

The Role of Transactional Leadership in Organisational Adaptation to Digitalisation : Systematic Literature Review

Ferry Siswadhi^{1*}, Zahara Tussoleha Rony²

¹Sekolah Tinggi Ilmu Ekonomi Sakti Alam Kerinci

²Universitas Bhayangkara Jakarta Raya

Corresponding Author: Ferry Siswadhi fsiswadhi@gmail.com

ARTICLE INFO

Keywords: Adaptation, Digitalization, Leadership, Transactional

Received : 09 December

Revised : 16, January

Accepted: 19, February

©2024 Siswadhi, Rony: This is an open-access article distributed under the terms of the [Creative Commons Atribusi 4.0 Internasional](https://creativecommons.org/licenses/by/4.0/).



ABSTRACT

Leadership is a key factor in the success of organisations adapting to change, especially those triggered by the development of digital technology so that organisations are required to transform. This research seeks to conduct a literature study of previous studies related to the role of transactional leadership in organisational adaptation to digitalisation. The method used is a systematic literature study including search and processing stages. The search was conducted on several scientific publication databases using several relevant keywords, and found ten articles published in Scopus indexed journals. The results obtained revealed that the majority of studies found a significant role of transactional leadership in organisational adaptation to digitalisation. Some found its contribution to be smaller than other types of leadership. Inherent supervision and rewarding are elements of transactional leadership that encourage organisational adaptation to digitalisation.

INTRODUCTION

Digital technologies bring huge benefits to people's lives and businesses by connecting more than 8 billion devices in the world, and therefore trigger changes in the value and management of information including organisational characteristics and boundaries, work processes, and connectivity. (Cortellazzo et al., 2019). Rapid technological change, making the organisation and its members function more effectively, in other words, the organisation must create sustainable accounting activities in the structure, procedures and human aspects integrated in a systematic workplace system. (Rony, 2019) Organisational structure is one of the aspects that has changed the most due to digitalisation, with the move away from hierarchical organisations that are seen as a thing of the past and need to be adapted to the times. (Kuusisto, 2017). The functioning of an organisation is inherently linked to leadership skills, especially in large entities, where leaders are the frontline workers who determine the direction of the organisation's success (Rony et al., 2023). Leadership requires galvanising people without the use of force and convincing them to work towards a common goal. (Siswadhi, 2020). Organisational change is a necessity as organisations strive to maintain their sustainability by adapting to the changing ecosystem that has become all-digital. Key to such change are organisational leaders. They need to create relationships with many dispersed stakeholders, and focus on collaborative processes in complex environments, while paying attention to pressing ethical issues (Kokot, 2023).

In simple terms, digitisation is defined as the process of converting information from analogue to digital form. (Schreckling, Edward; Steiger, 2017), However, the concept has a broader meaning referring to the process of change triggered by the development of digital and other related technologies. (Larjovuori et al., 2018). Leadership must respond to changing business needs in an agile, fast and flexible way (Horney et al., 2010). Leadership is generally concerned with the activities of setting direction, motivating and aligning people based on a predetermined vision and selecting, equipping, training and influencing others to achieve organisational goals. Leadership guides a group of people who are actively working towards a common goal. Therefore, a leader must be able to adapt and support the organisation in the face of change. (Tagscherer & Carbon, 2023).

Previous research has emphasised the importance of leadership style in influencing organisational operations through the behaviour of the people who work in them. (Afsar et al., 2017). One of the common leadership styles applied to various types of organisations is transactional leadership (Young et al., 2021). This type of leadership is also known as managerial leadership because it focuses on the role of supervising, organising, and improving performance by encouraging followers' compliance through rewards and punishments. Therefore, transactional leadership is considered to be more concerned with processes than ideas that lead to progress. (Odumeru & Ifeanyi, 2013). These characteristics of transactional leadership raise questions regarding the role of this type of leadership in organisational adaptation to digitalisation. This literature review seeks to answer that question by posing a research question:

Does and how does transactional leadership drive organisational adaptation to digitalisation ?

THEORETICAL REVIEW

The articles that fulfil the criteria come from 10 previous studies with various models, objects and time that have been published in various reputable journals, as follows :

Table 1. Search Result Articles

No.	Title	Author & Year	Journal & Publisher
1.	Leadership styles and employee creativity: the interactive impact of online knowledge sharing and organizational innovation	(Nguyen et al., 2023)	Journal of Knowledge Management, Emerald
2.	Assessment of a Workforce Sustainability Tool through Leadership and Digitalization	(Gutu et al., 2023)	International Journal of Environmental Research and Public Health, MDPI
3.	Associations between Traditional and Digital Leadership in Academic Environment: During the COVID-19 Pandemic	(Antonopoulou et al., 2021)	Emerging Science Journal, www.ijournalse.org
4.	Transactional and Transformational Leadership Styles and Their Impact on Employees' Acceptance of Predictive Maintenance Analytics: Evidence From an Indonesian Mining Company	(Sujati et al., 2023)	IEEE Access, IEEE
5.	IT Process Alignment in Business Strategy: Examining the Role of Transactional Leadership and Organization Culture	(Wang et al., 2021)	Information, MDPI
6.	The Role of Leadership and Digital Transformation in Higher Education Students' Work Engagement	(Niță & Guțu, 2023)	International Journal of Environmental Research and Public Health, MDPI

No.	Title	Author & Year	Journal & Publisher
7.	School principals' educational goals and leadership styles for digital transformation: results from case studies in upper secondary schools	(Ruloff & Petko, 2022)	International Journal of Leadership in Education, Routledge
8.	Did Transformational, Transactional Leadership Style and Organizational Learning Influence Innovation Capabilities of School Teachers during Covid-19 Pandemic?	(Supriadi et al., 2020)	Systematic Reviews in Pharmacy, EManuscript Technologies
9.	Organizational innovation: the role of leadership and organizational culture	(Li et al., 2018)	International Journal of Public Leadership, Emerald
10.	Investigating the moderating effects of organizational culture and leadership style on IT-adoption and knowledge-sharing intention	(Tseng, 2017)	Journal of Enterprise Information Management, Emerald

METHODOLOGY

This research used a systematic literature study method. Two main steps were taken. First, a literature search with predetermined restrictions and keywords. The restrictions imposed were English-language articles published in Scopus-indexed international scientific journals within the last 10 years (2014-2023) Meanwhile, the keywords used were a combination of the following words: "transactional", "leadership", and "digitalisation". The combination of these keywords was applied in the search of titles, keywords, and abstracts. The search was conducted with the help of Harzing's Publish or Perish version 8.9 application on Scopus, Google Scholar, Web of Science, and PubMed databases. The second step is processing. At this stage, a selection was made of the articles that had been collected. The selection was based not only on the predefined boundaries, but also through an analysis of the content. An article will be included in the literature study if it provides an overview of the role of transactional leadership in organisational adaptation to digitalisation. As a result, 10 articles fulfilled the criteria and the list is presented in Table 1. A further content review was conducted on these articles by synthesising the results obtained by the articles to answer this research question.

RESULTS AND DISCUSSION

Most of the articles obtained were published within the last 5 years. There were two articles published more than 5 years, namely in 2018 and 2017. It shows that the topic of transactional leadership associated with digital technology adoption is still of interest to researchers, and is likely to remain a challenging topic to study now and in the future. Table 2 below summarises the articles according to their purpose, methods, and results specifically related to transactional leadership in organisational adaptation to digitalisation.

Table 2. Objectives, Methods, and Outcomes

No.	Author & Year	Objective	Methods	Outcomes
1.	(Nguyen et al., 2023)	To determine the effects of three leadership styles (transactional, transformational, and creative) on intra-organisational online knowledge sharing and employee creativity.	Quantitative SEM of 361 employees of B2B companies	All three leadership styles have an influence on online knowledge sharing and employee creativity. Creative leadership has the most influence.
2.	(Gutu et al., 2023)	To develop a workforce sustainability assessment tool and examine it in relation to leadership and digitalisation.	Quantitative SEM on 463 respondents	Transactional leadership contributes to increased digital learning.
3.	(Antonopoulou et al., 2021)	To determine the effect of transactional and transformational leadership on digital leadership.	Quantitative, Pearson correlation, on 73 respondents	Transactional leadership has no significant impact on the level of digital leadership.
4.	(Sujati et al., 2023)	Examines the role of leadership in the acceptance of digital-based technologies,	Quantitative SEM on 140 respondents	Transactional leadership is more effective than transformational leadership in

No.	Author & Year	Objective	Methods	Outcomes
		namely predictive maintenance technologies, in the mining industry.		helping organisations adapt to new digital technologies.
5.	(Wang et al., 2021)	Examining the impact of transactional leadership on the information processing aspects of IT-business alignment in manufacturing sector companies	Quantitative SEM on 263 respondents	Transactional leadership has a strong correlation with the IT-business alignment process
6.	(Niță & Guțu, 2023)	Examine the application of different leadership styles by higher education institutions in the context of digital transformation.	Quantitative SEM on 856 respondents	There is an increasing role for transactional leadership, rather than traditional transformational, in highly digitalised higher education organisations.
7.	(Ruloff & Petko, 2022)	Examining how principals' goals and leadership styles influence digital development in senior high schools.	Qualitative, interviews with 9 school principals	Transformational leadership-orientated principals reported faster and more profound change than more transactional leadership-orientated principals.
8.	(Supriadi et al., 2020)	Examines the effect of transformational	Quantitative SEM on 140	Both transformational

No.	Author & Year	Objective	Methods	Outcomes
		and transactional leadership on the innovation ability of teachers during the COVID-19 pandemic.	respondents	and transactional leadership have a positive and significant effect on teachers' innovation ability, including digitalisation.
9.	(Li et al., 2018)	Examines how organisational innovation can be accelerated with the support of leadership structure and organisational climate.	Quantitative SEM on 98 respondents	Transactional leadership is positively but insignificantly correlated with organisational culture and innovation, while transformational leadership is positively and significantly correlated.
10.	(Tseng, 2017)	Examines the relationship between IT engagement, IT adoption and knowledge sharing intentions, as well as the moderating effects of organisational culture and leadership style on IT adoption and knowledge sharing intentions.	Quantitative Regression Analysis of 98 respondents	Leadership style strengthens the relationship between IT adoption and knowledge sharing. Transactional leadership has less effect than servant, charismatic, and transformational leadership.

From Table 2 above, it is known that in general, the articles reviewed focus on examining the role or influence of leadership in the changes that occur in the

organisations studied. The changes were triggered by digitalisation. Most of them applied quantitative research methods. Only one article reported the use of qualitative research methods. Among the articles that used quantitative research methods, almost all used SEM (Structural Equation Modeling) analysis methods, and only one article reported using linear regression analysis methods. The results obtained also showed differences although some obtained similar results. Among the articles reviewed, there were also differences in terms of the type of organisation, leadership style, and organisational adaptation to digitisation studied. Table 3 summarises the reviewed articles by type of organisation, leadership style, and organisational adaptation to changes in the object of study triggered by digitisation.

Table 3. Fields, Leadership Style Types, and Organisational Adaptations

No.	Author & Year	Organisational Type	Leadership Style	Organisational Adaptations
1.	(Nguyen et al., 2023)	Multi-sector B2B Company	Transformational, transactional, and creative	Various knowledge online
2.	(Gutu et al., 2023)	Multi Sector Public and Private Organisations	Transformational, and transactional	Digital learning
3.	(Antonopoulou et al., 2021)	Educational Institutions	Transformational, transactional, outcome, and passive-to-avoid	Digital-enabled leaders, or digital leadership
4.	(Sujati et al., 2023)	Mining Company	Transformational, and transactional	Use of new digital-based technologies
5.	(Wang et al., 2021)	Manufacturing Company	Transactional	Business process and IT alignment
6.	(Niță & Guțu, 2023)	Educational Institutions	Transformational, and transactional	Digital transformation to improve student learning engagement
7.	(Ruloff & Petko, 2022)	Educational Institutions	Transformational, and transactional	Implementation of digital technology in schools

No.	Author & Year	Organisational Type	Leadership Style	Organisational Adaptations
8.	(Supriadi et al., 2020)	Educational Institutions	Transformational, and transactional	Teachers' innovative skills including using IT
9.	(Li et al., 2018)	Educational Institutions	Transformational, and transactional	Organisational innovation including adopting IT
10.	(Tseng, 2017)	Multi Sector Company	Servant, Charismatic, transformational, and transactional	Company intention to adopt IT to strengthen knowledge sharing intention

Based on Table 3 above, it is known that the research reported by the articles reviewed has an object of study in the form of organisations of different types. Half of them studied educational institutions, three articles studied multi-sector companies, and the others were manufacturing and mining companies. Some studies focus on examining the role of transactional leadership only, some other studies contrast it with transformational leadership, and there are studies that examine several leadership styles by including transactional leadership style as one of them. Meanwhile, organisational adaptation to digitisation that has been studied takes various forms. Most are framed in the context of innovation by both the organisation and its employees. Others examine the use of new digital-based technologies, digital knowledge sharing, and the alignment of business processes with information technology (IT).

There are mixed results from the research reported by the reviewed articles. The majority of research, namely Nguyen et al., (2023), Gutu et al., (2023), Wang et al., (2021), Niță & Guțu, (2023), Supriadi et al., (2020), dan Tseng, (2017) reported that transactional leadership has a significant role in organisational adoption of digitalisation. But, Antonopoulou et al., (2021) dan Li et al., (2018) reported that transactional leadership plays an insignificant role in organisational adoption of digitalisation. Several other studies compared transactional leadership with other types of leadership styles. Sujati et al., (2023) dan Niță & Guțu, (2023) reported that transactional leadership is more effective than transformational leadership in helping organisations adapt to new digital technologies. But, Ruloff & Petko, (2022) reported the opposite result. However, Supriadi et al., (2020) reported that both transactional and transformational leadership contributed significantly to organisational adaptation to digitalisation. As for, Tseng, (2017) revealed that although

transactional leadership contributes to organisational adaptation to digitalisation, its influence is still smaller than servant, charismatic and transformational leadership.

Active supervision is key to transactional leadership in driving organisational adaptation to digitalisation. (Nguyen et al., 2023). In addition, the behaviour of the transactional leadership style of rewarding can be a driver of organisational adaptation of digitalisation. (Gutu et al., 2023). An exchange-orientated approach by leaders will ensure work achievement. Rewarding behaviour conveys the message of employee understanding and work achievement and generates positive reinforcement among the workforce. Ultimately, momentum in process integration occurs to adapt technological change within the organisation. (Wang et al., 2021). This is in line with what was found by Niță & Guțu, (2023) that digital transformation is closely related to leadership processes, but surprisingly, the core of digital processes is not transformational leadership styles, but components in transactional leadership styles.

CONCLUSIONS AND RECOMMENDATIONS

The literature review found mixed results from previous studies on the role of transactional leadership in organisational adaptation to digitalisation. Some found significant contributions from transactional leadership, others found the opposite result. Some compared it with other types of leadership styles. The difference in results may be due to the different fields, subjects and objects of study, methods, and analytical techniques used.

However, the contrasting results imply the need for further research to confirm the results of these previous studies.

FURTHER STUDY

Technological developments and changes in digital systems are so fast that a leader must be able to adapt quickly, and this will certainly give birth to new phenomena related to this that can become further studies and new studies for science, especially related to leadership and digitalisation, especially related to digital-enabled leaders and digital leaders

ACKNOWLEDGMENT

Thank you to all the previous researchers whose work we cited in our article and all those who have provided input and suggestions so that we can complete this article.

REFERENCES

- Afsar, B., Badir, Y. F., Saeed, B. Bin, & Hafeez, S. (2017). Transformational and transactional leadership and employee's entrepreneurial behavior in knowledge-intensive industries. *International Journal of Human Resource Management*, 28(2), 307-332.
<https://doi.org/10.1080/09585192.2016.1244893>

- Antonopoulou, H., Halkiopoulos, C., Barlou, O., & Beligiannis, G. N. (2021). Associations between traditional and digital leadership in academic environment: During the COVID-19 pandemic. *Emerging Science Journal*, 5(4), 405-428. <https://doi.org/10.28991/esj-2021-01286>
- Cortellazzo, L., Bruni, E., & Zampieri, R. (2019). The role of leadership in a digitalized world: A review. *Frontiers in Psychology*, 10(AUG), 1-21. <https://doi.org/10.3389/fpsyg.2019.01938>
- Gutu, I., Agheorghiesei, D. T., & Tugui, A. (2023). Assessment of a Workforce Sustainability Tool through Leadership and Digitalization. In *International Journal of Environmental Research and Public Health* (Vol. 20, Issue 2). <https://doi.org/10.3390/ijerph20021360>
- Horney, N., Pasmore, B., & O'Shea, T. (2010). INCOMPLETE DOCUMENT Leadership Agility: A Business Imperative for a VUCA World. *People & Strategy*, 33(4), 34.
- Kokot, K. K. I. Đ. C. M. K. (2023). Digital Leadership and Maturity as a Key to Successful Digital Transformation: Country Case Study of Croatia. *TEM Journal*, 8(1), 192-199. <https://www.ceeol.com/search/article-detail?id=1103406>
- Kuusisto, M. (2017). Organizational effects of digitalization: A literature review. *International Journal of Organization Theory and Behavior*, 20(03), 341-362. <https://doi.org/10.1108/IJOTB-20-03-2017-B003>
- Larjovuori, R. L., Bordi, L., & Heikkilä-Tammi, K. (2018). Leadership in the digital business transformation. *ACM International Conference Proceeding Series*, 212-221. <https://doi.org/10.1145/3275116.3275122>
- Li, W., Bhutto, T. A., Nasiri, A. R., Shaikh, H. A., & Samo, F. A. (2018). Organizational innovation: the role of leadership and organizational culture. *International Journal of Public Leadership*, 14(1), 33-47. <https://doi.org/10.1108/ijpl-06-2017-0026>
- Nguyen, M., Sharma, P., & Malik, A. (2023). Leadership styles and employee creativity: the interactive impact of online knowledge sharing and organizational innovation. *Journal of Knowledge Management, ahead-of-print*(ahead-of-print). <https://doi.org/10.1108/JKM-01-2023-0014>
- Niță, V., & Guțu, I. (2023). The Role of Leadership and Digital Transformation in Higher Education Students' Work Engagement. *International Journal of Environmental Research and Public Health*, 20(6). <https://doi.org/10.3390/ijerph20065124>
- Odumeru, J., & Ifeanyi, G. (2013). Transformational vs. transactional leadership theories: evidence in Literature. *International Review of Management and Business Research*, 2(2), 355-361.
- Rony, Z. T. (2019). Generation y challenges in becoming innovative leaders at organization in the 21st century. *International Journal of Recent Technology and Engineering*, 8(2 Special Issue 9), 789-794. <https://doi.org/10.35940/ijrte.B1164.0982S919>
- Rony, Z. T., Lestari, T. S., Ismaniah, Yasin, M., & Lubis, F. M. (2023). The complexity of leadership competence in universities in the 21st century. *Cogent Social Sciences*, 9(2). <https://doi.org/10.1080/23311886.2023.2276986>

- Ruloff, M., & Petko, D. (2022). School principals' educational goals and leadership styles for digital transformation: results from case studies in upper secondary schools. *International Journal of Leadership in Education*, 1-19. <https://doi.org/10.1080/13603124.2021.2014979>
- Schreckling, Edward; Steiger, C. (2017). Digitalize or Drown. In Gerhard Oswald (Ed.), *Shaping the Digital Enterprise*. Springer International Publishing Switzerland. https://link.springer.com/chapter/10.1007/978-3-319-40967-2_1
- Siswadhi, F. (2020). Pengaruh Transformational Leadership Dan Organizational Capital Terhadap Knowledge Management Dengan Knowledge Sharing. *Jurnal Investasi*, 6(2), 119-131. <http://investasi.unwir.ac.id/index.php/investasi/article/view/86%0Ahttp://investasi.unwir.ac.id/index.php/investasi/article/download/86/61>
- Sujati, W., Yudoko, G., & Okdinawati, L. (2023). Transactional and Transformational Leadership Styles and Their Impact on Employees' Acceptance of Predictive Maintenance Analytics: Evidence From an Indonesian Mining Company. *IEEE Access*, 11(May), 49675-49688. <https://doi.org/10.1109/ACCESS.2023.3277006>
- Supriadi, O., Musthan, Z., Sa'odah, Nurjehan, R., Haryanti, Y. D., Rafid Marwal, M., Purwanto, A., Mufid, A., Yulianto, R. A., Farhan, M., Fitri, A. A., Fahlevi, M., & Sumartiningsih, S. (2020). Did transformational, transactional leadership style and organizational learning influence innovation capabilities of school teachers during covid-19 pandemic? *Systematic Reviews in Pharmacy*, 11(9), 299-311. <https://doi.org/10.31838/srp.2020.9.47>
- Tagscherer, F., & Carbon, C. C. (2023). Leadership for successful digitalization: A literature review on companies' internal and external aspects of digitalization. *Sustainable Technology and Entrepreneurship*, 2(2), 100039. <https://doi.org/10.1016/j.stae.2023.100039>
- Tseng, S. M. (2017). Investigating the moderating effects of organizational culture and leadership style on IT-adoption and knowledge-sharing intention. *Journal of Enterprise Information Management*, 30(4), 583-604. <https://doi.org/10.1108/JEIM-04-2016-0081>
- Wang, Y., Toseef, M., & Gong, Y. (2021). It process alignment in business strategy: Examining the role of transactional leadership and organization culture. *Information (Switzerland)*, 12(6). <https://doi.org/10.3390/info12060237>
- Young, H. R., Glerum, D. R., Joseph, D. L., & McCord, M. A. (2021). A Meta-Analysis of Transactional Leadership and Follower Performance: Double-Edged Effects of LMX and Empowerment. *Journal of Management*, 47(5), 1255-1280. <https://doi.org/10.1177/0149206320908646>