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GOVERNING WITHOUT UNDERSTANDING: EXECUTIVE ICT LITERACY AS A FOUNDATIONAL MISSING CAPABILITY IN SOUTH AFRICA'S PUBLIC SECTOR

ICT governance frameworks are gaining widespread use in the public sector, but challenges to governance effectiveness persist. Current literature has attributed these deficiencies to structural misalignment, institutional constraints and behavioural aspects including executive disengagement. This study examines executive ICT literacy as a foundational capability, shaped through continuous professional development and executive learning, that influences governance outcomes. Based on qualitative data of 55 semi-structured interviews with senior ICT governance actors in South Africa, the results indicate that inadequate executive ICT knowledge limits valuable interactions with governance systems. This leads to compliance-based behaviour, over delegation, diminished supervision and reactive decision making. The paper introduces the notion of governing without understanding, which is a state whereby the authority of governance is carried out without adequate domain knowledge. This expands the ICT governance literature by adding a cognitive aspect of the leadership competence. The results also demonstrate the necessity to shift to the development of leadership capabilities instead of formal compliance. Executive ICT literacy is therefore positioned as a critical domain of continuous professional education, requiring integration into executive training and leadership development systems in the public sector.

Keywords: continuous professional development, digital leadership, executive ICT literacy, governance enactment, ICT governance, public sector governance, South Africa.

INTRODUCTION

ICT governance has become a routine aspect of the management of the public sector, which is backed up with formal structures, oversight mechanisms and regulatory instruments. Such a governance environment in the South African public sector is typified by a thick set of legislative and policy tools, such as the Public Finance Management Act (PFMA), the State Information



Technology Agency (SITA) Act, the Corporate Governance of ICT Policy Framework (CGICTPF) and King IV. All these instruments hold the executive leadership accountable to ICT oversight, accountability and performance that is usually implemented in executive committees, boards, and governance sub-structures (AGSA, 2022; OECD, 2020).

Regardless of this comprehensive governance infrastructure, systematic flaws in ICT performance are still experienced in institutions of the public sector. The results of audit conducted by the Auditor-General of South Africa (AGSA) and the evidence given by the Judicial Commission of Inquiry into State Capture indicate that there were recurrent issues with ICT controls, governance of procurements, execution of projects, and accountability mechanisms (AGSA, 2022; Judicial Commission of Inquiry into State Capture, 2022; Masilela & Nel, 2021).

Earlier ICT governance literature has attempted to bridge the gap between formal governance frameworks and governance outcomes. The structural misalignment between governance frameworks, institutional constraints (procurement rigidity and resource limitations) and behavioural (executive disengagement and symbolic compliance) factors have been studied (De Haes et al., 2020; Weill & Ross, 2004; Gregory et al., 2018).

Nonetheless, although the literature pays much attention to executive involvement, it treats involvement as a behavioural or structural phenomenon, which is often assumed through the existence of governance mechanisms or visible participation in decision-making forums. Much less importance has been given to a more basic question: Do those governing ICT possess the necessary knowledge to have significant input into ICT-related judgments? Interpretively, governance results are not only a question of formal structures, but their interpretation and realization by actors in practice (Burrell & Morgan, 1979; Creswell & Poth, 2024; Guba & Lincoln, 1994). The success of governance structures is thus not only dependent on their structure or adoption, but also the cognitive and interpretive resources of governance actors charged with their implementation.

The South African evidence of the public sector indicates that constraints in ICT-related knowledge and understanding of the senior leadership could be a vital, yet under-theorised dimension of governance performance (Latchu & Singh, 2025b). Some of the recurrent problems that have been identified by empirical evidence are poor executive involvement, excessive delegation, and compliance-oriented governance practices.

Besides structural and behavioural explanations, continuous professional education is also a new approach to the effectiveness of ICT governance in the public sector. The ability of executives with respect to ICT is not fixed but acquired through continuous learning, exposure and professional development. In this respect, executive ICT literacy is not only a governance requirement, but a learning outcome, which is founded upon systems of leadership development and processes of institutional capacity building.

This article expands on these lessons by enhancing the concept of *executive ICT literacy* as a supporting capability that defines ICT governance results in the public sector. In fact, this paper is an analysis of executive capability as opposed to structures and behaviours of governance.

Based on qualitative evidence of 55 semi-structured interviews with Government Information Technology Officers (GITO) in national, provincial and local government, the study examines the ways in which executive ICT literacy is manifested in governance practices, decision making processes and organisational outcomes. The analysis reveals recurring patterns in how limited ICT knowledge mediates executive engagement, governance dynamics, and reinforces governance practices that are symbolic, or compliance based.

The research has three contributions to the literature on ICT governance: it proposes executive ICT literacy as a cognitive capacity, it presents empirical evidence of the role of this capacity in governance practice, and it presents an alternative account of governance failure, not based on structural and behavioural factors. The research points out the necessity of going beyond the systems of formal governance to the capability of effective governance.

Goal and Tasks of Research. The aim of this article is to examine the role of executive ICT literacy as a foundational capability influencing the effectiveness of ICT governance in the South African public sector.

To achieve this aim, the study addresses the following objectives:

- to analyse how executive ICT literacy influences governance engagement and decision-making;
- to examine the relationship between executive understanding and governance outcomes;
- to identify patterns of governance behaviour associated with limited ICT literacy;
- to conceptualise executive ICT literacy as a capability within governance practice.

Global context of the study. While this study is set in South Africa the problem is not exclusive to South Africa. Digital transformation, cybersecurity, data and platform-based service delivery are all increasingly top-of-mind concerns for public-sector organisations around the world, with a greater demand for them to govern these aspects more effectively. The results therefore also reveal that the inherent Leadership capacity, senior officials' digital understanding, and institutional readiness all have an impact on the success of the digital transformation in the public sector (Panagiotopoulos et al., 2023; Shava, 2024).

The recent international research also equally suggests that digital leadership plays an important role in how public sector digital initiatives are understood and put into practice (Enaifoghe, 2025; Mangundu & Jokonya, 2024). The results indicate that the effectiveness of governance is not just about formal mechanisms but is also influenced by the cognitive and interpretive skills of senior leadership.

The South African case is thus representative of a larger problem of governance in the world at large: although organisations have formal ICT governance bodies, they do not work if executives are not able to meaningfully engage in the decisions that are made in this area. This situates the study in international debates on digital government and digital government governance capability and provides empirical evidence from a context of high regulation and low resources in the public sector.

These challenges are known worldwide, but in the context of developing countries where there is institutional complexity, limited resources, and regulatory intensity, they can be accentuated. The current study thus presents a critical case that allows the exploration of broader dynamics of the effectiveness of ICT governance in the public sector.

Literature Review.

ICT Governance in the Public Sector. The need to depend on information systems to enhance organisational performance, has led to the emergence of ICT governance as a key issue in academic literature and practice in the public sector. ICT governance in the public sector is often incorporated in the wider frameworks of corporate governance, which establish accountability, decision-making and oversight responsibilities of information system (De Haes et al., 2020; Weill & Ross, 2004). These frameworks are set to make sure that ICT investments are aligned to organisational strategy, risks are well managed, and value is realised out of the digital initiatives.

In the South African state sector, ICT governance is subject to a highly formalised institutionalized environment in which statutory measures like the Public Finance Management Act (PFMA), the State Information Technology Agency (SITA) Act, and the Corporate Governance of ICT Policy Framework (CGICTPF) have been established. The governance codes like King IV support these instruments and are enhanced by audit and oversight mechanisms (Auditor-General of South Africa, 2022; OECD, 2022; Shibambu, 2024, Latchu & Singh, 2025a).

However, even the presence of these frameworks does not ensure the efficiency of ICT governance in the government. The empirical studies have suggested that the endemic implementation, coordination and institutional capacity issues exist, which means that formal structures of governance cannot suffice to ensure quality outputs of ICT (Masilela & Nel, 2021; Mangundu & Jokonya, 2024).

Governance Structures, Behaviour, and Enactment. There is a strong literature that aims to explain variations in the effectiveness of ICT governance through structural and behavioural aspects of governance. Structural perspectives deal with the design and organizing of governance systems such as decision-making structures, policies and control systems. In this view, the

effectiveness of the governance can be linked with the existence of well-established roles, formalised procedures, and consistent decision rights (Weill & Ross, 2004; De Haes et al., 2020).

In contrast, behavioural perspectives put the focus on the contribution that leadership, organisational culture, and executive engagement can have to the governance outcomes. The literature will always show that executive engagement is one of the most important elements that affect the way ICT governance is performed, and the positive results, in turn, are linked to the active involvement of leadership and the lack of strategic alignment and the continued failure to monitor the process (Chan & Reich, 2007; De Haes et al., 2020; Shibambu, 2024).

Studies in recent past have transcended above the fixed structural as well as behavioural explanations to the conceptualisation of governance as practice which is performed. Governance in this perspective is not only a system of formalities, but a process that is constituted by the way actors identify, negotiate and practice governance frameworks within specific institutionalized situations (Gregory et al., 2018; Gil-García, 2018; Panagiotopoulos et al., 2023).

The Enactment Gap in ICT Governance. Adoption of an enactment gap idea has become very dominant in discussion of the inability of the governance structures and processes to bridge the gap between official structures and processes. This gap indicates the difference that exists between the governance structures that are planned and the way that they are executed in organizations. This lack of connection is shown by the frequent audit reports, the bad governance practices, and the failures to implement the compliance measures where despite the state-of-the-art regulation frameworks across the entire government industry in South Africa in place (Auditor-General of South Africa, 2022; Judicial Commission of Inquiry into State Capture, 2022; Enaifoghe, 2025).

This phenomenon can be explained through institutional theory as it suggests that organizations can have formal structures which are not related to practice if they are looking to gain legitimacy through them. The governance structures in these scenarios may assume a ceremonial/symbolic nature, with emphasis on compliance rather than effective governance (Gregory et al., 2018; Boonstra et al., 2018).

The technical complexity of information systems and the specialised knowledge needed to govern information systems adds to the enactment gap within ICT governance. Although governance structures identify roles and procedures, they do not imply that the overseers are always equipped with the knowledge to interpret and implement the structures in practice (Shava, 2024; Mangundu & Jokonya, 2024).

Executive Involvement and the Assumption of Competence. The executive leadership has been generally recognised as a key driver of the effectiveness of ICT governance. It is highlighted in the literature that executive sponsorship, strategic alignment and leadership commitment are critical in ensuring that ICT initiatives create value and enable organisational goals (Chan & Reich, 2007; De Haes et al., 2020). What is not explicitly stated in much of this literature is that executives have the required competency to perform such functions. The level of involvement of the executive is usually quantified in terms of participation, support or decision-making power, without making explicit reference to the amount of ICT-related knowledge or understanding necessary to be effectively engaged with more complex digital issues. Consequently, whether the executives are prepared to interpret, challenge and direct ICT decisions stay unaddressed (Nfuka & Rusu, 2011; Enaifoghe, 2025; Shava, 2024).

This supposition is especially concerning in the context of the public sector in which the executive is often recruited through administrative, financial or policy experience and might lack formal training or experience in the field of ICT. Under these conditions, structural or behavioural factors are not the only constraints to the effectiveness of executive oversight, but ICT-related knowledge and understanding may be limited (Mangundu & Jokonya, 2024; Panagiotopoulos et al., 2023).

Executive Learning and Continuous Professional Development. Executive capability development is increasingly recognised as an important factor in effective leadership in digitally intensive environments. Continuous Professional Development (CPD) is a process of structured and ongoing learning opportunities which allow professionals to sustain and continue to build on their

skills to be effective in their work. CPD in public administration is a good way to help leaders be adaptable, to build capacity and to make public administration responsive to the changing institutional demands (OECD, 2019; Eraut, 2004).

Executive learning is not only about formal technical learning, it is also about learning through experience, peer learning, reflection and capability building in the workplace. Adult learning theories indicate that there is a process of ‘continuous exposure to new contexts’ ‘reflective engagement’ and ‘problem solving’ that leads to the development of professional capability as opposed to one-off training interventions (Kolb, 1984; Knowles et al., 2015). With digitisation, executives' development increasingly involves digital literacy, data capability, cyber security awareness and technology-enabled leadership skills (OECD, 2020).

In the context of ICT governance, executive capability development can thus be a facilitating condition that enhances the actors' ability of governance enactment. While governance frameworks set out who is responsible for what, executives need to continually build their capabilities if they are to be able to meaningfully interact with more complex digital environments. Executive ICT literacy can thus be defined not only as a governance skill but as a result of continuous professional learning and learning systems in the executive.

Towards Executive ICT Literacy as a Governance Capability. The shortcomings recognized in the literature suggest that a more detailed conceptualization of the skills needed to make ICT governance effective is needed. Although the current literature has dwelled on the structure of governance and executives behaviour, not much has been given to the cognitive and interpretative capacities that support the practice of governance.

Based on interpretivist views, governance can be interpreted as sense-making, in which actors make sense of policies, frameworks and organisational needs in a particular institutional setting (Burrell & Morgan, 1979; Creswell & Poth, 2024; Guba & Lincoln, 1994). The success of ICT governance in this perspective is not based on formal setups or participation of leaders, but rather on the ability of the actors of governance to form an interpretation of the issues of ICT (Boonstra et al., 2018; Panagiotopoulos et al., 2023).

This paper thus proposes the notion of *executive ICT literacy* as a base competency that influences the outcomes of ICT governance. Executive ICT literacy is a concept that denotes the skill of top managers to comprehend, analyze, assess, and make use of ICT-related issues in a way that will allow making informed decisions and successful supervision. This is not just restricted to mere technical know-how but it is also knowledge on ICT strategy, risk, value creation and implication on organisations (Enaifoghe, 2025; Shava, 2024; Mangundu & Jokonya, 2024).

The study fills a gap in the literature by foregrounding executive ICT literacy by providing a complementary view of structural and behavioural explanations of ICT governance. It proposes that constraints of executive knowledge can be an upstream contributor to the effectiveness of governance, by determining the interpretation, implementation, and translation of governance systems into organisational outputs.

The ICT governance issues have received growing attention in recent research efforts, which have tended to emphasize a number of dominant approaches. Firstly, structural approaches focus on developing governance frameworks, standards and controls that enhance accountability and alignment (De Haes et al., 2020). Second, behavioural approaches target the condition of executive engagement, leadership commitment, and organisational culture as factors affecting the governance effectiveness (Chan & Reich, 2007). Third, according to recent studies in digital transformation and dynamic capabilities, organisational readiness, digital leadership, and capability development are all considered as important enablers for governance outcomes (Panagiotopoulos et al., 2023).

Although these approaches have contributed to the development of the understanding of ICT governance, most rely on the premise that the actors at the executive level have the competence to interpret and implement governance. Consequently, there has been little focus on understanding the cognitive capacity that supports governance practice. This leaves a void in the literature on governance failure, which is defined structurally or otherwise in a behavioural way, but not in terms

of executive understanding. This study aims to bridge this gap by making executive ICT literacy a key capacity that affects governance outcomes.

Comparison with international research. The results of this study resonate with the global studies on ICT governance and digital leadership. It was revealed that in developing country context, the lack of structures is not the problem but the institutional capacity and leadership capacity (Nfuka & Rusu, 2011; Mangundu & Jokonya, 2024).

Similarly, studies on digital government reveal that the definition and practice of digital government in the real world may be influenced by the leadership potential (Panagiotopoulos et al., 2023). Previous research has focused on structural and behavioral attributes of governance, and it has typically taken for granted that the executive has the necessary skills.

This study builds on the above literature by showing that executive ICT literacy is a key intervening variable between governance structures and governance outcomes. This research is different from international studies that have been concerned with aligning and/or capability at an organisational level, in that it highlights the cognitive aspect of governance at the executive level.

RESEARCH METHODS

Research Paradigm and Philosophical Positioning. This research paper uses an interpretivist paradigm of research by considering the governance of ICT as a social practice that is defined by institutional environments and human agents (Burrell & Morgan, 1979; Guba & Lincoln, 1994). This is supported by the relativist ontology and constructivist epistemology, acknowledging the fact that actors in the context interpret governance practices differently (Burrell & Morgan, 1979; Creswell & Poth, 2024; Guba & Lincoln, 1994).

It is an appropriate method to apply in studying the interpretations and implementation of governance structures to organisational settings (Klein & Myers, 1999; Weick, 1995; Walsham, 1995).

Research Design and Analytical Approach. The research design is qualitative and exploratory in nature and the analytical method is inductive-abductive (Sarker et al., 2013; Tavory & Timmermans, 2012). The study is designed based on a multi-lens analytical framework, that systematises the analysis in five dimensions of governance: structural, functional, behavioural, outcome, and reform. This structure offers an organising framework to understand the practices of governance as well as letting themes to develop out of the data and acknowledges that governance outcomes are determined by the interplay between institutional structures and human agency (Giddens, 1984; Orlikowski, 2000). Table 1 summarises the multi-lens analytical framework and the theoretical lenses applied to each dimension of governance.

Table 1

Multi-Lens Analytical Framework for ICT Governance

Analytical Dimension	Theoretical Lens	What it Explains in This Study
Structural	Corporate governance / IT governance frameworks (Weill & Ross; De Haes et al.)	Formal governance structures, policies, and control mechanisms
Functional	Institutional theory	Adoption of governance mechanisms for legitimacy and compliance
Behavioural	Governance-as-practice / leadership theory	Executive engagement, culture, and behavioural dynamics in governance
Outcome	Structuration theory (Giddens; Orlikowski)	How governance structures are enacted into organisational outcomes
Reform	Digital leadership / capability theory	Role of executive ICT literacy and capability development in improving governance

Author's own construction

Data Collection. The data were gathered via 55 semi-structured interviews with senior ICT governance actors, such as Government Information Technology Officers (GITO), Chief Information Officers (CIOs), and other senior ICT decision-makers in national, provincial, and public-sector organisations. Semi-structured interviews were employed in order to strike the balance between consistency and flexibility when exploring the themes of governance (Kvale & Brinkmann, 2015; Kallio et al., 2016).

Sampling Strategy. A purposive sampling strategy was used to target senior ICT governance actors who have direct governance implementation responsibility were targeted. The participants were mostly reached via well-established governance networks, such as the GITO Council, and were supplemented by professional referrals and outreach.

The sample was designed to capture variation across:

- spheres of government (national, provincial, public entities);
- institutional mandates;
- governance maturity levels.

Saturation was established by stabilisation of interpretive patterns and, with the later interviews, the lack of substantially new themes.

Data Analysis. The data were then analyzed using the reflexive thematic analysis as part of the six-phase analysis that was introduced by Braun and Clarke (2006). The process involved:

- familiarisation with the data;
- initial coding;
- theme development;
- theme review;
- theme definition and refinement;
- reporting.

Coding was developed based on the iterative cycles of open, axial and selective coding that facilitated the shift of the granular data elements to the higher level of thematic constructs. It was still interpretive and reflexive, and the role of the researcher in the construction of meaning was acknowledged.

Themes were then aligned with the analytical framework of the study, and the alignment between the empirical results and the dimensions of governance was made. This method allowed the establishment of common trends in the enactment of governance, leadership behaviour, and institutional limitations.

Participant Profile. Participant profiling was undertaken to enhance methodological transparency and provide contextual understanding of the study cohort. The study included 55 senior ICT governance actors operating across South Africa’s public sector (Table 2).

Table 2

Participant Profile (n = 55)

Characteristic	Category	n	%
Gender	Male	40	72.7
	Female	15	27.3
Spheres of Government	National	40	72.7
	Provincial	13	23.6
	Local	2	3.6
Age	Mean age	47	–
	Range	36–64	–

Author’s own construction

Participants represented multiple public-sector domains, including education, healthcare, finance, security, social services, infrastructure, and governance-related institutions.

Reflexivity and Researcher Position. The researcher is an insider of the ICT governance environment, which grants him access to senior governance actors and rich contextual insights. This positionality also increases the richness of the data but poses a possibility of interpretive bias.

Reflexive practices were used to counter this in the process of conducting the research, such as:

- reflexive journaling;
- iterative code validation;
- critical engagement with emerging interpretations.

The methodology allowed the results to be consistent with the narratives of the participants and analytically rigorous and transparent.

AI Declaration. The language refinement and clarity were performed with the assistance of AI. Analysis, interpretation and conclusions are all made by the author.

RESEARCH RESULTS

Limited Executive ICT Understanding. Another common trend in the data is that there is a lack of executive-level ICT-related knowledge, which limits effective engagement of governance. This shortcoming is always echoed as a root cause of governance failure.

As one participant explains: *“Very few heads of departments... are schooled in the need and benefits... the implementation is reduced to a compliance exercise”* (Interview 4).

One more actor points out the connection between the lack of knowledge in executives and the failure of governance: *“The skills, knowledge, and appreciation of the importance of ICT governance certainly tops the list”* (Interview 21).

Collectively, these descriptions are indicative that executive ICT illiteracy hinders the capacity to judge governance frameworks and thus governance becomes implemented as a form of compliance and not as a strategic capacity.

Governance without Cognitive Ownership. The results also suggest that executive participation in the ICT governance is not necessarily a meaningful engagement. The executives are formally included in the governance structures, however, their involvement is usually restricted to approving and not informed supervision.

This pattern is captured in the distinction between endorsement and engagement: *“There has been a certain amount of support but due to Executive Management lack of IT knowledge the IT section is generally left to wade through the morass of IT governance unaided”* (Interview 55).

Similarly, another participant reflects on structural participation without depth: *“The organisation sees the value of ICT... but IT is still not represented at EXCO... they always approve the IT requests”* (Interview 18).

The above narratives are indicative of some form of rule where there is power without any sense hence what can be termed as cognitive disengagement to governance responsibility.

Delegation as a Substitute for Understanding. Delegation becomes a prevailing system which executives use to handle ICT governance duties. Nonetheless, the information indicates that this delegation frequently replaces knowledge and not supplements it.

As reflected in participant accounts: *“The main problem is at the executive level... the decision makers and executive management largely lacks IS basic management knowledge, skills, and experience”* (Interview 42).

This lack of executive capability shifts the burden of governance interpretation and implementation downward: *“The understanding of the implementation of DPSA is left to management and operational capabilities”* (Interview 42).

This is reinforced by observations of accountability displacement: *“Top management sometimes are not taking accountability which now leaves junior staff to be responsible”* (Interview 1).

This leads to a governance dynamic in which the executive level ownership of responsibility is maintained but handed over to the ICT specialists, creating a functional disconnection between strategy and operational implementation.

Distortion of ICT Decision-Making. The quality and clarity of decision making at the governance structures is also influenced by limited executive ICT literacy. The data shows that poor comprehension is a contributor of distorted communication, weakened strategic direction, as well as inefficient governance forums.

As noted: *“The ICT message goes to the CEO via different persons... and they don’t understand ICT and thus the conversation gets muddled...”* (Interview 50).

In addition, governance forums are often unable to effectively interrogate ICT issues: *“Decisions are based on consensus... but needs are not always thoroughly understood...”* (Interview 39).

These results indicate that governance structures can be formal but not the cognitive capability that can facilitate effective decision-making.

Reactive Rather than Proactive Governance Engagement. The involvement of the executive in ICT governance is often reactive and not proactive, usually because of audit pressures or crisis and not strategic management.

As reflected in the data: *“Corporate governance is a very boring reactive kind of thing. It’s not proactive”* (Interview 25).

A further indication of reactive engagement is reflected in how governance only becomes visible when issues arise: *“Bureaucracy... delays decisions... no agility... volumes of documentation...”* (Interview 25).

This implies that failure or accountability gaps can often cause executive attention, as opposed to being part of the usual strategic control. This reactive stance is enhanced by the governance environments where there is under-understanding and the ability to predict and take preemptive action to deal with ICT risks and opportunities is diminished.

Emerging Recognition of the ICT Literacy Gap. Regardless of these shortcomings, an increasing awareness of the necessity to improve ICT literacy at executive and board level is emerging. The participants often reiterate that ICT-skilled leadership is important in enhancing governance.

As noted: *“Appointment of board needs IT skills at Board level – at the moment it’s only in the sub-committee”* (Interview 9).

Similarly: *“Implementation of corporate governance of ICT should be one of the DG’s [Director General] key responsibility... this will escalate the implementation of e-government / digitising / automation of business processes”* (Interview 31).

These observations show that despite the existence of ICT literacy challenges, greater awareness on the role of ICT literacy levels in the effectiveness of governance.

Table 3 is used to summarise the way the executive ICT literacy is expressed in the dimensions of governance and the implication of the same on ICT governance effectiveness.

Table 3

Executive ICT Literacy as an Enacted Governance Constraint

Dimension	Key Finding	Illustrative Evidence (Interview)	Implication for ICT Governance
Limited Understanding	Executives lack foundational ICT knowledge	“Very few heads of departments... are schooled...” (Interview 4)	Governance reduced to compliance rather than strategy
Cognitive Detachment	Approval without engagement	“IT is still not represented at EXCO... they always approve...” (Interview 18)	Authority exists without informed oversight

Dimension	Key Finding	Illustrative Evidence (Interview)	Implication for ICT Governance
Delegation	Responsibility shifted to ICT units	“The main problem is at the executive level... executive management largely lacks IS basic management knowledge...” (Interview 42)	Disconnect between accountability and execution
Decision Distortion	ICT messages diluted through hierarchy	“The ICT message... gets muddled...” (Interview 50)	Weak strategic alignment and poor decisions
Reactive Engagement	Governance triggered by issues, not strategy	“Corporate governance is a very boring reactive kind of thing. It’s not proactive.” (Interview 25)	Lack of proactive risk and value management
Recognition of Gap	Awareness of need for ICT-skilled leadership	“Appointment of board needs IT skills...” (Interview 9)	Emerging shift toward capability-driven governance

Author’s own construction

DISCUSSION

Reframing ICT Governance Failure: From Structures to Capability. The results of this research support one of the key conclusions that can be made based on the literature on ICT governance more generally: existence of governance structures does not necessarily ensure successful governance results. In line with previous studies, governance tools like policies, oversight frameworks and enforcement mechanisms are extensively utilized within the public sector but their translation into effectiveness is sporadic (De Haes et al., 2020; Weill & Ross, 2004).

Nonetheless, this work builds on the current explanations by altering the analytical perspective of structures and behaviours of governance to the executive capability underlying these structures and behaviours. Although previous literature has highlighted structural misfit and a lack of behavioural qualities, the results indicate that these are, in a way, the consequences of an underlying limitation of low ICT literacy of the executive leadership. In this analysis, executive ICT literacy emerges as the significant state of condition that defines the way in which governance frameworks are perceived, prioritised and operationalised.

Executive ICT Literacy as a Foundational Governance Capability. The results show that executive ICT literacy is not just a facilitating competency, but a core competency that supports good governance. In various aspects, poor executive knowledge was revealed to be impacting:

- the reduction of governance to compliance;
- the delegation of responsibility without oversight;
- the distortion of ICT decision-making;
- the reactive nature of governance engagement.

This supports the contribution of sensemaking to the process of governance enactment, where executives have to interpret and provide meaning to ICT frameworks to make them work (Weick, 1995; Walsham, 1995).

It is thus possible to conceptualise executive ICT literacy as the capacity of top leaders to:

- interpret ICT governance frameworks;
- evaluate ICT risks and opportunities;
- engage meaningfully in ICT decision-making;
- exercise informed oversight.

This is an addition to the body of literature on governance, as it brings in a cognitive aspect of leadership competence to supplement structural and behavioural approaches.

Explaining the Enactment Gap Through Literacy. The idea of an enactment gap – the gap between formal structures of governance and their real performance – has been popularly employed to describe governance failure. This paper fits into this discussion by pinpointing executive ICT literacy as a major process by which this divide is created and maintained.

The results demonstrate that in areas with a low level of executive knowledge:

- governance frameworks are adopted but not internalised;
- decision-making authority is exercised without informed judgement;
- accountability is displaced and not implemented;
- governance becomes decoupled from operational reality.

This provides a more nuanced explanation of symbolic compliance, implying that it does not merely arise as a result of institutional pressures, but also due to cognitive constraints among the executive level.

Governance Without Understanding: A New Conceptual Framing. Building on these insights, the study advances the concept of “*governing without understanding*” to describe a condition in which governance authority is exercised in the absence of sufficient domain knowledge.

In such contexts:

- executives formally approve ICT decisions;
- governance systems are upheld;
- guidelines are not violated;

but:

- strategic engagement is limited;
- oversight is superficial;
- governance outcomes are suboptimal.

This framing can be effectively used to explain why systems of governance that seem to be well-designed can fail in practice. It emphasizes that governance is not a behavioural and structural phenomenon, but also a cognitive phenomenon.

To further demonstrate the role of executive ICT literacy as a mediating condition on the effectiveness of governance, Figure 1 shows a conceptual framework between governance structures, executive capability, and governance outcomes.

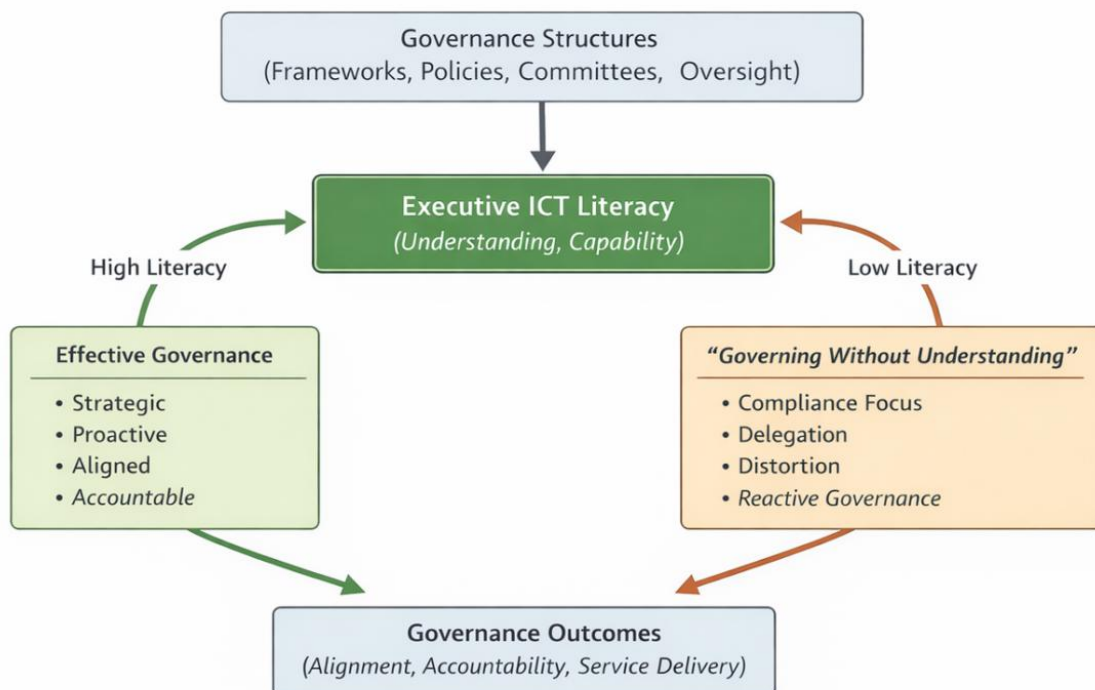


Figure 1. **Executive ICT Literacy as a Mediating Condition in ICT Governance Effectiveness**
Author's own construction

Figure 1 indicates that it is the executive ICT literacy that mediates governance outcomes, independent of the formal structures. In a high literacy environment, governance is done in a proactive and strategic manner. In places where it is limited, governance is compliance-based, responsive and decentralized.

Implications for ICT Governance Theory. The results of this research add to the ICT governance theory in three important aspects.

To begin with, they broaden governance-as-practice viewpoints, adding to them a cognitive aspect of governance enforcement. Although the current literature focuses more on interpretation and behaviour, this paper puts more emphasis on knowledge and understanding in determining the outcome of governance.

Second, the paper adds to the existing literature on leadership and governance by showing that the role of the executive alone is not enough. Good governance cannot be achieved without participation, but informed participation.

Third, executive ICT literacy concept offers a point of intersection between the governance theory and digital leadership literature by proposing that governance performance is becoming more and more reliant on the digital-era leadership skills.

The contribution is an extension of previous ICT governance research and practice, which focuses on alignment and control, in the sense that it presumes and predicts executive cognitive capability as a mediating condition of governance efficacy (Weill & Ross, 2004; De Haes et al., 2020).

Implications for Practice. The results have direct implications on the governance practice of the public-sector.

Most importantly, they indicate that improving ICT governance cannot be achieved by simply enhancing structures or bolstering systems of compliance. Rather, there is a necessity to:

- develop ICT literacy at executive and board level;
- embed digital capability within leadership development programmes;
- ensure that governance structures are supported by informed oversight;
- align accountability with capability.

These implications are echoed in greater reform themes found within the thesis, specifically the necessity to build stronger leadership capacity, greater integration of governance and transitioning towards value-based and not compliance-based governance.

Positioning Within Broader Governance Reform. Although the current research does not suggest a new governance framework, it is consistent with the general reform initiatives aimed at improving the efficiency of the current governance tools. Specifically, it underpins the focus on executive ownership and capability building as revealed in new governance policies like the new Corporate Governance of ICT Policy Framework.

Here executive ICT literacy can be taken to mean as a facilitating environment that enables the current governance structures to operate as desired. In the absence of this ability, even properly constructed governance systems will hardly deliver the desired results.

CONCLUSIONS

This research paper was aimed at analyzing the reasons why the ICT governance remains poor in the South African state sector despite the prevalence of formal governance structures, policies, and oversight systems. Although the existing literature has largely blamed structural misalignment, institutional constraints, and behavioural factors as factors that have led to governance failure, the results of this study indicate a deeper constraint that is the lack of executive ICT literacy.

Based on empirical findings of 55 interviews of senior ICT governance actors, the study establishes that governance effectiveness also largely depends on the degree to which the executives comprehend and involve themselves with ICT-related matters. In the event of a lack of such understanding, governance is reduced to compliance, decision-making is weakened, and

accountability is displaced. This results in a condition conceptualised in this study as “*governing without understanding*”, where formal authority exists without the cognitive capability required for effective oversight.

The research adds to the literature on ICT governance by situating *executive ICT literacy* as an intellectual ability that can be used to complement the structural and behavioural approaches. It gives a better explanation to the disjuncture between governance structures and governance outcomes.

In practice, enhancing ICT governance entails enhancing executive capability rather than governance structures alone.

The findings are specific to South Africa and may not be generalisable. Moreover, the research represents the views of ICT governance actors and fails to include the views of political principals and service users.

Prospects for Further Research. Future studies might conduct a quantitative study of the linkage between executive ICT literacy and the governance outcomes, examine the comparative international settings, and elaborate the idea in digital leadership and governance theory.

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УПРАВЛІННЯ БЕЗ РОЗУМІННЯ: ЦИФРОВА ГРАМОТНІСТЬ КЕРІВНИКІВ ЯК КЛЮЧОВА КОМПЕТЕНТНІСТЬ У ПУБЛІЧНОМУ СЕКТОРІ ПІВДЕННОЇ АФРИКИ

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Структури управління ІКТ набувають широкого застосування в державному секторі, однак проблеми ефективності управління залишаються актуальними. У сучасній науковій літературі ці недоліки пов'язують зі структурною незгодженістю, інституційними обмеженнями та поведінковими чинниками, зокрема недостатньою залученістю керівництва. У цьому дослідженні розглядається ІКТ-грамотність керівників як базова компетентність, що формується завдяки безперервному професійному розвитку та навчанню управлінців і впливає на результати управління. На основі якісних даних, отриманих із 55 напівструктурованих інтерв'ю з ключовими учасниками процесів управління ІКТ у Південно-Африканській Республіці встановлено, що недостатній рівень знань керівників у сфері ІКТ обмежує їхню здатність до ефективної взаємодії із системами управління. Це призводить до поведінки, орієнтованої переважно на формальне дотримання вимог, надмірного делегування повноважень, послаблення контролю та ухвалення реактивних управлінських рішень. У статті запропоновано поняття «управління без розуміння», яке описує стан, за якого владні управлінські функції реалізуються без належних знань у відповідній предметній сфері. Це розширює літературу з управління ІКТ шляхом включення когнітивного аспекту лідерської компетентності. Результати дослідження також демонструють необхідність переорієнтації з формального дотримання вимог на розвиток лідерських компетентностей. Таким чином, ІКТ-грамотність керівників розглядається як критично важлива сфера безперервної професійної освіти, що потребує інтеграції в системи підготовки керівників і розвитку лідерства в державному секторі.

Ключові слова: безперервний професійний розвиток, ІКТ-грамотність керівників, Південно-Африканська Республіка, управління ІКТ, управління державним сектором, цифрове лідерство.