

Digital Leadership Mediated by Dynamic Capabilities Influences Organizational Performance

Setyo Budianto^A, Ubud Salim^B, Wahdiyat Moko^C, Nur Khusniyah Indrawati^D

Abstract

This research is motivated by the researcher's interest in the phenomenon of declining organizational performance, particularly in existing products (voice and SMS). The advent of the Fourth Industrial Revolution poses new challenges for established companies to remain competitive at all times. Digital transformation has become a comprehensive organizational transformation movement encompassing crucial aspects such as strategy, processes, human resources, and leadership. The study was conducted within the Telkom Indonesia Group, with a sample of 283 respondents. Descriptive statistical analysis was performed using SPSS, while hypothesis testing employed Structural Equation Modeling (SEM) and Partial Least Square (PLS). The research aims to analyze and elucidate the influence of digital leadership mediated by dynamic capabilities on organizational performance. The initial hypothesis is that the improvement of digital leadership, mediated by dynamic capabilities, will enhance organizational performance. The findings of this research indicate that digital leadership can influence organizational performance through dynamic capabilities within the Telkom Indonesia Group as a partial mediation. Digital leadership can create company capabilities that improve organizational performance by transforming time series thought patterns into real-time actions through enhanced digital mastery. This enables the execution of business activities, management, and leadership more quickly, efficiently, and effectively in the digital era.

Keywords: *Digital Leadership, Dynamic Capabilities, Organizational Performance.*

INTRODUCTION

This research is motivated by the researcher's interest in the phenomenon of declining organizational performance, particularly in existing products (voice and SMS). The Fourth Industrial Revolution poses new challenges for established companies to anticipate new business models offered by new players. The Covid-19 pandemic since April 2020 has accelerated the shift towards the digital market, necessitating digital transformation for incumbents (*Telkom Indonesia*)

^ABrawijaya University, Malang, Indonesia, Email: setyobudianto@gmail.com

^BBrawijaya University, Malang, Indonesia, Email: ubud@ub.ac.id

^CBrawijaya University, Malang, Indonesia, Email: moko@ub.ac.id

^DBrawijaya University, Malang, Indonesia, Email: nur_khusniyah@ub.ac.id

to innovate business models for products and services based on dynamic changes to remain competitive continuously. Digital transformation has become a comprehensive organizational transformation movement encompassing crucial aspects such as strategy, processes, human resources, and leadership.

Therefore, the presence of digital leadership mediated by dynamic capabilities significantly influences organizational performance. The research aims to analyze and explain the impact of digital leadership mediated by dynamic capabilities on organizational performance. In this study, digital leadership serves as the exogenous latent variable or independent variable, while organizational performance is positioned as the endogenous latent variable or dependent variable. Dynamic capabilities function as a mediating variable in this research, reinforcing the relationship between digital leadership and organizational performance.

LITERATURE REVIEW

A digital leader will make choices based on their digital vision and theoretically enhance the quality of innovation deployment (Ding et al., 2014; Hambrick & Mason, 1984). Consequently, digital leadership will lead to an increase in digital initiatives and an enhancement of the quality of these initiatives within the company. Additionally, numerous empirical studies have demonstrated a positive relationship between dynamic capabilities and organizational performance. For instance, Danneels (2002) studied five high-tech companies, concluding that product innovation capabilities enhance the competence of the company and its renewal performance. Zott's study (2003) explored how a company's dynamic capabilities could influence the performance of different organizations in an industry. It was found that even small initial differences in organizational dynamic capabilities could result in significant differences in organizational performance.

METHODS

This research employs a positivist (quantitative) approach with a survey method because information is gathered from respondents using questionnaires, and the data is obtained from a sample representing the population (Saunders *et al.*, 2009: 212). This approach serves as a means to objectively test theories by examining the relationships between variables. The total population for this study is 966 respondents. In this research, data is collected through surveys and documentation. The respondents in this study are leaders from Telkom Group. Out of the 71 questionnaire items distributed, a total of 283 respondents agreed to fill out all the questions included in the online questionnaire. From the distributed questionnaires, 283 respondents were obtained, and descriptive analysis will be conducted to explain the frequency distribution of the distributed questionnaires and obtain information about the level of data dispersion.

RESULTS AND DISCUSSION

Based on the questionnaire scores, the obtained scores are illustrated in Table 1, providing a breakdown of responses for each indicator and each statement item.

Table 1. Description of Digital Leadership Variables

Code	Indicators and Items	Average Values of Respondents' Responses					Mean
		STS (%)	TS (%)	N (%)	S (%)	SS (%)	
X11	Ambidextrous						4.60
X111	Having the ability to conduct business development	0.00	0.00	1.77	36.04	62.19	4.60
X112	Having the ability to synergize between units exploring new business and units exploiting existing business	0.00	0.00	2.12	35.69	62.19	4.60
X113	Having the ability to orchestrate collaboration to achieve common goals	0.00	0.00	3.53	33.22	63.25	4.60
X12	Vision						4.61
X121	Able to envision the organization's future vision	0.00	0.00	1.41	24.03	74.56	4.73
X122	Having the ability to solve problems with a multidisciplinary approach	0.00	0.00	3.18	40.99	55.83	4.53
X123	Having a global mindset to provide direction in the transformation of digital business transformation	0.00	0.00	3.18	35.69	61.13	4.58
X13	Digital Literacy Knowledge						4.58
X131	Having the ability to understand changes in the digital environment	0.00	0.00	2.83	33.57	63.60	4.61
X132	Having the willingness to continuously learn in pursuing digital knowledge	0.00	0.00	2.47	32.51	65.02	4.63
X133	Having the skills to leverage digital media to achieve organizational goals	0.00	0.00	4.24	40.99	54.77	4.51
X14	Agile						4.53
X141	Having agility skills in responding to changes	0.00	0.00	3.89	40.64	55.48	4.52
X142	Having the ability to anticipate changes flexibly	0.00	0.35	3.18	39.93	56.54	4.53
X143	Having the ability to adapt to a rapidly changing environment	0.00	0.00	4.95	36.04	59.01	4.54
X15	Understanding Customers						4.59
X151	Understanding customer needs	0.00	0.00	3.18	30.74	66.08	4.63
X152	Anticipating changes in customer behavior	0.00	0.00	2.47	39.93	57.60	4.55
X153	Understanding the impact of transformation on customers	0.00	0.00	2.47	36.40	61.13	4.59
Mean of the Digital Leadership Variable							4.58

Based on Table 1, it can be observed that the overall average score for the digital leadership variable is 4.58, categorized as very high

or excellent. All digital leadership indicators, which serve as a model for leaders, fall into the very high or excellent category. Therefore, it can be stated that respondents highly appraise the digital leadership model adopted by Telkom Group leaders. The leaders demonstrate capabilities and capacities that provide a creative environment by optimizing technology and digital capabilities to achieve corporate goals more efficiently.

Dynamic capabilities represent an organization's ability to integrate, build, and reconfigure its internal and external competencies. A detailed breakdown of responses for each indicator and each statement item is provided in Table 2:

Table 2. Description of Dynamic Capabilities Variable

Code	Indicators and Items	Average Values of Respondents' Responses					Mean
		STS (%)	TS (%)	N (%)	S (%)	SS (%)	
Z11	Absorptive Capacity						4.55
Z111	Able to manage informative knowledge	0.00	0.00	1.41	37.10	61.48	4.60
Z112	Able to utilize informative knowledge for commercial purposes	0.00	0.00	4.95	40.64	54.42	4.50
Z12	Adaptive Capability						4.51
Z121	Able to identify emerging market opportunities	0.00	0.00	5.65	32.51	61.84	4.56
Z123	Able to capitalize on emerging market opportunities	0.00	0.35	7.77	36.75	55.12	4.47
Z13	Innovation Capability						4.46
Z131	Able to transform new ideas into profitable products for the company	0.00	0.00	7.77	37.81	54.42	4.47
Z132	Able to develop products through the adaptation of an innovative strategic orientation in the process of innovative behavior	0.00	0.71	7.07	39.22	53.00	4.45
Mean of the Dynamic Capabilities Variable							4.51

Based on the information provided, the average score for the dynamic capabilities variable is 4.51. This score falls into the category of very high or excellent. This indicates that Telkom Group's capabilities have a high level of capacity and ability to integrate, build, and reconfigure internal and external competencies exceptionally well, especially in the rapidly changing communication field.

Organizational performance, as the organization's ability to achieve specified goals to maintain profit, possess competitive advantages, increase market share, and ensure long-term sustainability, depends on the use of appropriate organizational strategies and practices. A detailed breakdown of responses for each indicator and each statement item is presented in Table 3.

Table 3. Description of Organizational Performance Variable

Code	Indicators and Items	Average Values of Respondents' Responses					Mean
		STS (%)	TS (%)	N (%)	S (%)	SS (%)	
Y11	Profitability						4.61
Y111	Able to increase profits	0.00	0.00	1.06	35.34	63.60	4.63
Y112	Able to increase profit margins	0.00	0.00	1.41	36.04	62.54	4.61
Y113	Able to achieve return on investment	0.00	0.00	0.71	37.81	61.48	4.61
Y12	Market Response						4.56
Y121	Able to increase consumer demand	0.00	0.00	1.41	44.52	54.06	4.53
Y122	Able to increase sales volume	0.00	0.00	2.47	40.28	57.24	4.55
Y123	Able to achieve sales growth	0.00	0.00	1.77	40.28	57.95	4.56
Y124	Able to increase market share	0.00	0.00	1.41	38.52	60.07	4.59
Y13	Market Position Value						4.62
Y131	Able to enhance consumer perception of the product	0.00	0.00	0.71	39.93	59.36	4.59
Y132	Our product is superior to competitors	0.00	0.00	1.41	37.10	61.48	4.60
Y133	Able to enhance the company's product reputation	0.00	0.00	0.00	37.10	62.90	4.63
Y134	Able to create customer satisfaction	0.00	0.00	0.71	36.40	62.90	4.62
Y135	Able to enhance the company's image	0.00	0.00	1.06	34.28	64.66	4.64
Y14	Success of New Products						4.55
Y141	Able to create products that are accepted by the market	0.00	0.00	1.77	39.22	59.01	4.57
Y142	Successful development of new products	0.35	0.00	1.77	41.34	56.54	4.54
Y143	Our products excel in competition in the market	0.00	0.00	2.12	40.99	56.89	4.55
Mean of Organizational Performance Variables							4.58

Based on the table, it is evident that the average score for the organizational performance variable is 4.58. This score falls into the category of very high or excellent. This indicates that the current organizational performance of Telkom Group is excellent, particularly in aspects related to assessing market position and profitability. This is attributed to the success of new products in responding to market needs.

The discussion section of this research outcome explains the statistical relationship between the Loading Factor and the Mean Score of the indicators. It is followed by a summary of the interrelations between the variables under investigation, a discussion of relevant theories, and the findings of previous research. In the context of construct measurement, the loading factor refers to the contribution of each indicator in measuring the construct. The higher the loading factor, the stronger the representation of the indicator for the construct. However, the highest loading factor does not always imply the highest mean indicator, as the mean reflects respondents' assessments of the conditions measured by the indicator. The combination of loading factor and mean will be specifically interpreted in the modeling results. When both the loading factor and mean are high, it indicates that the indicator is highly sensitive in measuring the construct, and the measured condition is superior to other indicators.

The research results demonstrate that digital leadership significantly influences dynamic capabilities directly. On another note, a significant influence of dynamic capabilities on organizational performance is explained. The test results for both of these relationships are connected by the dynamic capabilities variable, which, in this case, functions as the mediating variable. The significant coefficients in both tests connecting these three variables indicate that dynamic capabilities prove to be a mediating variable. This implies that the high or low performance of the organization is directly related to the high or low dynamic capabilities. Additionally, effective digital leadership will further enhance dynamic capabilities in performing tasks more efficiently, competently, and capably, thereby improving organizational performance. The research results indicate that digital leadership is one of the determining factors for the high level of dynamic capabilities. Dynamic capabilities can increase or decrease based on accompanying factors at that particular time.

The highest loading factor for dynamic capabilities is indicated by the ability to process and utilize knowledge and information for commercial purposes, which is a characteristic of absorptive capability. Meanwhile, the largest average respondent response is on the ability to manage knowledge or information. This suggests that the ability to utilize knowledge and information for commercial purposes is one of the determinants of achieving high dynamic capabilities. In other words, dynamic capabilities are strongly influenced by one of the most crucial factors, which is the ability to utilize knowledge and information to achieve commercial goals. While the mean score for this indicator is smaller than the ability to manage knowledge and information, it indicates that the focus has been more on the management aspect rather than the utilization of both for commercial purposes, even though both receive a very high mean score.

Meanwhile, the smallest average score is on the indicator of the ability to develop products, which is a part of the characteristic of innovation capability. This indicates that the knowledge and

information managed and utilized have not fully translated into the optimal and maximal development of these into products, even though digital leadership has been used as a foundation to help improve organizational performance. The ability to develop products is highly crucial in this digital era. High-quality, innovative products that meet market needs can enhance competitiveness, customer loyalty, and company revenue. Therefore, companies must be able to develop products that meet customer expectations and satisfaction, and adapt to technological changes and trends. To achieve this, a team comprising individuals with product development capabilities, such as researchers, designers, developers, marketers, and others, is necessary. This team should collaborate effectively, creatively, and innovatively to create unique and beneficial products. Product development capabilities also encompass the ability to conduct market research, competitor analysis, prototype testing, performance evaluation, and continuous product improvement. Thus, the ability to develop products is a crucial factor that determines a company's success in the future.

This research supports previous studies by Miharjo *et al.* (2019), which stated that digital leadership has a direct and significant impact on dynamic capabilities. Additionally, the study by Sasmoko *et al.* (2019) showed that digital leadership has a strong direct and indirect relationship with dynamic capabilities. However, the strong path in developing capabilities is determined by the development of innovation capabilities driven by market-oriented digital leadership. These findings reinforce the role of digital leadership as a significant influence on the development of dynamic capabilities. Similarly, Jagadisen *et al.* (2022) indicated that digital leadership positively influences dynamic capabilities, innovation capabilities, and alliance capabilities.

The research findings regarding the indirect influence of digital leadership on organizational performance also indicate a positive and significant direction with dynamic capabilities as a mediator. The mediating nature in this study illustrates that dynamic capabilities partially mediate the impact of digital leadership on organizational performance. This implies that digital leadership, both directly and indirectly, influences organizational performance. The presence of dynamic capabilities as a partial mediator suggests that dynamic capabilities may play a mediating role under certain circumstances in determining organizational performance. To fully realize this mediating role, strategies are required to enhance the existing dynamic capabilities.

Dynamic capabilities become a crucial driving force to surpass short-term advantages and create sustainable competitive advantages. Key capabilities such as proactive environmental scanning, market demand focus, consumer feedback, continuous improvement, successful business technology management, and readiness to innovatively reconfigure the structure, resources, and competencies of the company are essential aspects to be developed.

For a company to sustain its profitability, it must ensure the occurrence of dynamic relationships between internal strengths and the external environment. This implies that the company must be capable of changing its internal resource base when the external environment undergoes changes. The goal is to develop resources, capabilities, and competencies that create strategic alignment with the company's environment. Internal strengths of the company should dynamically adapt to its external environment. Not only do dynamic capabilities enable a company to adapt to changes in market conditions, but they also empower the company to create market changes that can strengthen its strategic position. Market changes implemented by proactive companies introduce a constantly changing scenario.

These findings also align with prior research conducted by Ferreire *et al.* (2020), demonstrating that dynamic capabilities (exploration and exploitation) have an indirect effect on performance and competitiveness through innovation capabilities. These capabilities act as instruments of dynamic capabilities to help companies become more competitive and perform better. Organizational learning culture provides a strong and significant moderating influence on both competitiveness and performance, strengthening the impact of dynamic capabilities on innovation capabilities. Similarly, research conducted by Pundziene *et al.* (2022) shows that a company's dynamic capabilities significantly influence open innovation performance, and consequently, open innovation has an impact on the company's competitive performance.

From the perspective of its mediating nature, dynamic capabilities partially mediate the relationship between digital leadership and organizational performance (partial mediation). This implies that, although dynamic capabilities are significant, their mediation is not complete (full mediation), meaning that the presence or absence of dynamic capabilities significantly determines organizational performance, but it is not the sole determining factor. This partial mediating nature also suggests that dynamic capabilities act as a mediator not across all its indicators but specifically on certain indicators. The research results indicate that the absorptive capability indicator has the highest average score compared to other indicators. In this context, it can be stated that the aspect of managing informative knowledge and utilizing informative knowledge for commercial purposes truly serves as the most effective mediator in enhancing organizational performance, compared to other indicators within the Telkom Group.

CONCLUSION

Digital leadership can influence organizational performance through dynamic capabilities within the Telkom Indonesia Group, acting as a partial mediator. Digital leadership is capable of creating organizational capabilities that enhance organizational performance by transforming the mindset from a *time series paradigm to real-time*, achieved through improved digital mastery. This enhancement enables

the execution of business, management, and leadership activities more quickly, efficiently, and effectively in the digital era.

REFERENCES

- Daneels, E. (2002). The dynamics of product innovation and firm competences. *Strategic Management Journal*, 23(12), 1095-1121.
- Denison, D.R., Haaland, S., and Goelzer, P. (2004). Corporate culture and organizational effectiveness: is Asia different from the rest of the world?. *Organizational Dynamics*, 33(1), 98-109
- Denning, S. (2016). How To Make the Whole Organization "Agile", Strategy and Leadership. *Emerald Insight*, 44(4), 10-17.
- Dewi, R. K., & Sjabadhymi, B. (2021) Digital Leadership as a Resource to Enhance Managers' Psychological Well-Being in COVID-19 Pandemic Situation in Indonesia. *The South East Asian Journal of Management*, 15(2), 154-168.
- Ferine, K. F., Aditia R., Rahmadana, M. F., & Indri. (2021). An empirical study of leadership, organizational culture, conflict, and work ethic in determining work performance in Indonesia's education authority. *Heliyon*, 7(7), e07698.
- George, S. (2018). 3 characteristics of the new digital leader mindset. Gartner. Retrieved from <https://www.gartner.com/smarterwithgartner/3-characteristics-of-the-new-digital-leader-mindset/>
- Ghozali, I. (2006). *Aplikasi Analisis Multivariate dengan Program SPSS*. Semarang: Badan Penerbit Universitas Diponegoro.
- Hambrick, D.C., & Masson, P. A. (1986). Upper Echelons: the organizations as a reflection of its Top Management. *The Academic of Management Review*, 9(2), 193-206.
- Hughes, D. (2017). 5 Traits of a Successful Digital Leader. Retrieved from <https://digitalmarketinginstitute.com/blog/2017-4-18-5-traits-of-a-successful-digital-leader>
- Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research Methods for Business Students*. New York: Pearson.
- Zott, C., & Amit, R. (2010). Business model design: An activity system perspective. *Long Range Planning*, 43, 216-226.
- Zott, C. (2003) Dynamic Capabilities and the Emergence of Intraindustry Differential Firm Performance: Insights from a Simulation Study. *Strategic Management Journal*, 24(2), 97-125.
- Zott, C. & Amit, R. (2008), The fit between product market strategy and business model: Implications for firm performance. *Strategic Management Journal*, 29(1), 1-26.
- Zott, C., & Amit, R. (2009). Business model innovation: Creating value in times of change. *Universal Business Review*, 23(1), 108-121.
- Zott, C., Amit, R., & Massa, L. (2011). The business model: recent developments and future research. *Journal of management*, 37(4), 1019-1042.

Zott, C., Amit, R. and Massa, L. (2011). The business model recent developments and future research. *Journal of Management*, 37(10), 19-42.