

Leadership in the Adoption of E-Governance: An Employee Perspective – A Study on e-Slims Adoption in the State Land Management Sector in Sri Lanka

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ABSTRACT

This study explores the pivotal role of leadership in the successful adoption of e-governance platforms, with a specific focus on the e-State Land Information Management System (e-SLIMS) in Sri Lanka. As digital transformation reshapes public sector operations, leadership emerges as a key enabler influencing technology adoption, user commitment, and institutional change. Drawing insights from employees within the state land management sector, this study investigates leadership attributes such as Individualized Consideration, Organizational leader environment and Inspirational Motivation and their impact on the effective implementation of e-SLIMS. A structured questionnaire, based on established e-governance adoption and leadership models, was administered consisting sample size of 121 employees including Land Commissioners, Assistant Land Commissioners, Divisional Secretaries, Development Officers, Colonization Officers, Land Officers and Management Service Officers. The findings indicate that transformational and participative leadership styles significantly contribute to positive employee perceptions and acceptance of the e-SLIMS platform. Further, the results reveal that effective leadership is perceived as a key driver of successful e-SLIMS adoption and improved service delivery. The results of this study serve as a foundation for a broader investigation into the interplay between leadership and digital transformation in the Sri Lankan public sector. The outcomes aim to inform policy, capacity-building, and leadership development strategies to improve e-governance adoption across state land management sector.

General Terms

Leadership, Digital Transformation, e-Governance.

Keywords

Leadership, e-Governance, e-SLIMS, Digital Transformation, Public Sector, Sri Lanka, State Land Management, Employee Perspective

1. INTRODUCTION

The adoption of e-governance systems in the public sector has become an essential catalyst for improving transparency, accountability, and service delivery. In Sri Lanka, the implementation of the e-State Land Information Management System (e-SLIMS) marks a significant milestone in digital transformation in land governance. However, the success of such systems depends not only on technological infrastructure or policy frameworks but also crucially on the leadership within institutions tasked with implementation and change management [1].

Leadership plays a strategic role in shaping employee attitudes, allocating resources, removing institutional resistance, and ensuring alignment between digital innovations and organizational goals [2]. Particularly in developing country contexts where digital maturity is still evolving, cultural, leadership commitment and capability are essential to bridge gaps in adoption [3]. Organizations adopt new strategies [4] to be more effective. In the state land management sector, where data sensitivity, inter-agency coordination, and citizen interaction are high, leadership influences how systems like e-Slims are perceived, utilized, and institutionalized by public employees.

This study investigates the influence of leadership on the adoption of e-SLIMS from the employee perspective, addressing how different leadership styles and behaviors affect user engagement, perceived ease of use, system acceptance, and overall readiness for digital governance. A study design has been employed to test the feasibility of a larger-scale investigation, focusing on a sample of 121 employees directly involved in using or managing the e-SLIMS platform.

1.1 Current Situation of the study

Sri Lanka has made significant strides in implementing e-governance initiatives aimed at improving transparency, efficiency, and accessibility of government services [5]. The most important economic resource and the most fundamental means of production is land [6] where the adoption of virtual environments are important [7] such as the State Land Information Management System (e-SLIMS) reflects efforts to modernize land administration processes, which have traditionally been paper-based and prone to delays and inefficiencies. Despite technological advancements, challenges remain in achieving full adoption and effective utilization of these systems at the organizational level [8].

Several studies emphasize that the success of e-governance adoption depends not only on the availability of technology but also on human and organizational factors, with leadership playing a central role in driving change and fostering a supportive environment [9] [10]. Specifically, in the public land management sector, where bureaucratic processes are deeply entrenched, leadership is critical for motivating employees, overcoming resistance, and embedding new digital practices into daily workflows [11].

However, recent assessments suggest that leadership capacity and styles in Sri Lanka's public sector require further development to meet the demands of rapid digital transformation [12]. Leadership dimensions such as individualized consideration, organizational leader

environment, and inspirational motivation [13] are underexplored in this context, despite their potential influence on employee engagement and system adoption. Further, training plays a crucial part of employee's performance [14] which need to be capacitated by the leadership. Training and development initiatives demonstrate to staff that the management cares about their individual development [15].

Given these challenges and knowledge gaps, this study seeks to investigate the role of leadership in facilitating the adoption of e-governance within the state land management sector, providing insights that can enhance digital service delivery and governance reforms in Sri Lanka.

1.2 Research Objectives and Research Questions

Main Objective

To evaluate the impact of leadership on the enhancement of government services in the state land management sector of Sri Lanka, with a focus on the mediating role of e-SLIMS adoption.

Specific Objectives

- I. To examine the influence of leadership on the adoption of e-SLIMS in Sri Lanka's state land management sector.
- II. To investigate the mediating role of e-SLIMS adoption in the relationship between leadership and service enhancement.
- III. To analyze the direct impact of leadership on the enhancement of government services in the state land management sector.

Research Questions

- I. To what extent does leadership influence the adoption of e-SLIMS in the state land management sector of Sri Lanka?
- II. How does the adoption of e-SLIMS mediate the relationship between leadership and the enhancement of services in state land management?
- III. To what extent does leadership directly contribute to the enhancement of government services in the state land management sector?

1.3 Significance of the study

This study holds significant importance for several reasons:

- Bridging the Leadership Gap: While technology infrastructure is vital, effective leadership remains a critical yet under examined factor in successful e-governance adoption in Sri Lanka's state land sector. This study sheds light on specific leadership behaviors and environments that can drive or impede digital transformation.
- Employee-Centric Perspective: By focusing on employees who directly interact with e-governance systems, the study highlights human factors such as motivation, engagement, and support which are essential for sustainable adoption and system usability.
- Policy and Practice Implications: Findings will inform policymakers, public administrators, and capacity-building professionals about leadership

development needs that foster a culture supportive of e-governance. This can enhance service quality, efficiency, and citizen satisfaction.

- Contribution to Academic Knowledge: The study adds empirical evidence to the limited research on leadership's mediating role in e-governance adoption within developing countries, particularly in the public sector of Sri Lanka.
- Foundation for Future Research: As a study, it sets the stage for a more comprehensive investigation, potentially leading to actionable frameworks and models to guide e-governance leadership strategies across other government sectors.

2. LITERATURE REVIEW

2.1 E-Governance Adoption in the Public Sector

E-governance refers to the use of information and communication technologies (ICT) by government institutions to provide services, improve transparency, and foster citizen participation [1]. In developing countries, e-governance adoption presents unique challenges related to infrastructure, digital literacy, organizational culture, and resistance to change [16]. Effective adoption depends not only on technological readiness but also on human and organizational factors [17].

Public sector organizations are often characterized by bureaucratic rigidity and hierarchical structures, which can slow the adoption of innovative technologies [17]. This is particularly evident in sectors such as land administration, where legacy systems and processes have been entrenched over decades [17]. The role of organizational leadership, therefore, becomes critical in overcoming resistance and facilitating digital transformation [2].

2.2 Leadership and Digital Transformation

Leadership in the digital era is not limited to top-down authority but encompasses transformational attributes that inspire, motivate, and engage employees [18]. The significant influence of leadership style on worker performance is one of the research by Bribesh and Azam [19] most notable findings. Transformational leadership has been identified as a key driver in e-governance adoption, as it fosters innovation, builds trust, and aligns organizational relationships with digital initiatives [20]. Lack of resources in public institutions to accomplish performance goals and inspire employees in public sector is another obstacle to transformational leadership [21].

The three leadership dimensions focused on in this study are Individualized Consideration, Organizational Leader Environment, and Inspirational Motivation have been widely discussed in leadership literature [22] for their impact on employee behavior and organizational change.

Individualized Consideration refers to leaders' attention to individual employee needs, providing personalized support and mentoring, which increases motivation and commitment to change [23]. In e-governance contexts, this consideration can ease employee anxieties about new technologies and enhance adoption.

Organizational Leader Environment includes the culture of innovation, adaptability and inclusivity [24], resources, and support systems cultivated by leadership that influence employees' ability to use e-governance systems effectively. A

supportive environment reduces resistance and promotes collaborative problem-solving during digital transformation [25]. Also supportive organizational procedures, trainings, and other technical support and infrastructure [26] that an employee would need to use the technologies for work-related purposes [27].

Inspirational Motivation entails leaders communicating a compelling vision and inspiring enthusiasm for digital innovation where employees feel inspired and motivated well to work better [28]. This dimension helps in building shared commitment and overcoming skepticism towards change.

2.3 Leadership and E-Governance in the Sri Lankan Context

Although e-governance research in Sri Lanka has focused mainly on citizen adoption and infrastructure, limited attention has been given to **how leadership drives internal adoption** and how this adoption mediates service enhancement. This gap is critical in the state land management sector, where digital systems like e-Slims are being introduced. Understanding this mediation will help to design leadership development and digital strategies tailored to Sri Lanka's public sector realities especially in State Land Management Sector.

Table 1: Summary of Literature Review

Author(s), Year	Focus of study	Key findings	Relevance to present study
Guenduez et al., 2025 [29]	Digital innovation strategies in the public sector	Identifies four strategies such as enhancement-oriented, anticipatory, adaptive, persistent which are shaping how agencies create value with digital tools.	Frames “digital innovation” as strategic choices that can mediate adoption outcomes in e-SLIMS.
Adie et al., 2024 [30]	Scoping review of digital leadership in government	Digital leadership capabilities (vision, data-driven culture, collaboration) consistently enable successful e-government initiatives.	Supports leadership constructs in the model
Kludacz-Alessandri et al., 2025 [31]	Digital transformational leadership (health sector)	DTL increases digital intensity via organizational agility; cross-country moderation observed.	Justifies testing agility/enabling mechanisms between leadership and adoption/performance.
Ren et al., 2025 [32]	Digital leadership & innovative work behavior (China, govt leaders)	Digital leadership and dynamic capabilities boost innovative work behavior and service innovation performance.	Links leadership to employee innovation—relevant to frontline e-Slims adoption.
Haug et al., 2023 [33]	Digitally-induced change in public sector	Digital change introduces new platforms/services; capabilities and governance shape benefits.	Positions e-SLIMS as part of broader platformization; highlights capability needs.
Lusi et al., 2025 [34]	Public sector digital infrastructure (systematic & bibliometric)	Distinguishes innovation vs. reinvention; infrastructure maturity conditions adoption outcomes.	Motivates measuring infrastructure support within digital innovation.
Juknevičienė et al., 2025 [35]	E-leadership in public sector (systematic review)	Synthesizes e-leadership dimensions (communication, vision, empowerment) and outcomes (performance, engagement).	Provides leadership dimensions suitable for operationalization in Sri Lankan context.
Nuryadin et al., 2023 [36]	Digital Leadership in the Public Sector (SLR)	Changing the way of thinking and managing as well as to improve transparency, accountability and public participation in decision-making processes	Offers integrative lens for combining leadership, innovation, and adoption constructs.
Elmatsani et al., 2024 [37]	Leadership in digital-era government (bibliometric)	Leadership research is shifting toward digital capabilities and ecosystem collaboration.	Supports inclusion of “digital leadership” vs. generic leadership.
Kochei & Awuor, 2024 [38]	Transformational leadership & digital transformation (Kenya, public sector)	Transformational leadership positively predicts adoption of digital transformation.	Cross-context evidence that leadership behaviors drive adoption which can be transferable to e-SLIMS.

Liyanage, 2020 [5]	E-government adoption barriers in Sri Lanka (review)	Highlights barriers: infrastructure gaps, skills, resistance, policy fragmentation.	Contextualizes Sri Lanka-specific constraints affecting employee adoption.
Ong, J. H., Khatibi, A., & Talib, Z. [39]	Examined the role of ethical leadership in facilitating the adoption of Environmental, Social, and Governance (ESG) practices among Malaysian MSMEs.	Ethical leadership was found to be a critical factor influencing ESG adoption. Leaders' ethical values and commitment increased organisational willingness to adopt ESG practices. Practical barriers such as cost, time, knowledge gaps, and reporting burdens were identified.	This study highlights how leadership behaviour directly affects the adoption of governance-related innovations.

The role of leadership in the adoption of e-governance has gained significant scholarly attention in recent years, particularly as governments worldwide strive to enhance efficiency, transparency, and citizen engagement through digital platforms. Leadership has been identified as a key enabler of digital transformation, influencing both organizational culture and employee behavior in adopting e-government systems. Within the Sri Lankan state land management sector, the adoption of the e-SLIMS system requires an understanding of how leadership practices drive digital innovation, employee engagement, and system utilization.

Guenduez et al. [29] emphasize that digital innovation strategies in the public sector, such as enhancement-oriented, anticipatory, adaptive, and persistent approaches, shape how agencies create public value with technology. This framing is particularly relevant to e-SLIMS, where leadership must strategically align innovation choices with adoption outcomes. Similarly, Adie et al. [30], in their scoping review of digital leadership, highlight capabilities such as vision, fostering a data-driven culture, and inter-agency collaboration as crucial for successful e-government initiatives. These findings support the view that leadership competencies are not only managerial but also digital in nature.

Building on this, Kludacz-Alessandri et al [31] examined digital transformational leadership (DTL) within the health sector and found that DTL enhances digital intensity through organizational agility, moderated by cross-country differences. Their study underscores the importance of agility in public agencies, suggesting that leadership in Sri Lanka must similarly enable adaptability for the successful adoption of e-SLIMS. Ren et al. [32] further link digital leadership and dynamic capabilities to innovative work behavior and service innovation, showing that leadership behaviors directly foster frontline employee innovation. This finding resonates with the context of land sector employees, whose willingness to innovate is vital for the effective implementation of digital land management systems.

The structural dimension of leadership in digital adoption is highlighted by Haug et al. [33], who argue that digitally induced changes in the public sector introduce new platforms and services, with organizational capabilities and governance arrangements determining the benefits. Lusi et al. [34] expand this by distinguishing between innovation and reinvention in digital infrastructure. In the case of e-SLIMS, leadership must ensure not only system rollout but also the continuous reinforcement of infrastructure and capability support.

In addition, Juknevičienė et al. [35] synthesized e-leadership dimensions such as communication, vision, and empowerment,

linking them to organizational performance and employee engagement. Their findings provide operationalizable constructs for the Sri Lankan context, where leadership communication and empowerment strategies could mitigate resistance to e-governance adoption. Nuryadin et al. [36] add that digital leadership transforms managerial practices by fostering transparency, accountability, and citizen participation, which aligns with Sri Lanka's policy objectives in digital governance.

Elmatsani et al. [37] through a bibliometric analysis, demonstrate that leadership research is shifting toward ecosystem collaboration and digital capability-building, suggesting that traditional leadership theories must evolve to include digital competencies. Similarly, Kochei and Awuor [38] find that transformational leadership positively predicts the adoption of digital transformation in the Kenyan public sector, offering comparative evidence that leadership behaviors are universally influential in shaping adoption outcomes.

Finally, Sri Lanka-specific studies contextualize the barriers to e-governance adoption. Liyanage [5] identifies challenges such as infrastructure gaps, digital skills shortages, resistance to change, and policy fragmentation as key obstacles to e-government implementation. These constraints underline the importance of adaptive and visionary leadership in ensuring the successful adoption of e-SLIMS within the state land management sector.

Collectively, these studies validate the conceptual framing of the present study, which positions leadership and digital innovation as independent variables influencing service enhancement, mediated by e-SLIMS adoption in Sri Lanka's state land management sector. Leadership is not only a direct determinant of adoption but also a catalyst for innovation, employee engagement, and organizational agility, while digital innovation provides the technological enablers that translate leadership vision into practice. The Sri Lankan context, with its evolving but uneven digital infrastructure and policy frameworks, illustrates both the opportunities and challenges of embedding e-governance reforms. This synthesis justifies focusing on employees' perspectives, as their readiness, trust, and satisfaction ultimately mediate whether leadership strategies and digital innovations deliver tangible service improvements in land management.

3. RESEARCH METHODOLOGY

3.1 Research Design

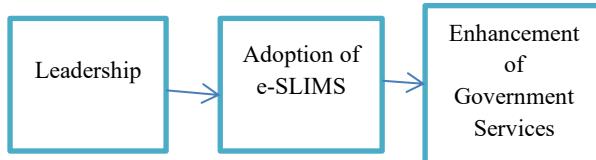
This study employed a quantitative research design to examine the role of leadership in the adoption of e-governance, specifically the e-SLIMS system, within Sri Lanka's State Land Management sector. A cross-sectional survey approach

was used to collect standardized data from employees across various administrative levels. The quantitative design enabled hypothesis testing and the application of statistical tools to establish relationships between leadership and e-SLIMS adoption.

3.2 Conceptual Framework

This study proposes that leadership dimensions such as Individualized Consideration, Organizational Leader Environment, and Inspirational Motivation which are significantly influence the enhancement of government services in state land management. However, this relationship is not purely direct. The adoption of e-SLIMS, as an e-governance platform, is expected to play a mediating role, facilitating the translation of leadership qualities into tangible service improvements.

Drawing from transformational leadership theory and e-governance adoption models (Bass & Riggio, 2006; Carter et al., 2016), the framework posits that leaders who demonstrate personalized support, create enabling organizational conditions, and inspire a shared vision can foster greater acceptance and use of digital systems. In turn, higher adoption levels of e-SLIMS can enhance the efficiency, transparency, and citizen satisfaction associated with state land management.



Key Relationships:

- Direct Influence:** Leadership influence government service enhancement directly.
- Indirect Influence (Mediation):** The adoption of e-SLIMS mediates the relationship between leadership and service enhancement.
- Expected Outcome:** Higher adoption rates of e-SLIMS lead to improved service delivery, increased transparency, and enhanced service satisfaction.

Research Hypotheses

- H1: Leadership positively influences the adoption of e-SLIMS in the state land management sector of Sri Lanka.
- H2: Leadership positively influences the enhancement of government services in the state land management sector.
- H3: The adoption of e-SLIMS mediates the relationship between leadership and the enhancement of government services in the state land management sector.

Population and Sample

The target population consisted of employees working in land management institutions directly engaged with the implementation and operation of e-SLIMS. A total of 121 respondents participated in the study, drawn from across Sri Lanka. The sample included Land Commissioners, Divisional Secretaries, Deputy and Assistant Land Commissioners, Assistant Divisional Secretaries, Development Officers,

Colonization Officers, Land Officers, and Management Service Officers. These officials were selected as they represent key actors in both decision-making and operational adoption of e-governance systems.

Sampling Technique

A purposive sampling strategy was used to ensure that only individuals with direct exposure to e-SLIMS were included. This approach facilitated the inclusion of diverse roles across multiple provinces, enhancing representativeness of perspectives from senior leadership to operational-level officers.

Data Collection

Data were gathered using a structured questionnaire distributed both physically and electronically to accommodate participants across the country. The instrument consisted of closed-ended Likert scale questions (1 = Strongly Disagree to 5 = Strongly Agree), developed from validated constructs in prior leadership and e-governance studies, and contextualized to Sri Lanka. The questionnaire captured variables relating to leadership behaviors, system adoption, and perceived service enhancement.

Variables and Measures

- Independent Variable: Leadership (dimensions: Inspirational Motivation, Individualized Consideration, Organizational Leader Environment).
- Mediating Variable: Adoption of e-SLIMS.
- Dependent Variable: Enhancement of services in state land management.

Data Analysis

The collected responses were analyzed using SPSS (Version 28) to assess the reliability, validity, and underlying structure of the study constructs. The data analysis process included three main stages: descriptive statistics, reliability analysis, and exploratory factor analysis (EFA).

Descriptive statistics were performed to summarize the responses for each construct. For the Leadership scale (11 items), mean values ranged between 3.60 and 3.88, with standard deviations from 0.61 to 0.82, indicating a generally positive perception of leadership practices with moderate variability. For the e-SLIMS Adoption scale (10 items), mean values ranged between 3.16 and 3.93, while standard deviations varied from 0.66 to 1.03, suggesting moderate to high levels of adoption. For the Enhancement of Services construct (8 items), mean values ranged between 3.62 and 3.94, with standard deviations from 0.64 to 0.86, reflecting favorable perceptions of improvements in service delivery.

The reliability of the scales was examined using Cronbach's alpha. All constructs demonstrated strong internal consistency, with values exceeding the recommended threshold of 0.70. Specifically, the reliability coefficients were 0.930 for Leadership, 0.897 for e-SLIMS Adoption, and 0.916 for Enhancement of Services. These results confirm that the items within each construct consistently measured their intended dimensions.

EFA was conducted using Principal Component Analysis (PCA) with Varimax rotation to determine the factor structure of each construct. Sampling adequacy was confirmed through the Kaiser–Meyer–Olkin (KMO) test, which yielded values above 0.89 for all constructs, and Bartlett's Test of Sphericity, which was significant in each case ($p < 0.001$).

For Leadership, a single factor was extracted with an eigenvalue of 6.53, explaining 59.33% of the variance. All items loaded strongly (≥ 0.68) on one component, confirming uni-dimensionality. For e-SLIMS Adoption, two factors emerged, jointly explaining 67.04% of the variance. The first factor captured the majority of adoption-related items (usefulness, ease of use, and behavioral intention), while the second factor (driven by AE2) appeared to represent a distinct dimension, possibly reflecting user uncertainty. For Enhancement of Services, a single factor was extracted with an eigenvalue of 5.11, accounting for 63.81% of the variance. Factor loadings ranged between 0.72 and 0.85, indicating a strong uni-dimensional structure.

Based on the conceptual framework of the study, three hypotheses were formulated to examine the relationships between leadership, adoption of e-SLIMS, and enhancement of services in Sri Lanka's state land management sector. Simple linear regression analyses were conducted using SPSS to test each hypothesis.

4. RESULTS AND DISCUSSION

4.1 Descriptive Statistics

The descriptive statistics (Table 2) summarize respondents' perceptions of leadership (LS), adoption of e-governance (AE), and enhanced services (ES). The results indicate that leadership items had means ranging from 3.60 to 3.88 ($SD = 0.61$ –0.82), suggesting overall positive perceptions of leadership. Adoption of e-governance items showed means between 3.16 and 3.93, with AE2 ($M = 3.16$, $SD = 1.03$) recording the lowest, indicating variability in employee perceptions. Enhanced services items recorded means between 3.62 and 3.94, reflecting a favorable view of service improvements resulting from e-governance.

Table 2 : Descriptive Statistics of Study Variables

Construct	Items	Mean Range	SD Range
Leadership (LS1–LS11)	11	3.60 – 3.88	0.61 – 0.82
Adoption of e-Governance (AE1–AE10)	10	3.16 – 3.93	0.73 – 1.03
Enhanced Services (ES1–ES8)	8	3.62 – 3.94	0.64 – 0.86

Reliability Analysis

Cronbach's Alpha values in the below table demonstrate excellent internal consistency across all constructs. Leadership ($\alpha = 0.930$) and Enhanced Services ($\alpha = 0.916$) are exceptionally reliable, while Adoption of e-Governance ($\alpha = 0.897$) also shows strong reliability.

Table 3 : Reliability Statistics

Construct	No. of Items	Cronbach's Alpha	Interpretation
Leadership	11	0.93	Excellent
Adoption of e-Governance	10	0.897	Strong
Enhanced Services	8	0.916	Excellent

Factor Analysis

(a) Leadership

KMO = 0.890 and Bartlett's Test ($\chi^2 = 913.05$, $p < 0.001$) indicated excellent sampling adequacy. Principal Component Analysis (PCA) revealed a single factor, explaining 59.3% of the variance. Factor loadings ranged between 0.68–0.84, confirming that leadership is a unidimensional construct.

(b) Adoption of E-Governance

KMO = 0.903 and Bartlett's Test ($\chi^2 = 734.94$, $p < 0.001$) were satisfactory. PCA extracted two factors explaining 67.0% cumulative variance. Factor 1 (items AE3–AE10) related to Perceived Usefulness and Ease of Use, while Factor 2 (AE2, loading = 0.94) represented a distinct perception dimension. This suggests adoption is a two-dimensional construct.

(c) Enhanced Services

KMO = 0.913 and Bartlett's Test ($\chi^2 = 605.44$, $p < 0.001$) indicated excellent suitability. A single factor explained 63.8% of the variance, with factor loadings between 0.71–0.85. Enhanced services (Dependent variable), is therefore a unidimensional construct.

Table 4 : Summary of Factor Analysis Results

Construct	KMO	Bartlett's χ^2 (p)	No. of Factors
Leadership	0.89	913.05 (p < 0.001)	1
Adoption of E-Gov.	0.903	734.94 (p < 0.001)	2
Enhanced Services	0.913	605.44 (p < 0.001)	1

Regression and ANOVA Analysis

To examine the influence of leadership and adoption of e-SLIMS on the enhancement of services, three simple linear regression models were tested using SPSS.

Model 1: Leadership → Enhancement of Services

Leadership was entered as an independent variable and Enhancement of Services as the dependent variable. The Model Summary indicates a strong positive relationship ($R = 0.713$), with $R^2 = 0.509$, meaning that leadership explains 50.9% of the variance in enhancement of services. The model was statistically significant, $F(1,119) = 123.374$, $p < 0.001$. The coefficients show that leadership has a significant positive

effect on service enhancement ($B = 0.724$, $\beta = 0.713$, $t = 11.107$, $p < 0.001$). This indicates that for every one-unit increase in leadership, the enhancement of services increases by 0.724 units on average.

Model 2: Leadership → Adoption of e-SLIMS

Leadership was then tested as a predictor of e-SLIMS adoption. The model yielded $R = 0.674$ and $R^2 = 0.454$, indicating that leadership accounts for 45.4% of the variance in adoption. The ANOVA was significant, $F(1,119) = 99.113$, $p < 0.001$. The coefficient for leadership was positive and significant ($B = 0.737$, $\beta = 0.674$, $t = 9.956$, $p < 0.001$), indicating that stronger leadership is associated with higher levels of e-SLIMS adoption.

Model 3: Adoption → Enhancement of Services

Finally, adoption was entered as an independent variable predicting enhancement of services. The model was very strong, with $R = 0.801$, $R^2 = 0.642$, indicating that 64.2% of the variance in service enhancement is explained by adoption. The model was statistically significant, $F(1,119) = 213.333$, $p < 0.001$. The regression coefficient for adoption was also positive and highly significant ($B = 0.744$, $\beta = 0.801$, $t = 14.606$, $p < 0.001$), demonstrating that greater adoption of e-SLIMS is strongly associated with higher levels of service enhancement.

Hypothesis Testing

Hypothesis 1 (H1): Leadership has a positive and significant impact on the enhancement of services.

The regression analysis demonstrated that leadership is a significant positive predictor of enhancement of services ($\beta = 0.713$, $t = 11.107$, $p < 0.001$). The model explained 50.9% of the variance in service enhancement ($R^2 = 0.509$), indicating a strong relationship between the quality of leadership practices and perceived improvements in service delivery. In the Sri Lankan context, where e-governance initiatives are still developing, effective leadership plays a pivotal role in shaping institutional culture, encouraging employee engagement, and overcoming resistance to change. The results provide strong empirical support for H1, confirming that leadership positively and significantly influences service enhancement in the state land management sector.

Hypothesis 2 (H2): Leadership has a positive and significant impact on the adoption of e-SLIMS.

The second regression model tested the effect of leadership on adoption of e-SLIMS. The results show a statistically significant relationship ($\beta = 0.674$, $t = 9.956$, $p < 0.001$), with leadership explaining 45.4% of the variance in adoption ($R^2 = 0.454$). This demonstrates that leadership plays a crucial role in influencing employees' willingness and capacity to adopt digital systems such as e-SLIMS. In the context of Sri Lanka's land management sector, where administrative functions are often highly procedural and hierarchical, leadership support is essential for legitimizing new systems and reducing uncertainty among employees. This evidence strongly supports H2, highlighting that leadership significantly contributes to the successful adoption of e-SLIMS.

Hypothesis 3 (H3): Adoption of e-SLIMS has a positive and significant impact on the enhancement of services.

The third regression analysis examined whether the adoption of e-SLIMS predicts enhancement of services. The results indicate a very strong positive relationship ($\beta = 0.801$, $t = 14.606$, $p < 0.001$), with adoption explaining 64.2% of the variance in service enhancement ($R^2 = 0.642$). This is the strongest effect observed among the three models. In the Sri Lankan state land management sector, where e-SLIMS digitizes previously manual and fragmented processes, its effective adoption is directly linked to better service outcomes. This result provides robust evidence supporting H3, underscoring the central role of adoption in realizing the intended benefits of digital governance initiatives.

Table 5 : Summary of Hypothesis testing

Hypothesis	Statement	β	R^2	t	Sign.	Result
H1	Leadership → Enhancement of Services	0.713	0.509	11.107	0	Supported
H2	Leadership → Adoption of e-SLIMS	0.674	0.454	9.956	0	Supported
H3	Adoption of e-SLIMS → Enhancement of Services	0.801	0.642	14.606	0	Supported

All three hypotheses were strongly supported by the data, indicating that leadership directly influences both adoption and service enhancement, while adoption itself has a powerful direct effect on service enhancement. These relationships confirm the hypothesized leadership–adoption–service enhancement pathway proposed in the conceptual model.

Discussion

The purpose of this study was to examine how leadership influences the adoption of e-governance and the subsequent enhancement of services in the state land management sector in Sri Lanka. The results obtained from descriptive, reliability, and factor analyses provide important insights into the role of leadership and adoption in facilitating effective e-governance.

Leadership as a Unidimensional Construct

The findings indicate that leadership is a unidimensional construct with strong internal consistency ($\alpha = 0.930$). Employees consistently agreed on leadership qualities such as guidance, support, and vision in implementing e-SLIMS. This aligns with transformational leadership theory, which emphasizes clear direction and motivation as critical for technological adoption in the public sector. Prior studies (Dwivedi et al., 2019; Mergel et al., 2021) also affirm that strong leadership is essential for overcoming resistance and ensuring digital reforms in government institutions. In the Sri Lankan context, this finding highlights the pivotal role of administrators in shaping positive attitudes toward digital platforms.

Adoption of E-Governance as a Multidimensional Construct

Unlike leadership, adoption of e-governance emerged as a two-dimensional construct. The first factor grouped items relating to perceived usefulness and ease of use, resonating with the Technology Acceptance Model (TAM) (Davis, 1989). The second factor, represented by AE2, may capture a distinct dimension such as perceived barriers, skepticism, or system-specific challenges. This multidimensionality underscores that while employees recognize the benefits of e-SLIMS, there remain underlying concerns that need to be addressed. Similar findings are reported by Rana et al. (2017), who noted that perceptions of complexity and system-specific issues often coexist with positive evaluations of usefulness in public sector ICT projects.

Enhanced Services as a Coherent Outcome

Enhanced services was found to be a unidimensional construct with excellent reliability ($\alpha = 0.916$). Employees perceived improvements in efficiency, transparency, and responsiveness as outcomes of e-governance adoption. This confirms previous research that e-government initiatives improve service delivery by reducing bureaucracy and delays. In the Sri Lankan context, where citizens often face inefficiencies in land management, the perception of service enhancement reflects the tangible benefits of digital transformation.

Interrelationships Among Constructs

The results reinforce the conceptual framework where leadership drives adoption, and adoption in turn enhances services. The unidimensional nature of leadership and enhanced services suggests that these constructs operate in a clear, unified manner, while the multidimensionality of adoption reveals the complex process employees undergo when adapting to new systems.

Implications for Practice

For policymakers and administrators in Sri Lanka, the results highlight several practical implications:

- Strengthening leadership training is vital to sustain employee motivation and reduce resistance toward e-governance.
- Focusing on service outcomes can increase employee buy-in, as perceptions of improved services reinforce the value of adopting new technologies.

The significant impact of leadership on both adoption ($R^2 = 0.454$) and service enhancement ($R^2 = 0.509$) underscores the need for targeted leadership development programs. Senior administrators, divisional secretaries, land commissioners, and other managerial officers should be trained not only in administrative functions but also in digital leadership skills, including strategic visioning, change management, technology communication, and employee engagement. By cultivating visionary and digitally competent leaders, the government can create a more enabling environment for technology adoption and innovation.

Contribution to Literature

This study adds to the growing body of e-governance literature by providing empirical evidence from a South Asian developing-country context. While many studies focus on citizen adoption, this research highlights the employee perspective, an underexplored area in digital government research. It demonstrates that leadership in the public sector is not only influential but also a determinant of successful system adoption and service enhancement.

Ethical Considerations

Participation was voluntary, and respondents were assured of anonymity and confidentiality. Data were used strictly for academic purposes, and ethical clearance was obtained in line with accepted research standards for public sector studies in Sri Lanka.

5. CONCLUSION

This study investigated the role of leadership in the adoption of e-governance and its impact on enhancing services within the state land management sector in Sri Lanka. Using survey data from 121 employees and analyzing through descriptive statistics, reliability tests, and factor analysis, the results revealed several important findings.

First, leadership was found to be a unidimensional and highly reliable construct, demonstrating that consistent and visionary leadership plays a critical role in driving digital transformation. Second, adoption of e-governance was revealed as a multidimensional construct, comprising perceptions of usefulness and ease of use, alongside distinct system-specific concerns. This reflects the complexity of adoption processes in public sector organizations. Finally, enhanced services was validated as a unidimensional construct, confirming that employees perceive the benefits of e-governance reforms holistically, particularly in terms of transparency, efficiency, and service responsiveness.

Overall, the results confirm the proposed framework where leadership positively influences adoption, and adoption subsequently enhances service delivery. The study contributes to the e-governance literature by emphasizing the employee perspective, demonstrating that internal stakeholders are crucial to the success of digital reforms in government.

The findings clearly indicate that strong leadership practices, combined with effective digital adoption, are perceived by employees as leading to enhanced service delivery within the land management sector. The high reliability and validity of the measurement scales provide a solid foundation for drawing these conclusions. Leadership plays a critical role in shaping employee attitudes, creating a supportive organizational environment, and fostering digital innovation. At the same time, positive perceptions of e-SLIMS adoption signal growing digital maturity across administrative levels, although some variation indicates the need for targeted capacity building. Enhanced service outcomes reflect the effectiveness of these combined factors, aligning with broader goals of improving public sector efficiency and transparency through e-governance in Sri Lanka.

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