

Impact of Digital Leadership on Organizational Success: a Systematic Literature Review

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Abstract. This research aims to get an overview of the impact of digital leadership on organizational success from the perspective of previous research results. This research was conducted to answer the diversity of understanding of digital leadership and its dimensions. This research uses the Systematic Literature Review method, the research data comes from 30 Scopus-indexed international journals published from 2020 to 2023. Journals were collected from various leading publishers, such as ScienceDirect, Taylor & Francis, Emerald, MPDI, Frontier, Sustainability, ProQuest and so on. The collected journals were then subjected to thematic analysis, to obtain information related to digital leadership. The results showed that digital leadership both independently and mediated by digital transformation, digital culture and leadership style had a significant effect on organizational success.

Keywords: Digital Leadership; Digital Transformation; Digital Culture; Leadership Style; Organizational Success

INTRODUCTION

In the ever-evolving digital age, the roles of digital leadership, digital transformation and digital culture are becoming increasingly important in influencing organisational success. The emergence of digital technologies has changed the way businesses operate, interact with customers, and manage their internal processes (Tigre et al., 2023) (Yusuf et al., 2023) (Tulungen et al., 2022) (Magesa & Jonathan, 2022) (Brunner et al., 2023). Digital leadership is a new phenomenon that is closely related to the digitalisation of organisations, and the role of leadership in the face of rapid change in the digital era. (Paul et al., 2023) (Cavallo et al., 2023) (Chae & Goh, 2020) (Grzeslo, 2020). This includes the use of modern technologies, digital business strategies, strategic use of digital technologies, and the ability to lead digital transformation in organisations. Digital leadership differs from conventional leadership and is characterised by a more agile and flexible leadership style, a strong aptitude for new technologies, digital literacy, openness to innovation, and a digital culture that is lived by leaders (Bastidas et al., 2023) (Tagscherer & Carbon, 2023).

On the other hand, digital transformation refers to the process of utilising digital technologies to fundamentally change and improve business processes, models and operations. Digital leadership plays an important role in amplifying the effects of digital transformation on decision-making effectiveness (Bastidas et al., 2023) (Tagscherer & Carbon, 2023). Meanwhile, digital culture encompasses behavioural changes brought about by the use of technology within the enterprise, including adaptable and sustainable skills, agile and flexible work styles, an

emphasis on data, and a mindset that prioritises digital processes in new enterprises. (Mollah et al., 2023) (Wang et al., 2022).

This research aims to explore the impact of digital leadership on organisational success, with a particular focus on the variables of digital transformation, digital culture and leadership style. Digital leadership involves a focus on digital transformation, mastery of digital technologies, and implementation of measures within a digital transformation framework. The results showed that digital leadership, digital transformation, organisational culture, and leadership style affect organisational performance. (Bui et al., 2022) (Chatterjee et al., 2023) (Mollah et al., 2023) (Yusuf et al., 2023) (Tulungen et al., 2022) (Oktaysoy et al., 2022).

The main objective of this research is to analyse the relationship between digital leadership and organisational success, with a particular emphasis on how digital transformation, digital culture and leadership style intersect to drive organisational outcomes. In addition, this research also aims to identify the mediating role of digital leadership in shaping organisational performance.

In order to make this research more directed and focused, the following research questions have been formulated:

1. How does digital leadership impact organisational success in the context of digital transformation and digital culture?
2. What are the mediating effects of digital leadership on the relationships between digital transformation, digital culture and organisational success?
3. How do different leadership styles impact the effectiveness of digital leadership in driving organisational outcomes?

This research is significant as it contributes to the existing body of knowledge on digital leadership and its implications for organisational performance. The findings will provide valuable insights for leaders, managers and academics who want to understand the dynamics of digital leadership and its impact on organisational success.

LITERATURE REVIEW

Digital Leadership

The definition of digital leadership can be interpreted as the ability of a leader in the digital era (Khaw et al., 2022) (Tigre et al., 2023) (Wang et al., 2022) (Erhan et al., 2022) (Hanandeh et al., 2023) (Yusuf et al., 2023) (Karippur & Balaramachandran, 2022) (Tulungen et al., 2022) (Zhu et al., 2022) (Sagbas et al., 2023) (Hung, 2023). Other research states that digital leadership is a style of leadership in the digital age. (Mollah et al., 2023) (BÜYÜKBEŞE, 2022) (Magesa & Jonathan, 2022) (Brunner et al., 2023) (Pham & Vu, 2022) (Imhof & Grivas, 2022) (Ehmig-Klassen & Schallmo, 2021) (Bach & Sulíková, 2021) (AlAjmi, 2022). Other definitions of digital leadership include the skills of a leader (Chatterjee et al., 2023) (Karakose et al., 2022), the competence of a leader (Abbu et al., 2020), leader thinking (Guzmán et al., 2020), leader's use of technology (Jameson et al., 2022). (Niu et al., 2022) (Quaquebeke & Gerpott, 2023) and the role of a leader in the digital age (Bui et al., 2022) (Desmaryani et al., 2022).

From the definitions put forward by previous researchers, it can be concluded that digital leadership is the application of leadership approaches consistent with the digital era, including the use of modern technology, digital business strategies, strategic use of digital technology, and the ability to lead digital transformation in organisations.

It involves a combination of transformational leadership and digital skills, as well as the ability to manage teams and organisations in a digital environment. As such, digital leadership combines aspects of technology, business strategy, and managerial ability to lead change in organisations in the digital age.

Research has explored the impact of digital leadership on organisational performance, explaining the relationship between digital leadership capabilities and firm outcomes using an empirical approach, concluding that digital leadership has an effect on organisational performance. (Bui et al., 2022) (Chatterjee et al., 2023) (Mollah et al., 2023) (Yusuf et al., 2023) (Tulungen et al., 2022) (Oktaysoy et al., 2022). Research has indicated that effective digital leadership is associated with increased organisational agility, innovation and competitive advantage in digital markets. Moreover, the mediating role of digital leadership in shaping organisational success, firm growth, and exploratory innovation has been a topic of interest to researchers (Bui et al., 2022)..

Previous research has also identified various dimensions that influence digital leadership, including: technological proficiency, strategic vision, change management skills, and the ability to foster a digital culture within the organisation. (Khaw et al., 2022) (Tigre et al., 2023) (Wang et al., 2022) (Erhan et al., 2022) (Hanandeh et al., 2023) (Yusuf et al., 2023) (Karippur & Balaramachandran, 2022) (Tulungen et al., 2022) (Zhu et al., 2022) (Sagbas et al., 2023) (Hung, 2023). In addition, the literature has investigated the challenges and opportunities associated with digital leadership, offering insights into the competencies and attributes required for effective digital leadership in the contemporary business environment.

The theoretical lens of digital leadership has been constructed through a systematic and hermeneutical review of the literature, with reference to key constructs and levels of analysis (Guzmán et al., 2020) (Khaw et al., 2022) (Tigre et al., 2023) (Quaquebeke & Gerpott, 2023) (Karakose et al., 2022) (Imhof & Grivas, 2022) (Bach & Sulíková, 2021). This theoretical framework includes a definition of digital leadership, departing from the concept of *e-leadership* and integrating interpretations of technology within the Information Systems (IS) field. The differences between leadership, leadership in the digital age, and digital leadership have been explained, providing a nuanced understanding of the domain.

Digital Transformation

The literature on digital transformation emphasises the critical role of leadership in driving and managing organisational change in the digital age. Various studies have highlighted the importance of leadership style in facilitating successful digital transformation initiatives, focusing on the adaptive, transformational and innovative aspects of leadership in the context of digitalisation (Bui et al., 2022) (Hanandeh et al., 2023) (Yusuf et al., 2023). Digital transformation refers to the process of utilising digital technologies to fundamentally change and improve business processes, models and operations. Digital transformation involves the integration of digital tools and technologies into various aspects of an organisation to improve efficiency, productivity and customer experience. Digital transformation includes four main components: process transformation, business model change, domain transformation, and cultural transformation. (Hanandeh et al., 2023).

Other research suggests that digital transformation refers to the process of modifying business models and practices in response to technological advances and innovations, resulting in changes in consumer behaviour and social dynamics. Digital transformation involves the integration and utilisation of digital technologies, such as data analytics and artificial intelligence, to create new structures, practices, values and arrangements in organisations and industries. (Yusuf et al., 2023). Meanwhile, according to (Bui et al., 2022) Digital transformation refers to a process that triggers significant changes in company property through the use of information technology, computing, communication, and connectivity. It aims to improve the company's ability to collect, disseminate, store, analyse, and display data, thereby increasing optimal data processing capabilities.

The results of the study show that digital transformation affects organisational performance (Hanandeh et al., 2023) (Yusuf et al., 2023) (Bui et al., 2022).

Digital Culture

Digital culture is defined as an emerging set of values, practices and expectations regarding the way people (should) act and interact in the contemporary networked society. Digital culture encompasses behavioural changes brought about by the use of technology within companies and includes adaptable and sustainable skills, agile and flexible working styles, an emphasis on data, and a mindset that prioritises digital processes in new companies. (Mollah et al., 2023).

(Wang et al., 2022) define digital organisational culture as a set of values, beliefs, norms and behaviours in an organisation that support and encourage digital change, acceptance of new technologies and ideas, and alignment of digital technologies with the organisation's vision. Digital organisational culture sets the direction for digital change, influences the acceptance of new technologies and ideas, and ensures that innovative activities are recognised and encouraged within the organisation.

The results showed that digital culture and employees' digital capabilities partially mediated the relationship between digital leadership and sustainable organisational performance in South Korea. (Mollah et al., 2023) (Wang et al., 2022).

Leadership Style

In his research (Bach & Sulíková, 2021) highlighted two classic leadership styles: transactional leadership and transformational leadership. Transactional leadership is described as an exchange relationship where the leader rewards performance based on a contract and punishes when predetermined performance is not met. Transformational leadership, on the other hand, focuses on improving performance through the transformation of values, attitudes, and so on. Leaders who use this style inspire subordinates through vision, charisma, and creating an atmosphere of mutual trust and confidence.

It further stated that, in the context of digitalisation and Industry 4.0, digital leadership is a new leadership style. It involves a focus on digital transformation, mastery of digital technologies, and implementation of measures within a digital transformation framework. Digital leadership requires a different leadership style, which involves more co-operation, understanding, inclusion and mediation, compared to traditional leadership styles.

The results of this study emphasise the importance for leaders to adapt their leadership style to changes in the company's internal and external environment, such as digitalisation and Industry 4.0, in order to effectively lead and drive organisational performance.

Organisational Performance

Business performance refers to the evaluation of how well a company's operations and processes perform in terms of various factors such as profitability, adaptability, reliability, responsiveness, and cost-effectiveness. It includes the results achieved by the organisation in achieving its goals and objectives. (Hanandeh et al., 2023) Also mentioned, factors that can affect the achievement of business or organisational performance include: Digital transformation, Decision-making process, Digital leadership, Entrepreneurial motivation and Business process performance. While (Yusuf et al., 2023) defines organisational performance as the *outcome* or results achieved by public government organisations in terms of effectiveness, efficiency, and overall success in achieving their goals and objectives. In addition to the factors that affect organisational performance above, (Yusuf et al., 2023) also added other factors, namely: Competitive advantage, Resource-based theory, Digital skills and knowledge and Purpose and direction.

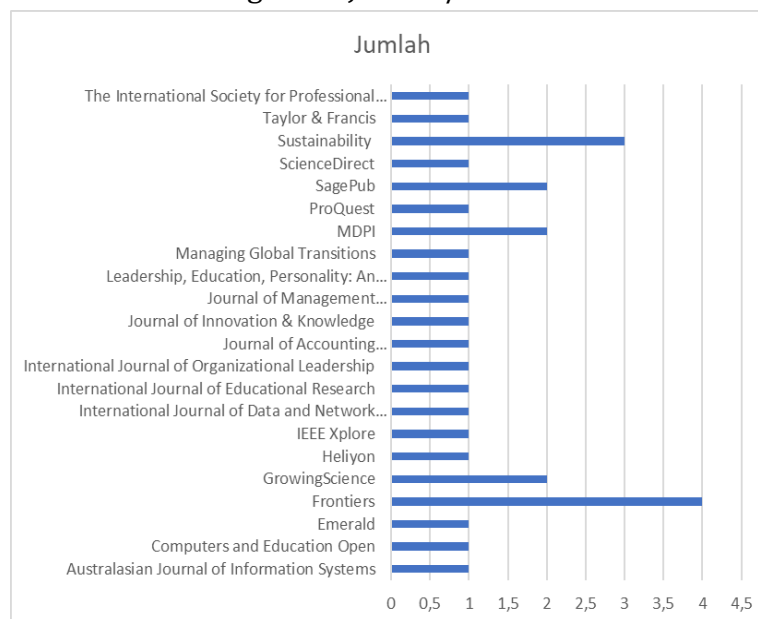
The results of previous studies show that organisational performance is influenced by digital leadership, digital transformation, organisational culture and leadership style. (Bui et al., 2022) (Chatterjee et al., 2023)(Mollah et al., 2023) (Yusuf et al., 2023) (Tulungen et al., 2022) (Oktaysoy et al., 2022).

METHOD

This research will adopt a systematic conceptual literature review approach to comprehensively analyse existing scholarly works and research findings relating to digital leadership, digital transformation, digital culture, and leadership style and organisational performance. This approach will enable the synthesis of diverse perspectives and insights from the literature.

The data collection process involves identifying and selecting relevant scholarly articles, research papers, and publications from reputable academic databases and journals. Inclusion criteria will include studies that specifically address the impact of digital leadership on organisational success, firm growth, and exploratory innovation. The search was conducted using keywords such as "digital leadership," "organisational performance", "digital transformation", "digital culture" and "leadership style". The number of articles reviewed was 30 articles published from 2020 to 2023, and indexed by Scopus. The distribution of article sources can be seen in the following diagram.

Figure 1. Journal/Publisher



After collecting relevant literature, a thematic analysis was conducted to identify recurring themes, patterns and insights related to the impact of digital leadership on organisational success. This analytical approach will facilitate the extraction of key findings and synthesis of diverse perspectives from the literature.

This study found that digital leadership, mediated by digital transformation, digital culture, and leadership style, has a significant effect on organisational success. The research also explores the role of digital leadership in shaping organisational performance and identifies the mediating effect of digital leadership on the relationship between digital transformation, digital culture and organisational success. This study provides valuable insights for leaders, managers and academics who want to understand the dynamics of digital leadership and its impact on organisational success.

In this context, the cited literature supports the key findings identified in the thematic analysis by providing empirical and theoretical evidence supporting the relationship between digital leadership, digital transformation, digital culture and organisational success. Previous research cited in this literature review highlights the importance of progressive digital leadership adaptation and digital transformation integrated with innovative digital culture to improve organisational performance. As such, the literature provides a strong foundation for the key findings identified in the thematic analysis, by demonstrating that adaptive and progressive digital leadership, together with digital transformation integrated with innovative digital culture, can make a positive contribution to organisational performance.

In addition, the cited literature also highlighted the practical and theoretical implications of the findings, emphasising the importance of attention to digital leadership, digital transformation and digital culture in an effort to improve organisational performance.

Findings

Based on the results of the thematic analysis conducted, the following results were obtained:

1. Digital leadership affects organisational success (Bui et al., 2022). Digital transformation affects organisational performance (Hanandeh et al., 2023). (Yusuf et al., 2023) (Bui et al., 2022).
2. Digital transformation affects organisational performance (Hanandeh et al., 2023) (Yusuf et al., 2023) (Bui et al., 2022)
3. Digital culture and employee digital capabilities partially mediate the relationship between digital leadership and sustainable organisational performance in South Korea (Mollah et al., 2023). (Wang et al., 2022) in their research found that digital culture has a significant effect on organisational performance.
4. the importance for leaders to adapt their leadership style to changes in the internal and external environment of the company, such as digitalisation and Industry 4.0, in order to effectively lead and drive organisational performance (Bach & Sulíková, 2021).

From these findings, it can be concluded that digital leadership, digital transformation, and digital culture have a significant influence on organisational performance. Adaptive and progressive digital leadership, along with digital transformation integrated with innovative digital culture, can positively contribute to organisational performance.

Discussion

Digital leadership has a positive and significant influence on organisational performance, as it provides a clear vision, manages change, and encourages collaboration. (Yusuf et al., 2023). Digital leadership increases employee capability and enthusiasm, streamlines organisational operations, and contributes to organisational sustainability and competitive advantage. (Tulungen et al., 2022). Digital leadership encourages innovation and the development of a culture of intrapreneurship within the organisation, leading to improved job performance and growth (Sagbas et al., 2023).

Digital transformation positively impacts business performance by improving efficiency, productivity and customer experience. Digital transformation involves the integration of digital technologies into various aspects of an organisation, leading to improved operational processes and outcomes. (Hanandeh et al., 2023). Likewise according to (Yusuf et al., 2023) and (Bui et al., 2022), digital transformation can affect organisational performance by integrating digital technology and leveraging data analytics, organisations can improve operational efficiency, customer experience, and decision-making processes.

Digital culture plays an important role in improving organisational performance by driving innovation, supporting the creation of new goods and services, and influencing behavioural norms within the firm. (Mollah et al., 2023) (Wang et al., 2022). Adapting leadership styles to environmental changes, such as digitalisation and Industry 4.0, will create effective leadership and drive organisational performance (Bach & Sulíková, 2021).

The implications of the findings for managerial practice from this study are that organisations need to pay attention to the importance of digital leadership, digital transformation, and digital culture in an effort to improve business performance and sustainability. Leaders need to pay attention to adapting their leadership styles to changes in the company's internal and external environment, such as digitalisation and Industry 4.0, in order to effectively lead and drive organisational performance. This shows that digital leadership is not only the responsibility of leaders, but also a key factor in creating an innovative and adaptive digital culture.

From a theoretical perspective, the findings contribute to the development of theories of digital leadership and organisational performance. The theoretical implication is that the concepts of digital leadership, digital transformation and digital culture need to be integrated into existing theories of leadership and organisational management. This will enrich the understanding of how these factors interact and influence organisational performance in the digital era. As such, this research provides important insights for practitioners and academics in developing leadership and management strategies that are responsive to digital change. In addition, this study also makes a significant theoretical contribution in enriching the literature on digital leadership and organisational performance. The results emphasise the importance of leaders to adapt their leadership styles to changes in the internal and external environment of the company, such as digitalisation and Industry 4.0, in order to effectively lead and drive organisational performance.

CONCLUSION

Digital leadership has a significant impact on organisational success. Digital leadership involves focusing on digital transformation, mastering digital technology, and implementing measures within the framework of digital transformation. The results also show that digital transformation, organisational culture, and leadership style influence organisational performance. In addition, digital leadership also plays an important role in the context of Industry 4.0 and has a significant influence on organisational success in the digital age. This research provides a deep insight into the relationship between digital leadership, digital transformation, organisational culture, and organisational performance, and highlights the importance of digital leadership in achieving business sustainability in the digital age.

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