

Building Digital Transformation: The Role of Digital Leadership and Digital Innovation in the Performance of Employees at The Ministry of Religious Affairs of Central Sulawesi

Herna Deswarti¹

¹Doctoral Program in Economics, Tadulako University, Palu, Indonesia

Corresponding Author: Herna Deswarti E-mail: deswartiherna@gmail.com

ARTICLE INFO	ABSTRAK
Volume: 4 ISSN: 2963-5489	Digital transformation is a strategic issue in organizational management, including Indonesia's public sector. The Ministry of Religious Affairs in Central Sulawesi is adopting digital technologies through programs such as PUSAKA SuperApp and SIMKAH, yet faces barriers such as low digital literacy, limited infrastructure, and employee resistance. This conceptual article examines the role of digital leadership and digital innovation in driving transformation and its impact on employee performance. Using a literature-based conceptual approach that integrates Upper Echelons Theory, organizational transformation, and digital innovation, the study highlights that digital leadership shapes organizational direction and culture, while digital innovation mediates the link between leadership and transformation through practical solutions. Successful digital transformation enhances productivity, efficiency, and service quality. Academically, this study broadens the discourse on bureaucratic digitalization in developing countries, while practically, it offers recommendations for leadership strategies, fostering innovation, and improving civil servants' digital literacy to achieve effective and responsive governance.
KEYWORDS digital leadership, digital innovation, digital transformation, employee performance, public bureaucracy, Indonesia	

1. Introduction

The development of digital technology has been a major catalyst for organizational transformation in the 21st century. Technologies such as artificial intelligence (AI), big data analytics, blockchain, and cloud computing have revolutionized how organizations interact, make decisions, and provide services to stakeholders. The World Economic Forum (2023) emphasizes that digitalization is the main foundation for creating a government that is adaptive and responsive to global dynamics. This phenomenon occurs in the private and public sectors, which are required to improve the effectiveness, efficiency, transparency, and accountability of their services. Countries such as Estonia, South Korea, and Singapore have proven the success of digital governance by creating integrated and user-friendly, technology-based public services (OECD, 2022).

In Indonesia, the urgency of the digital transformation of the bureaucracy is emphasized through Presidential Regulation No. 95 of 2018 concerning the Electronic-Based Government System (SPBE). The implementation of SPBE is measured using the National SPBE Index, which is released annually by the Ministry of PAN-RB. In 2023, Indonesia's SPBE Index reached an average score of 3.10, or the "Good" category (KemenPAN-RB, 2023). Although this shows an upward trend from the previous year, this achievement is still far from the "Very Good" category (score of ≥ 4.5). This indicates that digital transformation in public bureaucracy still faces serious obstacles in terms of infrastructure, regulations, and human resource readiness.

The Ministry of Religious Affairs of the Republic of Indonesia is one of the ministries at the forefront of digital transformation in public services. Several digitization programs have been developed, including the PUSAKA SuperApp—an integrated

religious service application that covers hajj, zakat, marriage, religious education, and guidance for the Islamic community—and the SIMKAH (Marriage Management Information System) and SISKOHAT (Integrated Hajj Information and Computerization System) applications. These programs are expected to improve the efficiency and transparency of public services in the future. However, the situation on the ground, particularly in Central Sulawesi Province, shows that the implementation is still far from optimal. Internal surveys and interviews with Ministry of Religious Affairs civil servants show that only around 30-40% of employees regularly use digital applications in their daily tasks. The rest still rely on manual procedures due to limited digital literacy, cultural resistance to change, and uneven Internet infrastructure, especially in rural areas.

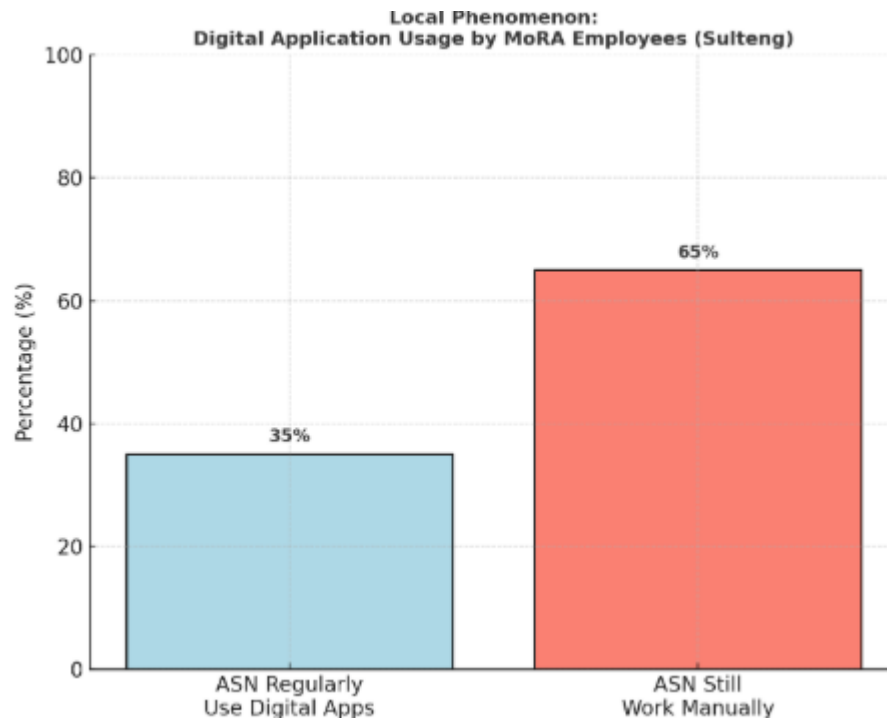


Figure 1. Local phenomenon data

Local data show that only about 35% of civil servants at the Ministry of Religious Affairs in Central Sulawesi regularly use digital applications such as PUSAKA SuperApp and SIMKAH, while the other 65% still rely on manual procedures. This highlights the gap between the digital transformation policies announced nationally and their implementation in the regions. This graph also reinforces the argument that the success of digital transformation is not only determined by the availability of applications but also heavily depends on digital leadership, a culture of innovation, and improving the digital literacy of civil servants.

The issue of low digital literacy among civil servants is not new. Dwivedi et al. (2022) confirm that one of the biggest challenges of public sector digitalization in developing countries is human readiness, namely, the extent to which employees can adopt and internalize digital technology in their work. In addition, a study by Criado et al. (2023) in the Government Information Quarterly shows that digital transformation in the public sector is often hampered by bureaucratic resistance, system fragmentation, and weak digital leadership. In the Indonesian context, Kurniawan and Nugroho (2022) found that the implementation of SPBE in various ministries is still hampered by overlapping regulations and low integration across work units.

In an academic framework, digital leadership has emerged as a key factor bridging the vision of transformation with actual implementation. Avolio et al. (2014) define digital leadership as the process of leading by utilizing technology to influence, motivate, and direct teams to achieve organizational goals. Zhu (2015) emphasized that digital leadership is characterized by strategic thinking, creativity, curiosity, and the ability to manage change in complex situations. Recent research by Susanti et al. (2023) found that digital leadership plays a significant role in accelerating the implementation of SPBE in government

agencies. Thus, without visionary and innovative digital leadership, digital transformation risks being stuck in technology projects alone, without producing cultural change.

In addition to leadership, digital innovation plays a vital role. Yoo et al. (2010) define digital innovation as the creation of new products, services, or processes through the use of digital technology. Hoffman (2018) adds that digital innovation is characterized by technological convergence, generativity, and a distributed collaborative nature. Research by Ly (2023) in Southeast Asia shows that digital innovation in the public sector can accelerate services, increase transparency, and promote bureaucratic accountability. In the context of the Ministry of Religious Affairs, digital innovation can be realized through the integration of Hajj services, religious education, and marriage administration into a single integrated platform. However, the low culture of innovation among civil servants remains a significant obstacle.

Employee performance as the final outcome of digital transformation also requires attention. Armstrong and Baron (1998) stated that employee performance is an individual's contribution to the achievement of organizational strategic goals. In the digital era, performance indicators are not only measured by the quantity and quality of work but also by the extent to which employees can adapt to technology and produce faster and more accurate public services. Susanti and Soepriyanto (2022) found that the implementation of bureaucratic digitalization in Indonesia positively contributes to employee discipline, service speed, and public satisfaction. Thus, successful digital transformation is believed to improve the quality of ASN performance.

The results of the literature review reveal several research gaps that underlie the urgency of this study. First, most studies on digital leadership, digital innovation, and digital transformation focus on the private sector and manufacturing industry (Bresciani et al., 2021; Warner & Wäger, 2019), while studies in the public sector, especially in Indonesia, are limited. Second, studies highlighting public bureaucracy in Indonesia generally only discuss the implementation of SPBE at the macro level, without looking at the role of digital leadership and digital innovation variables as the main driving factors (Kurniawan and Nugroho, 2022). Third, previous studies tend to emphasize the direct relationship between digital leadership and digital transformation without thoroughly examining the mediating role of digital innovation in the process (Ly, 2023). Fourth, few studies explicitly link digital transformation with employee performance, even though employee performance is an important indicator of the success of bureaucracy in providing public services.

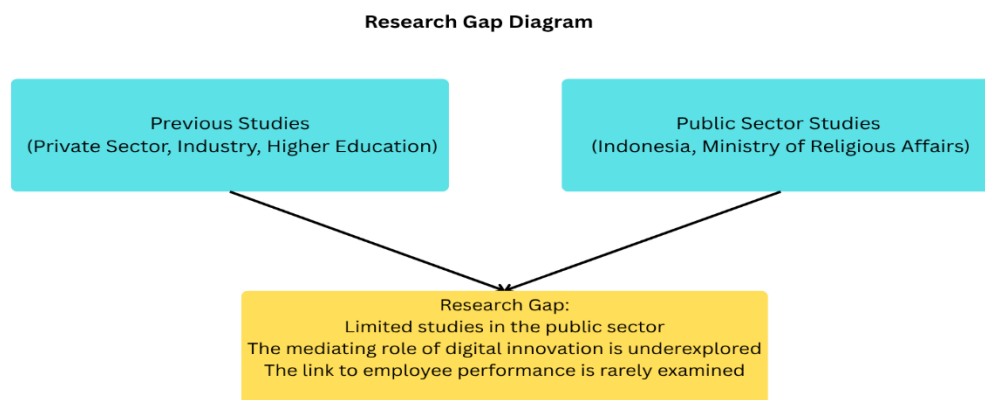


Figure 3. Research gap diagram

Based on a literature review, most research on digital leadership, digital innovation, and digital transformation still focuses on the private sector, industry, and higher education (Bresciani et al., 2021; Warner & Wäger, 2019). Meanwhile, research in the public sector, particularly in the Indonesian context, is still very limited and has not yet touched on the role of digital leadership variables in depth (Kurniawan & Nugroho, 2022; Susanti et al., 2023). Previous studies have emphasized the direct relationship between digital leadership and digital transformation. The mediating role of digital innovation as a link between leadership vision and transformation implementation has not been widely studied, especially in the context of public bureaucracy. This contrasts with international study trends that have begun to explore the role of digital innovation as a key mechanism for successful transformation (Ly, 2023; Criado et al., 2023). Furthermore, there is still a lack of research that explicitly links digital transformation with employee performance, even though employee performance is a crucial indicator

in measuring the effectiveness of public bureaucracy. The majority of studies only stop at analyzing technological readiness and system governance, without continuing to the real impact on employee quality and productivity.

Thus, it can be concluded that there are several research gaps that need to be addressed. First, research on the digitization of public bureaucracy in Indonesia is limited, especially in the context of the Ministry of Religious Affairs. Most previous studies have focused on the private sector or higher education; thus, the dynamics of digital leadership in public bureaucracy have not been widely studied. Second, although a number of studies have linked digital leadership with digital transformation, the mediating role of digital innovation as a mechanism connecting leadership vision and transformation implementation has not received adequate attention, especially in the public sector. Third, there is still a lack of research that explicitly links digital transformation with employee performance, even though employee performance is a key indicator of the success of bureaucratic reforms. These gaps provide room for conceptual research to offer a new framework that emphasizes the importance of digital leadership, innovation, and transformation as key determinants of improving civil service performance.

The research gap diagram illustrates the difference between the focus of previous research and the gap that this conceptual article attempts to fill. Through the proposed conceptual framework, this article seeks to make an academic contribution to enriching the literature on digital public management, while also providing practical contributions in the form of strategic recommendations for the Ministry of Religious Affairs of Central Sulawesi Province in strengthening digital leadership, encouraging digital innovation, and improving employee performance through targeted digital transformation.

2. Literature Review and Conceptual Framework

2.1 Digital Leadership

Digital leadership is an evolution of the concept of transformational leadership emphasized by Burns (1978), namely, the ability of leaders to inspire, motivate, and direct change. In the digital era, leadership is no longer limited to interpersonal skills alone; it also includes the ability to integrate technology into organizational strategies. Burke (2008) refers to this as e-leadership, a leadership style that combines strategic vision with the use of technology to guide employee behavior and performance. Avolio, Sosik, Kahai, & Baker (2014) emphasize that digital leadership is a social process that enables leaders to use technology to influence and build effective working relationships.

In practice, digital leadership is characterized by a visionary attitude, creativity, curiosity, and the ability to anticipate complex changes (Zhu 2015). A digital leader not only masters technology but is also capable of building an organizational culture that is open to innovation. This is in line with the Upper Echelons Theory proposed by Hambrick and Mason (1984), which states that the characteristics and orientation of leaders have a significant influence on the direction of organizational strategy. Erhan et al. (2022) add that digital leadership is reflected in the ability to innovate, digital skills, extensive networks, and active participation in shaping the organizational vision. Thus, digital leadership is not only a technical competency but also a leadership paradigm that combines strategic vision, an innovative culture, and digital literacy to drive organizational change.

To understand how digital leadership functions in the context of public bureaucracy, this study uses the Job Demands–Resources (JD-R) Model as a theoretical framework. The JD-R Model (Bakker & Demerouti, 2007) explains that every job has two main characteristics: job demands and job resources. Job demands include work demands that can cause stress or obstacles, such as employee resistance to change, low digital literacy, and limited technological infrastructure. Job resources are organizational resources that can help employees overcome these obstacles, such as digital leadership, digital innovation, and a work culture that supports transformation.

In the context of the Central Sulawesi Ministry of Religious Affairs, digital leadership is seen as a strategic resource that plays an important role in minimizing bureaucratic obstacles and encouraging digital transformation. Through visionary, innovative, and adaptive digital leadership, organizations can maximize the use of technology, build a culture of innovation, and improve employee readiness to face the demands of the digital age. This relationship is illustrated in Figure 2.

JD-R Model Framework (In the context Indonesian Public Sector)

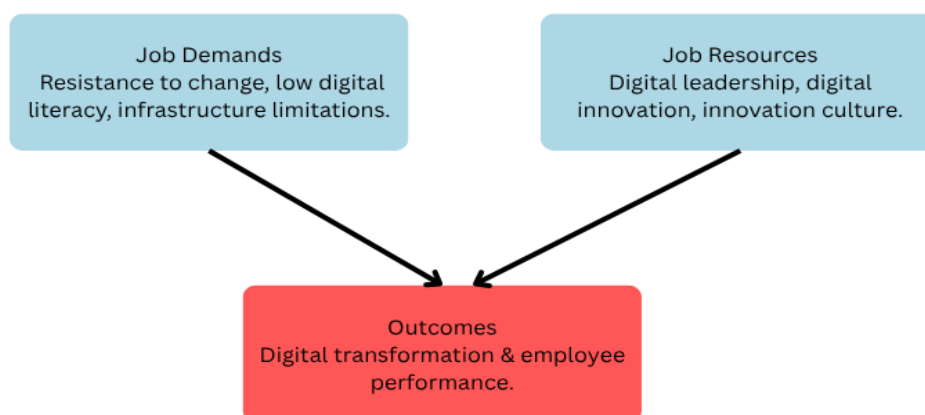


Figure 2. JD-R Model Framework

Within the framework of Job Demands–resources (JD-R) theory, digital leadership can be positioned as a job resource that serves to suppress various public bureaucratic job demands, such as civil servant resistance to change, low digital literacy, and limited technological infrastructure. Resources in the form of digital leadership, digital innovation, and a culture of innovation enable organizations to face challenges and turn them into opportunities for growth. The outcome of the balance between demands and resources is the success of digital transformation and improved employee performance. Therefore, digital leadership is a key variable that bridges bureaucratic obstacles to the successful implementation of digital policies.

2.2 Digital Transformation

Digital transformation is a comprehensive process that integrates technology into all aspects of an organization. Vial (2019) defines digital transformation as a series of fundamental changes aimed at improving organizational capabilities by utilizing digital technology. Hess et al. (2016) emphasized that digital transformation includes changes in business models, digitization of work processes, and organizational restructuring. Matt et al. (2015) even add that digital transformation requires comprehensive digital strategy planning so that it does not stop at mere technology adoption.

In public bureaucracy studies, digital transformation is often associated with the implementation of e-government or Electronic-Based Government Systems (SPBE) (Heeks, 2006). Warner and Wäger (2019) assert that digital transformation demands changes in the organizational mindset, cross-functional collaboration, and an adaptive work culture. Indicators of digital transformation can be seen in how organizations digitize processes, optimize big data, improve digital interactions with stakeholders, and build integrated data exchange mechanisms (Nasiri et al., 2020). In the context of the Ministry of Religious Affairs of Central Sulawesi Province, digital transformation is reflected in the PUSAKA, SIMKAH, and electronic attendance applications, although their implementation still faces obstacles such as low digital literacy, limited infrastructure, and resistance from senior employees. Thus, digital transformation is not merely a technological innovation but a systemic change process that encompasses technical, organizational, cultural, and institutional strategy aspects.

2.3 Digital Innovation

Digital innovation is the process of creating new products, services, or processes using digital technology. Yoo, Henfridsson, & Lyytinen (2010) define digital innovation as the integration of digital technology with organizational activities to generate new value. This concept is rooted in Schumpeter's (1934) theory of innovation, which emphasizes innovation's role in creating competitive advantages. Hoffman (2018) emphasizes that digital innovation has the characteristics of convergence,

generativity, and distributed nature, meaning that innovation does not only occur in one part of the organization but involves cross-unit collaboration and is capable of producing recurring solutions that further strengthen the organization.

In the public sector, digital innovation plays a dual role, improving the internal efficiency of the organization and the quality of services to the community. Westerman et al. (2014) assert that organizations capable of utilizing digital innovation can adapt more quickly to environmental demands. Bresciani et al. (2021) found that digital leadership has a positive effect on digital innovation, while Ly (2023) shows that digital innovation in the public sector can accelerate service delivery, strengthen transparency, and improve accountability. In the context of the Ministry of Religious Affairs bureaucracy, digital innovation can take the form of developing application-based services, digitizing archives, and implementing real-time personnel systems. Thus, digital innovation is an important link between digital leadership and sustainable digital transformation.

2.4 Employee Performance

Employee performance is the result of an individual's work that reflects the extent of their contribution to achieving organizational goals. Armstrong and Baron (1998) stated that performance is closely related to organizational strategic goals, service user satisfaction, and organizational values. Cascio (2014) defined performance as work achievements that can be measured quantitatively and qualitatively within a certain period. Mangkunegara (2018) adds that performance is influenced by internal factors such as ability, motivation, and personality, as well as external factors such as work facilities, organizational culture, and leadership.

In the digital era, employee performance is increasingly influenced by technological literacy. Avolio et al. (2014) showed that digital leadership can increase employee productivity and effectiveness. Susanti and Soepriyanto (2022) found that the adoption of digital transformation in the Indonesian public sector directly improves the quality of public services. Thus, employee performance is measured not only by the speed and accuracy of work but also by the extent to which employees can utilize technology to improve efficiency, data accuracy, and responsiveness to community needs.

2.5 Conceptual Framework

Based on a literature review, the conceptual framework of this study places digital leadership as the main factor that shapes the direction of an organization and influences its digital work culture. Digital innovation is seen as a mediating variable that bridges digital leadership with digital transformation because visionary and adaptive leadership will find it difficult to achieve transformation without real innovation. Digital transformation is a strategic process that enables public organizations to integrate technology into various aspects of service delivery. Ultimately, employee performance is an outcome of successful digital transformation, which is reflected in increased productivity, service efficiency, and public satisfaction. The relationship between these variables is explained as follows.

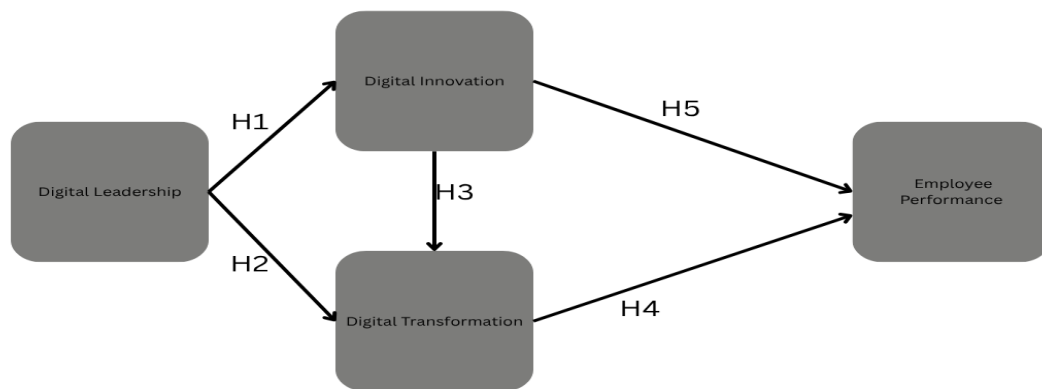


Figure 3. Conceptual framework

Digital leadership influences digital innovation because visionary leaders who are open to technology will encourage the creation of an innovative culture. Digital leadership also has a direct impact on digital transformation, as leaders play a key role in guiding change. Furthermore, digital innovation plays a role in accelerating digital transformation by providing practical technology-based solutions. Successful digital transformation, in turn, has a positive impact on employee performance, as integrated and efficient systems enable employees to work more productively. Finally, digital leadership also indirectly influences employee performance through digital innovation and digital transformation, making the role of digital leadership central to the overall process of bureaucratic transformation.

3. Results and Discussion

The discussion in this conceptual article focuses on how the roles of digital leadership and digital innovation are determining factors in building effective digital transformation, as well as their impact on employee performance in the public sector, particularly the Ministry of Religious Affairs of Central Sulawesi Province. Digital leadership plays an important role in shaping the direction of an organization. The Upper Echelons theory (Hambrick & Mason, 1984) explains that the orientation, values, and experience of leaders greatly influence organizational strategy and performance. In the digital context, leaders are required to have technological literacy, strategic vision, and the ability to build a culture of innovation. Avolio et al. (2014) emphasize that digital leadership is not only about managing technology, but also about building trust, collaboration, and data-driven decision making. A study by Erhan et al. (2022) in the European public sector proves that organizations led by digital leaders with a clear vision are more successful in achieving their digitization targets. These findings are consistent with the results of research by Susanti et al. (2023) in Indonesia, which shows that digital leadership in public bureaucracy can accelerate the implementation of SPBE, despite constraints in human resources.

Digital innovation serves as a bridge connecting digital leadership with digital transformation. Bresciani et al. (2021) in a study of European companies found that digital innovation is the main mechanism that enables digital leadership to produce tangible impacts. Meanwhile, Ly (2023) in a study of the public sector in Southeast Asia emphasized that digital innovation drives improvements in the effectiveness of government services through the creation of integrated applications and technology-based transparency mechanisms. In Indonesia, digital innovation in bureaucracy is still partial and not yet integrated across units. For example, the digitization of archives and online attendance systems has been implemented, but they are not yet fully connected to the central system. This shows a gap between international studies that show cross-functional innovation integration and local conditions that still face system fragmentation.

Digital transformation is understood as a comprehensive process that is not only related to the procurement of technology but also involves changes in organizational culture, work patterns, and bureaucratic structures. Vial (2019) and Warner and Wäger (2019) emphasize that digital transformation requires the involvement of all members of the organization. In Europe, Hanelt et al. (2021) show that digital transformation is easier to achieve owing to adequate regulatory support and infrastructure. Conversely, research by Jonathan and Kuika Watat (2020) in developing countries found that the main obstacles to digital transformation are employee resistance and infrastructure limitations, conditions that are very similar to public bureaucracy in Indonesia. Thus, although digital transformation is globally viewed as a strategic agenda, its implementation in developing countries, including Indonesia, is often hampered by human resource readiness and technological limitations.

Employee performance is the main outcome of this process. Armstrong and Baron (1998) state that employee performance is an individual's contribution to organizational goals, while Cascio (2014) emphasizes the importance of work quality in the modern context. Avolio et al. (2014) in the United States prove that organizations with digital leaders can increase employee productivity and effectiveness. In the Indonesian public sector, Susanti and Soepriyanto (2022) found that digital transformation directly impacts discipline, efficiency, and public satisfaction. However, compared to developed countries, employee performance indicators in Indonesia still focus more on administrative output, while in developed countries, they have evolved towards outcome-based performance that assesses the impact of services on the community.

This comparison shows both convergence and divergence. Convergence is observed in the similarity of findings that digital leadership is a major factor in driving innovation and digital transformation in various countries. However, divergence arises at the implementation level of these policies. Developed countries tend to succeed in creating integrated digital innovation systems, while developing countries, such as Indonesia, still face limitations in digital literacy, infrastructure, and work culture resistance. This explains why, even though the concepts of digital leadership, innovation, and transformation have been

proven internationally, their application in Indonesia requires specific strategies tailored to the characteristics of the local public bureaucracy.

Thus, this study emphasizes that building digital transformation in the public sector requires a combination of visionary digital leadership, applicable digital innovation, and adaptive organizational culture support. Its academic contribution is to broaden the understanding of the mediating role of digital innovation in the relationship between leadership and transformation. Its practical contribution is to provide recommendations for public bureaucracy in Indonesia, particularly the Ministry of Religious Affairs of Central Sulawesi Province, to strengthen the digital literacy of civil servants, encourage cross-unit innovation integration, and measure employee performance with indicators that are in line with the demands of the digital era.

4. Conclusion and Implications

This conceptual article emphasizes that building digital transformation in the public sector, particularly in the Ministry of Religious Affairs of Central Sulawesi Province, cannot be separated from the role of digital leadership and digital innovation. Digital leadership serves as the main driver that provides strategic direction, builds organizational vision, and creates a work culture that is adaptive to technological changes. Digital innovation bridges the gap between leadership vision and real-world implementation through application development, process digitization, and technology-based public service mechanisms.

Digital transformation is ultimately a systemic process that requires integration between technology, human resources, organizational culture, and regulations. Without visionary digital leadership and continuous digital innovation, transformation will only stop at technology procurement without resulting in improved employee performance. Conversely, when digital leadership and digital innovation go hand in hand, digital transformation can accelerate public services, increase transparency, and encourage bureaucratic accountability. The end result is improved employee performance reflected in higher productivity, service efficiency, and public satisfaction.

4.1 Academic Implications

This article contributes to the public management literature by emphasizing that digital innovation acts as a mediating variable that strengthens the relationship between digital leadership and digital transformation. This conceptual finding expands on previous studies that generally only highlight the direct relationship between digital leadership and digital transformation. By integrating the Upper Echelons theory (Hambrick & Mason, 1984), organizational transformation theory (Burke, 2008), and digital innovation studies (Yoo et al., 2010), this article provides a new conceptual framework relevant to bureaucracies in developing countries.

4.2 Practical Implications

From a practical perspective, there are several important recommendations for the Central Sulawesi Provincial Ministry of Religious Affairs. First, strengthening digital leadership capacity needs to be done continuously, whether through training, mentoring, or benchmarking with best practices from other institutions. Second, digital innovation must be directed towards cross-unit integration, so that existing applications and systems do not run independently, but are interconnected to improve efficiency. Third, the digital literacy of civil servants needs to be improved through practice-based training programs that reach all levels of employees, so that resistance to change can be minimized. Fourth, employee performance indicators need to be updated to meet the demands of the digital era, for example by assessing application usage skills, service speed, and public satisfaction levels.

5. Direction of Future Research

Although this article is conceptual, the proposed framework can be empirically tested using a quantitative approach with SEM-PLS or AMOS. Future research should explore the extent to which digital leadership affects employee performance through the mediation of innovation and digital transformation in public bureaucracies in various regions of Indonesia. Comparative studies between the public and private sectors can also enrich our understanding of the dynamics of organizational digitalization. Thus, this study emphasizes that digital transformation in the public sector is not merely a

matter of technology but is largely determined by the quality of digital leadership, the strength of digital innovation, and the readiness of employees as the main actors of change.

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