

Digitalisation in the procurement process of a water utility: A South African perspective

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Orientation: Process digitalisation has been increasingly adopted as a strategic means of enhancing organisational performance. However, the digitalisation of inefficient processes risks perpetuating existing shortcomings by consistently delivering suboptimal results. Repetitive tasks are often default candidates for digitalisation, and some procurement tasks fall into this category.

Research purpose: Guided by four research questions, this study seeks to investigate the persistent bottlenecks arising from the entity's reliance on manual practices in contract management, aiming to improve efficiency, transparency and overall process effectiveness.

Motivation for the study: Too often, procurement value is measured through cost savings, which are commonly achieved through sourcing and contracting. However, contract management remains a complex administrative task that is often disproportionately dependent on account managers for execution and oversight. This study investigates the digitalisation of the contract management task in the procurement process within a Water Utility in South Africa.

Research design, approach and method: A single-case qualitative research design was employed, using semi-structured interviews with key personnel involved in procurement activities within the selected entity. The data were thematically analysed to extract insights.

Main findings: The findings reveal critical gaps in contract management, characterised by inefficiencies, inconsistencies and delays stemming from manual workflows. The study highlights that effective digitalisation requires not only technological adoption but also organisational readiness and supportive environmental factors.

Practical/managerial implications: The digitalisation of the contract management task should be aligned with the organisation-wide digital strategy. Investing in digital infrastructure should be prioritised and supported by a skills audit and subsequent staff training.

Contribution/value-add: This study contributes by revealing contract management gaps driven by inefficient, inconsistent manual workflows, and shows that successful digitalisation requires both technology adoption and organisational readiness with supportive environmental conditions.

Keywords: digitalisation; procurement; contract management; water utility; state-owned entity.

Introduction

Digitalisation is increasingly becoming crucial for modern-day business operations. Despite supply chains operating in environments largely defined by the fourth industrial revolution, existing evidence (Ismail et al. 2025; Ogbu, Ozowe & Ikevuje 2024) suggest that some organisations still rely on traditional approaches, which tend to cause more bottlenecks in their processes. These bottlenecks often present themselves in the form of lengthy data capturing and processing periods, data inaccuracy, unavailability of real-time data, longer decision-making periods and longer lead times (Wisner, Tan & Leong 2021). Ismail et al. (2025) assert that while value in digitalising support functions is understood, significant financial resources are often a limiting factor to successful adoption. Consequently, minimal investment has been channelled towards knowledge generation and skills development (Changalima & Mdee 2023) in the procurement space and this has resulted in fragmented information architecture, non-compliance, poor contract management and poor budget plans (Mwanaumo et al. 2024), among others. Matebese-Nontshulwana (2021) also warns of how the mismanagement of contracts tends to create loopholes for expenditure irregularities, unauthorised spending, corruption, payment discrepancies and penalties following late deadlines in the supply chain. It is against this backdrop that it becomes apparent that the need for enhancing the procurement management task, arguably through digitalisation, becomes pronounced as failure to do so could bode catastrophic consequences,

unlimited to operational inefficiencies (Harju et al. 2023) in a business organisation. More precisely, despite this reality and the potential benefits associated with digitalisation, Chen, Liu and Zhou (2023) found that there is a slow pace of adoption that could engender non-compliance and adversely affect a company's credibility. Cognisant of this situation, this study examined the possibilities for enhanced process efficiencies, effectiveness and transparency in contract management within a public water utility in South Africa, guided by the following research questions:

- To what extent are procurement processes digitalised?
- What are the essential pillars of an effective procurement process?
- How can digitalising the contract management task yield procurement efficiencies?
- What are the critical enablers of digitalising the contract management task?

This study joins the digitalisation conversation as it contributes towards illuminating issues related to how digitalisation can enhance contract management within a State-Owned Entity (SOE). By relying on the experience and perspectives of informants in the contract management space, this study offers nuanced insights into current procurement processes, pillars essential for the procurement process, digitalisation and procurement efficiencies, as well as enablers of system migration. Findings of this study provide evidence that would inform managerial interventions, and capacity development approaches directed at enhancing transparency, efficiency and accountability as it concerns contract management in an SOE. The rest of this manuscript is organised as follows: the introduction section is followed by the literature review, and the methodology section that elucidates how this study was conducted. Beyond these, the study presents the section on results and discussion followed by the conclusion, and then the section that covers managerial and theoretical implications, along with limitations.

Literature review

Hugos (2024) defines the supply chain as a network of organisations and functions that revolves around the procurement of materials, conversion to consumable products and distribution. The main supply chain functions therefore include procurement, manufacturing, inventory management, demand planning, warehousing, transportation and customer service (Christopher 2022). Of the several functions performed in a supply chain, this study focusses on the contract management task, often performed within the procurement function, that typically includes the tasks of sourcing, negotiating and contracting suppliers. Traditionally, the water utility being studied, handled procurement activities manually in all stages, from tender issuing until the signing of contracts. This sometimes led to the loss of relevant documents (Amadi 2022) in addition to other issues that plague the manual execution of activities. This has necessitated calls for the adoption of digital

procurement in order to develop more effective and efficient supply chains (Ogbu et al. 2024).

Through the lens of a Technological, Organisation and Environment (TOE) framework, this study unpacks how, in the era of digital transformation, organisations are and should be turning to technology to streamline operations by simplifying their processes. This approach provides an intertwined perspective, considering potential improvements in operational performance and the resource-related challenges that need to be addressed (Chittipaka et al. 2023). The technology element of the framework highlights that adoption is influenced by the range of technologies deemed fit-for-purpose and useful to the firm. This element covers technologies that are internal and external to the firm (Amini & Jahanbakhsh 2023; Awa & Ojiabo 2016). The organisational component of the TOE framework concerns itself with the organisation's preparedness to go digital. Consequently, it enables the assessment of the extent to which leadership and employees are open and equipped for digital adoption. In relation to the people element within the organisation, Flechsig, Anslinger and Lasch (2021) opine that even the most adverse dispositions of employees can be overcome by training and upskilling so as to change negative attitudes towards innovation. The third construct of the framework focusses on the environment within which the supply chain operates. It is expected that the remainder of the organisation's supply chain players comply with the levels of integration and openness that comes with digitalising a process (Alpers et al. 2019; Amini & Jahanbakhsh 2023).

This notwithstanding, public procurement spend, is often undertaken in a way that ensures that it benefits the state, guided by Section 217 of the South African constitution which states that goods and services should be procured in a fair, equitable, transparent, competitive and cost-effective manner. A fair and competitive procurement process must be ethical and meet competitive bidding requirements. Similarly, cost-effective and transparent contract management must embody value for money while prioritising system openness to improve accountability and reduce corruption (Mwanaumo et al. 2024). This is particularly critical as evidence suggests that ineffectiveness in public procurement stems mainly from a lack of knowledge and skills, irregular expenditures, non-compliance with requirements, corruption, limited resources within the digital expertise poor cost control and poor contract management (Fazekas et al. 2024; Panya & Awuor 2023) among others.

Towards overcoming some of these challenges, there seems to be a gradual increase in the advent of digitalisation technologies aimed at enhancing supply chain performance, which include Radio Frequency Identification (RFID), Internet of Things (IoT), Block Chain technologies, Industry 4.0, 3D printing and augmented reality (Gupta et al. 2022). In the context of the supply chain, all these technologies are expected to enhance process performance and visibility, by minimising human dependency and interferences

(Delke et al. 2023). Existing literature (Perano et al. 2023; Zhou, Wang & Yang 2025) suggests that digitalisation is increasingly becoming a crucial factor for ease of business operations and supply chain efficiency, effectiveness and performance. Despite this reality, some limitations to technology adoption in the form of technological, economic, financial, organisational, cultural, institutional and regulatory barriers (Gupta et al. 2022) still exist.

Research methods and design

A case study strategy was employed for this study as it allows for an in-depth examination of the contract management task in the chosen water utility, within its real-life organisational context. Interviewing informants in their place of work is commendable (Rzeszewski et al. 2024) as it enables cross-referencing and triangulation with supporting official documents a possibility as they are readily available in close proximity. Accordingly, this study relied on existing literature and available company documents as well as other institutional reports to realise triangulation.

The study adopted a qualitative research approach as it was best suited to explore the complex and nuanced dynamics surrounding the contract management task under investigation. Qualitative methods are widely recognised for their ability to generate rich, contextual insights and facilitate a deeper understanding of phenomena within their natural settings (Lim 2025). This approach is described and endorsed by other scholars such as Saunders, Lewis and Thornhill (2023) and Creswell and Poth (2025). The selected approach enabled the researchers to investigate factors that lend themselves to an effective procurement process, perceptions on digitalisation and system migration, extent of digitalisation as well as enablers of digitalisation. In that regard, the data used to examine contract management digitalisation were sourced from one-on-one interviews conducted with participants working employed by a state-owned water utility.

Purposive sampling was used to identify participants with direct knowledge and experience of the contract management task. The strength of purposeful sampling is documented particularly (Creswell & Poth 2025) in providing valuable information when selecting information rich participants. Employees from procurement, finance, legal and Information Technology (IT) departments as well as individuals indirectly affected by contracting outcomes were targeted. Eligibility criteria included a minimum of 2 years' tenure to ensure that participants possessed sufficient historical and procedural knowledge. While purposive sampling was the primary strategy, snowball sampling was also employed to identify additional relevant participants (Ting et al. 2025).

Recruitment was facilitated through a combination of LinkedIn outreach and internal assistance from the organisation, which provided contact details and role descriptions of potential participants. Formal invitations outlining the study's purpose, ethical considerations, confidentiality measures and participants' rights were sent, and consent was obtained

prior to interviews. On the 23rd of August, 2024, this study received ethical approval from the University of Pretoria with approval No. u24060195/2024. Through this design, the study ensured that the perspectives captured were both informed and diverse, supporting a comprehensive analysis of the organisation's manual contract management process.

Semi-structured interviews were conducted to allow for guided but flexible discussions, enabling the exploration of both expected and emergent themes. In all, 12 employees from eight subfunctions within the supply chain department of the selected state-owned enterprise were interviewed. The total number of interviewees was consistent with recommendations for achieving saturation in qualitative studies as observed by Hennink and Kaiser (2022). Table 1 presents an overview of participants.

Study context

Water was identified as the sectoral focus for this study because it is a scarce, irreplaceable resource central to South Africa's development priorities. The water supply chain comprises of at least eight nodes, catchments that deal with raw water source, raw water abstraction and bulk transfer, water treatment, bulk distribution, municipality distribution, end users, wastewater collection and treatment, as well as return to environment. The SOE in this study is a role player in at least three parts of the chain, which are raw water extraction, water treatment and bulk distribution. Considered as the largest bulk water utility on the African continent, it is internationally recognised for its water quality and so the entity is viewed as a benchmark for water management in the Global South. The utility supplies potable water to over 11 million people across Gauteng, parts of Mpumalanga, North-West and the Free State provinces, covering an area of approximately 18 000 km². Despite its scale and influence, the utility faces persistent operational and compliance challenges, as the entity continues to rely on traditional, manual procurement and record management systems, storing contracts and archives physically rather than digitally, which exposes

TABLE 1: Participants' profile.

Participant's pseudonym	Job title	Years in role	Interview duration (min)
P1	Quality & Risk officer	3	54
P2	Senior Buyer	8	44
P3	Supply Chain Analyst	2	45
P4	B-BEEE Reporting & Enterprise Development Manager	4.5	52
P5	Senior Buyer	2	45
P6	Senior Buyer	5	56
P7	Senior Buyer	5	34
P8	SCM Optimisation	5	81
P9	Manager: Business Process Management	12	39
P10	Senior Buyer	9	41
P11	Contracts Manager	10	65
P12	Chief Procurement Officer	3	110

SCM, supply chain management.

the records to various risks. This may not augur well for South Africa's pursuit of the Sustainable Development Goal (SDG) 6: clean water and sanitation by 2030. Consequently, the need for transformative actions that foster equitable access, water quality improvement, and enhanced water resource management in line with national and international commitments, cannot be understated.

Ethical considerations

Ethical clearance to conduct this study was obtained from University of Pretoria, Faculty of Economics and Management Sciences Ethics Committee. The ethics clearance number is u24060195/2024.

Results and discussion

The issues investigated in this research related to contract management digitalisation and were demarcated into four themes: Current procurement process, essential pillars of effective procurement, digitalisation efficiencies and enablers of system migration.

The thematic development in this study followed a structured coding process, where first-order concepts were directly drawn from participant quotations. These were then grouped into second-order concepts, which reflect recurring patterns and sub-themes identified during the

data analysis phase. These sub-themes were further synthesised into the four main themes of the study to help make sense of the complex textual data collected and to assist in addressing the research question. Figure 1 presents the step-by-step approach followed to organise the study's data in the course of thematic development.

Current procurement process

Theme 1, which is the current procurement process, was instrumental in responding to research question 1, that sought to establish the extent to which the procurement process at the SOE under investigation is digitalised. The theme assessed whether current tasks can be identified as manual, semi-digitalised or fully digitalised. According to the observation of some participants, activities in the procurement process of the SOE are predominantly manual. Participants explained that record keeping and reporting is still performed manually and pointed out how information is manually pulled from different sources as well as how tender application and selection efforts are still paper based. There were, however, some participants that indicated that some tasks are semi-digitalised. The view of semi-digitalisation emanated for the existence of a system purchased but was barely rolled out. There was consensus among the participants, though, that the procurement process as a whole is not fully digitalised. Nine out of twelve interview participants reported that the process remains largely

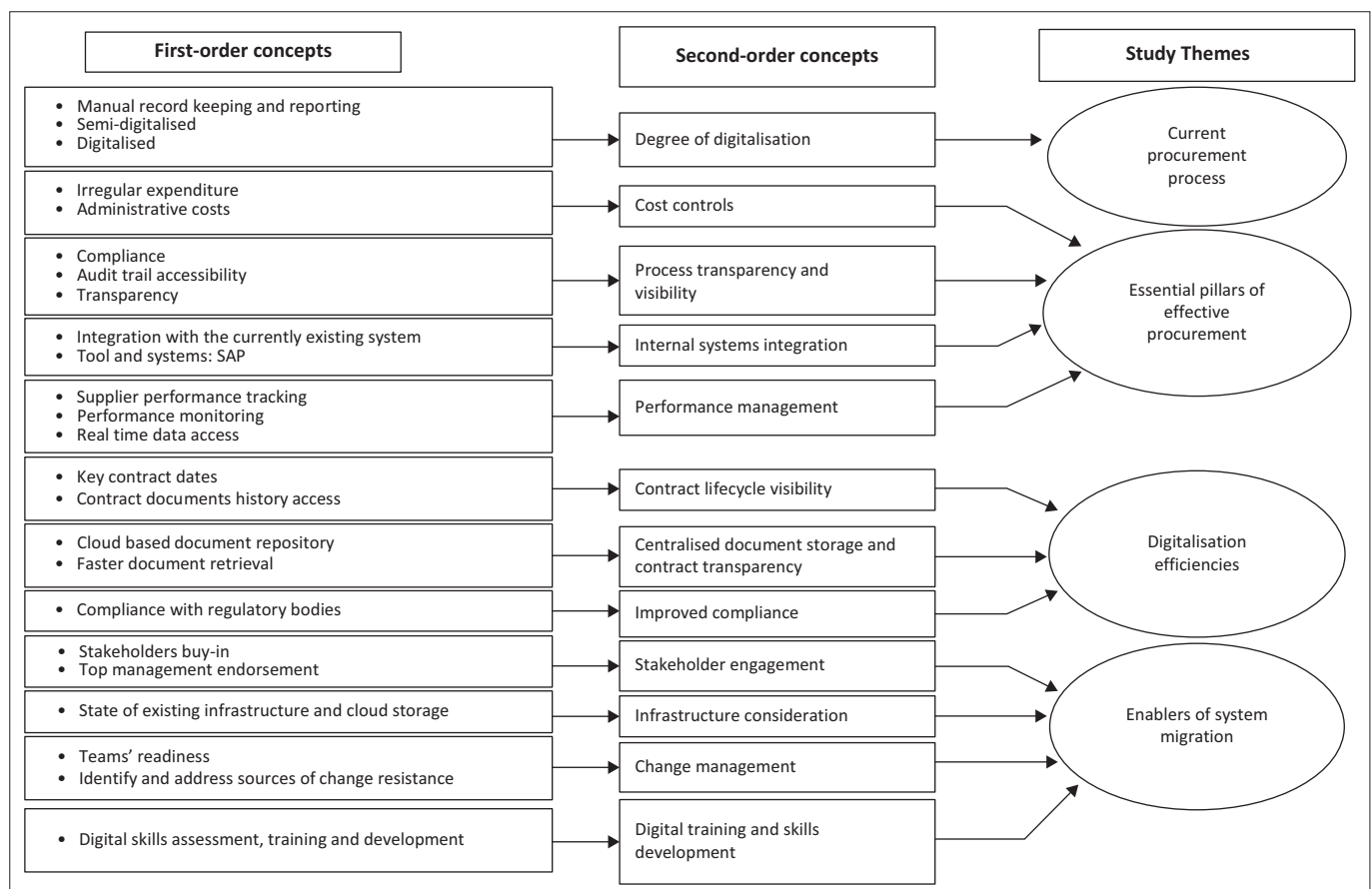


FIGURE 1: Data organisation.

manual, expressing concerns on how such manual operations expose process inconsistencies and misalignments. As a repercussion, of the lack of digitalisation, documents have been misplaced during a process when handling high volumes of tender documents. In the words of some participants relating to the current procurement process-related codes:

‘Still, it’s manual. We are still manual. We have not moved; we have not done anything so far. So, we are still doing the process manual and that also leads to documents being misplaced and a whole lot of other adverse things.’ (P6)

‘Currently, the process is not fully digitalised, as documents continue to be handled physically. If I were to give a rough estimation, I would say between 10 to 20% of the process is digitalised. There are still lots of people who manually handle and process documents instead of keeping them in the cloud, for instance.’ (P10)

Essential pillars of effective procurement

This theme aggregates four second order concepts, namely cost controls, process transparency and visibility, internal system integration, as well as performance management. As a measure of cost controls, five of the twelve respondents pointed out irregular expenditure as a major procurement process deficiency. Some participants highlighted how mistakes and incorrect information are prevalent because of human errors. This seemingly continues to occur because of the pressure of having limited number of human resources in the work section that are inundated with numerous submissions, which must be processed within defined times. Some participants observed how exorbitant administrative costs associated with contract management, at times, tend to pose a challenge for cost containment. These costs include those associated with the printing of documents and manually storing and processing these. According to some respondents, the manual nature of the process has further resulted in adverse audit findings related to a lack of process transparency and visibility.

Unsurprisingly, participants observed that the entity struggles with its fragmented information architecture, mainly because the procurement process is dependent on human interventions, which makes it highly susceptible to errors. To illustrate, as documents are manually managed, document tracking and tracing become more complex, causing an administrative nightmare. Participants repeatedly referred to the fragmentation of audit trails, which are compromised by the manual circulation and storage of critical procurement documents that often leads to loss, misplacement, or even intentional removal of the documents.

Furthermore, although an Enterprise Resource Planning (ERP) system such as SAP is partially in use, it is not integrated with other procurement-related platforms, forcing employees to manually capture and extract data, thereby defeating the system’s intended purpose. Participants expressed strong support for a cloud-based, integrated ERP

system that could align with regulatory requirements and improve oversight. The lack of system integration also hampers supplier performance tracking, management and contract compliance, because monitoring is dependent on supplier self-reporting rather than real-time data. Although acceptable criteria for supplier evaluation exist, the current supplier performance management process barely supports real-time performance visibility or timely interventions. Consequently, the impact of manual data entry and processing on procurement reporting was widely acknowledged, with participants noting that human error and data delays undermine data accuracy, document lead times, and the overall efficiency of tender processes. Collectively, these findings seem to underscore the critical need for system integration, real-time data management, and digitalised audit capabilities as foundational pillars of effective procurement. According to some participants:

‘The Auditor General views the entity as one, regardless of whether specific operations are undertaken in different geographical locations. Whether the operations take place in Vereeniging, or Suikerbos, they view us (the entity) as one ... Now curiously, you have decided to procure separately instead of consolidating transactions, and so this tends to be viewed as irregular.’ (P5)

‘We have been struggling to pass audits for several years. From my experience, some of the audit findings that are flagged as irregular expenditure are actually the result of manual processes. For instance, something as simple as mistakenly or deliberately adding an extra zero in a manual transaction or record can significantly distort the financial reports and adversely affect findings.’ (P2)

‘I’d really like to see us move toward a system that’s fully integrated with what we already use - like SAP. Ideally, we should be able to start and finish the entire procurement process in one place. Right now, we are sourcing with one system, then switching to SAP for approvals or payments, and that back-and-forth creates unnecessary delays. I’d prefer an end-to-end process all within a single system, rather than relying on multiple foreign systems that don’t talk to each other.’ (P6)

‘We do have criteria to assess supplier performance, and there’s a process to follow if they don’t meet expectations. However, without access to real-time performance data, it’s hard to act effectively. A live dashboard would really help us monitor supplier performance and contract compliance more accurately and on time.’ (P9)

Digitalisation efficiencies

This theme encompasses three codes: contract lifecycle visibility, central document storage and contract transparency as well as improved compliance. Participants highlighted how effective procurement is increasingly dependent on centralised digital systems that enhance contract lifecycle visibility, improve document management and support regulatory compliance. In addition, the interviewees stressed the importance of receiving automated notifications on key contract milestones, such as expiration dates and renewal deadlines, noting that such features would significantly improve proactive contract management.

Notably, participants further highlighted other challenges, such as the lack of digital infrastructure, which poses a major limitation to auditability, as the manual handling and physical circulation of documents often result in the loss or misplacement of key records, jeopardising the ability to verify transactions and avoid irregular expenditure. Furthermore, the absence of a centralised, cloud-based repository for procurement-related documents was cited as a barrier to operational efficiency and transparency. This is because it contributed to delays stemming from employees needing physical access to office-stored documents, some of which were reported missing or irretrievable. As a response, participants advocated for a system that would allow online document submission and centralised access for key stakeholders to facilitate faster retrieval, improved traceability and enhanced document security. Finally, while there was recognition of the importance of aligning with regulatory bodies, respondents found that the current manual process, although compliant, may not be optimal under evolving procurement governance frameworks. Concerns regarding digital security were acknowledged, but participants argued that a well-designed digital system could support compliance, enhance visibility and streamline contract management without compromising regulatory integrity. The thoughts of participants in relation to the theme of digitalisation efficiencies were that:

‘So there can be instances whereby we are non-compliant not because of negligence or so, but because of how the process is designed. When the oversight committee thoroughly reviews, meaning the senior managers peruse all the necessary controls, keep in mind that the processes is manual, if we miss just one step then unfortunately, we are out, making non-compliance our biggest challenge.’ (P1)

‘With contracts in place, and as their end dates approach, without an automated system in place, you may only remember its end date very late in the day, or as you are sourcing. I remind everyone, that as a matter of regulation, procurement cycles often take 180 days, as some purchases have to go through the bidding process. Take for instance, if a business unit intends on going on training, in the event that the total amount is above 2,000,000 it goes out on a bid, and the process often takes anything between 100 to 280 days.’ (P3)

‘Our national procurement laws aren’t against digital systems, but they are overly procedural and rigid. Everything is process-driven, which often delays progress and makes it hard to implement efficient, fit-for-purpose solutions.’ (P4)

‘On the quotation side, we are still using emails, even though there is an online system being introduced, but it’s more of a virtual drop box as bidders can only drop their submissions there. There is then a tender evaluation committee that sits and evaluates manually, and this is done for individual proposals, for each and every tender.’ (P6)

‘I would like for us to have a more central system that might be linked to our existing system, SAP, where we can start and finish the process in one place. Currently we use different systems where we create a purchase order (PO) in one, then go to SAP to complete the process, then when you need to make payments, you must go to a different platform. I would like to see an end-to-end process in one system.’ (P7)

Enablers of system migration

This theme is linked to the research question, on critical enablers for digitalising the contract management task and by extension, how system migration should be handled for effective transitioning from the existing system to a digitalised system. This theme is unpacked into four second-order concepts, which are stakeholder engagement, infrastructure consideration, change management, as well as digital training and skills development. In the view of some participants, stakeholder engagement came across as an interaction necessary across the entity with the purpose of keeping relevant parties informed of developments unfolding throughout the organisation. In view of the appreciation of stakeholder engagement, several participants illuminated the need for transversal communication within the organisation, which would enable the organisation to receive benefits associated with consolidated negotiations and contracting. However, it is evident that while there is limited engagement among stakeholders regarding digitalisation plans that are underway, there is a will to share such information and plans in the future as the value is gradually being realised. It also emerged that processes pertaining to the introduction of new systems tends to prioritise managerial perspectives, while the needs and insights of end-users receive limited consideration.

Beside stakeholder engagement, some participants expressed concerns over the inadequacy of existing hardware infrastructure and systems for digitalising contract management. Participants volunteered that, the observed inadequacy was a clear misalignment between the digitalisation intention, if it exists, and the current infrastructure. Participants also highlighted issues relating to cloud storage, by contending that limited access to cloud storage has, in some instances, led to physical storage of documents which has heightened the risk of loss of data. In relation to adapting to a new digitalised process, ten out of twelve participants averred that they are ready for the move. It would seem although that the move to digitalisation would be eased by training employees in the use of the new systems. Unfortunately, according to some participants, employee training is not prioritised given the underlying fear that digitalised systems can replace employees. In relation to the study theme of enablers of system migration, participants were of the opinion that:

‘The utility of excellent and useful systems is compromised if users don’t employ them efficiently and effectively. Benefits of using the system need to be communicated, so that all stakeholders are on the same page. The desired digitalised system will likely be used by the whole organisation and so the end users who will be everyone we are servicing, need to be a part of it.’ (P1)

‘Even if the new digitalised process can come tomorrow, we are ready for it; more than ready.’ (P2)

‘The new digitalised process must be compatible to what we are currently using within the business and must match the existing infrastructure as well. Obviously, if we now have to procure a

new system different from what the infrastructure we currently have can support then we have to expand our budget to accommodate that.' (P3)

'The responsible Managers don't ask, they don't do a need analysis that will ensure that they identify the right system to acquire. Instead, they assume that whatever they come up with would be the suitable system for SCM, and whereas if there was stakeholder engagement such a system when acquired, will work for everyone.' (P6)

'Unfortunately, owing to our existing infrastructure, we just don't have the capacity to receive large quantities of data or large documents online.' (P10)

Conclusion

This study set out to explore digitalisation of the contract management component within the procurement processes of an SOE in South Africa. Data used to respond to the four research questions were organised into four study themes. For the current procurement process theme, the consensus among participants underscores a shared recognition of the urgent need to advance digitalisation. The finding in the current study regarding adapting to contemporary digitalised processes is congruent with the claims and findings of Errida and Lofti (2021) as well as Mikolajczyk (2022). This is evident from the view that highlighted how activities in the procurement process within the SOE are largely undertaken manually, with only limited elements of semi-digitalisation. While the findings confirmed the need for a digital system, its partial rollout has resulted in minimal transformation, leaving core activities, such as record keeping, reporting and tender management heavily dependent on paper-based practices. This limited digitalisation exposes the organisation to inefficiencies, risks of misplacement of documents and inconsistencies in reporting.

Regarding the theme that pivots around essential pillars to effective procurement, the findings revealed how weak cost control measures as well as low levels of process transparency and visibility are critical stumbling blocks to the effectiveness of procurement processes. Unsurprisingly, findings indicated a lack of process transparency, formed by the lack of audit trail accessibility, consequently attributed to documents being misplaced because of manual handling of documents. Cost control measures in place are often blind-sided by fragmented information structures that hide irregularities. Given the responses provided, spend-related factors predominate matters that affect procurement efficiency and effectiveness.

With respect to digitalisation efficiencies, the study confirmed that an end-to-end digitalisation process is likely to receive favourable adoption from the end users, however institutional challenges tend to hinder the process. This finding aligns with those of Ezech et al. (2024) as well as Motaung and Sifolo (2023) regarding the fact that contract lifecycle management technologies not only improve efficiency and compliance but are also instrumental for strategic alignment and centralised archives. As such, digitalising the contract management task in the procurement process would assist to improve the process-efficiency. The empirical data pointed out the

importance of receiving auto-generated contract-related notifications in advance, including important dates. Such notifications are instrumental to knowing in advance which contract needs to be renewed and which ones are still in good standing as this study found the benefit of supplier performance visibility in accordance with the service-level agreement. This would ease the tracking of service progress and enhance credible real-time reports, consequently assisting the SOE in managing payment discrepancies that are currently affecting the entity's auditability levels.

Regarding enablers of system migration, it was established that stakeholder involvement, training and skills development, as well as change management are crucial for a smooth transition from a manual to a digitalised process. Adoption of digitalised systems should consider that there are some team players who are not technologically savvy and may be resistant to change. Therefore, ensuring that these members are on board and comfortable with the transition would make the chances of digital transformation more effective. Some of the most suggested factors include cloud storage and system infrastructure.

Insights from this study have theoretical and practical implications. Findings from this study advances theoretical understanding of digitalisation within SOE by revealing how manual processes constrain digital transformation attempts. Furthermore, findings contribute to improving understanding of the quest for digitalising contract management particularly in a heavily regulated environment that is more focused on service delivery. This study has practical implications for practitioners and researchers in relation to digitalising contract management in an SOE. Practically, findings from this study present three practical insights that stand to assist managers responsible for contract management. Firstly, continued reliance on manual processes has been attributed to inefficiencies, as such managers should prioritise the digitalisation of contract management function thereby reducing dependence on human intervention. Gradually implementing automated system for document management and contract tracking will improve accuracy and strengthen audit trails. Secondly, considering that a procurement process is a multistakeholder, potentially with unique priorities, this study highlights the need for inclusive stakeholder engagement in embarking on the digitalisation journey. Practically, this study calls for a review of the traditional digitalisation approach. Managers must drive relevant stakeholder engagement and ensure that they are actively involved in identifying system requirements and process gaps. Thirdly, effective implementation of digital procurement systems requires adequate organisational readiness in terms of skills and infrastructure. The findings indicate varying levels of digital literacy among employees, coupled with legacy challenges related to system infrastructure and cloud storage. Managers must therefore invest in targeted training and skills development initiatives to ensure that employees are equipped to effectively use the new system. In addition, careful consideration must be given to system integration with

existing platforms. It is at the backdrop of these implications that this study can engender deeper understanding in digitalising contract management.

No study is without limitation, so, it is imperative to consider that this work was compiled from a single entity, making context critical as there may be contextual influences. It is noteworthy that the case may have been shaped by the unique organisation culture, policies, leadership and environment. The generalisability of findings may, also be limited because this work relied on a purposive sample of participants.

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Competing interests

The authors declare that they have no financial or personal relationships that may have inappropriately influenced them in writing this article.

CRedit authorship contribution

Zisanda Ncanywa: Conceptualisation, data curation, formal analysis, investigation, methodology, writing – original draft. Fani N. Jojozi: Conceptualisation, formal analysis, Supervision, writing – review and editing. Chukuakadibia E. Eresia-Eke: Conceptualisation, Supervision, writing – original draft. All authors reviewed the article, contributed to the discussion of results, approved the final version for submission and publication, and take responsibility for the integrity of its findings.

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Data availability

The data that support the findings of this study are available from the corresponding author, Fani N. Jojozi, upon reasonable request.

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