

Digital Transformation As Intervening Variable On The Effect Of Leadership, Competence And Organizational Culture On Employee Performance (Case Study: Dpu Bank Indonesia)

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Abstract

Facing the challenges of technological and millennial disruption of Bank Indonesia strengthens the mission of Bank Indonesia, one of which is realizing a digital-based central bank in policy and institutions through strengthening organizations, human resources, governance and reliable information systems, as well as a proactive international role. This research aims at investigating the relationship of Leadership, Organizational Culture, and Competence to Digital Transformation. Investigating the relationship of Digital Transformation to Employee Performance. As well as to investigate the relationship between Leadership, Organizational Culture, and Competence on Employee Performance through Digital Transformation as intervening variable. To solve the problems of this study Partial Least Square (PLS) analysis tool was employed using SmartPLS software. The result showed that Leadership, Organizational Culture and Competence influence Digital Transformation. Digital transformation affects employee performance. Leadership, Organizational Culture and Competence influence Employee Performance through Digital Transformation as an intervening variable.

Keywords: Digital Transformation, Leadership, Organizational Culture, Competence, Employee Performance

1. Introduction

Bank Indonesia strengthens the organization's mission to deal with technological disruption and millennial disruption, one of which is realizing a digital-based central bank in policy and institutions through strengthening organizations, human resources, governance and reliable information systems, as well as a proactive international role. Bank Indonesia is gradually implementing the Baldrige Excellence Framework

(BEF) measurement that assesses the organization from the process aspect and the results aspect to lead to a superior performing organization. Bank Indonesia conducted a BEF trial in 2020 with a score of 441, namely the level of "Early Improvement". This achievement is quite good considering that the trial stage is still learning. The results of the trial confirmed Bank Indonesia's key strengths namely (a) innovation and agility for key and institutional policies, (b) strong synergy and collaboration with external and internal parties, (c) strong communication strategies to

safeguard policy objectives in accordance with the mandate of the Law, (d) the implementation of people, process, and technology aspects that are aligned, agile, and governed, and (e) internalized work culture programs. Leadership, Competence, Organizational culture are faced with the challenges of Digital Transformation which in the end it is hoped that the performance of Bank Indonesia DPU employees can improve.

Previous studies have shown different results. Leadership is stated not to be important for employee performance by Hasyimmi and Elmi (2021), while Rumondor (2016), Astuti and Khasmir (2020) explain that leadership can improve employee performance. Ratnasari (2019) assessed that competence had an influence on employee performance, but Aprikristianti stated that there was no relationship. Organizational culture is explained as an important variable for employee performance by Fachreza (2018), but Ratnasari (2019) has a different opinion. The digital transformation described by Ying-Yu (2016) and Itani (2017) can improve performance, but Guzman-Ortiz (2020) doubts this. Based on previous research and research gap, researchers are needed to conduct further research on Digital Transformation as an Intervening Variable on the Effect of Leadership, Competence and Organizational Culture on Employee Performance (Case Study: Money Management Department in Bank Indonesia).

2. Review of Literature Review

2.1. Leadership

The theories of leadership as put forward by G.R. Terry (2014) and Asbari (2019) show that leaders are individuals who have higher positions in management. Leadership becomes a management tool to motivate groups to achieve a goal. This study uses leadership indicators described by Hamzah B.

Uno (2010).

2.2. Organizational Culture

Nurzaimah (2016) and Lubis (2016) explain that corporate culture or management culture or also called organizational culture are dominant values that are widespread in organizations as employee work philosophies. According to Schein (2016) Organizational Culture is divided into three, namely external adaptation tasks, internal integration tasks, and basic underlying assumptions.

2.3. Competence

Competence is the skill of each individual that can be used to work. Moeheriono (2018) has the same opinion where competence is defined as a person's personality at work. This study uses the competency indicators contained in Law no. 05 of 2014 concerning State Civil Apparatus, that competence is divided into 3 dimensions, namely technical competence, managerial competence and socio-cultural competence.

2.4. Digital Transformation

The theory developed by Young and Rogers (2019), Hinings (2018), Verhoef (2021), Hess (2016) describes digital transformation as the implementation of IoT in business processes. This study uses the theory described by Jesse (2018) to describe the dimensions of digital transformation.

2.5. Performance

Armstrong (2018) and Koopmans et al., (2014) explain that performance is the result of each individual in carrying out tasks. Management will use these results as a measurement of the performance of each individual in the organization. This study uses the performance dimensions described by Koopmans et al., (2014).

3. Methodology

This study falls under the category of quantitative type with causal research design. The population used is the DPU Bank Indonesia Employee, with a total of 272 employees. The sample used is 162 employees calculated by the Slovin formula. To determine the sample of research subjects, the purposive sampling technique was used. Research data collection

is done by collecting primary data. Primary data obtained directly from employees at the DPU Bank Indonesia. Primary data sources in this study were obtained through questionnaires distributed to respondents. The questionnaire will be designed using statements; therefore, the respondent only needs

to choose the answer that is most suitable for the respondent's condition. The scale used to measure variables in this study refers to the Likert Scale. Each scale uses a scale of 1-5 answer categories, and each answer is assigned a score or weight between 1 to stand for the lowest level. The top level is 5. Then, the research's data was analyzed using the Partial Least Square.

4. Result

4.1. Construct Validity

All indicators have a loading factor value of more than 0.70. Overall indicators on Leadership variables have a high degree of validity, thus qualifying convergent validity (Figure 1).

Table 1. Cronbach's Alpha, Composite Reliability and Average Variance Extracted (AVE)

	Cronbach's Alpha	Composite Reliability	AVE
Organizational Culture	0.986	0.987	0.807
Leadership	0.984	0.985	0.774
Employee Performance	0.967	0.972	0.813
Employee Competence	0.959	0.966	0.759
Digital Transformation	0.982	0.984	0.864

Source: SmartPLS Output 3.2.9 (2021)

The value of Cronbach's Alpha on each variable in the study has a value of 0.70, hence the result of Cronbach's Alpha Valid. The value of Composite Reliability in each variable in this study has a value of > 0.70 , so it can be stated the results of Composite Reliability Valid. The AVE value above > 0.5 in accordance with the opinion of Ghazali and Latan (2015), it can be stated that the value of the AVE test result has a valid data value of each variable.

The results of the discriminant validity test in this model state that the model is feasible for further processing into hypothesis testing. The value of R-Square Value (R^2) can be seen in Table 2 and Effect Size (F^2) in Table 3.

Table 2. R-Square Value (R^2)

Variable	R^2	Information
Employee Performance	0.662	Moderate
Digital Transformation	0.739	Moderate

Source: SmartPLS Output 3.2.9 (2021)

Endogenous latent variables in structural models indicate that the moderate model

can be seen on Table 3.

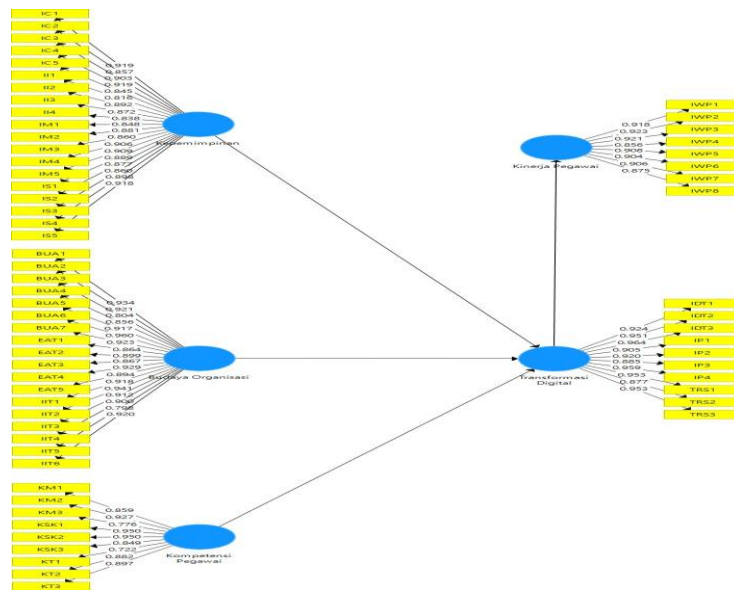


Figure 1. Loading Factor Value

Table 3. Effect Size (F2)

Variable	Employee Performance	Digital Transformation
Organizational Culture		0.099
Leadership		0.074
Employee Competence		0.463
Digital Transformation	1.959	

Source: SmartPLS Output 3.2.9 (2021)

Based on Table 3 it can be seen that, each variable has an influence on each other, and is bound to each other. GoF value is 0.750237 from the calculation results then the GoF

Index value falls into a large category. The model has a predictive relevance with a value of 0.745031 which indicates that the model has predictive relevance.

4.2. Structural Model Analysis

Table 4. Relationship Between Constructs (Bootstrapping Value)

Relationship Between Constructs	Original Sample (O)	T Statistics	P Values	Result	Conclusion
Organizational Culture → Digital Transformation	0.304	3.919	0.000	(+) Significant	Accepted
Leadership → Digital Transformation	0.093	2.079	0.036	(+) Significant	Accepted
Competence of Employees → Digital Transformation	0.678	5.674	0.000	(+) Significant	Accepted
Digital Transformation → Employee Performance	0.814	15.155	0.000	(+) Significant	Accepted

Source: SmartPLS Output 3.2.9 (2021)

Leadership has a real and positive influence on Digital Transformation. This is in line with the explanation from Kane (2016), Dahlstrom, Desmet, & Singer (2017) that digital applied by organizations depends on leadership. Digital transformation is not only the application of IoT but is more complex so that it requires a strong leadership role to be able to migrate large-scale to technology-based systems. The leadership at Bank Indonesia's DPU has supported the success of digital transformation. The digital mindset possessed can encourage employees to move towards the era of digital organizations that are able to serve the wider community and facilitate individual work.

Organizational culture has a real and positive influence on Digital Transformation. Organizational culture can hinder or encourage the implementation of organizational change strategies and efforts. It is considered as one of the important elements of change in organizations (Alvesson & Sveningsson, 2015). The results of this study are supported by the explanations of Kane (2016) and White et al., (2017) organizational culture can be a variable that drives the digital migration process for the better. The condition of a conducive organizational culture that can build creativity and innovation is felt by the DPU of Bank Indonesia, so that the digital transformation process can face the existing challenges.

Digital transformation has a real and positive influence on Digital Transformation. The results of this study are supported by explanations from Itani (2017), Stoeckli (2020), Pitoyo and Suharyanto (2019), digital tools are able to help management in business activities ranging from

planning, control, work processes, to evaluation of work results. Bank Indonesia DPU employees can directly benefit from the digital transformation that is implemented so that they can support individual performance at work. Digital transformation has a design that can effectively streamline processes and efficiency. Bank Indonesia is implementing digitization of rupiah money management so that management is more secure with less human intervention at different levels according to money management needs. Automation in money storage and processing & MHE (Robotics & Mechanization): barcode scanner, racking system, warehouse management system (WMS), robotic palletizer, automated guided vehicle, automated storage & retrieval system (ASRS), automated packing system, automated feeder, and mechanization of means of transportation.

Employee competence has a real and positive influence on Digital Transformation. Dahlstrom et al., (2017) explained that competence (knowledge and experience) is important in the digital transformation process. This is realized by the DPU of Bank Indonesia, so that employees are required to have developed digital competencies. Transformation of HR and Work Culture at the DPU of Bank Indonesia is directed at strengthening human resources who are innovative, professional, competent, and have noble character. This encourages the digital transformation process carried out by the DPU of Bank Indonesia. The basic competencies of Bank Indonesia DPU employees are considered good to fulfill information technology-based tasks, therefore employee competencies can influence digital transformation within the organization.

The magnitude of the influence of each indirect effect in this study has

been summarized into the following table:

Table 8. Indirect Effect Analysis Results

Relationship Between Constructs	Original Sample (O)	T Statistics	P Values	Result	Conclusion
Employee Competency → Digital Transformation → Employee Performance	0.248	4.048	0.000	(+) Significant	Accepted
Organizational Culture → Digital Transformation → Employee Performance	0.552	4.684	0.000	(+) Significant	Accepted
Leadership → Digital Transformation → Employee Performance	0.074	2.076	0.038	(+) Significant	Accepted

Source: SmartPLS Output 3.2.9 (2021)

Leadership has a real and positive influence on Employee Performance through Digital Transformation as an intervening variable. Bank Indonesia in its transformation has its own Seven Leadership Insights, namely love of BI, love of knowledge, strategic thinking, leading change, gaining commitment, love of God, love of family. The results of this study are supported by Prila and Elmi (2013) that employee performance can be influenced by leadership. The results of this study can provide a meaningful contribution to the body of literature and knowledge that develops in this field of study, especially in relation to Leadership on Employee Performance through Digital Transformation as an intervening variable.

Organizational culture has a real and positive influence on Employee Performance through Digital Transformation as an intervening variable. Organizational culture has a close relationship with employee performance because organizational culture is one of the important factors in supporting the achievement of an organization's goals. Organizational culture as a set of meanings shared by members of the organization itself must be able to improve organizational

performance through improving employee performance. The results of research by Muis et al., (2018) and Andayani & Tirtayasa (2019) support the results of this study where organizational culture has an influence on employee performance.

Employee competence has a real and positive influence on Employee Performance through Digital Transformation as an intervening variable. Competence of human resources is an important asset in an organization. Bank Indonesia has many programs to support employee competency improvement which in turn can encourage better performance. The People aspect is a critical factor in the success of digital transformations (Westerman, 2016). The digital competence of employees must meet the needs of the digital workplace, this fact in itself is an indication that supports the results of researchers where digital literacy of employees, the competencies needed for the development and application of digital technology can become possible to develop strategies and policies to overcome the scarcity of digital skills (Murawski & Bick, 2017).

5. Conclusion

With this research, we discuss the variables of leadership,

organizational culture, competence, digital transformation, and employee performance.

The results of the study concluded that Leadership, Organizational Culture and Competence influence Digital Transformation. Digital transformation affects employee performance. Leadership,

Organizational Culture and Competence influence Employee Performance through Digital Transformation as an intervening variable.

References

1. Alvesson, M., & Sveningsson, S. (2015). Changing organizational culture: Cultural change work in progress, second edition. In *Changing Organizational Culture: Cultural Change Work in Progress, Second Edition*. <https://doi.org/10.4324/9781315688404>
2. Andayani, I., & Tirtayasa, S. (2019). Pengaruh Kepemimpinan, Budaya Organisasi, Dan Motivasi Terhadap Kinerja Pegawai. *Jurnal Ilmiah Magister Manajemen*, 2(1), 45–54.
3. Armstrong, M. (2018). Performance Management Key Strategies and Practical Guidelines. In *Journal of Materials Processing Technology* (Vol. 1, Issue 1).
4. Asbari, M. (2019). Pengaruh Kepemimpinan Transformasional dan Iklim Organisasi Terhadap Kinerja Dosen. *JOCE IP*, 13(2), 172–186. <http://jurnal.ipem.ac.id/index.php/joceip/article/view/187>
5. Astuti, D., & Khasmir. (2020). Pengaruh Kepemimpinan, Motivasi dan Lingkungan Kerja terhadap Kinerja Karyawan PT.FANUC INDONESIA. *Angewandte Chemie International Edition*, 6(11), 951–952., 465.
6. Dahlström, P., Desmet, D., & Singer, M. (2017). The seven decisions that matter in a digital transformation: A CEO's guide to reinvention. *Digital McKinsey*.
7. Fachreza, Musnadi, S., & Majid, M. S. A. (2018). Pengaruh Motivasi kerja, lingkungan kerja, dan budaya organisasi terhadap kinerja karyawan dandampaknya pada kinerja Bank Aceh Syariah di Kota Banda Aceh. *Jurnal Magister Manajemen*, 2(1), 2F8110&usg=AOvVaw2aPZ08ru2fkSG1q71JsmZ
8. Guzmán-Ortiz, C. V., Navarro-Acosta, N. G., Florez-Garcia, W., & Vicente-Ramos, W. (2020). Impact of digital transformation on the individual job performance of insurance companies in peru. *International Journal of Data and Network Science*, 4(4). <https://doi.org/10.5267/j.ijdns.2020.9.005>
9. Hasyimmi, R., & Elmi, F. (2021). The Effect of Authentic Leadership, Trust and Work Autonomy Toward Member's Performance of The Indonesian Packaging Federation Association in Jakarta. <https://doi.org/10.4108/eai.28-9-2020.2307488>
10. Hinings, B., Gegenhuber, T., & Greenwood, R. (2018). Digital innovation and transformation: An institutional perspective. *Information and Organization*, 28(1). <https://doi.org/10.1016/j.infoandorg.2018.02.004>
11. Itani, O. S., Agnihotri, R., & Dingus, R. (2017). Social media use in B2b sales and its impact on competitive intelligence collection and adaptive selling: Examining the role of learning orientation as an enabler. *Industrial Marketing Management*, 66. <https://doi.org/10.1016/j.indmar>

- man.2017.06.012
12. Jesse, N. (2018). Organizational Evolution - How Digital Disruption Enforces Organizational Agility. IFAC-Papers OnLine, 51(30). <https://doi.org/10.1016/j.ifacol.2018.11.310>
 13. Kane, G. C., Palmer, D., Phillips, A. N., Kiron, D., & Buckley, N. (2016). Aligning the Organization for Its Digital Future. MIT Sloan Management Review, 58(180).
 14. Koopmans, L., Bernaards, C. M., Hildebrandt, V. H., de Vet, H. C. W., & van der Beek, A. J. (2014). Construct validity of the individual work performance questionnaire. Journal of Occupational and Environmental Medicine, 56(3). <https://doi.org/10.1097/JOM.000000000000113>
 15. Lubis, A. F., Lubis, T. A., & Muda, I. (2016). The role of Enterprise Resource Plan (ERP) configuration to the timeliness of the financial statement presentation. International Journal of Applied Business and Economic Research, 14(11).
 16. Moehariono. (2018). Pengukuran Kinerja Berbasis Kompetensi. (Cetakan 2). Jakarta: Rajagrafindo Persada.
 17. Muis, M. R., Jufrizen, J., & Fahmi, M. (2018). Pengaruh Budaya Organisasi Dan Komitmen Organisasi Terhadap Kinerja Karyawan. Jesya (Jurnal Ekonomi & Ekonomi Syariah), 1(1). <https://doi.org/10.36778/jesya.v1i1.7>
 18. Murawski, M., & Bick, M. (2017). Digital competences of the workforce – a research topic? Business Process Management Journal, 23(3). <https://doi.org/10.1108/BPMJ-06-2016-0126>
 19. Nurzaimah, Rasdianto, & Muda, I. (2016). The skills and understanding of rural enterprise management of the preparation of financial statements using Financial Accounting Standards (IFRs) financial statement on the Entities Without Public Accountability (ETAP) framework on the implementation of village administration law. International Journal of Applied Business and Economic Research, 14(11).
 20. Pitoyo, D., & Suharyanto. (2019). The Application of Information Technology, Knowledge and Skill and the Impacts to Employee Performance. TSSA 2019 - 13th International Conference on Telecommunication Systems, Services, and Applications, <https://doi.org/10.1109/TSSA48701.2019.8985500>
 21. Prila, L., & Elmi, L. (2013). Pengaruh Motivasi Kerja, Kepemimpinan dan Budaya Organisasi Terhadap Kepuasan Kerja Karyawan di Sampoerna University. Jurnal SWOT, VII, 257–272.
 22. Ratnasari, S. L. (2019). How to Improve Performance? International Journal of Recent Technology and Engineering, 8(3S2), 625–629. <https://doi.org/10.35940/ijrte.c1204.1083s219>
 23. Rumondor, R. B. d. k. k. (2016). Pengaruh Kepemimpinan, Motivasi, dan Disiplin Kerja terhadap Kinerja Pegawai pada Kanwil Ditjen Kekayaan Negara Suluttenggomallut. Emba, 4(2).
 24. Schein, E. H. (2016). Organizational Culture and Leadership. Jossey Bass.
 - Stoeckli, E., Dremel, C., Uebernickel, F., & Brenner, W. (2020). How affordances of chatbots cross the chasm between social and traditional enterprise systems. Electronic Markets, 30(2). <https://doi.org/10.1007/s12525->

- 019-00359-6
25. Terry, G. R., & Rue, L. W. (2014). *Dasar-Dasar Manajemen, (Principles of Management)*. In seventh Edition.
 26. Uno, B. H. (2010). *Theory of Motivation and Its Measurement Analysis in the Field of Education (Teori Motivasi Dan Pengukurannya Analisis Di Bidang Pendidikan)*. In Bumi Aksara.
 27. Verhoef, P. C., Broekhuizen, T., Bart, Y., Bhattacharya, A., Qi Dong, J., Fabian, N., & Haenlein, M. (2021). Digital transformation: A multidisciplinary reflection and research agenda. *Journal of Business Research*, 122. <https://doi.org/10.1016/j.jbusres.2019.09.022>
 28. Westerman, G. (2016). Why digital transformation needs a heart. In MIT Sloan Management Review
 29. White, C. J., McMurray, A. J., & Rudito, P. (2017). Human values and technology readiness: the mediating role of consumer perceived value. *International Journal of Services, Technology and Management*, 23(4). <https://doi.org/10.1504/IJSTM.2017.088154>
 30. Ying-Yu, K. C., Yi-Long, J., & Yu-Hsien, W. (2016). Effect of Digital Transformation on Organisational Performance of SMEs: Evidence from the Taiwanese Textile Industry's Web Portal. In *Internet Research (Vol. 26, Issue 1)*.
 31. Young, A., & Rogers, P. (2019). A Review of Digital Transformation in Mining. In *Mining, Metallurgy and Exploration (Vol. 36, Issue 4)*. <https://doi.org/10.1007/s42461-019-00103-w>
 32. El Hoummaidi, L. A. L. A., and Abdelkader Larabi. "Dubai Smart Map, A New Tool Enabling Geo-Digital Government, Driven By Innovative Geospatial Thinking For A Smart And Sustainable Dubai." *International Journal Of Civil, Structural, Environmental And Infrastructure Engineering Research And Development (Ijcsierd)* 9 (2019): 17-36.
 33. Jindal, Neena, Kritika Thakur, and Tania Sharma. "Digital India: Challenges, Solutions and Its Impact On Society." *International Journal of Environment, Ecology, Family and Urban Studies (IJEEFUS)* 9.2 (2019): 83-90.
 34. Nazimsha, S., and M. Rajeswari. "Comparing Digital Marketing with Traditional Marketing and Consumer Preference, Over which medium by taking concept of ads." *International Journal of Sales & Marketing Management (IJSMM)* 7 (2017): 1-12.
 35. Mehta, P. A. L. L. A. V. I., and K. H. U. S. H. B. U. Mehta. "Green HRM practices and organizational culture." *International Journal of Human Resources Management* 6.1 (2017): 1-6.
 36. Tampi, Gayatri Sasi, and Githa Heggde. "IMPACT OF Organisational Initiatives On Internal Branding–Evidence From Indian It Organisations In Bangalore." *International Journal of Human Resources Management (IJHRM)* 7.4 (2018): 1-10.
 37. Chandorkar, Nidhi. "Impact of Organisational Culture on Job Involvement: A Study of Higher Education Institutions in Mumbai." *International Journal*

of Human Resource
Management and Research
(IJHRMR) 9 (2019): 161-168.