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Profiling Government IT Leadership in South Africa: A Demographic and Institutional Mapping of GITOs (n=55).

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ABSTRACT

Purpose: This study aims to explore the limited empirical knowledge of the distribution and capacity of ICT Leadership (Government Information Technology Officers) in the South African public sector with regard to the demographic and institutional factors of these officers. **Methodology:** A qualitative, descriptive research design was applied using semi-structured interviews with 55 GITOs across national, provincial, and local government institutions. The data were analysed using thematic coding and descriptive profiling to identify patterns in leadership demographics and institutional placement. **Findings:** The findings show that the majority of respondents were male (72.7%) and were very experienced, with a high proportion at national and provincial level and a low proportion at local government level. The results reveal some key issues concerning gender parity, ageing leadership profiles, lack of institutional succession planning and unequal digital governance capabilities across institutional levels. **Implications:** The study provides evidence to support the workforce planning, leadership development, and policy interventions to support strengthening capacity for ICT governance within the municipality. It also emphasizes that inclusive leadership pipelines and better institutional representation of digital leadership are needed as well. **Originality:** The study is one of the few studies that empirically maps the public-sector ICT leadership within a developing country context and provides new insights into the demographic and institutional makeup of digital governance leadership in South Africa.

Keywords: ICT governance, digital leadership, public sector, GITO, South Africa

1. INTRODUCTION:

The increased digitalization in the public sector has necessitated the requirement to possess dedicated ICT leadership and coordination units to address the changes in technology, cybersecurity, and the provision of digital services. Governments worldwide are leveraging the power of digital innovation to make their decisions more transparent, accountable, and inclusive of their stakeholders (Jonathan et al., 2024). However, this transformation is accompanied by significant alterations to business processes, organisational structures and human resource capabilities (Sarwar et al., 2023). Although this has risen in digital-state ambitions, there is limited empirical data outlining how these leadership positions are occupied, where they are institutionally based, and how the digital leadership capacity has been distributed across government spheres. To ensure this transition, several governments have established special digital coordination institutions and executive ICT leadership positions to ensure that a digital transformation is implemented and on a sustainable basis.

The Government Information Technology Officer (GITO) is a strategic ICT leadership role in the South African public sector, discussed in more detail in the sections that follow. The Department of Public Service and Administration (DPSA) institutionalized this role to align ICT efforts with the national priorities and advance interoperability within the government institutions and to protect national digital infrastructure of

the public sector (DPSA, 2012; Nengovhela, 2012; Walt, 2014). GITOs are also essential in making sure that the administration of the population is efficient, secure, and responsive to changes in the technological sphere, as well as in solving issues like digital inclusivity, cost-effective ICT investment, and regulatory compliance (Masilela and Nel, 2021).

The GITO function has institutional and role-design challenges such as broken reporting lines, gender inequality, and the lack of ICT leadership within the local government despite its strategic importance. Its position is very centralized, and it has a significant presence at the national and provincial government departments but a small representation locally, which can be a barrier to the implementation of digital services in the grassroots governance setups (Gabara, 2023). Also, GITO demographic profile indicates that the workforce there is predominantly male and aged, with comparatively few younger professionals in upper management roles, which is an issue of succession planning and institutional knowledge transfer (Fernandez and Lee, 2016).

The paper compares the functions and roles of the GITOs and reporting in the South African government against the demographic evidence that was based on 55 interviews that were conducted in various government institutions. The demographic profile and institutional distribution of the cohort through the government spheres are created using the descriptive profiling methodology to construct the paper. Basing on the policy and institutional context, leadership questions, and labor relationships, the proposed research provides a detailed concept of the current image of the ICT leadership in the government. The findings are based on an analysis of gender diversity, progression on career and the need to expand digital leadership capacity, coupled with strategic recommendations to ensure areas of strong digital capacity are enhanced with the objective of ensuring a digitally resilient and future-ready public administration by GITOs.

2. Who is the GITO?

The Government Information Technology Officer (GITO) is a central executive position, which is mandated to lead ICT, digital transformation, and enforcing strategic management of the information systems in the government departments of South Africa. To contribute to the successful application of ICT, compliance with cybersecurity, and effective delivery of digital services, the Department of Public Service and Administration (DPSA) formalised the GITO function. This is critical for modernising the government administration and strengthening an ecosystem that becomes empowered by digitalisation (DPSA, 2012; Nengovhela, 2012; Walt, 2014).

3. Who is the Department of Public Service and Administration (DPSA)?

The Department of Public Service and Administration (DPSA) functions as a central institution under the South African government to oversee public sector administration and implement effective governance frameworks. The DPSA leads the development of policies which aim to improve efficiency, professionalism and accountability throughout government institutions (DPSA, 2013). The DPSA fulfils three essential functions by managing human resources and enhancing service delivery and establishing ethical standards within the public sector (Subban & Vyas-Doorgapersad, 2014) to create a public administration system which meets community needs while following good governance principles. The DPSA needs to establish reforms to ensure that a professional public administration system exists which will produce a moral workforce that delivers excellent service while also having high levels of transparency and accountability (Maserumule, 2022).

4. Functions and Responsibilities of GITOs

The GITOs act as technological leaders who bridge IT operations and executive decision-making processes. Development and implementation of IT strategies and policies and standards which support governmental objectives is their responsibility. The role of GITO includes IT governance; cybersecurity, digital innovation, and technology implementation in providing improved delivery of services (DPSA 2012;

Nengovhela, 2012; Walt, 2014). The GITO initiative acts towards improving IT leadership and governance across government departments and agencies through digital initiative alignment with government priorities. The GITOs also manage digital risks, strengthen the frameworks of IT service delivery and enhance interdepartmental collaborations. Gabara (2023) notes the changing GITOs role as the driving forces behind the digital initiatives, promoting collaboration among said government stakeholders and spearheading interoperability across various departmental capacities. In addition, GITOs are also part of the planning, deployment, and control of IT strategies in government. Their primary duties are to make sure that IT goals are aligned to the national digital transformation objectives (Papailias et al., 2022; Abdelhakim et al., 2022); guaranteeing that ISO 27001 compliant security policies are provided in order to reduce cyber threats (Maleh & Belaissaoui, 2020; (Anisimova & Zyreva, 2023), and ensure interoperability of government IT systems, particularly critical sectors like health, finance and education (Mansoor, 2023). The GITOs empower organizations to make cost-effective IT investments in compliance with Public Finance Management Act (PFMA) regulations (Gabara, 2023) and enforce policies from the Protection of Personal Information Act (POPIA) and the King IV Corporate Governance Framework (Masilela & Nel, 2021) and drive digital transformation initiatives such as AI, cloud computing, and big data analytics to improve public service efficiency (Ahn & Chen, 2020).

These responsibilities provide an important contextual foundation for understanding the institutional placement, reporting structures and leadership distribution of GITOs, which are the core focus of this paper's demographic and institutional mapping.

5. Reporting Structure: Who Do GITOs Report To?

The government departments contain GITOs, and they operate under a reporting mechanism that ensures compliance and aligned strategic and financial accountability. The Auditor-General of South Africa (AGSA) audits GITOs for policy compliance and governance adherence in accordance of national IT regulations. GITOs fall under the umbrella of their departmental Director-General (DG) or Management Authority and offer strategic IT leadership, along with delivering operations, while ensuring digital initiatives are in tandem with departmental mandate. National Treasury and Provincial Governance Structures will monitor IT budgeting, financial planning and expenditure control to maintain fiscal responsibility by the PFMA. It is based on this multi-layered rule of governance that GITOs could be viewed as responsible executive ICT leaders who operate in formal reportage regimes and oversight and make it possible to coordinate digital transformation and effective delivery of ICT services to the population (DPSA, 2012; Nengovhela, 2012; Walt, 2014; Gabara, 2023).

6. Governance Frameworks Affecting GITOs

This section provides contextual background only; the study does not evaluate the effectiveness of these instruments, but documents how they shape the operating environment of GITOs.

A key characteristic of the South African environment of the public sector ICT is the adoption of formal governance and compliance tools that influence accountability demand and decision-making. GITOs operate in a very controlled environment, where ICT planning, budget, service delivery and information protection are governed by both legislations and governance systems.

Table 1 summarises the key instruments referenced by interview participants as influencing GITO responsibilities and operating constraints. The section is intended to provide contextual background information, and is not an evaluation of the effectiveness of instruments; instead, it represents the institutional setting in which GITOs are situated:

Instrument	Alignment to the GITO function
Public Finance Management Act (PFMA)	The framework establishes financial oversight and accountability mechanisms for government institutions.
Municipal Finance Management Act (MFMA)	The framework establishes financial management and accountability standards for municipal governments.
King IV Report on Corporate Governance	The framework establishes governance principles which define ethical leadership and accountability standards.
Protection of Personal Information Act (POPIA)	The framework establishes rules for personal information processing and protection.
Control Objectives for Information and Related Technologies (COBIT)	The framework outlines procedures for developing IT governance and its implementation and monitoring and improvement.
ISO 38500 (Corporate Governance of IT)	The standard is an international reference point in the IT governance and management practices.
State Information Technology Agency (SITA) Regulations	The framework establishes rules for centralized ICT procurement and governance.
ICT Steering Committees	The framework ensures ICT projects maintain alignment with organizational strategic objectives.
Audit and Risk Committees	The system tracks financial risk together with compliance and governance aspects.
National Treasury Regulations	The framework establishes financial management standards for public institutions.

Table 1: Governance Frameworks Affecting GITOs

The instruments identified above all contribute to forming the governance expectations that GITOs have to meet as well as to how the role is oriented in departmental reporting setups. Specifically, they are used to increase compliance requirements, supervisory roles, and the necessity of alignment of ICT initiatives with other departmental and governmental goals.

7. Demographics of GITOs in South Africa

Demographic information from 55 Government Information Technology Officers (GITOs) contacted from different tiers of the government in South Africa is rich in details of their profile, experience and across sectoral distribution. The following key themes unfold from the analysis:

Gender Representation

The percentage of male and female GITOs in South Africa presents a significant imbalance, with **72.7% male** and **27.3% female**, (40 individuals, and 15 individuals respectively). Figure 1 presents the gender representation of GITOs in the study cohort (n = 55).

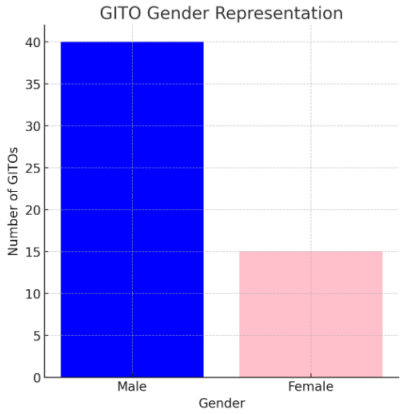

Figure 1: Gender representation of GITOs in the study cohort (n = 55).

Age Distribution & Career Progression

The GITOs in South Africa are between the ages of **36 and 64** with an average age between **47 years**. Approximately 47% of respondents are aged 50 and above, while a smaller proportion are under the age of 40.

Figure 2 illustrates the age distribution of GITOs in the study cohort (n = 55).

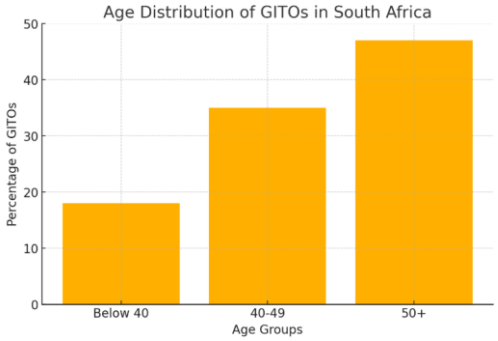

Figure 2: Age distribution of GITOs in the study cohort (n = 55).

Years of Experience

GITOs experience ranges between **three months and more than forty years** in ICT and governance related jobs. The majority of the professionals in this category have acquired **over 10 years of working experience** with a few having been placed in the same field in a span of **two to three decades**.

Figure 3 presents the distribution of experience levels within the study cohort (n = 55).

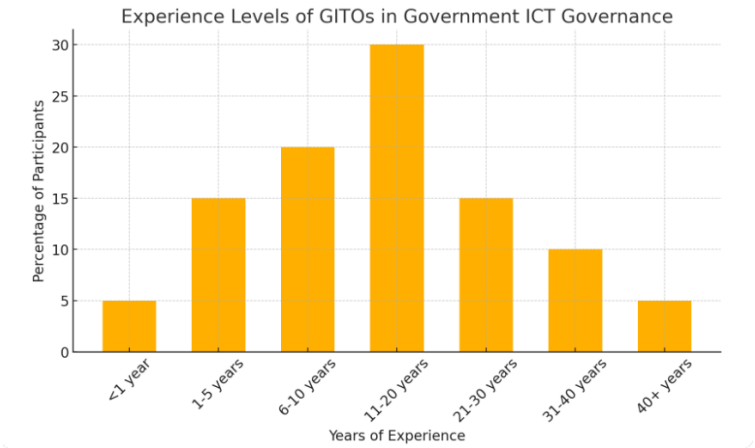

Figure 3: Experience levels of GITOs in the study cohort (n = 55).

Government Level Distribution

Distribution of Government Information Technology Officers (GITOs) at varying levels of the various governments illustrates a centralized strategy in dealing with the ICT governance with **72.7 %** at national level, **23.6%** at the provincial level and **3.6%** at the local level respectively.

Figure 4 illustrates the distribution of GITOs across government levels (n = 55).

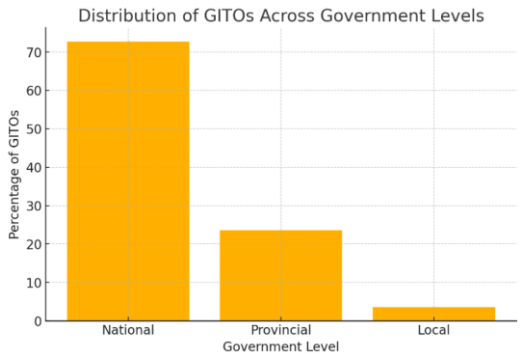

Figure 4: Distribution of GITOs across government levels (n = 55).

Industry Representation

The interviewed GITOs cover a very wide range of industries, which points to the cross-sectoral nature of ICT governance in the public administration. Education (**7 participants**), social services and welfare (**5 participants**), and finance and trade (**6 participants**) are the most represented, which shows the presence of a high attention on digital transformation areas of these critical areas of the public service. Others with high representation are healthcare (**3 participants**), security, justice and policing (**4 participants**), arts, culture and media (**4 participants**), infrastructure and investment (**3 participants**), and public administration and governance (**5 participants**).

Figure 5 presents the sectoral distribution of GITOs in the study cohort (n = 55).

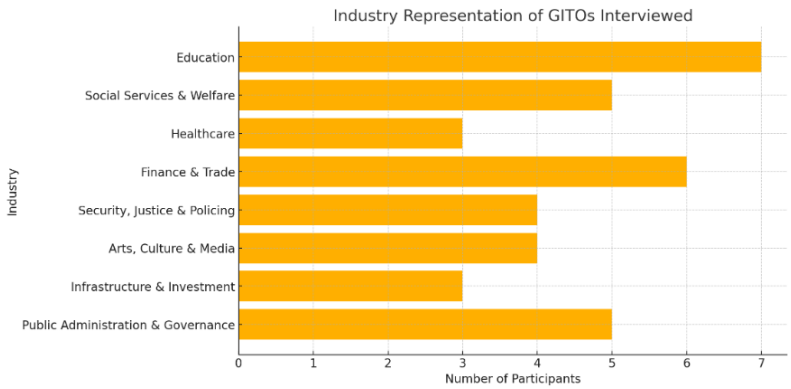

Figure 5: Sector representation of GITOs interviewed (n = 55).

Length of Interviews & Engagement Levels

The interview periods were **20 to 300 minutes** with each average of around **60 minutes**. In longer interviews (more than 90 minutes), sectors like trade and investment, financial services and social sciences were more likely to be observed, while in the shorter interviews sectors like provincial government and local municipality were more likely to be observed.

Figure 6 presents the average interview duration by sector.

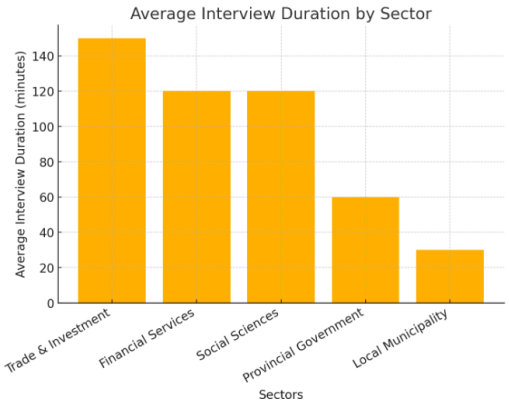

Figure 6: Average interview duration by sector (minutes).

8. Methodology

The research used a qualitative design to study the job description and duties as well as the demographic profile of Government Information Technology Officers (GITOs) within the South African public sector. The research was conducted on 55 GITOs from all government levels who had taken part in semi-structured interviews in national departments and the provincial administration and the local municipalities. The research adopted intentional sampling in getting participants covering all sectors, including health, education, finance and security. The research design made the study able to collect various perspectives and concrete information on GITO operations. Participants reported via interviews detailed about their own experiences in the actual world specifically concerning IT operational mechanisms which included legislative frameworks and governance structures and organizational arrangements and internal policies. Researcher's conducted analysis of interview data with the help of qualitative data analysis software

Atlas.ti. Thematic coding was used by the researchers to outline major patterns, concepts from the data. To determine which mechanisms affected the GITO role the most, the researchers counted the number of each tool of governance in the data. The findings mentioned in this paper are research-based findings.

8.1 Ethical Considerations

This study was part of a larger doctoral study project and was conducted in accordance with standard ethical research practices. There were no restrictions on participation and informed consent was obtained from all participants before the interviews. Respondents' answers were anonymised, and no personal or institutional data was provided. Data were used only for academic purposes and treated in accordance to institutional ethical guidelines.

9. Findings and Discussion

Implications for Governance & Digital Transformation

The findings reveal significant aspects of the leadership for ICT in the South African public sector and the influence these aspects have on the governance of and digital transformation in the sector.

The distribution of Government Information Technology Officers (GITOs) at the cross government level shows that the distribution of GITOs is smaller at the local government level, and is distributed nationally and provincially. This reflects ICTs management through a centralised approach which results in a reduction of digital autonomy and capacity at the local level. It is a reflection of a centralised management system of ICTs with restricted local autonomy and capacity building in terms of digital. This imbalance is a concern, as the delivery of localised digital services is becoming more vital for municipalities to support, and the extent to which they can do so is questionable.

Second, the population of GITOs is a very experienced one, with a high proportion with 10 or more years' experience and many of the people in senior leadership positions later in their career. This offers a solid foundation of institutional knowledge, but it is noted that there is not a strong proportion of young people who may present some issues of succession planning and leadership pipeline, especially in regard to leadership succession and adaptability.

The results also demonstrate that there is gender imbalance in the GITO group with a higher number of males as compared to females. This is in alignment with the underrepresentation of women in senior leadership positions in ICT and calls for more inclusive leadership development initiatives in the public sector.

Third, the sectoral distribution of the GITOs show that the distribution is uneven, with a clustering in key public service sectors: education, finances and social services. The results indicate that digital transformation is more visible in sectors that are key to service delivery, but differences in these sectors might be due to a gap in digital capacity across public administration businesses.

GITOs are governed in a multi-layered governance environment, with multiple levels of governance and institutional coordination. This complexity can limit the agility of the organisations and can cause a resistance to change in an environment where legacy systems and governance is well entrenched. Digital transformation programmes can benefit from more than just the technological skills, in these contexts, there is also a need for organisation, leadership and coordination of stakeholders.

The need to support the institution, desire to change the environment, and to involve stakeholders in the transformation of the public sector towards digital platforms, are emphasized in the previous studies

(Prasetio, 2022; Hakam, 2022). This is reflected in this study's findings that effective governance of the ICTs must be both structural and collaborative, and must have both inter and intra government involvement.

10. Recommendations for Strengthening the GITO

Focus Area	Key Actions
Enhancing Gender Diversity in GITO Leadership	The government should establish mentorship programs together with leadership pathways that support women working in ICT roles within public administration. The organization should adopt recruitment policies which welcome candidates from all genders.
Developing Succession Planning for Young ICT Professionals	Younger professionals should have access to structured career pathways which will help them move quickly into ICT governance positions. The public sector should support graduate programs and upskilling initiatives which focus on digital transformation.
Strengthening Local Government ICT Governance	The number of ICT specialists working in municipal and local government structures needs to be expanded. Municipal ICT offices need expanded autonomy and funding to lead smart city development initiatives.
Balancing Experience with Innovation	The organization should change its paradigm of institutional knowledge to innovation and adaptability and new technology application. Older GITOs have to collaborate with new professionals in cross-generational collaboration programmes.
Optimizing Digital Governance Across Sectors	The public sector should use education and social services and finance as case studies to demonstrate effective digital transformation in ICT governance. The organization should dedicate funding to develop digital strategies which address specific requirements of each industry sector.

Table 2: Recommendations for strengthening the GITO function (n = 55 interview insights).

11. Study Limitations

This study focuses on a purposive sample of 55 Government Information Technology Officers, so it is not a representative sample of all public sector ICT leaders. This study has a descriptive nature and no assessment of the effectiveness of governance frameworks and institutional performance outcomes. In addition to this, the cross-sectional design of the data prevents evaluation of change over time. Comparative and/or longitudinal analysis can be used to extend this research in the future.

12. CONCLUSION:

Government Information Technology Officer (GITO) is an important leadership position in supporting digital transformation, ICT security and compliance effort in the South African public sector. The findings highlight structural imbalances in gender representation, leadership distribution, and succession planning, with implications for long-term ICT governance capacity in the public sector. Although this ageing workforce brings forth stability and continuity of institutional learning, the results of this also point to areas of priority that they need to focus on such as succession planning, gender diversity, and enhancing ICT leadership at the local government level.

To support long-term sustainability, the public sector should strengthen accountability and leadership structures within municipalities, while expanding development pathways and leadership opportunities for

less-experienced ICT professionals to enhance digital resilience and operational efficiency. Furthermore, open innovation practices enhanced during digital transformation projects could help the leaders of the public sector to handle the complexity of internal and external stakeholder collaboration (Abdurrahman et al., 2022). These strategies can be integrated into the GITO functionality to enhance the adaptive capacity, facilitate knowledge exchange, and facilitate the adoption of emerging technologies in the context of ICT leadership and governance in the public sector. Finally, GITOs are in a good position to enhance the capability of the public sector technology and better the outcomes of service delivery, as long as enabling institutional conditions, resourcing and cyber risk management maturity are enhanced.

This demographic and institutional mapping provides evidence to inform workforce planning and the professionalisation of public-sector digital leadership in South Africa.

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