



**CHALLENGES FACING ADOPTION OF E-PROCUREMENT IN SOUTH SUDAN: A CASE OF MINISTRY OF FINANCE AND PLANNING**

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**ABSTRACT**

*The purpose of this study was to investigate the challenges facing adoption of E-procurement in the Ministry of Finance and Economic Planning such as employee commitment and top management support using a sample of 66 employees in various departments in the Ministry. The study sought to explore challenges facing the adoption of E-procurement in the government ministries in South Sudan as a whole. Previous literatures related to adoption of e-procurement and its practices were reviewed to support the present study. The study was analyzed mainly through structured questionnaires issued to representatives from each department who were involved in the process of procurement. The study adopted a descriptive research design through which respondents were drawn from the employees of the Ministry and samples were taken from within each group in proportions that each group bore to the populations, using ANOVA. Primary data was gathered using a self-administered questionnaire. A pilot test was carried out to test the validity of the research, instruments. In data analysis SPSS was used to generate quantitative reports through tabulations percentages and measures of central tendency. Tables were used to present responses and facilitate reports through Likert, percentages and measure of central tendency was also generated. The study found that the two independent variables had high key challenges facing adoption of E-procurement in the ministry.*

**Key Words:** Employee Commitment, Standardization, Inflexibility, E-procurement

## INTRODUCTION

The increased adoption of the internet for business uses globally, has influenced the function of procurement to migrate from traditional paper-based processes to e-procurement. The unique features of the internet and related web-based technologies can potentially support the activities of procurement, and at the same time provide improvements to the procurement process (Hawking, 2004). It is on this ground that e-procurement has, in recent years, been used as a means to significantly reduce costs because its ability to reduce transaction costs and manage the inventory in a more efficient manner. In its most basic definition, e-procurement is the streamlining of procurement/purchasing processes by eliminating traditional paper-based documents such as purchase orders, requisitions forms, invoices etc and replacing them with electronic based paperless processes. It is a powerful business tool that can revolutionize the buying function of an organization by streamlining and automating the labour intensive procurement routines which in return enable employees to gain direct access to their suppliers' systems, visually confirm technical specifications and view product pictures, price points, and detailed product descriptions, (Thompson, 2008).

Companies that use e-procurement technologies save 42% in purchasing transaction costs due to the simplification in the purchase process and the reduction in purchasing cycle time, which in turn, increases flexibility and provides more up-to-date information at the time of placing a purchase order. Thus, e-procurement tends to leverage the bargaining power of companies willing to establish contracts with their preferred suppliers and as a result, the overall maverick buying is lower (Baily,2008).

The study was anchored on Innovation diffusion theory which was proposed by Rogers (1962). The theory presents that innovation is a process aimed to improve economic development. According to innovation diffusion theory,

innovation is defined as an idea perceived as new by individuals. Andreeanne and Swaminathan (2007), defined innovation as all the scientific, technological, organizational, financial, and commercial activities necessary to create, implement, and market new or improved products or processes. The study uses the theory of technology acceptance which is one of the most popular theories in understanding adoption of computer technologies. Adoption of any innovation or especially information technology based requires investment in computer based tools to support decision making, planning communication. However, these systems may be risky. It is therefore very critical that the systems are specified on organizational preference and logic.

The government of South Sudan is making efforts towards the adoption of E-procurement system. The government of South Sudan is making a collaboration with World Bank to organize seminars to enlighten procurement officers on procurement systems through capacity building project. The purpose of the seminar is to basically bring the involved parties to see to contract management between suppliers and purchasers as a joint part of government and private sectors to make public procurement happen properly. One of the challenges facing government ministries is the issue of procurement bill that was in the hands of South Sudan parliament (Thenationmirror.com, 2015).

While electronic forms of doing business within Ministry of Finance and Planning in South Sudan may be somewhat slow to be adopted, tradition-bound attitudes are changing in this sector as rapidly as the technological enhancements that mold them. Electronic procurement is destined to play an increasingly significant role in the way procurement in the department is conducted in the future. E-procurement has become the key to valuable data for better, more intelligent management. This system provides a mechanism too quickly and effectively link department

operations and suppliers and also provides data analysis functionality that allows operators to monitor costs, consumption rates, inventory tracking, pricing and menu planning to increase efficiency in the public-sector department (Andreanne & Swaminathan, 2007). In the past, the purchasing methods used by even the largest of departments were slow, cumbersome, and inefficient.

Croom and Brandon (2004), defined e-Procurement as the use of internet based (integrated) information and communication technologies (ICTS) to carry out individual or all stages of the procurement process. While there are various forms of e-Procurement that concentrate on one or many stages of the procurement process such as e-Tendering, e-Marketplace, e-Auction/Reverse Auction, and e-Catalogue/Purchasing, e-Procurement can be viewed more broadly as an end-to-end solution that integrates and streamlines many procurement processes throughout the organization (Vaidya & Callender, 2006).

Some of the commonly used tools in the public sector are e-Tendering, e-RFQ, e-Auctions, e-Catalogues, and e-Invoicing. Baily (2008), classifies e-procurement into the seven categories: the first is Web-based ERP (Enterprise Resource Planning). This deals with creating and approving purchasing requisitions, placing purchase orders and receiving goods and services by using a software system based on Internet technology. The second category is E-MRO (Maintenance, Repair and Operations) which deals with creating and approving purchasing requisitions, placing purchase orders and receiving non-product related MRO supplies. The third type is E-sourcing. This involves identifying new suppliers for a specific category of purchasing requirements using Internet technology. The fourth type is E-tendering which involves sending requests for information and prices to suppliers and receiving the responses of suppliers using Internet technology.

In the public procurement context, there are various organizational, technical and governmental challenges on the ground that defies the full integration and adoption of e-procurement in public procurement. Once these challenges are addressed effectively, the country will make good progress towards full application on e-procurement especially in public procurement. The challenges include but not limited to lack of employee commitment; standardization issues and lack of flexibility; inadequate organization resources (inadequate funds, shortage of technical knowhow) and unsupportive legal framework. Other factors include; risks, incapable suppliers, changes of responsibilities, shifting the mind-set of people. Also, there is shortage of technical support, security of data transaction, poor network infrastructure and unstable power supply. For example, Duru (2008), made a study on the challenges facing e-procurement implementation in Tanzania taking a case of TANESCO. The study found out that staff is interested to operate electronically but currently they have made a little progress whereby they communicate with suppliers via e-mails, telephones and faxes thus, e-procurement is still at infancy stage. However, this is hindered by several challenges that include inadequate financial resources for capital investment, shortage of skilled manpower/experts in e-procurement and incapable suppliers.

The Ministry of Finance and Economic Planning is a ministry of the Government of South Sudan. South Sudan's economy and people rely on imports to survive. However, the amount of foreign currency available to import crucial goods such as food has fallen drastically with net oil revenues. This has created a humanitarian crisis. A joint UN-GRSS report estimating that 2.8 million South Sudanese currently face starvation. GRSS and its international partners need to work together to ensure the support the people of South Sudan

get mitigates the worst effects of the crisis (Duru, 2008). The reforms mentioned above should help to restore trust in GRSS and will be a first step to working with partners to increase the support South Sudan receives to manage this unprecedented crisis. Increasing support now will save lives and reduce the need for greater crisis support later on. Increased external support will not only help those most in need, addressing the humanitarian crisis, but the increased supply of foreign currency will help to address the macroeconomic crisis and stabilize depreciation and inflation. This in turn will improve GRSS' capacity to ensure the continuation of key service delivery.

### **Statement of the Problem**

E-Procurement has become the key to valuable data for better more intelligent management, particularly for the future. This includes big chains and small 'mom and pop' businesses alike. According to Baily (2008), "It is one of the most important of business-to-business functions. The on-line procurement sites not only provide the mechanics too quickly and effectively link businesses and suppliers, but they also present data analysis. This is the future potential of e-procurement and to obtain the benefits of this technology, companies need to make this part of their strategic planning. E-Procurement is an automated solution that does away with the long chain of manual processes which has traditionally characterized repeat purchasing. E-Procurement will have a positive impact on business functions and processes for those that fully take advantage of these capabilities. Buyers, for example, have a growing amount of information available to identify the suppliers with whom they want to do business. With a clear desire of hotel companies to maximize savings and efficiency online, third-party companies are springing up to serve them. By using the web, the whole process can be made much simpler, with fewer errors.

In South Sudan, e-procurement has important economic and political implications especially in

the government ministries. Ensuring that the process is economical and efficient is crucial in Ministry of Finance and Planning. This requires in part that the whole process is well understood by all the stakeholders including the government, the procuring entities, the business community/suppliers, professional associations, academic entities and the general public. Unfortunately, for most developing countries like South Sudan, this is not the case.

Achuora (2012), studied antecedents to successful adoption of e-procurement in textile and apparel firms in Kenya. The study findings indicate that environmental factors have the most influence on e-procurement implementation, followed by technological and organizational factors respectively. The study points out that management support, employee empowerment, policy strengthening in ICT use are key to effective e-procurement implementation and therefore should be given due attention.

On the other hand, Otieno and Muthoni (2013), looked at factors affecting use of e-procurement: a survey in selected firms in Kisii town, Kenya. The research findings revealed that all the variables were statistically significant: value of e-procurement, e-procurement capability and e-procurement models affect the use of e-procurement. Based on the findings, the researcher came up with the following recommendations: individual firms should increase the proportion of expenditure on e-procurement; widening the scope of supplier sourcing thereby justifying use of e-procurement, firms need to increase the e-procurement capability in terms of IT expertise and IT infrastructure injecting regular upgrading of IT system and management of firm to expand the use of e-procurement by incorporating most of e-procurement processes as well as all e-procurement models

Similarly, Mwangi (2013), did a study on factors affecting compliance of public hospitality entities



to public procurement laws and regulations in Kenya. The study found that the procurement process was not open to social scrutiny as it was not open to public. These factors weakened the internal control system. The staffs had low levels of competence to public procurement laws and regulations while the utilization of information, communication technology was low. The research concluded that the public entity had failed to comply fully with public procurement laws and regulations.

Makau (2014) did a research on challenges facing adoption of electronic procurement in public sector in Kenya: a case of Nairobi water and Sewerage Company, the study concluded that adoption of e procurement in Kenya's public sector is highly depended on availability of the technology and also employees who are competent in ICT. Successful adoption of e-procurement is accompanied by efficiency in use of IT on part of employees. They are likely to adopt e-procurement if they have the right skills for the practice. It also requires managerial commitment on the part of the management. Clear legal framework to support its adoption is also very important. From the studies, little has been done on challenges facing adoption of e-procurement in Ministry of Finance and Planning in South Sudan, therefore the study seeks to answer the question: What are the challenges facing adoption of e-procurement in Ministry of Finance and Planning in South Sudan?

### **Objective of the Study**

The main objective of the study was to determine the challenges facing adoption of e-procurement in Ministry of Finance and Planning in South Sudan. The specific objectives were:

- To establish the influence of employee commitment and attitude on adoption of e-procurement in Ministry of Finance and Planning in South Sudan
- To determine the effects of standardization and inflexibility on adoption of e-procurement

in Ministry of Finance and Planning in South Sudan

## **LITERATURE REVIEW**

### **Theoretical Review**

This section reviews theories that will guide the study. It consists of the theories governing the challenges

### **Disruptive Innovation Theory**

Barahona and Elizondo (2012) discussed the theory of disruptive innovation. This theory points out that e-procurement is an innovation. As such it requires continual improvement. Because of such improvements, it disrupts the normal procurement operations and processes. The theory of disruptive innovation is characterized by: small and costly client base and non-attractiveness at the initial stages of implementation, some level of acceptance as the system is implemented, new competition as innovation continues and continuous quality improvement to improve adaptability to user and stakeholders needs.

Disruptive innovations require critical resources, processes and values. Critical resources include resources supporting the normal business activities such as; People, technologies, product designs, brands, customer and supplier relationships, relationship management with its clients and suppliers and marketing activities. Critical processes include decision making protocols and coordination patterns that supports operations of an existing business operations. In addition, organizational cultural values, belief system and assumptions are also critical (Barahona & Elizondo, 2012). The theory of disruptive innovation recognizes the fact that public organizations and systems are less flexible. Therefore, the adoption of e-procurement strategies requires a strategic and proactive approach so as to build the system within the existing structures rather than adoption of completely new systems. Adequate preparation in terms of the right technology, leadership to foster

change process, training of the employees and awareness campaign among users is critical. It is important to note that sometimes disruptive innovations may only work in the short run.

### Innovation Diffusion Theory

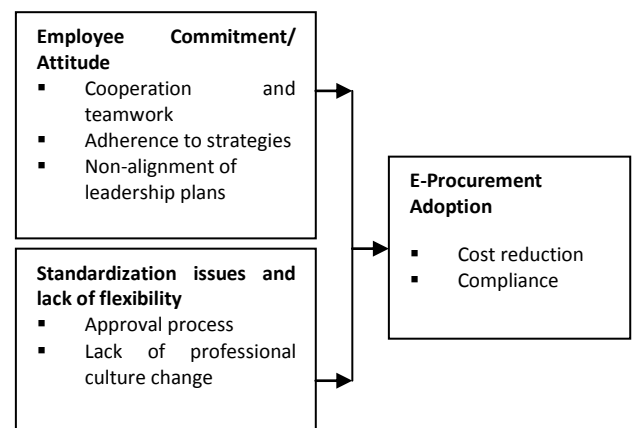
Innovation diffusion theory was proposed by Rogers (1962). The theory presents that innovation is a process aimed to improve economic development. According to innovation diffusion theory, innovation is defined as an idea perceived as new by individuals. Swaminathan (2007), defined innovation as all the scientific, technological, organizational, financial, and commercial activities necessary to create, implement, and market new or improved products or processes Innovation theory brings on board four important elements". The first element is innovation that puts attention on the ability to come up with more efficient and better ways of doing things. This theory categorize adopters of innovation into five categories; innovators, individuals who want to be the first to try the innovation, Early Adopters, people who represent opinion leaders, Early Majority individuals who need to see evidence that the innovation works before they can adopt it, Late Majority, skeptical individuals who only adopts an innovation after it has been tried by the majority and Laggards, individuals who are very skeptical of change and are the hardest group to involve in the innovation process.

According to innovation theory, rate of adoption of innovative strategies can be looked at in terms of; relative advantage given to the organization, compatibility, complexity, trial-ability of the new strategies and observability to the stakeholders within the social system. The second factor is communication that lays information and creating and sharing information relating to innovative initiatives in the organization. The third element is time that considers the duration involved in the innovation-decision process. The last element is the social context of the new systems (Roman, 2012). Diffusion of innovation strategies requires

evolution and reinvention of products and people so that they are able to perform better (Les Robinson, 2009). The concepts in this theory are very relevant to this study. They help build on the study and enable the researcher understand the expected relationship between the variables.

While innovation diffusion theory brings understanding of the innovation process, it has a number of limitations. The theory does not foster a participatory approach. It is therefore only able to work best with adoption of behaviors. Lastly, the theory does not take into account an organization's resources and social support in adoption of new methods.

### Conceptual Framework



Independent Variable                      Dependent Variable

**Figure 1: Conceptual Framework**

### Employee Commitment and E-Procurement

Over the years, a dramatic increase in procurement volume raised the profile of procurement as an important organizational function that should be treated on a par with other organizational functions, such as finance and human resources management. According to Swaminathan (2007), shows that there is a general feeling of helplessness among many employees in public organizations due to their inability to use appropriate technology to further the goals of their organizations and this makes majority of them shun away from implementing e-procurement. The reluctance

nature of public organizations may lead to employee's reluctance in learning and using new technologies associated with e-procurement.

Top management support and employee knowledge are main factors that impact on the adoption. Support from top management is a key to ensure that resources needed to adopt a technology or to expand its use are available and to overcome resistance to change (Teo, 2008). Lack of top management support may result in failure of implementation (Grandon & Pearson, 2014). Organizations are more likely to adopt and use technology when top management support for the technology adoption and use is strong. According Teo (2008) the challenges facing procurement adoption include lack of management commitment and inadequate adherence to formulated procurement strategies. Lack of cooperation and team work during implementation was another hindrance, misalignment of procurement plans with the company culture and non-alignment of the leadership plans.

#### **Standardization Issues, Lack of Flexibility and E-procurement**

Government agencies or parastatals are usually characterized by a lot of bureaucracies or standard procedures. The process of approval of project expenditure inherently cumbersome causing delay and inefficiencies. Procurement decision making in the government suffers from a lack of rationality and a fact-based mentality (Teo, 2008). Incentives available to the stakeholders were ineffective and innovative contracting solutions that could have led to improvements were discouraged as they fell outside bureaucratic rigidity of procedural guidelines. Standardization issues are a major problem in e-procurement solutions. This is a major problem when purchases are mostly a one-time-only or when the products or services purchased are complex and hard to standardize. The benefits from e-procurement are hard to achieve.

#### **Empirical Review**

Mc Manus (2010), examined the rate of e-procurement implementation in US the public sector, remarking that motivation for implementation was based on expectations of lower purchase prices, reduced transaction and process costs, and increased transaction speed. She also noted that the implementation of e-procurement had led to increased debate about some of the fundamental principles behind public sector procurement, including 'lowest bid wins'. A case example of Taiwanese military procurement by Liao et al (2003), documented the challenges for e-procurement implementation in terms of changing established procurement processes and practices, and particularly highlighted the significance of 'human deficiencies and faults (i.e. Corruption and inefficiency) in the implementation process.

On the other hand, Heijboer (2013), recognized that governance effects of e-procurement are subject to the dynamics of e-procurement roll-out, and he proposed an analytical model based on both the structural (i.e. Internal overhead and process costs) and the ROI and payback resulting from the e-procurement roll out on a commodity-by-commodity basis. He concluded that a strategy predicated on gathering 'low hanging fruit' may dictate the pattern and nature of governance changes.

Amuhaya (2010), investigated factors affecting implementation of e-procurement practices in public service in Kenya. The study found that the implementation of e-procurement requires that users comply with the requirements of the same system and processes. One of the key characteristics in achieving organizational support was found to be the structure of the implementation project team distinguished between the inclusive, 'open' project team protocol and a more narrow 'closed' protocol, to use Clark and Fujimoto's (2001) terminology. An inclusive project team structure



was found to allow far greater involvement by the system stakeholders and thus had the consequent benefit of directly addressing any user resistance to e-procurement.

Wanjau (2010), in his study on the critical success factors and challenges in e-procurement adoption among large scale manufacturing firms in Nairobi, Kenya aimed to investigate the critical success factors in the adoption of e-procurement among large scale manufacturing firms in Nairobi. This research involved a cross-sectional survey of the large manufacturing companies operating in Kenya. The study adopted a descriptive approach in trying to establish the factors that influence the success of e-procurement projects. The population of the study in the research was all the 455 large scale manufacturing companies that are based in Nairobi. The researcher conducted quantitative analysis for the data collected from the study. The results showed that manufacturing firms in Nairobi, Kenya have adopted e-procurement systems for duration of 1-5 years. Employee training on e-procurement usage, availability of reliable information on website and training of suppliers on e-procurement moderated the extent to the success of e-procurement adoption among large scale manufacturing firms in Nairobi, Kenya.

Waruguru and Nduta (2011), also conducted a study on the Factors Affecting Effectiveness of E-Procurement in Business Organizations, a Survey of Safaricom Dealers in Nakuru CBD-Kenya. The aim of the study was to determine the extent to which quality of software systems affect the effectiveness of e-procurement among Safaricom dealers in Nakuru CBD. A survey research design was adopted for the study where 31 procurement personnel working in Safaricom dealer shops in Nakuru CBD formed the target population for the study. A questionnaire was used as the data collection instrument. Data analysis was done using descriptive statistics. The findings revealed that the quality of software that was being used

by Safaricom dealers affected the effectiveness of e-procurement to a large extent.

Macharia and Ochiri (2014), on their study on the effect of e-procurement implementation on performance of hospitality training institution in Kenya: case of Kenya Utalii College aim to investigate on was to examine the effect of e procurement implementation on performance of hospitality institution case of Kenya Utalii College. A descriptive research design was used in this study. The target population was all staff of Kenya Utalii College drawn from list from Human Resource department. Data was collected using questionnaires. Data was analyzed by use of statistical package for social sciences (SPSS). The study found out that Cost Saving, Buyer-Supplier Integration, Cycle Timer education and information flow all affected implementation of performance at the Kenya Utalii College to a large extent.

#### **RESEARCH METHODOLOGY**

This study adopted a descriptive research design. According to Kothari (2000), descriptive study is where information is collected without changing the environment. The population for this study was but not limited to 220 employees of the Ministry of Finance and Planning in South Sudan. The ministry had 45 employees in the department of procurement, 30 employees in the department of Human Resource, 50 employees in the department of Finance and Administration, 15 employees in the department of Information Technology, 55 employees in the accounting department and 25 employees in the department of Planning. The study took the population and used Mugenda and Mugenda, (2003) sampling formula to arrive at the sample size of those to be interviewed samples of the study. Primary data was collected by means of a semi- structured questionnaire. The questionnaires were self-administered via drop and pick later method to the respective staffs. The researcher was able to exercise care and control to ensure all questionnaires issued to the respondents were

received and achieved the intended purpose. Permission to collect data from the staffs was given from the respective departments after the approval from the university to carry out the research. A pilot test was conducted in order to test the validity of the questionnaire and it was carried out with the help of research assistants. Before the actual analysis of data using SPSS, data was cleaned, edited, checked for accuracy and coded.

## **RESEARCH FINDINGS AND DISCUSSION**

The study targeted 66 respondents in collecting data. 54 respondents filled in and returned the questionnaire resulting in a 73% response rate. The study sought to find out the gender of the respondents. Knowledge of the gender was important to establish the gender perspectives of the challenges of E-procurement adoption and to ensure equity of representation which enhances equity of opinion and hence reliability of findings. The study found out that 68 % of the respondents were male while 32% of the respondents were female. The researcher sought to find out the length of respondent level of academic Qualification. The indicated that 14.8% of the respondents were holders of certificate, 46.3% were diploma holders, 25.9% were undergraduate degree holders while 13.0% were postgraduate degree holder's .The Study concluded that the level of education of the respondents was adequate for them to make meaningful contribution to this study and hence was significant towards drawing conclusive findings from the study. The study sought to establish the age of the respondents. The results from the study found out that 9.3 percent of the respondents were aged between 20-30 yrs, 31.5 percent of the respondents were aged between 41-50yrs, while 31.5 percent of the respondents were aged between 31-40yrs. 27.8 percent of the respondents were aged 50 and above and this is an indication of a slightly aged population and it might be difficult for an aged to accept or adapt to new technological changes such as adoption of

E-procurement practices. The study sought to establish how computer literate the respondents were. The findings indicated that a whopping 63 % of the respondents were computer illiterate and this would then clearly be the biggest impediment to adoption of E-procurement practices or any other computer applications. The study sought to establish the positions the respondents held in their respective media houses . The findings indicate that 7.4 percent of the respondents held the position of general, 18.5 percent of the respondents held the position of head of department, 20.4 percent of the respondents held the position of director, 14.8 percent of the respondents held the position of section head, 25.9 percent of the respondents held the position of inspector and 13.0 percent of the respondents held the position of subordinate. This was an indication that all the respondents held positions that would make their contributions relevant to this study. The study sought to establish the duration the respondents had been working at the ministry. The findings indicated that over 89% of the respondents had been working at the ministry of finance and planning for over a year and hence had adequate experience at the ministry for them to make meaningful contributions on matters ministry of finance and planning. The study sought to establish the duration the respondents had been working in their current position. The findings indicated that over 83% of the respondents had been working in their current position for over a year and hence had adequate experience in that position for them to make meaningful contributions on matters ministry of finance and planning.

### **Employee commitment**

The table 1 below was the representation of the respondent perception on Employee commitment as challenges to e-procurement adoption using Likert scale where, 1 represents Strongly Agree; 2 Agree; 3 Indifferent (Neutral); 4 Disagree; 5 strongly disagree.

**Table 1: Employee commitment**

Employee commitment	Mean	Std. Deviation
lack of adherence to strategy	1.48	0.67
Non-alignment of leadership plan	1.72	0.74
Lack of upper management support	1.87	0.89
Internal end user resistance to learn new technology	2.65	1.22
Suppliers are not interested in new technology	3.61	1.29
Average mean	2.70	0.96

From the findings above, the respondents strongly agreed that lack of adherence to strategy was a challenge to adoption of E-procurement as indicated by the mean of 1.48 and a standard deviation of 0.67. The respondents agreed Non-alignment of leadership plan was a challenge to adoption of E-procurement as indicated by the mean of 1.72 and a standard deviation of 0.74. The respondents agreed that Lack of upper management support was a challenge to adoption of E-procurement as indicated by the mean of 1.87 and a standard deviation of 0.89. The respondents were indifferent on whether Internal end user resistance to learn new technology was a challenge to adoption of E-procurement as indicated by the mean of 2.65.

and a standard deviation of 1.22. The respondents disagreed that Suppliers are not interested in new technology as indicated by the mean of 3.61 and a standard deviation of 1.29. On average the respondents were uncertain on whether employee commitment was a challenge to adoption of E-procurement as indicated by the mean of 2.70 and a standard deviation of 0.964.

#### Standardisation and Inflexibility

The table 2 below was the representation of the respondent perception on Standardisation and Inflexibility as challenges to e-procurement adoption using Likert scale where, 1 represents Strongly Agree; 2 Agree; 3 Indifferent (Neutral); 4 Disagree; 5 strongly disagree.

**Table 2: Standardisation and Inflexibility**

Standardization and Inflexibility	Mean	Std. Deviation
Complex approval process	1.57	0.90
E-procurement does not integrate well with other internal systems	3.17	1.13
Rigid ministry culture which does not support new technology	2.39	1.05
Lack of professional culture change	2.85	1.12
Average mean	2.49	1.05

The findings indicated that the respondents agreed that Complex approval process was a challenge to adoption of E procurement as indicated by the mean of 1.57 and a standard deviation of 0.90, the respondents were not sure whether E-procurement does not integrate well with other internal systems was a challenge to

adoption of E-procurement as indicated by the mean of 3.17 and a standard deviation of 1.13. the respondents agreed that Rigid ministry culture which does not support new technology was a challenge to adoption of E-procurement as indicated by the mean of 2.39 and a standard deviation of 1.05, the respondents were not sure

whether Lack of professional culture change was a challenge to adoption of E-procurement as indicated by the mean of,2.85 and a standard deviation of 1.12.On Average mean the respondents agreed that Standardization and Inflexibility was a challenge to adoption of E-procurement as indicated by the mean of 2.49 and a standard deviation of 1.05.

### Factors that Influence E-procurement Adoption

The table 3 below was the representation of the respondent perception on Factors that influence e-procurement adoption at the Ministry using Likert scale where, 1 represents Strongly Agree; 2 Agree; 3 Indifferent (Neutral); 4 Disagree; 5 strongly disagree.

**Table 3: Factors that Influence E-procurement Adoption**

Factors that influence e-procurement adoption	Mean	Std. Deviation
Technological infrastructure	2.61	1.25
Organization culture	2.70	1.18
Level of computer skill	2.44	1.14
Extent of legal frame work	2.89	1.13
Donor funding to implement the e-procurement project	2.39	1.27
Need to match international business market trends	2.94	1.35
In order to reduced paper work and associated costs	4.20	1.14
Manual procurement process was slow and tedious	4.33	1.03
Government policies( benchmark standard)	4.09	0.98

The respondents were neutral on whether technological infrastructure was a factor that influence e-procurement adoption as indicated by the mean of 2.61 and a standard deviation of 1.25, the respondents were neutral on whether organization culture was a factor that influenced e-procurement adoption as indicated by the mean of 2.70 and a standard deviation of 1.18, the respondents agreed that computer skill was a factor that influence e-procurement adoption as indicated by the mean of 2.44 and a standard deviation of 1.14, the respondents were neutral on whether extent of legal frame work was a factor that influence e-procurement adoption as indicated by the mean of 2.89 and a standard deviation of 1.13, the respondents agreed that donor funding to implement the e-procurement project was a factor that influence e-procurement adoption as indicated by the mean of 2.39 and a standard deviation of 1.27.

The respondents were neutral on whether Need to match international business market trends

was a Factor that influence e-procurement adoption as indicated by the mean of 2.94 and a standard deviation of 1.35, the respondents disagreed that in order to reduce paper work and associated costs was a Factor that influence e-procurement adoption as indicated by the mean of 4.20 and a standard deviation of 1.14 the respondents disagreed that Manual procurement process was slow and tedious and was a Factor that influence e-procurement adoption as indicated by the mean of 4.33 and a standard deviation of 1.03 the respondents disagreed that Government policies( benchmark standard) was a Factor that influence e-procurement adoption as indicated by the mean of 4.09 and a standard deviation of 0.98.

### SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

Lack of adherence to strategy was a challenge to adoption of E-procurement .The respondents agreed Non-alignment of leadership plan was a challenge to adoption of E-procurement. The

respondents agreed that Lack of upper management support was a challenge to adoption of E-procurement. The respondents were indifferent on weather Internal end user resistance to learn new technology was a challenge to adoption of E-procurement. The respondents agreed that Complex approval process was a challenge to adoption of E procurement. The respondents were not sure whether E-procurement does not integrate well with other internal systems was a challenge to adoption of E-procurement. The respondents agreed that rigid ministry culture which does not support new technology was a challenge to adoption of E-procurement but were not sure whether Lack of professional culture change was a challenge to adoption of E-procurement. On Average respondents agreed that Standardization and Inflexibility was a challenge to adoption of E-procurement.

The respondents agreed that availability of finance was a challenge to adoption of E procurement, that High implementation costs was a challenge to adoption of E procurement, that Lack of skilled IT personnel was a challenge to adoption of E procurement and that Lack of skilled procurement personnel was a challenge to adoption of E-procurement. The respondents agreed that Lack of adequate technological infrastructure for the ministry was a challenge to adoption of E-procurement that Lack of adequate technological infrastructure for external users was a challenge to adoption of E-procurement, that Time factor was a challenge to adoption of E-procurement. On average the respondents agreed that availability of resources was a challenge to adoption of E-procurement.

The respondents strongly agreed that Regulatory implementations was a challenge to adoption of E-procurement and strongly agreed that Public procurement was a challenge to adoption of E-procurement and strongly agreed that Political stability was key to adoption of E-procurement. They also agreed that an International

procurement standard was a challenge to adoption of E-procurement. On Average the respondents strongly agreed that legal frameworks were a challenge to adoption of E-procurement.

### **Conclusions**

Having set out to evaluate the challenges impeding the implementation of E-procurement at the Ministry of finance and planning in the government of South Sudan within and analyzed the finding, the researcher made the following conclusion in line with the objectives of the study. The entire two variables that were identified for analysis were found to be key impediments to the implementation of e-procurement among the respondents involved in the study.

Within the cost variable initial hardware acquisition was identified to be the key followed by staff training, this outcome was clearly in line with what was perceived to be the general pattern within the IT sector. The above challenge is further compounded by the fact most of the ministry is not allocated sufficient budgetary allocation to support its implementation. Computer illiteracy seems to be the highest impediment to the implementation of e-procurement system within the ministry; this was evident from their response where majority of the respondents categorizing themselves as computer illiterate.

### **Recommendations per Objective**

South Sudan experienced one of the greatest philanthropic emergencies and it has been one of the biggest beneficiaries of humanitarian relief from that point forward. The nation has had one of the biggest inside displaced populaces on the planet. These emergencies had been brought on by long-standing violent conflicts between the North and the South, strains between the administration and different restriction gatherings, and between ethnic conflicts. Repeating conflict in south Sudan has brought on-going instability, death toll, and displacement.



Groups were as yet living in desperate conditions even after the nation accomplished autonomy in 2011. South Sudan is as yet getting philanthropic assistance because of ongoing conflict, frailty, defenselessness and relocation (Humanitarian Bulletin of South Sudan, 2015).

Relevant adoption of Procurement and any development plans by the government of South Sudan requires post conflict peace and reconciliation. Any form human developments such as acquisition of IT skills are secondary to the establishment of a peaceful society. Peaceful reconciliation that is expected to bring to an end the humanitarian crisis, enhance feelings of forgiveness and subsequent establishment of effectiveness governance structure.

Implementation of e-procurement systems remains a key enabler of successful execution of procurement functions especially for firms that must engage in regional, international and national procurement. Full adoption and implementation is a necessity that can only be

achieved through a collaborative effort among the key players in specific field. Based on this critical importance of e-procurement, the researcher therefore proposed the following recommendations. As much as resources are always limiting, the government of South Sudan should look at e-procurement as a critical investment and set aside adequate financial resources in their budgeting process. Furthermore only the initial investment in procurement of the necessary hardware, software and training of require personnel is resource intensive while the subsequent maintenance and operation cost are substantially low in comparison to the streams of benefits that will accrue from such investments.

#### **Recommended Areas of Further Research**

Future studies should be undertaken to evaluate the existence of effective policy frameworks and guidelines for the ministries of South Sudan and the existence of a monitoring plan. The researcher suggested further research to be done on areas related to the effects of procurement procedures on procurement performance.

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