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Leveraging Digital Leadership and Employee Digital Skills to Enhance Performance in Public Transportation Companies

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ABSTRACT: In the era of digitalization, the concepts of digital leadership, employee digital skills, and organizational performance are closely interconnected. Leading an organization in the digital era requires a different set of skills, tools, and mindset s. To keep pace with the evolving needs of the organization, digital leaders must engage and empower employees to utilize digital technology. The goal is to enhance organizational performance. A digital leader must possess a deep understanding of technology and promptly integrate it into business processes. Involving employees with digital skills is an effective strategy to expedite the success of organizational performance. This study explores the relationship between digital leadership, employee digital capabilities, and organizational performance in the public transportation sector of West Java. The empirical data indicates that organizations led by digital leaders tend to achieve better performance by leveraging technology for operational efficiency, innovation, and customer service. The research emphasizes the need to understand how digital leadership practices positively impact organizational performance through the involvement of employees with digital skills. The study employs a quantitative approach, using a survey to examine the causal relationship between variables. The results indicate a significant positive relationship between digital leadership, employee digital capabilities, and organizational performance. Digital leadership drives technology adoption and innovation, with leaders serving as role models for their employees. The findings can be utilized as a reference for organizations to optimize their resources, specifically their employees.

KEYWORDS: Digital leadership, Employee's Digital Capabilities, Organizational Performance, Public Transportation

I. INTRODUCTION

The rise of digital technology, as evidenced by artificial intelligence, blockchain technology, cloud computing, big data analytics, internet of things, and 5G, is driving a new wave of economic and industrial revolution and changing the overall management of organizations (Peng, 2021). This phenomenon requires organizations to be able to adopt technological developments quickly and appropriately in order to maintain a competitive advantage. Several growing companies in Indonesia such as Airyrooms, JD.Id, Fabelio, Sorabel, Stoqo, CoHive, Tanihub were forced to declare bankruptcy because they experienced a significant decline in organizational performance due to not being able to respond quickly to technological changes that occurred and the company's lack of skills in digitizing the business so that many lost resources and were unable to survive (https://www.cnbcindonesia.com/tech/20230411104245-37-428863/8-startup-ri-yang-pernah-terkenal-sekarang-tutup-dan-bangkrut).

The negative impact of reduced organizational performance is extensive and can affect various operational, financial, and reputational aspects of the company. The decline in sales and profitability with high operating costs results in a domino effect (Sheaffer et.al, 2009) including a decrease in customer confidence in the organization's products or services which results in customers switching to using competitors' products or services, loss of investor confidence in the organization (Gavrea et.al , 2011; Karakas, 2010; Alshurideh et. al, 2022), reduce employee motivation which results in high turnover (Park & Shaw, 2013; Al-Suraihi et.al, 2021), hinder innovation and product development (Lee et.al, 2022; Alrowwad et.al, 2020) and allow violations of industry regulations and standards which result in organizations getting sanctions, fines, and litigation (Wall et.al, 2015).

Trans Metro Pasundan (hereinafter written as TMP) began operating in December 2021 which is managed by the Directorate General of Land Transportation as an effort to provide affordable and comfortable land transportation facilities for the community, especially in the West Java area. TMP adopts digital technology to improve service quality, such as the implementation of cashless payment systems and mobile applications for ticket purchases. This is also supported by the application of geographic

information system (GIS) integration for route optimization and fleet monitoring. In addition, as an effort to improve the user experience of using TMP transportation modes, free Wi-Fi facilities are provided in all TMP bus fleets.

Despite its various digitization efforts, TMP still faces challenges in terms of data integration between different systems. The lack of digital competence among employees is an obstacle in optimizing the use of technology that has been adopted. Rapid technological changes mean that TMP must continue to invest in system development and digital-based employee training. Employee training and development is costly and must fit into busy work schedules, making it difficult for employees to attend training. Some employees may feel uncomfortable or afraid of technological change, making it difficult to improve employees' digitalization skills. This can be bridged by the leader's role as a role model in adopting digital technology by inspiring and motivating employees to embrace change. A digital leader seeks to collaborate with technology startups, universities, and research institutions to gain access to the latest technologies and innovations and regularly measure and evaluate the impact of digitization initiatives, and make adjustments if necessary. Digital leaders play an active role in overcoming employee resistance to technological change by providing clear explanations, involving employees in the decision-making process, and providing the necessary support.

There are a number of studies that discuss the relationship between digital leadership and organizational performance (Oberer & Erkollar, 2018; Shariq et.al, 2022; Ghamrawi & Tamim, 2023; Peng, 2021; Shin et.al, 2023) which provide results that digital leadership has a positive effect on organizational performance. Mihardjo et.al (2019) found that digital leadership h as a positive relationship with business model innovation and digital maturity. While Abidin's research (2022) states that there is a positive influence between digital leadership and digital skills with digital collaboration mediation. Furthermore, the results of research by Benitez et.al (2022) resulted in digital leadership that affects innovation performance by digitizing the company platform.

Other results were found by Muniroh et.al (2022) who found that digital leadership does not directly affect organizational performance under certain conditions. There is a research gap regarding the effect of digital leadership on organizational performance, the role of employee digital skills as a mediating variable on organizational performance has not been widely examined. Therefore, this study estimates that there is a correlation between digital leadership mediated by employee digital skills to improve organizational performance, especially in public transportation companies such as TMP. Based on this, this study aims to answer the following questions:

RQ1: How does the role of digital leadership affect the organizational performance of the West Java public transportation sector?

RQ2: How does the role of digital leadership affect the digital skills of employees in the West Java public transportation sector?

RQ3: How do employees' digital skills affect organizational performance in the West Java public transport sector?

RQ4: How do employees' digital skills mediate the relationship between digital leadership and organizational performance in the West Java public transport sector?

II. LITERATURE REVIEW

Garcia et.al, 2012 and Al Khajeh, 2018 stated that a leader has the main responsibility to formulate a clear vision, become a role model to motivate employees, and implement effective strategies to improve organizational performance. A leader's skill to recognize early signs of performance decline (Wong and Law, 2017), analyze the causes, and take appropriate corrective actions, is decisive in the process of organizational recovery and development (Castelli, 2016). In addition, leaders must also be able to manage change and innovation, develop team skills, and build an adaptive and high performance-oriented organizational culture (Szczepańska, 2015).

In the digital era and Industrial Revolution 4.0, the role of digital leadership is also becoming increasingly important. Leaders must understand and adopt new technologies that can increase operational efficiency and improve organizational performance. Digital leadership is not only about using technology, but also about changing the way the entire organization works and thinks in order to respond quickly and effectively to market dynamics to gain greater opportunities for organizational success (Abbasi et.al, 2023). Therefore, leading an organization in the digital age requires different skills, tools, and mindsets than in th e past (Kohnke, 2017). To keep up with the changing needs of the organization, leadership is needed that is able to involve and encourage all employees in utilizing digital technology so that organizational performance can be created optimally (Schwarzmüller, 2018). This leadership style is referred to by some experts as digital leadership.

Digital leadership is the skill of a leader to integrate digital technology into organizational strategy and daily operations, in order to create added value, improve efficiency, and maintain the company's competitiveness in a changing market (Volschenk, 2019; Mwita & Joanthan, 2019). Digital leaders are responsible for creating a strategic vision that integrates digital technologies into business operations and processes, and inspires technological innovation and adaptation across the organization. Somerville

(2013) asserts that critical thinking, adaptability skills, resilience, and openness to new ideas and technologies are important traits of digital leaders. Therefore, digital leaders have a great impact because new skills are needed to effectively lead sustainable organizations in order to achieve optimal organizational performance in a dynamic digital environment. Based on this, the hypotheses are:

H1: There is a positive relationship between digital leadership and organizational performance.

The capacity to use digital technologies is reflected in employees' digital skills, expertise and technical knowledge (Basselier et.al, 2001). Two examples of employees' digital skills are the capacity to actively exchange information and documents through digital platforms, such as cloud services and the capacity to use digital channels (such as mobile platforms and social media) to integrate in communication with leaders. Therefore, the impact of digital leadership in terms of digital products/services and processes can be optimally amplified by employees' digital skills. Employees with a high level of digital skills can monitor workflows in real time and make them more visible. Based on this, the hypothesis is:

H2: There is a positive relationship between digital leadership and employee's digital capabilities.

Employee digital skills enable the effective implementation of digital strategies, with the skills and knowledge required to use new technologies efficiently (Shin et.al, 2023). Continuous training and development in employee digital skills ensures that organizations can leverage digital tools and platforms to increase productivity, operational efficiency, and improved organizational performance. According to Ritter and Gemünden (2004) the results of such work can be utilized, for example, to improve or develop new digital products/services or processes and, ultimately, improved organizational performance. Based on this, the hypothesis is:

H3: There is a positive relationship between Employee's digital Capabilities and organizational performance.

Identification of processes that can be modified or improved for organizational performance using digital technologies is possible. The synergy between strong digital leadership and high digital skills among employees is key to achieving competitive advantage and successful organizational performance in the era of the Industrial Revolution 4.0. Therefore, employee digital skills act as a mediating factor between digital leadership and organizational performance. Based on this, the hypothesis built is:

H4: Employee's digital capabilities positively mediate the relationship between digital leadership and organizational performance.

Based on the statements that have been described, the research model is as follows:

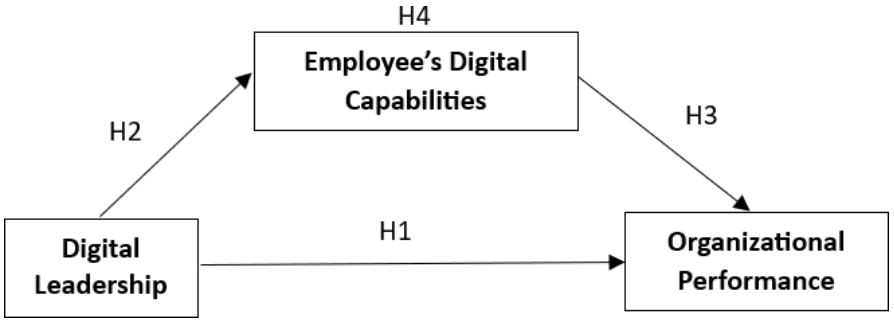

Figure 1. Research Model Source: Author data processing

III. RESEARCH METHODOLOGY

The quantitative approach is used to see how much the causal relationship of each variable is using a survey through an online questionnaire as a data collection tool to see how and under what conditions digital leadership affects organizational performance by considering the influence of employee's digital capabilities. The sample used used a purposive sampling method with respondents of Trans Metro Pasundan company employees in the West Java region who had worked for at least 1 year in order to provide a real assessment according to company conditions.

At the data collection stage, respondents were asked to rate their perceptions of the three variables in the study using a 5-point Likert scale. The measurement of each variable in this study was adopted and modified from previous research.

1. Digital Leadership is measured by six items developed from Ulutas and Arslan's (2018) research.
2. Organizational performance is measured by 5 items adapted from Heeseok's (2003) research.
3. Employee's digital capabilities are measured by 5 items adopted from the research of Rosin et. al. (2021)

The data that has been obtained will be analyzed using the SEM method using SMARTPLS to see the causal relationship that exists in the study.

IV. RESULTS AND DISCUSSION

Demographic Characteristics Of Respondents

Based on the demographic data of the respondents, the majority of participants in this study were male (54.7%), while women contributed 45.3%. In terms of age, the largest group is in the range of 25-34 years (32.8%), followed by 35-44 years (29.2%) and 45-54 years (21.9%), indicating that respondents are dominated by individuals in the productive age range. In terms of education, most respondents have a Bachelor's degree (S1) educational background at 47.4%, followed by Master's degree (S2) at 21.9%, indicating a fairly high level of education in this population. In addition, based on the level of digital kno wledge, the majority of respondents are in the Intermediate category (51.1%), while 30.7% have Advanced skills, and 18.2% fall into the Beginner category, indicating that most respondents have fairly good digital skills.

Outer Model/Measurement Model

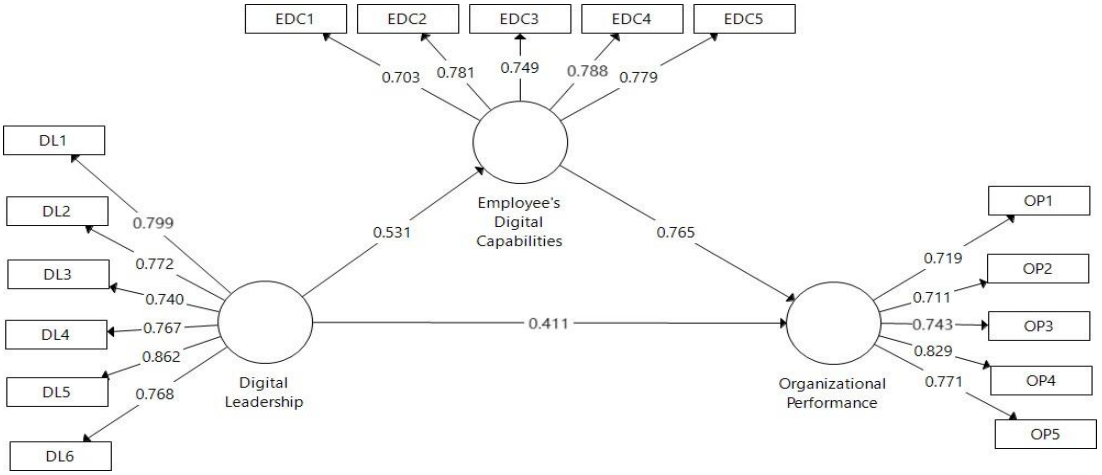

Figure 2. Outer Model/Measurement Model

Source: Author data processing

Indicators forming latent variables are said to be valid if they have a correlation or outer loading value> 0.70 according to Chin (1998) in Ghozali (2014). In this study, all indicators have a value> 0.70, with the smallest validity value of 0.703 in the employee's digital capabilities indicator and the largest validity value of 0.862 in the digital leadership indicator.

Table I. Convergent Validity and Reliability Testing

Variable/Construct		Mean	OL	SD	t Value	CR	AVE
Leadership (EL)	DL1	4.24	0.799	0.075	10.693	0.906	0.617
	DL2	3.87	0.770	0.050	15.363		
	DL3	4.18	0.741	0.046	16.051		
	DL4	4.45	0.765	0.058	13.125		
	DL5	4.40	0.859	0.033	26.272		
	DL6	4.27	0.761	0.059	12.913		
Employee's Digital Capabilities (EDC)	EDC1	4.29	0.706	0.048	14.640	0.873	0.579
	EDC2	4.31	0.782	0.042	18.639		
	EDC3	4.66	0.748	0.062	12.082		
	EDC4	4.47	0.788	0.049	16.012		
	EDC5	4.30	0.776	0.059	13.257		
Organizational Performance (OP)	OP1	3.90	0.717	0.054	13.210	0.869	0.571
	OP2	4.56	0.715	0.061	11.689		
	OP3	4.36	0.743	0.066	11.287		
	OP4	3.95	0.831	0.033	24.751		
	OP5	4.17	0.779	0.059	13.062		
Note: OL = Outer Loading; SD = Standard Deviation; CR = Composite Reliability; AVE = Average Variance Extracted							

Source: Processing author data

Based on the results of convergent validity and reliability analysis (Table 1), all variables in this study show values that meet the recommended criteria in PLS-SEM. The Outer Loading (OL) value for each indicator is above 0.70, indicating that each indicator has a strong enough contribution in measuring its respective construction. In terms of Composite Reliability (CR), all variables have values above 0.70, with Digital Leadership (0.906), Employee's Digital Capabilities (0.873), and Organizational Performance (0.869), indicating that the research instrument has an excellent level of reliability. In addition, the Average Variance Extracted (AVE) value for all variables is also more than 0.50 (Digital Leadership = 0.617, Employee's Digital Capabilities = 0.579, and Organizational Performance = 0.571), which confirms that this model has sufficient convergent validity, where more than 50% of the construct variance can be explained by its indicators. Thus, the instruments used in this study can be considered valid and reliable to measure the relationship between Digital Leadership, Employee's Digital Capabilities, and Organizational Performance.

Discriminant Validity Testing

After ensuring convergent validity and reliability, the next step is to test discriminant validity to ensure that each construct in the research model has a clear difference from one another. This test is needed to ensure that the Digital Leadership, Employee's Digital Capabilities, and Organizational Performance variables do not experience overlapping in their measurements, so that each construct actually measures a different concept. Discriminant validity is evaluated using the Fornell-Larcker Criterion and the Heterotrait-Monotrait Ratio (HTMT). Based on the Fornell-Larcker Criterion (Table 2), the AVE square root value of each variable (DL = 0.786, EDC = 0.761, OP = 0.756) is higher than the correlation between other constructs, indicating that each variable is more related to its own indicators than to other variables. In addition, the HTMT results show that all values are below the 0.85 threshold (DL-EDC = 0.628, DL-OP = 0.475, and EDC-OP = 0.664), which means that the variables have clear enough differences and do not experience multicollinearity problems. Thus, it can be concluded that this research model meets discriminant validity, so that each construct tested is unique and not mixed with other constructs.

Table II. Discriminant Validity Testing

Fornell-Larcker Criterion				Heterotrait-Monotrait Ratio (HTMT)		
	DL	EDC	OP	DL	EDC	OP
DL	**0.786**					
EDC	0.531	**0.761**		0.628		
OP	0.395	0.759	**0.756**	0.475	0.664	

Source: Processing author data

Structural Model Testing

Table III. Structural Model Testing

Hyphotesis		**β**	**R^2**	**t Value**	**Status**
Hypothesis 1 Predictor Outcome	Digital Leadership Organizational Performance	0.411	0.576	3.936**	Supported
Hyphotesis 2 Predictor Outcome	Digital Leadership Employee's Digital Capabilities	0.531	0.582	6.644**	Supported
Hyphotesis 3 Predictor Outcome	Employee's Digital Capabilities Organizational Performance	0.765	0.576	10.905**	Supported
Hyphotesis 4 Predictor Mediator Outcome	Digital Leadership Employee's Digital Capabilities Organizational Performance	0.406		5.279**	Supported

Source: Processing author data

After evaluating the measurement model through validity and reliability tests, the next stage is evaluating the structural model to test the relationship between variables in the study. This evaluation is important to assess the strength of the cau sal relationship

between the Digital Leadership (DL), Employee's Digital Capabilities (EDC), and Organizational Performance (OP) variables and the extent to which the model can explain the variance of the dependent variable through the R^2 value.

Based on the analysis results, Digital Leadership has a significant effect on Organizational Performance ($\beta = 0.411$, $t = 3.936$, $p < 0.01$) with an R^2 of 0.576, which indicates that 57.6% of the variance in Organizational Performance can be explained by the model. A strategic vision that integrates digital technology into operations and business processes, and inspires technological innovation and adaptation throughout the organization will have a direct impact on organizational performance. Leaders at Trans Metro Pasundan (TMP) have successfully integrated digital technology into operations and business processes by implementing technologies such as cashless payment systems, mobile applications for ticket purchases, and geographic information system (GIS) integration for bus route and schedule optimization and anticipating customer needs. In line with Somerville's (2013) research, leaders in TMP need to have critical thinking, adaptability skills, resilience, and openness to new ideas and technologies to improve various aspects of organizational performance, such as: increased operational efficiency through route and schedule optimization, increased customer satisfaction through more convenient and accessible services.

Furthermore, Digital Leadership also has a strong influence on Employee's Digital Capabilities ($\beta = 0.531$, $t = 6.644$, $p < 0.01$) with an R^2 of 0.582, indicating that digital leaders play a crucial role in improving employees' digital skills, expertise, and technical knowledge, as stated by Basselier et al. (2001). This is in line with the research findings that employees' capacity to use digital technologies is reflected in their digital skills, which include the ability to exchange information and documents th rough digital platforms and the use of digital channels (such as mobile platforms and social media) to communicate. At TMP, digital leaders encourage employees to become more proficient in using mobile apps to monitor bus movements in real time, ticket purchases and cashless payments through the “Teman Bus” app as well as utilizing cloud platforms to share operational data more efficiently. In addition, employees who are skilled in using digital technology can complete tasks more quickly and accurately, and contribute to the improvement of overall organizational performance.

In addition, Employee's Digital Capabilities has the largest influence on Organizational Performance ($\beta = 0.765$, $t = 10.905$, $p < 0.01$), which indicates that employee's digital capabilities are a key factor in improving organizational performance. TMP employees who have good digital skills are critical to achieving optimal organizational performance. This is in line with the research of Shin et.al, 2023 which states that employee digital skills enable effective implementation of digital strategies, with the skills and knowledge needed to use new technologies efficiently. This is evidenced by the use of technology implemented at TMP, such as cashless payment systems, mobile applications, and GIS. The ability to analyze data from GIS can assist in route and schedule optimization, thereby reducing passenger waiting times and improving operational efficiency. Employees who are proficient in the use of cashless payment systems, can speed up the transaction process, and reduce errors that may occur when using cash transactions. In addition, employees who are skilled in using digital technology can provide better services to passengers by assisting passengers in using mobile applications, providing information on schedules and routes, and solving problems that may arise. By improving the digital capabilities of employees, TMP can achieve various aspects of organizational performance, such as: increased operational efficiency, improved customer satisfaction, increased competitiveness, and better data management.

The analysis also shows the existence of mediation effects, where Digital Leadership affects Organizational Performance through Employee's Digital Capabilities ($\beta = 0.406$, $t = 5.279$, $p < 0.01$), corroborating the significant mediation role. The synergy between strong digital leadership and high employee digital skills is key to achieving competitive advantage and organizational success in the era of Industrial Revolution 4.0. Effective digital leadership creates an environment that supports the development of employees' digital skills. Employees with high digital skills are able to utilize digital technology to improve organizational performance.

Applied to Trans Metro Pasundan (TMP), a digital leader encourages employees to use mobile apps and geographic information systems (GIS) to monitor and optimize bus routes, identify traffic patterns, anticipate delays, and take necessary actions to improve efficiency. Thus, strong digital leadership, supported by high employee digital skills, can result in significant organizational performance improvements.

Overall, this research model has a strong and significant relationship, and shows that digital leadership not only has a direct impact on organizational performance, but also through improving employees' digital capabilities as a key mediator. After evaluating the structural model and ensuring that the relationship between variables is significant, the next step is to test the predictability of the model using the Q^2 (Predictive Relevance) value. This test aims to assess the extent to which the model has predictive ability of the dependent variable. Based on the analysis results, the Q^2 value for Employee's Digital Capabilities is 0.339, and the Q^2 for Organizational Performance is 0.466. A Q^2 value greater than zero indicates that the model has predictive relevance, where the exogenous construct (Digital Leadership) can predict the mediating variable (Employee's Digital Capabilities) and the main endogenous variable (Organizational Performance). The Q^2 value of 0.466 on Organizational Performance and 0.339 on

Employee's Digital Capabilities indicates that the model has a fairly strong level of predictability . Thus, this research model can be said to have predictive relevance in explaining how Digital Leadership and Employee's Digita l Capabilities contribute to improving Organizational Performance.

Table IV. Predictive Analysis

Construct	Q^2 Predictive Relevance
Employee's Digital Capabilities	0.339
Organizational performance	0.466

Source: Processing author data

CONCLUSIONS

The results show that effective digital leadership has a positive influence on improving organizational performance, and this influence is mediated by employees' digital skills. Visionary and strategic digital leadership encourages employees to develop their digital skills, which in turn improves operational efficiency, innovation and customer satisfaction. This finding confirms that the success of digital transformation in organizations relies heavily on the synergy between leaders who are able to strategically leverage technology and employees who have high digital skills.

Based on the results of this study, some recommendations that can be given are:

1. Digital Leadership Development
   Organizations should focus on developing leaders who have the skills to drive digital transformation, through specialized training and digital leadership development programs.
2. Employee Digital Skills Enhancement
   Investment in employee digital skills training and development programs should be a top priority. This includes training in the use of the latest technologies, data management, and analytics.
3. Encouraging a Culture of Innovation
   Organizations need to create an environment that supports innovation, where employees are encouraged to innovate and implement technology solutions by integrating into all operational aspects of the organization, to improve efficiency and productivity.

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REFERENCES

1) Abbasi, E., & Hejazi, Y. (2023). The Role of Leadership, Culture and Organizational Learning in Promotion of Iranian Agricultural Facultiesâ Performance (Establishing Learning Agricultural Faculty). *Quarterly Journal of Research and Planning in Higher Education,* 16(2), 61-79.
2) Abidin, A Zaenal. (2022). The Influence of Digital Leadership and Digital Collaboration on The Digital Skill of Manufacturing Managers in Tangerang. *International Journal of Artificial Intelegence Research*. Vol 6, No. 1.
3) Al Khajeh, E. H. (2018). Impact of leadership styles on organizational performance. *Journal of human resources management research*, *2018*(2018), 1-10.
4) Alrowwad, A. A., Abualoush, S. H., & Masa'deh, R. E. (2020). Innovation and intellectual capital as intermediary variables among transformational leadership, transactional leadership, and organizational performance. *Journal of Management Development*, *39*(2), 196-222.
5) Alshurideh, M., Kurdi, B., Alzoubi, H., Obeidat, B., Hamadneh, S., & Ahmad, A. (2022). The influence of supply chain partners' integrations on organizational performance: The moderating role of trust. *Uncertain Supply Chain Management*, *10*(4), 1191-1202.
6) Al-Suraihi, W. A., Samikon, S. A., & Ibrahim, I. (2021). Employee Turnover Causes, Importance and Retention Strategies. *European Journal of Business and Management Research (EJBMR)*.
7) Bassellier, G.; Reich, B.H.; Benbasat, I. Information Technology Competence of Business Managers: A Definition and Research Model. *J. Manag. Inf. Syst*. 2001, 17, 159–182.
8) Benitez, J., Arenas, A., Castillo, A., & Esteves, J. (2022). Impact of digital leadership capability on innovation performance: The role of platform digitization capability. *Information & Management*, *59*(2), 103590.

9) Castelli, P. A. (2016). Reflective leadership review: A framework for improving organisational performance. Journal of Management Development, 35(2), 217-236.
10) Cetindamar, D., Abedin, B., & Shirahada, K. (2021). The role of employees in digital transformation: a preliminary study on how employees' digital literacy impacts use of digital technologies. *IEEE Transactions on Engineering Management*.
11) Dery, K., Sebastian, I., & Meulen, N. van der. (2017). The digital workplace is key to digital innovation. *MIS Quarterly Executive*, 16(2). https://aisel.aisnet.org/misqe/vol16/iss2/4
12) El Sawy, O., Amsinck, H., Kraemmergaard, P., & Vinther, A. L. (2016). How LEGO built the foundations and enterprise capabilities for digital leadership. *MIS Quarterly Executive*, 15(2). https://aisel.aisnet.org/misqe/vol15/iss2/5
13) Erhan, T., Uzunbacak, H. H., & Aydin, E. (2022). From conventional to digital leadership: Exploring digitalization of leadership and innovative work behavior. *Management Research Review,* 45(11), 1524–1543.
14) García-Morales, V. J., Jiménez-Barrionuevo, M. M., & Gutiérrez-Gutiérrez, L. (2012). Transformational leadership influence on organizational performance through organizational learning and innovation. *Journal of business research*, *65*(7), 1040-1050.
15) Gavrea, C., Ilies, L., & Stegerean, R. (2011). Determinants of organizational performance: The case of Romania. *Management & Marketing*, *6*(2).
16) Ghamrawi, Norma., & Tamim, Rana M. (2023). A Typology for Digital Leadership in Higher Education: The Case of a Large-Scale Mobile Technology Initiative (Using Tablet). *Education and Information Technologies*. 28: 7089-7110.
17) Heeseok, L.; Byounggu, C. Knowledge Management Enablers, Processes, and Organizational Performance: An Integrative View and Empirical Examination. *J. Manag. Inf. Syst*. 2003, 20, 179–228.
18) Karakas, F. (2010). Spirituality and performance in organizations: A literature review. *Journal of business ethics*,*94*,89-106.
19) Karatepe, S. G., & Arman, S. M. (2019). Türkiye'de eğitimli kadın işsizliğinin temel belirleyicileri ve mevcut istatistiksel görünüm [Basic determinants of educated women unemployment in Turkey and available statistical outlook]. Sosyal ve Beşeri Bilimler Dergisi, 11(2), 32–47.
20) Kohnke, O. (2017). It's not just about technology: The people side of digitization. Shaping the digital enterprise: *Trends and use cases in digital innovation and transformation*, 69-91.
21) Larjovuori, R. L., Bordi, L., Mäkiniemi, J. P., & Heikkilä-Tammi, K. (2016). The role of leadership and employee well-being in organisational digitalisation. What's Ahead in Service Research? New Perspectives for Business and Society : Reser 2016 *Proceedings, 1159–1172.* https://researchportal.tuni.fi/en/publications/the-role-of-leadership-and-employee-well- being-in-organisational
22) Lee, K., Romzi, P., Hanaysha, J., Alzoubi, H., & Alshurideh, M. (2022). Investigating the impact of benefits and challenges of IOT adoption on supply chain performance and organizational performance: An empirical study in Malaysia. *Uncertain Supply Chain Management*, *10*(2), 537-550.
23) Mihardjo, L., Sasmoko, S., Alamsjah, F., & Elidjen, E. (2019). Digital leadership impacts on developing dynamic capability and strategic alliance based on market orientation. *Polish Journal of Management Studies,* 19(2), 285–297.
24) Mihardjo, Leonardus W.W., Sasmoko, Sasmoko., Alamsjah, Firdaus., Elidjen, Elidjen. (2019). Digital Leadership Role in Developing Business Model Innovation and Customer Experience Orientation in Industry 4.0. *Management Science Letters*. 9, 1749–1762.
25) Muniroh, M.; Hamidah, H.; Abdullah, T. (2022). Managerial Implications on the Relation of Digital Leadership, Digital Culture, Organizational Learning, and Innovation of the Employee Performance (Case Study of PT. Telkom Digital and next Business Department). *Managing Entrepreneur Trends Development*. 1, 58–75.
26) Mwita, M. M., & Joanthan, J. (2019). Digital leadership for digital transformation. *Electronic Scientific Journal*, *10*(4), 2082-2677.
27) Oberer, B., & Erkollar, A. (2018). Leadership 4.0: Digital leaders in the age of industry 4.0. *International journal of organizational leadership*. [
28) Park, T. Y., & Shaw, J. D. (2013). Turnover rates and organizational performance: a meta-analysis. *Journal of applied psychology*, *98*(2), 268.
29) Peng, Bo. (2021). Digital Leadership: State Governance in the Era of Digital Technology. *Culture of Science*. 5, 210–225.
30) Proksch, D.; Rosin, A.F.; Stubner, S.; Pinkwart, A. The Influence of a Digital Strategy on the Digitalization of New Ventures: The Mediating Effect of Digital Capabilities and a Digital Culture. *J. Small Bus. Manag*. 2021, 1–29.
31) Ritter, T.; Gemünden, H.G. The Impact of a Company's Business Strategy on Its Technological Competence, Network

Competence and Innovation Success. J*. Bus. Res*. 2004, 57, 548–556.

32) Rosin, Z.M.; Pärt, T.; Low, M.; Kotowska, D.; Tobolka, M.; Szyman´ski, P.; Hiron, M. Village Modernization May Contribute More to Farmland Bird Declines than Agricultural Intensification. Conserv. Lett. 2021, 14, e12843.
33) Şahin, Ç. Ç., Avci, Y. E., & Anik, S. (2020). Dijital liderlik algisinin metaforlar yoluyla incelenmesi. Elektronik Sosyal Bilimler Dergisi, 19(73), Article 73.
34) Schwarzmüller, T., Brosi, P., Duman, D., & Welpe, I. M. (2018). How does the digital transformation affect organizations? Key themes of change in work design and leadership. *Management Revue*, *29*(2), 114-138.
35) Shariq, Syed., Chromjakova, Felicita., Mohamed, Khalid A.A. (2022), Achieving Data Driven Decision-making Quality Through Digital Leadership and Organizational Optimization. *Proceedings of The First Australian International Conference on Industrial Engineering and Operations Management*, Sydney, Australia, December 20-21.
36) Sheaffer, Z., Carmeli, A., Steiner-Revivo, M., & Zionit, S. (2009). Downsizing strategies and organizational performance: a longitudinal study. *Management Decision*, *47*(6), 950-974.
37) Shin, Jinkyo., Mollah, Md Alamgir., Choi, Jaehyeok. (2023). Sustainability and Organizational Performance in South Korea: The Effect of Digital Leadership on Digital Culture and Employee's Digital Capabilities. *Sustainability*, 15,2027.
38) Somerville, M.M. Digital Age Discoverability: A Collaborative Organizational Approach. Ser. Rev. 2013, 39, 234–239.
39) Szczepańska-Woszczyna, K. (2015). Leadership and organizational culture as the normative influence of top management on employee's behaviour in the innovation process. *Procedia Economics and Finance*, 34, 396-402.
40) Ulutas¸, M.; Arslan, H. Bilis¸im Liderlig˘ i Ölçeg˘ i: Bir Ölçek Gelis¸tirme Çalıs¸ması. Marmara Üniversitesi Atatürk Eg˘itim Fakültesi Eg˘itim Bilim. Dergisi. 2018, 47, 105–124
41) Volschenk, F. (2019). Socially responsible digital leadership: A framework for digital organizations. *Monarch Management Review*, 1-13.
42) Wall, J., Lowry, P. B., & Barlow, J. B. (2015). Organizational violations of externally governed privacy and security rules: Explaining and predicting selective violations under conditions of strain and excess. *Journal of the Association for Information Systems*, *17*(1), 39-76.
43) Wong, C. S., & Law, K. S. (2017). The effects of leader and follower emotional intelligence on performance and attitude: An exploratory study. *In Leadership Perspectives* (pp. 97-128). Routledge.
44) https://www.cnbcindonesia.com/tech/20230411104245-37-428863/8-startup-ri-yang-pernah-terkenal-sekarang-tutup-dan-bangkrut