
THE INFLUENCE OF TRANSFORMATIONAL LEADERSHIP AND SERVICE QUALITY ON THE EFFECTIVENESS OF LAND SERVICE DIGITALIZATION

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Abstract

The purpose of this study is to examine how transformational leadership and service quality affect how well land service digitization is implemented in public sector companies. Digital transformation in land services not only requires technological readiness, but also requires adequate leadership support and service quality to ensure the successful implementation of electronic systems. This study uses a quantitative approach with an explanatory design and is analyzed using Structural Equation Modeling based on Partial Least Squares (SEM-PLS). Data was collected through a questionnaire of 75 employees who were directly involved in the implementation of digital services at the Sidoarjo Regency Land Office. The results of the analysis showed that transformational leadership had a positive and significant effect on the effectiveness of digitalization implementation with a coefficient of 0.558 and a significance value below 0.05. Service quality also has a positive and significant effect with a coefficient of 0.718, and has a more dominant influence than transformational leadership. The research model has a strong explainability with an R-square value of 0.744. These findings show that the success of land service digitization is more determined by the quality of the system and digital services that users feel, along with transformative leadership support. This research implies that increasing the effectiveness of digitalization requires strengthening leadership and improving service quality simultaneously.

Keywords: *Transformational Leadership, Service Quality, Digitalization, Land Services, Organizational Effectiveness.*

A. INTRODUCTION

In many nations, including Indonesia, the strategic plan for public sector reform now includes digital transformation. In order to strengthen governance that is flexible and sensitive to community demands, the government promotes the use of information technology to increase the effectiveness, transparency, and accessibility of public services (Mergel, Edelmann, & Haug, 2019; Komna & Mpungose, 2024). This transformation not only reflects technological changes, but also a paradigm shifts in public administration towards a more collaborative and data-based digital governance model (Tangi, Janssen, Benedetti, & Noci, 2021). Nevertheless, the success of digitalization is determined not only by the availability of technology, but also by the managerial and organizational factors that support the change process (Hanelt, Bohnsack, Marz, & Antunes, 2021). Digitalization that is not balanced with leadership readiness and service quality has the potential to cause internal resistance, system dysfunction, and public dissatisfaction.

In addition, technological developments such as artificial intelligence and big data have also accelerated the transformation of digital-based public service models (Wirtz, Weyerer, & Geyer, 2019). The use of open government data and integrated information systems is also an important factor in increasing transparency and public participation in governance (Zhao & Fan, 2018; Kim & Lee, 2017).

The land sector is one of the public service fields that has high complexity because it is directly related to property rights, legal certainty, and potential social and economic conflicts. The high volume of service requests, the need for spatial data accuracy, and the demand for transparency make the digitization of land services an urgent need. Various innovations such as electronic land registration and application-based services have been introduced to speed up the administrative process. However, the implementation of digitalization in this sector still faces challenges in terms of internal coordination, human resource readiness, and public perception of the quality of digital services provided (Tangi et al., 2021). This condition shows that digital transformation in land services is not just a technical problem, but an organizational management issue involving leadership and service quality.

Transformational leadership is regarded in contemporary management literature as a successful leadership approach for promoting organizational change, particularly in circumstances requiring innovation and technological adaptation. Transformational leaders are capable of creating a shared vision, inspiring others, and fostering the creative thinking required for the digital transformation process. (Cortellazzo, Bruni, & Zampieri, 2019; Van Wart, Roman, Wang, & Liu, 2019). Empirical studies show that transformational leadership has a significant effect on the success of information system implementation and organizational performance because it is able to reduce resistance to change and increase employee commitment (Purwanto et al., 2020; Hayati et al., 2024). However, most of the research was conducted in the banking sector or private organizations, so it has not specifically examined the context of land services that have unique regulatory and administrative characteristics.

In addition to leadership, service quality is also an important determinant in assessing the effectiveness of digitalization. Digital transformation is often assumed to automatically improve service quality, even though user perception of system reliability, officer responsiveness, data security guarantees, and ease of use remain determinants of the success of digital services (Ryu & Lee, 2018; Wahi & Berényi, 2023). In the context of technology-based public services, service quality is not only related to direct interaction between employees and the public, but also includes system design, clarity of information, and consistency of digital processes. Research shows that the quality of digital services has a significant relationship with public satisfaction and trust in electronic government systems (Bélanger & Carter, 2018). However, the simultaneous relationship between transformational leadership, service quality, and the effectiveness of digitalization implementation is still rarely tested in a single, integrated structural model.

Based on the literature review of the past decade, there are several research gaps that are the basis for the urgency of this study. First, research on the digitalization of the public sector in Indonesia is still dominated by conceptual approaches and policy studies, so not many have used quantitative approaches based on structural models to empirically test causal relationships between variables (Hanelt et al., 2021). Second, most studies examine leadership and digitalization separately without integrating them with the dimension of service quality as organizational factors that strengthen the effectiveness of digital transformation (Cortellazzo et al., 2019). Third, the land sector as a strategic public service is still relatively underappreciated in organizational management studies, even though the complexity of regulations and service volumes make it a relevant context to test leadership theory and service quality in digital transformation situations.

This research seeks to address these gaps by developing an empirical model that simultaneously tests the influence of transformational leadership and service quality on the effectiveness of the implementation of land service digitalization. From a change management perspective, digital transformation also requires organizational readiness and a systematic approach to change so that technology implementation does not cause internal disruption (Al-Haddad & Kotnour, 2016). In the context of developing countries, institutional factors and

administrative capacity also influence the success of e-government adoption (Chen & Aklikokou, 2020). This approach not only expands the application of transformational leadership theory and the concept of service quality in the context of technology-based public organizations, but also provides quantitative evidence on the managerial factors that determine the success of digital transformation in the land sector. Applying Partial Least Squares-based Structural Equation Modeling (SEM-PLS) (Sarstedt, Ringle, & Hair, 2017; Ringle, Sarstedt, Mitchell, & Gudergan, 2020), this study provides a comprehensive and predictive analysis of the relationships between variables, resulting in more measurable findings that can be used as a basis for managerial recommendations.

The novelty of this research lies in the integration of three main elements of transformational leadership, service quality, and effectiveness of digitalization implementation in one structural model applied to the context of land services in Indonesia. In contrast to previous research that focused on the public service sector or private organizations, this study examines the dynamics of digital transformation in services that are technical, regulative, and have a direct impact on the legal certainty of the community. In addition, this study included demographic control variables to ensure that the influences found were truly derived from managerial factors, not individual characteristics alone. The strength of this research lies in a robust quantitative approach, the use of standardized indicators, and the testing of models that have high explanatory power on the effectiveness of digitalization implementation.

Against this background, this study's goal is to investigate how transformational leadership and service quality affect how well land service digitization is implemented. More precisely, this study evaluates the function of service quality in bolstering the success of the transition and looks at the degree to which transformational leadership increases the efficacy of digital system installation. In addition to offering practical implications for the management of digital-based land services that are more efficient, transparent, and community-focused, the research's findings are anticipated to contribute theoretically to the growth of public sector management literature and digital transformation.

B. LITERATURE REVIEW

1. Basic Theory

The two primary theoretical pillars of this study transformational leadership theory and service quality theory are connected to the idea of organizational effectiveness within the framework of the public sector's digital transformation. The integration of these three concepts is important because the digitalization of public services is not only a matter of technology adoption, but also a process of organizational change involving leadership, service systems, and institutional performance (Vial, 2019; Hanelt, Bohnsack, Marz, & Antunes, 2021). Digital transformation is understood as a strategic change that touches organizational structure, work culture, and data-based decision-making mechanisms.

Burns created the notion of transformational leadership, which Bass later expanded upon. According to Bass, transformational leaders may inspire and encourage their people to perform above expectations by altering their values, vision, and work orientation. This theory's growth places emphasis on four key aspects: intellectual stimulation, idealized influence, inspirational drive, and individualized attention. Transformational leadership is regarded as a successful strategy for handling the shifting dynamics and complexity of the external environment, particularly digital transformation, in the context of contemporary public companies. (Cortellazzo, Bruni, & Zampieri, 2019; Van Wart, Roman, Wang, & Liu, 2019). Transformational leaders not only serve as administrative decision-makers, but also as agents of change who build a collective commitment to organizational innovation and the strengthening of adaptive cultures.

Digital transformation in the public sector requires leadership that is able to reduce resistance to change, increase employee readiness, and build a technology-based adaptive work culture. The literature shows that digital leadership is positively correlated with the successful implementation of information systems in government organizations (Van Wart et al., 2019). Furthermore, it has been demonstrated that transformational leadership improves organizational performance by fostering creativity and employee engagement. (Purwanto et al., 2020; Hayati et al., 2024). This emphasizes that the transformational dimension has strong relevance in the context of the implementation of land service digitalization which requires changes in work procedures, electronic system integration, and improvement of human resource competence.

On the other hand, the service quality theory developed through the SERVQUAL model provides a framework to understand users' perceptions of service quality. Reliability, responsiveness, certainty, empathy, and tangibles are the five primary qualities that this paradigm highlights. In the context of digitizing public services, service quality is no longer limited to face-to-face interactions, but includes the quality of digital systems, ease of access, data security, and consistency of service processes (Ryu & Lee, 2018). Wahi and Berényi (2023) added that the soft quality management element in the public sector plays an important role in ensuring the sustainability of digital transformation. Public perception of the quality of digital services is an important indicator in assessing the success of technology-based system transformation and the legitimacy of public institutions (Bélanger & Carter, 2018).

The effectiveness of the organization itself in the management literature is understood as the ability of the organization to achieve goals that have been set efficiently and adaptively to changes in the environment. In the context of digitalization, the effectiveness of implementation reflects the extent to which digital systems are able to improve process efficiency, service quality, and user satisfaction (Tangi et al., 2021). The integration of transformational leadership theory and service quality in the framework of organizational effectiveness provides a conceptual basis that the success of land service digitization is largely determined by a combination of managerial factors and the quality-of-service system perceived by users.

2. Previous Studies

Research on digital transformation and transformational leadership in the public sector has grown dramatically over the last ten years. Studies have shown that transformational leadership plays an important role in improving organizational performance and driving technology-based innovation. Cortellazzo et al. (2019) emphasized that leadership is a central factor in managing digital change, especially in building organizational readiness. The findings show that leaders who are able to build a shared vision and provide individual support will increase employee acceptance of digital systems.

Other research shows that transformational leadership contributes to improving organizational performance through increased employee commitment and innovative behavior (Purwanto et al., 2020). Hayati et al. (2024) prove that the combination of transformational leadership and digitalization has a simultaneous influence on organizational operational performance. In the context of digital governance, Van Wart et al. (2019) emphasized the importance of e-leadership as a form of leadership adaptation in the era of information technology.

The success of e-government systems is directly impacted by the perception of digital service quality, according to research by Ryu and Lee (2018). Additionally, Bélanger and Carter (2018) discovered that the adoption of electronic-based public services is significantly influenced by trust and dependability. According to Wahi and Berényi (2023), technology-based quality components play a significant role in assisting the public sector's digital

transformation. These results show that the success of digital systems is significantly influenced by service quality, which is not only complementary.

While various studies have addressed transformational leadership and quality of service, there are some unaddressed gaps. First, most of the research is conducted in the private sector or public services, so there is not much that specifically studies the land sector which has complex administrative and regulatory characteristics. Second, previous research has tended to test the relationship of two variables partially without integrating leadership and quality of service in one comprehensive structural model. Third, there are presently few SEM-PLS-based quantitative studies that use a robust empirical methodology to assess the efficacy of Indonesia's digitization of public services. (Sarstedt, Ringle, & Hair, 2017; Ringle, Sarstedt, Mitchell, & Gudergan, 2020).

This gap serves as a crucial foundation for this study's development of an integrated model that concurrently looks at how transformational leadership and service quality affect how well land service digitalization is implemented.

3. Hypothesis Development

Based on the theoretical basis and conclusions of earlier studies, organizational change mechanisms can be used to explain the connection between transformational leadership and the success of digitalization adoption. Transformational leaders who are able to convey the vision of digitalization clearly, provide inspirational motivation, and encourage innovation will increase the readiness of organizations to adopt digital systems. The study of Cortellazzo et al. (2019) and Purwanto et al. (2020) supports the argument that transformational leadership contributes significantly to the success of technology-based transformation. In the context of land services, strong leadership will help reduce internal resistance and accelerate adaptation to electronic systems. Thus, the first hypothesis is formulated as follows:

H1: Transformational leadership has a positive effect on the effectiveness of the implementation of land service digitalization.

Furthermore, the perception of the efficacy of digitalization is significantly influenced by service quality. Even if a digital system has been implemented, its effectiveness will be assessed based on its reliability, responsiveness, security guarantees, and ease of use perceived by service users. Research by Ryu and Lee (2018) and Wahi and Berényi (2023) shows that the quality of digital services has a significant influence on the success of public service transformation. In the context of land, good service quality will increase public satisfaction and trust in the digital system implemented (Bélanger & Carter, 2018). Therefore, the second hypothesis is formulated as follows:

H2: The quality of services has a positive effect on the effectiveness of the implementation of land service digitalization.

Through the formulation of these two hypotheses, in order to clarify the effectiveness of digital transformation in the land sector, this study attempts to offer an empirical contribution that strengthens the integration of transformational leadership theory and service quality. Compared to earlier research, which was only partially able to describe managerial dynamics in the implementation of digitalization, the new model should be able to do so more thoroughly.

C. METHOD

This study examines the causal relationship between transformational leadership and service quality on the efficacy of land service digitalization deployment using a quantitative approach and an explanatory design. The quantitative approach was used since the objective of this study is to evaluate and examine the influence between factors empirically utilizing structured statistical analysis. Explanatory design is used to explain the cause-and-effect relationship based on a previously formulated hypothesis.

The research was carried out at the Sidoarjo Regency Land Office, which is a technical implementation unit under the Ministry of Agrarian and Spatial Planning/National Land Agency (ATR/BPN). This office was chosen because it has implemented various digital innovations in land services, including electronic land registration systems and application-based services. This environment provides a relevant context to test the effectiveness of digitalization implementation in public sector organizations.

The research population is all employees involved in the digitization process of land services, both in the front office, electronic service administration, data processing, and information technology units. Based on internal data, the population is in the range of less than a hundred active employees. Respondents who were actively involved in the provision of digital services were chosen through the use of purposeful sampling. This strategy is employed to guarantee that participants possess a pertinent comprehension and familiarity with the digital system under implementation. Up to 75 respondents were deemed sufficient for the Structural Equation Modeling analysis based on Partial Least Squares (SEM-PLS) after being successfully gathered and meeting the analysis criteria.

A systematic questionnaire with a five-point Likert scale, from 1 (strongly disagree) to 5 (strongly agree), was distributed in order to collect data. Based on signs that have been verified in earlier literature, the research instruments were assembled. The transformative leadership factors were measured using six variables that represented the elements of idealized influence, intellectual stimulation, inspirational motivation, and tailored consideration. Six indicators that relate to the SERVQUAL model's aspects of dependability, assurance, responsiveness, empathy, and tangibles were used to measure the service quality factors. In the meantime, five metrics that represent process efficiency, accessibility, service quality improvement, user happiness, and digital system accountability are used to gauge how well land service digitization is being implemented.

In addition to the main variables, this study also included control variables in the form of the respondents' gender, age, and education level. Control variables are used to ensure that relationships between key variables are not affected by individual demographic characteristics.

With the use of SmartPLS software, data was analyzed using the Structural Equation Modeling method based on Partial Least Squares (SEM-PLS). Because it can handle latent constructs and prediction models with modest sample sizes with the aid of SmartPLS software, the Structural Equation Modeling approach based on Partial Least Squares (SEM-PLS) was used to analyze the data, because it can handle latent constructs and prediction models with modest sample sizes. Because it can evaluate discriminant validity using the heterotrait-monotrait ratio (HTMT) approach and has advantages in handling predictive models and latent constructs with moderate sample sizes, the SEM-PLS method was selected (Henseler, Ringle, & Sarstedt, 2016). The two main stages of the analytical process are the assessment of the measurement model (outer model) and the assessment of the structural model (inner model).

The evaluation of the measurement model aims to test the validity and reliability of the construct. The validity of the convergence was assessed through the outer loading value with the criteria of ≥ 0.70 and the Average Variance Extracted (AVE) ≥ 0.50 . The reliability of the construct was tested using Cronbach's Alpha and Composite Reliability with a minimum limit of 0.70. According to the test results, every indicator met the established validity and reliability criteria with an outer loading value greater than 0.80 and a construct reliability value greater than 0.90.

Using path coefficients, t-statistical values, and p-values derived from the bootstrapping method, the degree of correlation between variables was examined. If the p-value is less than 0.05 at a five percent significance level or the t-statistical value is more than 1.96, the hypothesis is deemed acceptable. Additionally, the model's capacity to explain changes in

dependent variables is evaluated using the determination coefficient (R^2). The model has a strong explainability on the efficacy of the land service digitization deployment, as indicated by the R^2 value of 0.744.

With this methodological design, this study is expected to be able to provide a comprehensive empirical test of the relationship between transformational leadership, service quality, and the effectiveness of digitalization implementation in the context of public sector organizations, especially in land services. The SEM-PLS-based quantitative approach allows for a systematic and measurable analysis of managerial dynamics in the digital transformation process.

D. RESULT AND DISCUSSION

The data was examined in two stages using Structural Equation Modeling based on Partial Least Squares (SEM-PLS): the measurement model (outer model) and the structural model (inner model). The goal of this method is to assess the causal linkages between the variables in the research model and make sure the construct being studied meets the requirements for validity and reliability.

1. Evaluation of Measurement Models (Outer Model)

The measurement model is evaluated to ensure that the indicators utilized can accurately and reliably represent latent constructs. In this study, every construct is regarded as reflective. The test results showed that all indicators had an outer loading value above 0.80. In the transformational leadership variable, the loading value ranged from 0.891 to 0.952. In the service quality variable, the loading value is between 0.895 and 0.936. Meanwhile, the variable of the effectiveness of digitalization implementation has a loading value between 0.824 to 0.915. The value has exceeded the minimum limit of 0.70, thus meeting the criteria of convergent validity.

Table 1. Outer Loading Indicator

Construct	Indicator	Outer Loading	t-statistic	p-value
KT (X1)	X1.1	0.952	79.337	0.000
	X1.2	0.925	47.653	0.000
	X1.3	0.891	33.134	0.000
	X1.4	0.918	50.135	0.000
KL (X2)	X2.1	0.936	60.346	0.000
	X2.2	0.919	42.847	0.000
	X2.3	0.924	50.162	0.000
	X2.4	0.895	28.944	0.000
	X2.5	0.911	40.812	0.000
ED(Y)	Y1	0.824	24.319	0.000
	Y2	0.912	51.229	0.000
	Y3	0.915	44.918	0.000
	Y4	0.908	39.365	0.000
	Y5	0.911	41.105	0.000

Source: SEM-PLS Output

The Average Variance Extracted (AVE) value, which is completely over 0.50, further supports the convergent validity. The AVE values for digitization effectiveness, service quality, and transformative leadership are 0.800, 0.841, and 0.850, respectively. This demonstrates that the corresponding constructs account for over 80% of the indicators' variance.

Table 2. Reliability and Validity of Constructs

Construct	Cronbach's Alpha	Composite Reliability	AVE
KT (X1)	0.941	0.958	0.850
KL (X2)	0.953	0.963	0.841
ED(Y)	0.937	0.952	0.800

Source: SEM-PLS Output

With Cronbach's Alpha and Composite Reliability values above 0.70 and even above 0.90, every variable demonstrated extremely strong internal consistency. Consequently, the entire construct is considered genuine and reliable for further investigation.

2. Evaluation of Structural Models (Inner Model)

The structural model is assessed to ascertain the connections between latent variables after the measurement model satisfies the requirements.

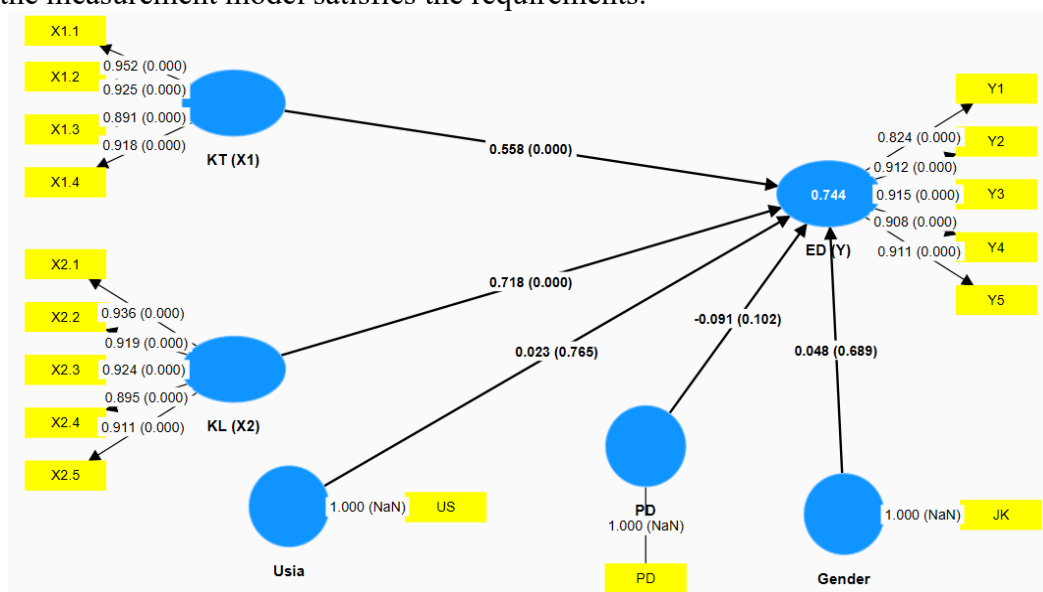


Figure 1. Full Model Picture SEM-PLS

3. Goodness of Fit and Coefficient of Determination

The value of the determination coefficient (R^2) for the variable of the effectiveness of the implementation of land service digitalization is 0.744. This means that 74.4% variation in the effectiveness of digitalization implementation can be explained by transformational leadership and quality of service. This value belongs to the strong category in the SEM-PLS.

Table 3. Goodness of Fit (R-Square)

Variable endogenous	R-square	R-square Adjusted
ED(Y)	0.744	0.726

Source: SEM-PLS Output

4. Uji Hypothesis (Bootstrapping)

Hypothesis testing is carried out through a bootstrapping procedure to obtain t-statistical and p-values.

Table 4. Path Coefficients (Inner Model)

Relationship	Coefficient (O)	t-statistic	p-value	Remarks
KT → ED	0.558	6.755	0.000	Significant
KL → ED	0.718	8.932	0.000	Significant
Gender → ED	0.048	0.401	0.689	Insignificant

Age → ED	0.023	0.299	0.765	Insignificant
Education → ED	-0.091	1.633	0.102	Insignificant

Source: SEM-PLS Output

The results showed that transformational leadership had a positive and significant effect on the effectiveness of the implementation of land service digitalization ($\beta = 0.558$; $p < 0.001$). Thus, the first hypothesis is accepted. Service quality also has a positive and significant effect on the effectiveness of digitalization implementation ($\beta = 0.718$; $p < 0.001$). A larger coefficient shows that service quality has a more dominant influence than transformational leadership, so the second hypothesis is accepted.

The control variable did not show a significant influence because the entire p -value > 0.05 , which means that the effectiveness of the digitalization implementation was influenced more by managerial factors and service quality than by employee demographic characteristics.

5. Model Structural

The structural equations based on the results of the inner model are as follows:

$$ED = 0.558(KT) + 0.718(KL) + 0.048(Gender) + 0.023(Usia) - 0.091(Pendidikan) + \zeta$$

where:

ED = Effectiveness of digitalization implementation

KT = Transformational leadership

KL = Quality of service

ζ = error/residual model

This model shows that improving service quality contributes more to the effectiveness of digitalization implementation than transformational leadership.

The study's findings demonstrate that the success of implementing land service digitization is positively and significantly impacted by transformational leadership and service quality. These results show that the availability of technology is not the sole factor influencing the success of digital transformation in public sector firms; managerial variables and user perceptions of system quality also play a role. This is consistent with the perspective of Vial (2019), who highlights that digital transformation is an integrative process that entails concurrent modifications to organizational strategies, structures, and procedures in addition to technology adoption.

The leadership factor has a key role in propelling organizational change, as evidenced by the substantial impact of transformational leadership on the success of digitalization implementation. A workplace that can adapt to new technologies will be created by transformational leaders who can inspire motivation, foster internal creativity, and develop a digital vision. These results support the assertion made by Cortellazzo, Bruni, and Zampieri (2019) that managing digital-based change requires strong leadership. In a similar vein, Van Wart, Roman, Wang, and Liu (2019) stressed that e-leadership has a significant role in determining how well technology-based solutions are implemented in the public sector.

In the context of land services, the implementation of electronic systems requires changes in work procedures, data integration, and employee competency improvement. Without strong and visionary leadership, the digitalization process has the potential to experience resistance and stagnation. The findings of this study reinforce the argument of Trottier, Van Wart, and Wang (2016) that effective public leadership can reduce resistance to change and increase organizational commitment to the administrative reform process. Thus, transformational leadership serves as a catalyst for change that encourages organizations to move from a conventional bureaucratic system to a more efficient and transparent digital-based system.

However, the results of the study show that service quality has a more dominant influence than transformational leadership in explaining the effectiveness of digitalization implementation. The service quality pathway coefficient ($\beta = 0.718$) is greater than transformational leadership ($\beta = 0.558$). These findings indicate that while leadership is important in initiating and directing change, perceptions of the quality of digital systems and services are more likely to determine the success of implementation in the operational term. This means that digital transformation will be considered effective when the system truly provides convenience, speed, and reliability for users.

These findings are in line with the research of Ryu and Lee (2018) who stated that the success of e-government is greatly influenced by the perception of the quality of digital services, especially in the aspects of reliability and responsiveness. Bélanger and Carter (2018) also emphasized that trust in digital systems is an important factor in the adoption of technology-based public services. In addition, Wahi and Berényi (2023) emphasized that the soft elements of Total Quality Management (TQM), such as user-orientation and continuous improvement, are the main determinants of the success of the public sector's digital transformation. In the context of land, the quality of an accurate, responsive, easy-to-use, and data-secure digital system will significantly increase the effectiveness of services and strengthen the legitimacy of public institutions.

The study's emphasis on service quality demonstrates that enhancing system and user experience quality is just as important to the success of digitalization as leadership. These results build on the research findings of Tangi et al. (2021) and Hussein and Hassan (2020), who claimed that a reliable system focused on community needs is necessary for digital governance to be successful. Therefore, enhancing the quality of application systems, the clarity of digital processes, database integration, and the responsiveness of electronic services to community demands should be the main goals of digital transformation in the land sector.

Furthermore, the study's findings demonstrated that the control variables gender, age, and educational attainment had no discernible impact on how successfully digitalization was implemented. These results suggest that the effectiveness of digital transformation is not primarily determined by staff demographics. However, the organization's preparedness, managerial systems, and the caliber of digital infrastructure are more important factors in determining the success of adoption. These results corroborate the claim made by Hanelt, Bohnsack, Marz, and Antunes (2021) that digital transformation is a strategic and structural organizational event rather than merely an individual's adoption of new technology.

Theoretically, this research contributes by integrating transformational leadership theory and service quality theory in one structural model to explain the effectiveness of digitalization implementation in the land sector. The majority of earlier research has examined the two factors independently or in other public service settings, such the banking industry or private businesses. (Purwanto et al., 2020; Hayati et al., 2024). This research expands the literature by applying it to the land sector which has high regulatory and administrative complexity and has direct implications for the legal certainty of the community.

This study is innovative in three key ways. First, the empirical focus on land services as a strategic public sector is still relatively rarely studied in the digital transformation management literature. Second, an integrative model will be developed to examine the impact of transformational leadership and service quality on digitalization implementation effectiveness. Third, the use of the SEM-PLS approach provides a strong model explanation ($R^2 = 0.744$), resulting in robust and relevant empirical evidence in the context of Indonesian public sector organizations.

In terms of managerial implications, the results of this study show that the strategy to increase the effectiveness of land service digitalization needs to be directed at two main aspects. First, strengthening transformational leadership capacity through digital leadership training,

change management development, and the formation of an organizational innovation culture. Second, improving the quality of digital services through improving system design, increasing the responsiveness of electronic services, integrating data, and strengthening security and information transparency. The integration of the two strategies will result in synergies that accelerate the success of digital transformation in the land organization environment.

Overall, this discussion shows that the successful implementation of land service digitalization is the result of the interaction between transformative leadership and superior service quality. The combination of the two is an important foundation in building an adaptive, responsive, and technology-based public sector organization.

E. CONCLUSION

The purpose of this study is to investigate how transformational leadership and service quality affect how well land service digitization is implemented. The two hypotheses put forth in this study were deemed approved based on the SEM-PLS analysis results. The first hypothesis (H1), which asserts that transformational leadership improves the efficacy of land service digitization deployment, has been shown to be important. These findings show that the higher the ability of leaders to build a vision of change, provide inspirational motivation, and encourage innovation, the more effective the implementation of digitalization in land organizations. In the process of digital transformation, transformational leadership serves as a catalyst for organizational change. The second hypothesis (H2), which asserts that the efficacy of the digitalization of land services is positively impacted by service quality, has also been shown to be important, even with a greater influence than transformational leadership. These findings are an important contribution to the research, as they show that the success of digitalization does not only depend on leadership, but is more determined by the quality of digital systems and services perceived by users. In other words, the aspects of reliability, responsiveness, assurance, and ease of digital systems are the dominant factors in determining the effectiveness of implementation.

The study's novel conclusion is that the efficiency of digitalization adoption is better explained by the quality of digital services than by leadership variables in the setting of complicated regulatory and administrative land services. In addition, the demographic characteristics of employees (gender, age, and education) proved to have no significant effect, thus emphasizing that the effectiveness of digital transformation is more of a structural and systemic phenomenon than an individual phenomenon.

The practical implications of this study show that efforts to increase the effectiveness of land service digitalization need to be focused on two main aspects, namely strengthening transformational leadership capacity and simultaneously improving the quality of digital services. Land organizations need to develop digital vision-based leadership and change management, while ensuring a reliable, responsive, secure, and easy-to-use electronic service system. These two elements working together will hasten the public sector's digital transformation.

The suggestions that can be given based on this research are as follows. First, for land service managers, it is necessary to conduct periodic evaluations of the quality of digital systems and user experience to ensure that electronic services really improve efficiency and community satisfaction. Second, digital leadership and change management training programs need to be intensified to strengthen organizational readiness to face the dynamics of technological transformation. Third, in order to create a more complete model, it is advised that future researchers extend the research object to many land offices in various areas and include mediation or moderation variables like digital preparedness, organizational culture, or user happiness.

Therefore, this study not only validates the applicability of transformational leadership theory and service quality in the context of digital transformation in the public sector, but it also offers empirical proof that the effectiveness of land service digitalization implementation is significantly influenced by the quality of digital services.

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