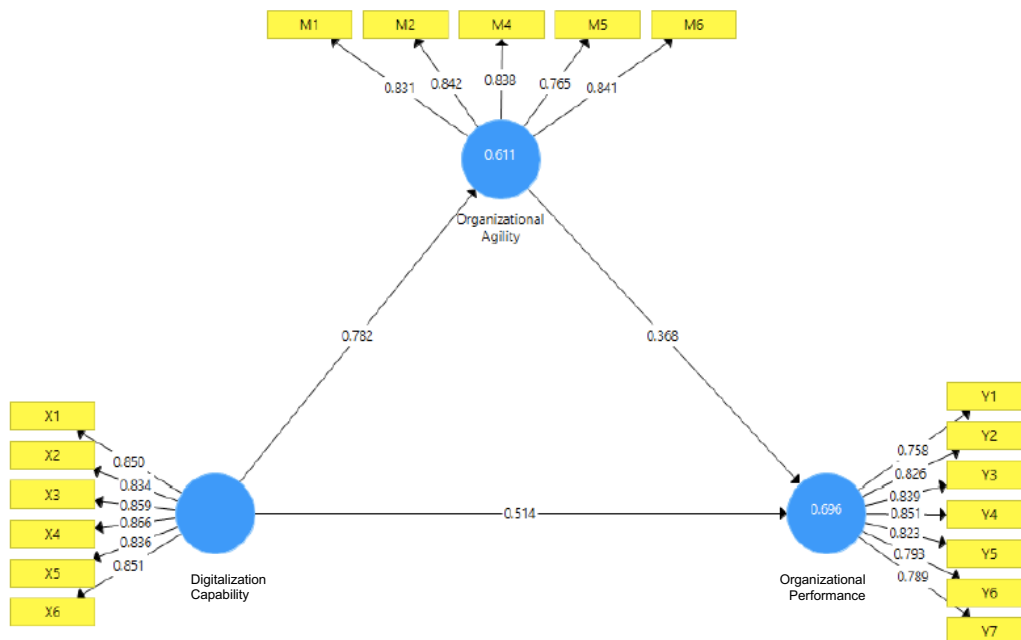
Variable	DC	OP	OA
Digitalization capability (DC)	0.850		
Organizational performance (OP)	0.802	0.812	
Organizational agility (OA)	0.782	0.770	0.824

### Inner Model Evaluation

According to Hair et al. (2017) inner model aims to examine the path coefficient and t-statistic which describe the level of significance of changes in the independent variable to the dependent variable. Structural model testing can be seen from the R-square value ( $R^2$ ). The test results show that the  $R^2$  of the organizational performance variable is 0.696. This means that the organizational performance variable is explained by the organizational agility variable at 69.6%, while the rest is explained by other variables outside the model. Furthermore, the  $R^2$  of the organizational agility variable is 0.611. This means that the organizational agility variable is explained by the digitalization capability variable at 69.6%, while the rest is explained by other variables outside the model.

### Hypothesis Estimation

Hypothesis testing was carried out based on the results of bootstrapping test analysis in PLS-SEM with a confidence level of 0.95%. The hypothesis model aims to check the significance of the supportability of the hypothesis or the significance of the path coefficient contained in the model. If the p-value is less than 0.05 then the path coefficient is considered to be an accepted or significant hypothesis. Based on the hypothesis test that has been carried out, the results of the hypothesis test are explained in Figure 1 and Table 3.

**Figure 1.** Structural Model

**Table 3.** Hypothesis Estimation

Variable	Original Sample (O)	Standard Deviation (STDEV)	T-Statistics ( O/STDEV )	P-Values
DC → OP	0.514	0.071	7.235	0.000
DC → OA	0.782	0.033	23.634	0.000
OA → OP	0.368	0.070	5.281	0.000
DC → OA → OP	0.288	0.284	5.049	0.000

*Note.* DC=digitalization capability, OP=organizational performance, OA=organizational agility

Digitalization capability on company performance has a coefficient in a positive direction. The calculation results show that the path coefficient is 0.514 with a t-statistic of 7.235 and p-value of <0.001, making the decision that digitalization capability significantly affects company performance. In addition, Digitalization capability on organizational agility has a coefficient in a positive direction. The calculation results show that the path coefficient is 0.782 with a t-statistic of 23.649 and p-value of <0.001, indicating that digitalization ability has a significant effect on organizational agility. Later, the finding indicates that Organizational Agility on company performance has a coefficient in a positive direction, with a path coefficient of 0.368, a t-statistic of 5.281, and a p-value of <0.001). Lastly, digitalization capability on company performance through organizational agility mediation is 0.288 and p<0.001.

### Discussion

The first hypothesis states that digitalization capabilities influence company performance. The findings from the analysis carried out indicate that the coefficient of digitalization capabilities has a significant impact on company performance. This is in line with research by Ribeiro-Navarrete et al. (2021). The research showed that updating social networks, using social networks for company purposes, having a high level of training in digital tools, as well as having more experienced managers can improve company performance. Recognition that digitalization, which includes the use of information technology, such as social networks and other digital tools, is critical to improving company performance. Companies that can combine technology effectively incorporating digital into their business processes are likely to experience improvements in efficiency, innovation, and competitiveness, all of which are positive corporate performance indicators.

Digitalization capabilities in a company are a key factor that influences improving company performance. Digitalization refers to the integration of information and communications technology into a company's daily activities to optimize processes, increase productivity, and expand market reach (Ritter & Pedersen, 2020). Through digitalization, companies can gain access to accurate and real-time data that supports better decision-making and accelerates responses to market changes. Digitized business processes enable companies to reduce operational costs, increase service speed, and provide customers with a better experience through more personalized and efficient interactions (Butt, 2020). Thus, a company's ability to adopt and apply digital tools not only improves internal efficiency but also strengthens its competitive position in the market. This includes

the use of social media for marketing and communications, process automation through software, and the use of analytics to understand market trends and consumer behavior.

The second finding indicates that digitalization capability has a significant impact on organizational agility and confirms the second hypothesis. This is in line with research by Gong and Ribiere (2023), which stated that the process of integrating digital technology into all aspects of business operations requires a comprehensive view. This finding indicates that organizational agility is the main factor that allows an organization to optimize the use of its human, operational, and network resources in the context of successful digitalization. Organizational agility involves quick response and proactive acceptance of unexpected changes, so organizations need to have structures and processes that can be changed quickly as needed (Nafei, 2016). From a digitalization capability perspective, having a robust technological infrastructure, integrated systems, and a workforce skilled in digital tools are factors that enable organizational agility.

The subsequent finding indicates that organizational agility influences company performance, confirming that the third hypothesis is accepted. Teece et al. (2016) stated that organizational agility is essential for companies operating in challenging environments because it allows them to sense and respond to unexpected environmental changes. In addition, research by Worley and Lawler (2010) states that organizational agility helps companies identify the need for change from internal and external sources, implement the necessary changes, and achieve above-average performance. In practice, organizational agility has an impact on company performance by increasing its capabilities in various aspects. Furthermore, agile companies are often more agile in dealing with internal issues and adapting their organizational structures to support new initiatives and work methods.

The last finding indicates that organizational agility plays a partial mediator in the relationship between digitalization capability and organizational performance. In the relationship between digitalization and company performance, organizational agility acts as a link that not only strengthens but also complements the impact of digitalization on company performance. More specifically, a company's digitalization capabilities facilitate increased performance not directly but through the increased organizational agility they achieve as a result of the digitalization process. This means that digitalization and organizational agility together form a system that supports each other to achieve better results than can be achieved by either one alone. This shows that strategies to increase digitalization should be carried out together with efforts to strengthen organizational agility in order to achieve maximum benefits from technology investments.

## **CONCLUSION**

This study aims to investigate the role of organizational agility in mediating the relationship between digitalization capability and the organizational performance of PT. Mayora Indah Tbk. The findings indicate that digitalization capability has a significant effect on organizational performance and organizational agility. In



addition, this study showed that digitalization capability has an effect on organizational agility. This study also confirms the role of organizational agility in mediating the link between digitalization capability and organizational performance. Based on these findings, it proposes some implications. First, there is a need for developing human resource capabilities in managing and utilizing digital technology must be a priority, including ongoing training and capacity building. Second, organizations must continue to invest in new and relevant digital technologies to maintain competitive advantage and improve company performance. While this study provides some considerable implications, this study also has limitations. First, this study lies in the limited variables and geographical settings in understanding organizational performance. Thus, future scholars can elaborate on other variables to enhance organizational performance.

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