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The Role of Institutional Pressures in the Adoption of e-Procurement in Public Institutions in Developing Countries: The Case of Lesotho

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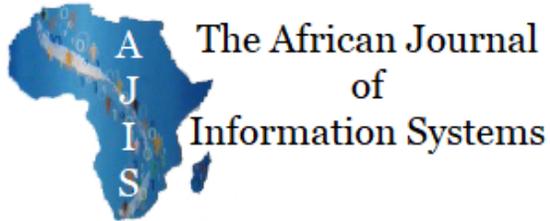
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Cover Page Footnote

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ABSTRACT

Benefits of E-Procurement are now well documented as experienced by both public and private organizations. Yet, in developing countries, and more so in Africa, few organizations have reported benefits of E-Procurement. Whilst institutional pressures are instrumental in shaping organization's actions and outcomes with regard to technology adoption, few studies have examined their role in E-Procurement adoption in African public sector organizations. This study situated in Lesotho, seeks to examine the rationale for E-procurement adoption in the public sector and identifies institutional pressures that affect successful adoption. Following an interpretivist approach, this study identifies (1) perceived benefits of efficiency and transparency from the use of E-Procurement in the public sector; and (2) coercive and normative pressure as being instrumental in the adoption of E-Procurement. Contextual barriers are reported which are a result of institutional pressures. Recommendations are provided to organizations in developing countries on how they should respond to institutional pressure.

Keywords

E-procurement, adoption, public pressure, public institutions, Lesotho.

INTRODUCTION

E-Procurement, the use of information technology systems to automate procurement processes, is now seen as a strategic tool for improving an organisation's supply chain management and performance (Eei et al. 2012); and in so doing improve its competitiveness whilst generating scale economies for both sellers and buyers (Alvarez-Rodríguez et al. 2014a). The specific purpose of this innovation is to link and integrate inter-organisational business processes and systems with the automation of requisitioning,

the approval of purchase orders management, and accounting processes among others through internet-based protocols (Alvarez-Rodríguez et al. 2014b).

Several authors have examined the adoption of e-procurement in the public sector; however, these have specifically been in the developed economies context. Most of these studies have reported e-procurement benefits to include among others: transparency, maverick buying, decentralisation, supply base rationalisation, limiting corruption, increasing accountability, and providing fair and equal opportunities for suppliers, supporting efficiency in tendering processes, ensuring better value for taxpayers' money, and reducing transaction costs (Ronchi et al. 2010, Khorana et al. 2015). Despite these benefits, studies on e-procurement in the public sector in a developing country context are limited, particularly those on the African continent (Gardenal, D'Angelo, & Man-zo, 2013). As for those that have adopted the technology, they report minimal benefits from its use (Aduwo et al. 2016). This could partly be because the phenomenon has not received sufficient attention in Africa, and as a consequence, adoption is enacted in a manner that is exclusive of political, legal, social, and cultural contextual factors.

From organisation studies, the contextual factor which shapes an organisation's actions and outcomes with regard to, for example, technology adoption, is institutional pressures. It is through such pressures that organisations are granted legitimacy by fitting into the formal and informal rules, norms, and cognitive categories that comprise institutional logics responsible for shaping their interests, identities, and assumptions (Feindberg et al. 2015). Understanding these pressures, in a developing country context is, therefore, important as it could potentially lead us to understand the factors affecting e-procurement adoption and the lack of perceived benefits associated with this technology in these contexts. In addition, for organisations to remain competitive and gain socio-political legitimacy from external institutions, they need to continually address institutional pressures which have the potential to shape the way in which they adopt electronic linkages with their supply chain partners (Zhang & Dhaliwal, 2009). Furthermore, institutional pressures are not only important for adoption and implementation but also assist in understanding post-implementation assimilation (Liang et al., 2007). Given the lack of perceived benefits associated with e-procurement and the lack of empirical evidence of the role of institutional pressures in a developing country context, organisations are unable to strategically equip themselves as to how best to respond to these forces; and will, therefore, continue to underestimate the impact of such innovations and technologies and, therefore, prefer to be followers rather than leaders in the adoption of these technologies (Kaynak et al., 2005).

With this background in mind, the purpose of this study is to identify perceived benefits and challenges associated with e-procurement systems in public organisations in the developing country context. Then using institutional theory as a lens, we examine the role of institutional pressures on the adoption of e-procurement systems in public organisations. The study examines public institutions because although the pressure exerted by external institutions on organisations to conform to a set of expectations so as to gain legitimacy and thus secure access to vital resources is widely accepted within the public sector (Oruezabala & Rico 2012), little is known about the role of these same pressures on the practice of e-procurement in the public sector, particularly in a developing country context. The case study is a public institution hereby named *LesothoOrg*, situated in the Kingdom of Lesotho, which automated its procurement processes in 2010.

E-PROCUREMENT IN DEVELOPING COUNTRIES

E-Procurement in developing countries is currently receiving attention as a result of the potential perceived benefits that arise from successful technological implementation. However, many report that e-procurement is still in its infancy and the full benefits are yet to be realised. For example, in Malaysia, the value of e-procurement is seen to be limited to improvements in operational and tactical areas with little to no value gained towards improvements in market access and customer/supplier relationships (Hashim et al. 2013). In Iran, the implementation of e-procurement is hindered by inadequate technological infrastructure and lack of regulatory and legal controls by government (Bahreman 2014, and Maleki et al. 2017).

Gurakar and Tas (2016) report that public e-procurement adoption by small organisations in Turkey did not deliver the intended results of increased competition and lower procurement prices as a result of the lack of critical success factors (e.g. size of the organisation, human resources, and technological infrastructure) and the existence of barriers. Huang et al. (2016) posit that in a developing country context, “the role of government has an extremely significant influence on a decision of initial adoption of E-Procurement through government leadership, legal and regulatory infrastructure, information and technology infrastructure (ITI), and socio-economic and knowledge infrastructure”. In Indonesia, Siahaan and Trimurni (2016) found that the entwined legal framework, infrastructures, working culture and the role of the head of local government significantly influenced the transparency and performance of e-procurement implementation. Their findings show that whilst transparency created security and confidence for e-procurement implementers since it avoids external and internal intimidation in the provision of government goods and services; the frequent change of regulations issued by various institutions related to the implementation of e-procurement and resistance toward the implementation of e-procurement are the most significant challenges and obstructions facing local governments in implementing e-procurement. Maleki (2017) argues that resistance to e-procurement can be avoided when appropriate infrastructure is installed. Siahaan and Trimurni (2016) also provide a valuable recommendation that “Government needs to facilitate continuous awareness, education and capacity building on E-Procurement system and process, as part of the realization of public rights to public information and public services, to community, business and members of parliament in order for public to participate and monitor the implementation of E-Procurement effectively” (Lesotho, 2017).

Although the body of knowledge on e-procurement is vast, there remains limited attention paid to the adoption and implementation of this innovation in Africa. A few researchers have engaged themselves in examining this phenomenon in Africa such as Aduwo et al. (2016) who examined e-procurement in the Nigerian building sector and discovered that technical and infrastructure challenges were common barriers. They also found political, social, and cultural barriers to the implementation and that management failed to see the evidence of the benefits of e-procurement. As a consequence, there was minimal management support and commitment – a key ingredient in the adoption and deployment of technology, as they provide the financial resources necessary and cultivate an organisational climate conducive to the adoption of technology and achievement of organisational goals, values, and beliefs (Teo et al., 2009; Hashim et al., 2010). In South Africa, Laryea et al. (2014) report limited use of e-procurement in the construction sector. They attribute this to (1) the lack of a definite government policy to implement e-procurement; (2) the reliability of ICT infrastructure; (3) the high costs of installing and operating e-procurement systems; and (4) the perceived negative impact of e-procurement adoption on smaller firms and employment of people in the departments. Ntawanga and Coleman (2015) presented a lightweight mobile e-procurement application for small-scale retailers in rural areas of South Africa. Their application allowed businesses to conduct their operations, specifically stock replenishment,

efficiently and cost-effectively. In Kenya, Moses et al. (2013) examined the adoption of e-procurement among large-scale manufacturers and found five critical success factors: employees and management commitment to success of adoption; reliability of information technology and supplier performance; monitoring the performance of e-procurement systems; user acceptance of e-procurement systems and top management support. The authors also found the following challenges: resistance to change from employees, lack of e-procurement approval by company board, existence of old IT equipment among the firms that need overhaul, and lack of managerial support. Still, in Kenya, Moturi and Sang (2016) examined e-procurement utilisation in Independent Commissions in Kenya. Their results show that subjective norm and reliability were variables that had significant influence on adoption, whilst compatibility did not.

From the public sector, Adebayo and Evans (2015) examined the level of adoption of e-procurement in Nigeria and arrived at the conclusion that at an operational level, public sector organisations are yet to attain the full benefits of e-procurement. Ndumbi and Okello (2015) point to the need for staff training in the use of e-procurement in Kenya because staff training influences compliance to regulatory instruments such as the public procurement and disposal act in the Kenyan context. Godfred et al. (2015) report on long lead-times in the procurement of goods and services, delay in the execution of tasks, and lack of transparency in the procurement process in Ghana. The procurement officers perceived e-procurement to be a better alternative than the manual procedure used for procuring goods and services, although there was a substantial need for pragmatic steps to be taken towards educating procurement officers on the value of e-procurement. Although not exhaustive, Table 1 documents the challenges faced by organisations in developing countries in the adoption of e-procurement.

External	Lack of Government/political leadership
	Legal and regulatory infrastructures, Lack of a definite government policy to implement E-Procurement
	IT Infrastructure is not reliable
	Socio-economic and cultural
	Knowledge infrastructure, Lack of awareness and training
Internal	Management support and leadership: Lack of E-Procurement approval by company board, Minimal top management support.
	Human resource: Lack of staff training and ICT expertise in conformance to regulation
	Resistance to change from employees
	IT infrastructure: Existence of old IT equipment among the firms that need overhaul
	High costs of installing and operating E-Procurement systems
	Minimal benefits

Table 1: A summary of barriers to E-Procurement adoption in developing countries

INSTITUTIONAL THEORY

Institutional theory posits that institutions are socially constructed and they both constrain and enable social activity by providing frameworks for legitimising actions and behaviour. When social activities within these institutions are taken for granted, they become institutionalised although it is recognised that even stable institutions require ongoing maintenance work because they are always unfinished (Nielsen et al. 2014). Institutions are therefore always facing institutional pressure imposed on them by

other institutions. This pressure usually emanates from actors who are knowledgeable agents and “the drivers of these ongoing processes of institutionalisation” (Nielsen et al. 2014). Three pressures have been associated with institutions: coercive, normative, and mimetic.

Coercive pressures emerge from resource-dominant organisations, regulatory bodies, market forces such as competition, and/or entities that have resources on which an organisation depends (Hovav 2017, Sherer et al. 2016). For example, by having “federal policies that promote procurement from women and minority-owned businesses with some emphasis on purchasing from indigenous peoples” (Walker and Brammer, 2012,p.260); the United States of America exerts pressure on organisations to conform to these policies and practices which are deemed legitimate and serve the interest of the United States of America. Organisations that fail to adhere to these pressures can be liable to potential sanctions such as denial of resources and social support needed to be competitive and attain legitimacy.

Normative pressures are those which force organisations to adopt techniques that are considered effective by the community of practice, such as professional standards and practices established by education and training methods, professional networks and the movement of employees among firms (Hovav 2017, Sherer et al. 2016). In the context of tourism management, Andreu et al. (2009) found that the use of the internet is largely driven by normative pressures and that electronic communication with the travel agency’s suppliers and the pressure exerted by the sector are the main antecedents for e-procurement. Wahid (2012) examined e-procurement in the Indonesian local government and found that normative pressure was more dominant at the beginning of the e-procurement implementation and it happened both externally, for example through a learning process from e-procurement in other cities and training programmes, and internally such as through a series of internal meetings and training sessions. In their quest to examine how governments support innovation through public procurement, Lember et al. (2013, p.24) identify major normative pressures – “shift in economic, administrative and innovation policy-thinking as well as in the international trade regime ...which have proven to be a fertile ground for the accumulation of public procurement routines and culture that constrain the potential of public procurement in spurring innovation”. In the context of public sector procurement, McConnell et al. (2010, 7) explain that it is “unlikely that any normative pressures will be exerted through networks of governmental employees.” They, however, caution that “as public sector procurement professionals are likely to mix and interact with their counterparts in the private sector, it is likely that over time, such pressures may start to have some affect”.

Mimetic pressure is the imitation of other successful organisations in uncertain times, particularly when there is little understanding of a new process, technology or external conditions (Hovav 2017, Sherer et al. 2016). In the context of public administration, Zheng et al. (2013) found that mimetic pressure does not directly influence top management commitment, although it can indirectly exert influence via the influence of coercive pressures. According to Hertwig (2012), the adoption of e-business is explained by external pressure from other customers and mimetic pressure during the e-business hype and expectations and interests of professionals inside a company. The implication is that the three pressures can change decision-making behaviours in organisations although it has been noted that this may vary according to the context. Whilst these pressures play a key role in how institutions operate, few have examined how these pressures manifest themselves in the context of e-procurement in developing countries, and more specifically in public sector institutions. It is not clear which challenges are the results of coercive, normative or mimetic pressure and as a consequence, African public institutions are not in the position to strategically respond to them.

METHODOLOGY

The study adopted an interpretivist research philosophy and, using a single case study, examined the contextual challenges faced by a public institution, hereby named *LesothoOrg*, in its implementation of an e-procurement system. *LesothoOrg* is a public institution which serves, as one of its mandates, the Government of Lesotho's agendas. In 1995, the Government of Lesotho (GoL), passed the Privatisation Act which saw *LesothoOrg* being privatised. Although some success has been associated with the privatisation, several challenges exist - such as concerns about workers' retrenchment, debt obligation of state enterprises slated for privatisation, lack of investor interest, and failure to gain direct Basotho participation in privatised entities. In 2010, *LesothoOrg* automated its procurement processes, with the intention of addressing the challenges they faced with regards to the manual operation system which was in MS-DOS operating system. *LesothoOrg* wanted a shift to Windows-based systems and in addition, to automate, streamline and integrate their processes. *LesothoOrg* acquired a new ERP system which included the workflow requisitioning module and the service manager module. The literature review and the challenges identified in developing countries (Table 1) with regards to e-procurement informed the research instrument. Data was collected from 22 participants at *LesothoOrg* using semi-structured interviews (see Table 2). The participants were with the organisation from the adoption to the implementation phase of the project.

Respondent #	Responsibility	Line manager
1	Transmission and Distribution Manager	General Manager Engineering
2	Administration officers	
3	Transmission and Distribution	
4	Regional Manager	
5	Industrial Relations (HR)	Human Resource Manager
6	Acting Operations Manager	General Manager Engineering
7	Stores Controller	Procurement Manager
8	Customer Service Manager	
9	Purchasing Officer	
10	Procurement Manager	General Manager Finance
11	Financial Accounting Manager	
12	Accountant	
13	Management: Accounting	
14	Accountant	Internal Audit
15	Internal Audit Supervisor	
16	Operations and Systems Administrator	Information Technology Manager
17	Systems Operator	
18	Systems Support Officer	
19	General Manager Finance (acting)	Managing Director
20	Section Engineer Planning & Projects	Planning And Projects Manager
21	Service Manager-e-workflow	
22	Superintendent: Planning	

Table 2: Respondent profile

All participants are based at the *LesothoOrg* Headquarters in Maseru, Lesotho; and all interviews lasted for 1 hour and were recorded. Data analysis commenced with the process of transcribing the recordings from the audio tapes to a Microsoft Word document. Then, the second author, who was involved in the main data collection, went through the process of re-reading each interview transcript with the purpose of familiarising themselves with the data and embedding herself into the situational context by reliving

the interview experience. Each time an interview transcript was read, initial codes were identified and documented in MS Excel. Using the initial codes, the process of identifying codes that were articulated repeatedly throughout the initial analysis followed and these became themes. The themes were then refined and given meaning by associating them with the factors identified in the literature in Table 1.

FINDINGS

Two of the main objectives of the study were to identify the perceived benefits and contextual challenges which public organisations face in their adoption of e-procurement systems. The second objective is to describe institutional pressures associated with e-procurement systems in public organisations. The results are presented in the following sections.

Perceived benefits

Automation

One of the perceived benefits identified by *LesothoOrg* is the ability to automate various activities so as to “achieve an acceptable level of efficiency” (Respondent 11). There were consistently remarks that automation was the driver for the adoption of e-procurement as Respondent 1 indicated: “I was informed that the purpose of the system was to move from the manual system to the electronic system...although my manager did not explicitly tell us the purpose, but I heard around that it will make things more efficient. Maybe he did to our senior management”. Although the motivation for the adoption was not given to all employees and management, there was an understanding that “the new system would make it easier for people to order things because, you know before it used to be difficult because the people at procurement used to throw away papers if they see that they cannot find what you are looking for, they just throw them away” (Respondent 6). Similar remarks were reiterated by respondent 12 that “access to previous records is now easy; we can process huge amount of data within short period of time and more accurately”. Automation was, therefore, the main driver for the adoption of an e-procurement system because through automation, they anticipated “shorter turnaround time and to respond to the user requirements but mostly our requirements were about that” (Respondent 7).

Customer satisfaction

The requisitioning department was more vocal about the benefits they had experienced as Respondent 16 highlighted: “because the requisitioning process has been fully automated, the requisition books or leaflets no longer get lost. This has made the entire process more efficient and our customers happier and the queries that we used to have, have been reduced a lot. Even for unhappy customers, we are able to explain with the support from the system. Also, there used to be a lot of stock shortages before, we no longer have that”. Customer satisfaction was perceived important at *LesothoOrg* because they had continuously experienced complaints prior to the adoption of the e-procurement system. According to respondent 15, complaints decreased productivity because “internal customers were unable to obtain the items they want...and people have to physically move between offices seeking approval...however this is no longer a problem because they can now do so from a catalogues of approved items through online requisition. We can now track customer application process online and attend to customer requests quickly.”

Transparency

One of the additional benefits cited was the need to improve transparency. Respondent 20 clarified: *“quotations we used to give to customers were different in every district and varied daily or from whoever the quotation was issued because the project estimator was just a spreadsheet that was not linked to other users. You can now trace your order easily with this system in place”*. Respondent 10 agreed that *“for now, we have a clear record of transactions, with times and days, we can know when a requisition was initiated, and when it was completed and by whom”*. Being able to *“track progress on jobs and quotations”* (Respondent 3) was perceived to be a significant advantage to the procurement process as it meant *“less lost documents”* and a *“transparent procurement process”* (Respondent 17), which *“reduced backlog”* (Respondent 4).

Accountability

Due to the transparent nature of the e-procurement system, respondents were of the view that managers and all the personnel in the procurement process became more cognisant of their actions. For example, respondent 2 noted that *“prior to the adoption of e-procurement, it was not clear who has the power to authorise requests in practice even though formally we all knew who had this power....people would sign off even if they were not supposed to...now with this system, we are able to control and account for every requests because not everybody is able to request ...for now, only those in the system as managers can approve requests”*. Respondent 7 confirmed this indicating that the process now shows *“consistency, professionalism, and accountability which was absent before”*.

Perceived Challenges

System problems

Although *LesothoOrg* was able to accrue some benefits from the e-procurement system, they experienced some challenges with the system's functionality. There were consistent claims of the system being faulty and causing delays in the process. Technicians and external experts had to repeatedly be called in to address some of the system problems. Respondent 1 explained: *“From my office every week I get a complain/request from the regional manager requesting IT intervention because either the system is not allowing them to raise a purchase requisition, it is slow or it is not allowing them to register the customers when they apply and then causes long customer queues”*. Respondent 16 confirmed that *“the system itself had too many problems and could not eliminate all the manual challenges we experienced and so sometimes we had to go manual, mainly to avoid customer dissatisfaction”*. The weekly system faults and failures were not well received by *LesothoOrg* management because *“all these IT problems are putting strain on the most important goals and objectives of why the system was implemented in the first place – that of achieving efficiency and transparency”* (Respondent 19). The implication is, therefore, that the e-procurement system was not able to meet *LesothoOrg's* requirements and the continuous system problems impacted how management perceived the system and its ability to deliver the associated value. It also showed that *LesothoOrg* did not have adequate internal IT experts to address the continuous system problems.

Employee Resistance

Despite the advantages the e-procurement system brought into *LesothoOrg*, evidence of employee resistance was noted. This can partially be attributed to the fact that management failed to communicate to employees the motivation behind introducing the system and the anticipated consequences of such a

system. Employees' perception and comprehension of the e-procurement system and its potential benefits and risks have an impact on how the employee behaves. When there is a miscommunication and the system is perceived as a threat, employees can collude to make the system ineffective as Respondent 11 illustrated: *"there was resistance by some departments, especially engineering who say that the system belongs to Finance. None of the departments wanted ownership of the system. I think it's because they did not understand it"*. Respondent 10 provided similar perceptions and attributed the lack of ownership to the fact that *"people were not adaptive to change, they were not well trained and most were not told what the system was to do and how it will affect them directly with regards to their daily work activities. Some believed the system will simply create more work"*. The lack of communication and shared understanding of the e-procurement system between management and employees, allowed the latter to arrive at their own understanding of the purpose of the system and the consequences of adoption and contributed towards their resistant behaviour.

Lack of project management skills and support

There was consensus amongst respondents that management lacked project management skills and the project eventually suffered scope creep problems. Firstly, respondents identified lack of communication skills as one of Management's faults and a contributor to the project not being perceived as a success. Secondly, there was a strong sense of management's ignorance of employees' challenges as Respondent 6 indicated: *"It's like employees are not part of LesothoOrg, because our concerns are not taken seriously...and this is why the system is giving more problems...like now - the challenge is to provide proper information for the system to operate well – findings this proper information is problematic, given that people were not trained. But management should be aware of this by taking stock of what their human resource capacity is like. My job is to let them [management] know what my employees can and cannot do and how to equip them right – but it seems they are not listening and this project was more of a priority to them"*. Finally, management was also perceived not to be knowledgeable in e-procurement and therefore was not able to *"solicit the right development team for the implementation"* (Respondent 6). According to Respondent 19, *"management did not really know what they wanted and depended on the consultant to tell them what they can offer ... and so it was more like signing a blank cheque, and in every project meeting, something else came up"*. Respondent 16 confirmed, noting that *"the tendering process was never followed for the whole process so basically there was not even a business case or anything...and unfortunately that exercise was done when some of the executive management do not want to hear anything about this project even though the project had already begun operation"*. Thus the lack of project management skills and top management support was perceived to be a barrier to successful implementation of e-procurement.

Lack of expertise

A consistent claim by all respondents was the lack of training and IT expertise by both internal employees and the consultants who were responsible for implementing the system. Respondent 9 indicated that there is lack of trained personnel to keep up with latest technological developments and system additions in the organisation and others are not even computer literate. According to Respondent 8, this is partly because training came in late in the process and caused some resistance from some employees. Respondent 7 explained: *"Employees required training in order to understand what they are doing...the problem is that training was only given to a few because of the budget constraints, but the system is being used by all – including those who have not been trained"*. Respondent 19 confirmed this challenge and indicated that the problem was not only a budget issue but the quality of the trainees that were employed and those who designed the system. She stated that through her observations, *"the*

consultants who were employed to assist us kept on recommending stuff, some of which they could not deliver or do themselves and then recommended that LesothoOrg subcontract their other partners in the project because their partners knows how to work the system better. What does this mean in terms of professionalism and even our budget?" IT experts from the consulting team were not perceived to have the necessary expertise required to address system problems and provide the training required because according to Respondent 6 "the consultant was a little bit of err he was also learning himself and most of us had to just learn by ourselves because management wanted us to deliver".

IT infrastructure and system integration

A consistent claim was made of the fact that "the system requires a reliable network; it requires efficient IT support personnel and effective PCs" (Respondent 20), of which, according to Respondent 10, is a problem in situations of "internet failure and outdated old PCs that most public sector organisations have. We cannot rule that it won't happen, this is a reality that happens". Similar remarks were made by Respondent 9, indicating that "business comes to standstill during power failures of networks connectivity problem".

Another system challenge was related to system integration. Although an e-procurement system was seen as a novel approach to addressing procurement challenges, respondents indicated that the system failed to integrate with their existing systems. Respondent 15 explained: "This new system is not integrated with other key systems in the company to accelerate the full benefits of cost reduction; the system is also not linked to approved suppliers' system for realisation of electronic data interchange, some transactions with suppliers such as issuing of orders and delivery of goods are still done manually outside the system; insufficient training for end-users to fully understand the systems and use it to its optimum level."

Similar remarks were reiterated by Respondent 14 that the system is not integrated to other ERP business systems and is very technical to understand. As a consequence, Respondent 3 alluded that this problem was related to the current challenge they face of "sometimes reflecting materials available while it is not the actuals we have in stores".

Suppliers, Customer demands, and regulatory challenges

One of the consistent challenges identified by respondents was the need to meet customer and supplier needs as quickly as possible. According to Respondent 21, one of the main goals of adopting the e-procurement system was to fulfil this requirement. Although "the aim was to catch up with latest development in information technology and improve efficiency" (Respondent 12), Respondent 15 recalled how instrumental customers and suppliers were in shaping the organisation's decision towards the adoption of an e-procurement system: "customers were complaining about delay in serving them due to long manual processes for decision making and this was also costly to the company because the supply-chain management was ineffective resulting in loss of revenue. Customers saw us as being slow in providing them with the services mainly because of our manual system".

Only one respondent (7) perceived regulatory requirements as a challenge. According to the respondent, "there is a need to standardise the procurement process and adopt professional approach to e-procurement so as to improve accountability. This can be achieved by ensuring the education sector is addressing this problem and the industry working with us...the government makes these regulations but their implementation is what is lacking because people don't understand how to do the implementation".

DISCUSSION OF THE FINDINGS

Perceived benefits and challenges

Whilst most studies in developing countries, and in Africa in particular, report minimal benefits associated with e-procurement this study identifies four main benefits of *automation*, *efficiency*, *accountability*, and *transparency* which were perceived to be instrumental in addressing existing challenges, specifically of *customer satisfaction*. E-Procurement's role in providing customer satisfaction was perceived to be significant due to the main customer complaints they received previously. This benefit is unique to the Lesotho context as it has not been highlighted by other studies in Africa; although it has been mentioned in several studies in other developing country contexts such as India (Gupta et al. 2015), and Sri Lanka (Dias & Ranwala 2015). The study findings, therefore, affirm those in literature but also identify internal and external specific challenges.

Internal challenges which include lack of expertise, system problems, employee resistance, lack of management support, and poor IT infrastructure and system integration were strongly identified as barriers to the realisation of the full potential of e-procurement. These challenges are also consistent with those reported in literature (Dewah 2016, Hustad & Vikstøl, 2014), although few African studies have reported system integration as a challenge. If top managers fail to perceive that the e-procurement system integrates well with their existing system, they are less likely to support the use of an e-procurement system because such a system requires 'intensive information sharing and business process integration between the buyer and supplier' (Li et al. 2015). The challenges that stand out in the Lesotho context are (1) the lack of project management skills by the management team and (2) the lack of know-how of the consultants brought in to provide development and training. The lack of project management skills have been noted to be one of the main barriers for successful project implementation in Africa and this is more of a problem in the public sector where "a project-oriented mindset needs to be developed" so as to address and redress current project failures and challenges (Skillsportal, 2016). Our findings regarding the role of consulting companies in this study deviate from those attributed in literature. According to many studies, the role of consultants includes technology transfer, technology assessment, and articulation of needs, the exploration and appropriation of technologies, as well as acquisition, implementation, and learning (Janssen et al. 2014). Consultants are perceived to possess the expertise and experience and so many organisations are advised to "spend money and time on getting the relevant advice from ICT experts and consultants in order to set up the ICT strategy, based on the SME's business strategy" (Modimogale and Kroeze, 2011, 7). However, this advice becomes problematic, in the Lesotho context where ICT consultants are perceived to be lacking in ICT knowledge, thereby jeopardising the successful completion of the project.

External challenges were specific to customer and supplier demands, as well as the lack of regulatory policies. The perception was that e-procurement was being driven by customers and suppliers who demanded immediate and efficient services, even though the mandate from management was towards organisational efficiency. These findings reiterate earlier studies that identify pressure from competitors and supply chain partners as some of the drivers that encourage organisations to adopt new innovations (Adebanjo et al. 2016). Whilst this is seen as a positive driver for adoption, the findings of this study show that the lack of standardised procedures on procurement and the know-how as to how to implement these procedures, act as barriers towards the full realisation of the benefits of e-procurement and in some cases its adoption. Given that most government initiatives in developing countries, and in Africa in particular, are derived from Western nations through donor agents and influential institutions like the World Bank and the International Monetary Fund (IMF) (Fröhlich and Peters 2017); it is

expected that the regulatory frameworks, political environments, and socio-cultural backgrounds in which these initiatives are embedded can conflict with those of the Western nations because of contextual disparity (Lau, Aboulhosen, Lin, & Atkin, 2008). It is therefore important for public entities to critically examine the role of regulatory frameworks to ensure that they are context-specific in addressing local challenges.

Institutional pressures

Coercive pressure

Coercive pressure emanated from the Public Sector Reform Process (PSRP) which mandate is to “improve public service delivery in the country” (<http://www.centralbank.org.ls/>) by having, among others, an improved modern accountable and transparent procurement system that aligns with international best practice in efficiency and transparency (<http://www.finance.gov.ls/>). These two main coercive pressures have launched a set of rules and expectations of *LesothoOrg* to deliver better services. Finally, additional pressure emanated from the private sector which required *LesothoOrg* to adopt e-procurement so as to address the “very slow procurement system that leaves most locals out on large projects” (<http://unpan1.un.org/>). Given these pressures, *LesothoOrg* implemented an e-procurement system to “achieve an acceptable level of efficiency” (Respondent 11) and transparency amongst others so as not to face possible sanctions such as being brought to the procurement tribunal (<http://www.finance.gov.ls/>). By taking the decision to implement an e-procurement system, *LesothoOrg* was oblivious to the need to conscientise employees about this change and, therefore, the system was adopted with minimal engagement from all stakeholders, specifically middle management and operational employees who deal with the day-to-day operations and who use the e-procurement system daily. As a consequence, employee resistance was evident because they perceived the new system as an institutional change which threatened to change an established order in *LesothoOrg*.

Normative pressure

LesothoOrg was met with normative pressure to adopt an e-procurement system due to the perceived benefits of automation, transparency, and efficiency considered effective by the community of practice. Another challenge *LesothoOrg* faced, was the lack of expertise and know-how, which made *LesothoOrg* rely on external professional networks such as consultants. The findings in this study, therefore, confirm those of McConnell et al. (2010) who posits that as the public sector procurement professionals interact with their counterparts in the private sector it is likely that, over time, they will face normative pressures – a typical case demonstrated in this study. Although *LesothoOrg* used the services of consultants, *LesothoOrg*'s management and employees perceived the consultants not to possess the expertise required to implement an e-procurement system and provide adequate training. *LesothoOrg* was therefore pressured to call on consultants so as to maintain legitimacy. Although the researchers were not in a position to interview the consultants, the preliminary findings point to a design-reality gap whereby both *LesothoOrg* and the consulting team misunderstood that the “public sector remains fundamentally different from the private sector...and too many IT firms, IT consultants, government official's et al. forget this. They pick up an information system designed for the private sector...they try to shoehorn it into a very different public sector reality” Heeks (2003, p.5). In addition to the design-reality gap, *LesothoOrg*'s expectations from the IT consultants were more than the consultants could offer and the concern from *LesothoOrg* was that the consultants lacked the expertise required to execute the project. We are of the view that (1) this perception could have possibly been deliberately created by the consultants after the realisation that the project did not have sufficient management support and

financial resources, similar situations are reported by Dewah (2016) in Zimbabwe that consultancy work in both the public and private sectors is adversely affected due to prioritisation of company resources; and (2) that both *LesothoOrg* and the consultants operated according to different discourses and so “the transfer of meaning between them is not possible” (Mohe and Seidl, 2011). According to Mohe and Seidl (2011), the traditional approach of a consultant supporting the client in finding solutions to their problems needs to be re-examined and a new systemic perspective, which emphasises that consulting firms can only cause ‘perturbations’ (something that triggers processes that are entirely determined by the system itself) in the client’s communication processes, encouraged, inducing the client system to construct its own meaning. With this understanding, the consulting team was to generate perturbations in *LesothoOrg*’s communication processes, so as to induce *LesothoOrg* to construct their own understanding of an e-procurement system. In so doing, *LesothoOrg* as a client becomes the central role in the consultation process since the consultant can only cause perturbations. This is important given that *LesothoOrg* had perceived the consultant as a solution provider - an expert who was to solve its problem directly.

Mimetic Pressure

The findings in our study did not reveal mimetic pressure – those that emanate from the “imitation or copying of other successful organisations in uncertain times, particularly when there is little understanding of a new process, technology or external conditions” (Hovav 2017, Sherer et al. 2016). Although cohesive and mimetic pressures existed to adopt e-procurement so as to address the “very slow procurement system that leaves most locals out on large projects” (<http://unpan1.un.org/>); there was no public institution that had already implemented such a system that *LesothoOrg* could mimic. Our findings are similar to those of McConner et al. (2010) that “because of the relatively low levels of E-Procurement adoption amongst public sector organisations, there aren’t as yet many early adopters that can be followed.” Lesotho is a small country that has received a negative reputation as an investment destination as a result of the political unrest in 2014 (BTI, 2016). As a consequence, it is yet to attract foreign companies that can present a positive influence on the adoption of e-procurement systems by local industry players. Nevertheless, *LesothoOrg* was able to accrue some benefits from their implementation of an e-procurement system although the challenges they continue to experience with the system outweigh the perceived benefits. This is normal since “organizations may fail to realize significant benefits from their IT innovations because they have been adopted to satisfy policy rather than efficiency” (Standing et al. 2009, p.139).

CONCLUSION

The purpose of this study was to identify perceived benefits, challenges and institutional pressures associated with the adoption of e-procurement systems in public organisations in the developing country context. A case study of a public institution in Lesotho was used to demonstrate that e-procurement in public institutions in developing countries derives the benefits of *automation*, *efficiency*, *accountability*, and *transparency* which pave the path towards *customer satisfaction*. Internal challenges of lack of expertise, system problems, employee resistance, lack of management support, and poor IT infrastructure and system integration were strongly identified as barriers to the realisation of the full potential of e-procurement. Customer and supplier demands, as well as the lack of regulatory policies featured as external factors affecting adoption.

Using institutional theory as a lens, coercive and normative pressures were found to be dominant whilst mimetic pressures were not exerted on public institutions because e-procurement as an innovation had not been institutionalised amongst public institutions. Coercive and normative pressure were, therefore, instrumental in the adoption of an e-procurement system. These external pressures successfully made *LesothoOrg* adopt e-procurement but were unsuccessful in making *LesothoOrg* derive the utmost benefits from the use of e-procurement. Our findings call for public organisations in developing countries to re-examine their public procurement policy strategies in order for them to attain the projected benefits of e-procurement and formulate a cohesive vision for all stakeholders so as to address the perceived low management support and internal resistance for e-procurement.

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