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DETERMINANTS OF ELECTRONIC PROCUREMENT SYSTEM ADOPTION IN TANZANIA.

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ABSTRACT

Purpose: This study examined the determinants of electronic procurement adoption in Tanzania. Specifically, it aimed to examine the influence of individual and organisational factors that affect electronic procurement adoption.

Design/Methodology/Approach: Quantitative data analysis technique – Logistic Regression Analysis was used to analyse data. The researchers employed a prevalence study, and a stratified method of chances technique was used to obtain the number of respondents needed from the population. The sample consisted of 106 respondents, where 52 were from Tanzania Breweries Limited (TBL), a private organisation, and 54 were from TANESCO which represents public organisations. Data were collected through questionnaires which were supplemented by a documentary review.

Findings: Based on Technological Acceptance Theory, findings show that individual age and education had a significant relationship with electronic procurement adoption in private organisations, while individual skills and education had a significant relationship with electronic procurement adoption in public organisations. Organisation factors such as motivation and teamwork had a significant relationship with the adoption of electronic procurement in private organisations, while the organisational structure and teamwork had a significant relationship with electronic procurement adoption in Public Organisations.

Research Limitation/Implication: This study is limited in terms of the geographical context as the study was conducted in Tanzania. Therefore, the generalisation of findings across nations should be made with caution.

Practical Implication: Public organisations should adopt fully electronic procurement at the pace of private organisations to increase the organisation's performance through cost reduction, efficiency and effectiveness.

Originality/value: The study adds knowledge to the current trends of electronic procurement in the Tanzanian procurement system.

Keywords: *Adoption, electronic, organization, procurement, Tanzania*

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INTRODUCTION

1.1 Background of Electronic Procurement

Due to the increase in changing environment and globalisation, most organisations have committed efforts to procurement functions because most organisational resources are consumed through procurement (Mwita & Mwaighacho, 2017). The study explained the need to have electronic procurement to reduce procurement risks such as reduction in procurement cost, improve quality of goods, services and works, and lead to timely delivery of goods. According to Teo, Lin, & Lai (2009), the level of electronic procurement (E-procurement) adoption differs among countries. For instance, in Singapore, varieties of items are procured to a different extent of which most procured items via the internet are Material, Repair and Operation (MRO), which represent 57.6%, while manufactured goods represent 43.5% procured through the internet and raw material represent 47.4%.

The concurrence with online procurement in Saudi-Arabia is highly affected by outer elements rather than inner elements. The inner elements involve Government support, security and trustworthiness of the online payment option, policy and regulation, as well as the country's business and national culture (Altayyar & Beaument, 2016). Similarly, Saudi Arabia is typified by economic and political instability, making the rate of Information and Communication Technology innovation rate low. In United Nations (U.N.), electronic procurement adoption is highly influenced by organisation readiness, supply, policy, digital, and strategic factors. Most of the electronic procurement activities are done on routine and non-standardised items. At the same time, in almost all purchases and types of organisations, recently electronic procurement was used to purchase a few sets of goods in the office supplies, material requirements, and operations (MRO) (Davila & Palmer, 2003).

As documented by Makoba, Nyamagere, & Eliufoo (2017), Tanzania, like any other country, strives to succeed in the electronic procurement system to improve organisations' efficiency and effectiveness, which will influence transparency. They also revealed that organisations that practice traditional procurement fear opting for electronic procurement because of risks associated with the system, although organisations that have opted for the system turned into vulnerable risk. Electronic procurement enables organisations to reduce costs in terms of less paperwork in the procurement undertaken and reduce inventory costs because goods or materials will be delivered faster due to timely information transfer (Aberdeen Group, 2005).

Also, electronic procurement helps organisations to improve efficiency as the essence of maverick purchase will be reduced because of the automated procurement system, which enhances good monitoring of procurement activities. In that essence, transparency improves, and organisations gain a good relationship with their supplier (Koech, Ayoyi, & Mugambi, 2016). As it has been observed that electronic procurement not only benefits organisations on cost reduction but also helps organisations to operate with few chosen suppliers of which the implementation will involve the use of Electronic Data Interchange (EDI) and the internet, whereby organisations will be able to search for suppliers while suppliers will get information on

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what is required by their customers (Teo*et al*., 2009). In addition, it has been revealed that organisations that make maximum use of internet technology are in a better position of reducing non-value-added tasks through the increased speed of information transfer which helps to link all members within a supply chain (Morosan & Jeong, 2008).

1.2 Problem Statement

The arrival of electronic commerce (e-commerce) via the internet in 1990 has led to the beginning of internet-enabled procurement. World literature shows a high percentage of organisations adopt e-commerce in their daily activities. Studies done in Singapore indicated that 61.7% of organisations are electronic procurement adopters, and it has been indicated that, firm size, top management support, business partners and perceived indirect benefits are one of the positive influencers of electronic procurement adoption (Teo *et al.*, 2009).

Despite the electronic procurement benefits to organisations, the adoption rate is still low, especially in developing countries like Kenya and Tanzania (Makoba *et al*, 2017). The study conducted by Koech *et al.,* (2016) in Kenya found that electronic procurement adoption in any organisation must be supported by individual factors especially technical skills and the employee's age. In the study, it was observed that elder people were late adopters of information and communication technology compared to younger people. Some studies in Tanzania, such as Mohammed (2013), indicate that the successful electronic procurement adoption needs various driver forces such as; technological factors in terms of technological infrastructure, organisational factors in terms of support of top management together with the attitude of the organisation towards electronic procurement and environmental factors. The same study found that private organisations were better adopters than public organisations.

Although the United Republic of Tanzania Government enacted the Public Procurement Act in 2011 and the Public Procurement Regulations of 2013, having specific sections and regulations that govern and support electronic procurement and other information and Communication Technology activities, still compliance and application of electronic procurement in public sector organisations are very low. In 2016/17, PPRA established a pilot implementation of electronic procurement in 100 procuring entities before its rollout. However, procurement audit reports showed few organisations adopted the system in 2017/2018 (PPRA, 2018). In that sense, the key question was what caused a low rate of electronic procurement adoption in public sector organisations while private sector organisations adopted it quickly in various countries?

Although the procurement law allows the application of an electronic procurement system, only a few studies highlight the main drivers influencing electronic procurement adoption in developing countries like Tanzania. Hence, it was essentially a study to be carried out to assess the state of adoption of electronic procurement in public organisations compared to private organisations in Tanzania. Therefore, this study analysed the determinants of electronic procurement adoption in Tanzania by looking specifically at the influence of individual and

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organisational factors on electronic procurement adoption in both public and private organisations.

2.0 THEORETICAL REVIEW

This study was led by one theory which is Technology Acceptance Theory (TAT). According to Devis (1986), as modified by Chow, Herold, Choo & Chan (2012), this theory explains that emerging new technology inside the organisation cannot be implemented if it is not accepted by users. Electronic procurement technology adoption in the organisation requires the involvement of employees and openly communicating with them concerns the new technology that emerged.

According to Shatta, Shayo, Mchopa, & Layaa, (2020), new technology leads to organisational and behaviour changes. Hence attitudes and beliefs among employees must be aligned with the new technology imposed. Most of the individuals inside the organisation may resist the changes that emerged; hence the organisation needs to find out the reasons for the users to resist any changes. The theory of Technological acceptance is based on two things, namely perceived usefulness as well as ease of use. In this study, the theory of Technological acceptance is applicable because the electronic procurement adoption in an organisation will be implemented if the employees inside the organisation find it easy for them to use, and the organisation will insist on the implementation of the system if the technology found to be of the benefit to the organisation.

3.0 RESEARCH METHODOLOGY

3.1 Research Design

This study used a cross-sectional method because the researchers intended to collect data from respondents in both private and public organisations only once without repeating the same phenomena. Also, the cross-sectional design made it possible for the researchers to collect enough data cost-effectively needed from the sizeable population. The same kind of research design has been revealed to assist researchers by giving more control over the research process (Saunders, Lewis, & Thornhill, 2009).

3.2 Sampling Technique and Sample Size

Researchers used probability sampling techniques. Under this, a stratified simple random sampling technique was used. In the Stratified simple random sampling method, the researchers selected the sample of respondents who dealt with procurement activities and were believed to be reliable, directly involved and knowledgeable for the study (Magigi, 2015). Pituch & Stevens (2015), as well as Pallant (2013), recommend at least subjects in the range of 10-15 to be involved in the conceptual framework specifically per independent variable to conduct multivariate statistical analysis to achieve a required total sample size of 40-60 respondents for individual and organisational factors respectively. This is because individual factors had four variables, and organisational factors had four variables that were tested separately. The sample was drawn from all departments involved in procurement activities daily. At least 50% of the

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population of each department was taken as a sample for this study. Data were collected in Dar-es Salaam, of which respondents were requested to fill up the questionnaires presented to them and collected by researchers. A total of 106 respondents were used to provide data to researchers, of which 52 respondents were from Tanzania Breweries Limited (TBL), and 54 respondents were from TANESCO. Respondents from each organisation were considered optimal to meet the requirement of efficiency, reliability, and representativeness (Kothari, 2004).

3.3 Data Collection Techniques

In this study, the choice of the data collection tool to be used was selected by considering how best the tool could serve the purpose of this study of which the preferable selected data collection tool involved questionnaires which were supplemented by a documentary review. The researchers prepared questionnaires that were applied as an extracting instrument for qualitative as well as quantitative evidence necessary to be used in the study. Questionnaires in this study were primarily designed to draw attention to gathering data concerning the adoption of electronic procurement at TBL and TANESCO. Also, the questionnaire designed covered or facilitated gathering all the intended data of the adoption of electronic procurement in the organisation. Both close and open-ended questions were formulated. For the case of documentary review, documentary sources used in this study include magazines, journal papers, audit reports as well as other potential library documents and materials. On the other hand, formal records for instance purchasing files, research as well as annual reports were used. Other sources of secondary data provided by organisations were purchase requisition, purchase order, delivery, and goods received notes. The usefulness of these sources was on justifying several actions supporting to be involved in the research report.

3.4 Data Analysis

The comparison of the relationship between independent variables (organisation structure, employee motivation, teamwork and leadership style) with the dependent variable (adoption of electronic procurement) applied the binary logistic regression (L.R.) model. The response variable was treated in binary response, measuring whether the organisation adopted electronic procurement or not. For this case, a dummy variable was created as 1= if adopted electronic procurement and 0= if not adopted electronic procurement. Thus,

$$\text{Logit}(Y) = a + \beta_1 SK + \beta_2 AG + \beta_3 ED + \beta_4 SE \quad \ldots\ldots 1$$

Where by

Logit (Y) = is a probability of electronic procurement adoption ranging from 0 to 1;

a = constant term,

SK= Skills

AG= Age

ED= Education

Se = Sex

$\beta_1+\beta_2+\beta_3+\beta_4$ =coefficient of independent variables showing its effect on the dependent variable

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Furthermore, to assess the influence of organisational factors (organisation structure, employee motivation, teamwork, and leadership style) on the adoption of electronic procurement in the second part of the specific objective, the researchers used the same logistic regression model. The dependent variable was treated in binary response, measuring whether the organisation adopted electronic procurement or not. For this case, a dummy variable was created 1= if adopted electronic procurement and 0= if not adopted electronic procurement. Thus;

Logit (Y) = a +β_1OG+β_2EM+β_3TW+β_4LS……...2

Where by

Logit (Y) = is a probability of electronic procurement adoption ranging from 0 to 1;

a = constant term,

OG= Organization structure

EM= Employee motivation

TW= Team work

LS = Leadership style

β_1+β_2+β_3+β_4 = coefficient of independent variables showing its effect on the dependent variable

3.5 Testing Binary Logistic Regression Assumption

Literature indicates that to run a binary logistic regression model, the assumptions of the model are necessary to be checked to avoid deviation from the assumptions. Pallant (2007) said that fundamental assumptions of the regression model must be checked before running a regression analysis. Therefore, all assumptions of the regression model were checked by the researcher during data analysis.

3.6 Evaluation of the Model

Table 1 demonstrates that the general model was statistically relevant ($p<0.05$), which indicates the capability of the model that the electronic procurement adoption is influenced by the individual factors. Also, the excellence match of the model was measured by checking out Hosmer and Lemeshow test, where the results indicate that there is a good fit of the model as the p-value is more than 5 per cent ($p>0.05$), as shown in Table 3.1. Furthermore, to test the effectiveness of the model, Nagelkerke R^2 and Cox, as well as Snell R-square must be observed. For this study, the value of Cox Snell R square and Nagelkerke R^2 was 0.620 and 0.857 consecutively. This implies that the independent variable (skills, age, education and sex) as indicated in the model, explains 62% and 85.7% variance in the dependent variable (electronic procurement adoption).

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Table 1: Omnibus Tests of Model Coefficients and Hosmer and Lemeshow Test

		Chi-square	Df	Sig.
Step 1	Step	48.314	4	.000
	Block	48.314	4	.000
	Model	48.314	4	.000
Hosmer and Lemeshow test				
		Chi-square	Df	Sig
		11.486	8	.176

Nagelkerke R Square .857
Cox & Snell R Square .620
-2 Log likelihood 99.951[a]

Research findings (2018)

4.0 FINDINGS AND DISCUSSION

4.1 Influence of Individual Factors on Electronic Procurement Adoption

This part of the objective aimed to find out if employees' attributes have any relationship with adopting electronic procurement in an organisation. Individual factors in this research were analysed by considering four indicators which were education, individual skills, age and gender.

The research findings (See table 2) revealed that the adoption of electronic procurement at TANESCO is influenced by individual factors of education and skills in an organisation. This suggests that the adoption of electronic procurement at TANESCO is determined by employees' education level, such as having a bachelor degree and other highest levels of education like master's and PhD. Thus, employees who have the highest level of education can learn very fast compared to those with a low level of education. The study findings align with the study done by Caselli & Coleman (2001), who found that an organisation's rate of electronic usage system is viewed on workers' ability in terms of their education level. This indicates that possession of the highest education by an individual in a particular field leads to the increased adoption of electronic procurement.

Also, the adoption of electronic procurement at TANESCO was influenced by individuals' skills. This observation implies that employees who have skills concerning the use of different software such as electronic procurement software and other computer software were able to quickly adopt any changes in information communication technology because electronic procurement application requires employees to be familiar with the usage of computers. This corresponds with the study conducted by Mchopa (2012), who found that successful implementation of an electronic procurement system requires expertise from both the supplier entity and the buying organisation. In addition, this finding is in line with the study results by Makoba *et al. (*2017), who found that for the organisation to gain electronic procurement benefits, employees should

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accept technological changes and be ready to learn about a new system that raises. Furthermore, the study aligns with the technology acceptance theory, which indicates that smooth adoption of new technology requires employee involvement to accept it.

However, the study failed to find the existing relationship between individual factors of age and gender in influencing the adoption of electronic procurement at TANESCO because the p-value is greater than 5 per cent ($p>0.05$). Hence, the outcome rejected the alternative hypothesis and accepted the null hypothesis. This implies that aged people, such as older people and young people, cannot influence the adoption of electronic procurement. The findings are in contrast to the study done by Meyer (2007), who found that the adoption of electronic procurement in organisational progress is affected by the individual age of the employees by considering that the youth or younger people in the organisation were capable of adopting the new technological changes easily. For instance, the application of electronic procurement compared to the older people, as the demographic result indicated that age of employees at TANESCO many fall under 35-55 years. Also, the study was contrary to the study of Raufu (2014), who found that there is an influence of gender (Male and Female) in the adoption of new technology in an organisation by observing that males were able to adopt the new changes of technology very fast compared to females.

Table 2: Influence of Individual Factors on E-Procurement Adoption at TANESCO

	B	**S.E.**	**Wald**	**Df**	**Sig.**	**Exp(B)**	**95% C.I. for EXP(B)**	
							Lower	Upper
Individual skills	-3.367	1.282	6.896	1	.009**	1.034	.003	.426
Age	-.651	1.408	.214	1	.644	.522	.033	8.236
Education	-2.423	1.137	4.541	1	.033**	.089	.010	.823
Sex	.808	.718	1.268	1	.260	2.243	.550	9.155
Constant	13.930	6.425	4.701	1	.030	1120960.573		

Dependent variable: Electronic procurement adoption (1=if adopted 0=if not adopted**) **** denote significant level

Research findings, (2018)

For the case of TBL, the results (See table 3) indicate that electronic procurement adoption was influenced by the individual factors of age and education because the p-value was less than 5%. Therefore, there is a significant relationship between age and electronic procurement adoption; hence alternative hypothesis was supported. This implies that the age of people in an organisation influence the adoption of electronic procurement; normally the youth or younger people in the organisation can learn very quickly due to the ability of youth to think critically and also faster compared to older people. Also, the capability of youth to adopt the new technological changes easily, for example, the application of electronic procurement was very faster compared to older people as it goes right with the results from the demographic information which indicate that there is more youth employee in TBL as most of them are between 21-35years. This study is

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consistent with the study done by Meyer, (2007) which found that any adoption of electronic procurement in an organisation is mainly affected by the individual age of the employees by considering that the youth or younger people in the organisation were capable to adapt easily the new changes of technology such as the use of electronic procurement compared to the elder people. Also, the study is aligned with that study of Frosch, (2011) who found that active old age considers the ability and desire of a large number to continue being involved in socially and economically activities in production meanwhile the dangers of disability, as well as chronic illness, grow or matches with age. While this happens to TBL as age influences the adoption of electronic procurement, at TANESCO age does not influence electronic procurement adoption.

Additionally, the education of employees influences the adoption of electronic procurement at TBL. Thus, having a good number of employees with the highest level of education contributes towards the adoption of electronic procurement hence better performance of the organisation. This is supported by Caselli & Coleman, (2001), who found that an organisation's rate of electronic usage system is viewed on workers' ability in terms of their education level.

However, the findings at TBL failed to establish a relationship between individual skills and gender in influencing the adoption of electronic procurement, and the p-value is more than 5% ($p>0.05$). Hence, the outcome was a rejection of the alternative hypothesis and acceptance of the null hypothesis, implying that employees' skills do not influence the adoption of electronic procurement at TBL due to the negative insignificant relationship between skills and adoption of electronic procurement. This finding is contrary to findings that were obtained at TANESCO, which indicate the positive relationship between skills and adoption of electronic procurement. Furthermore, this study is contrary to another study done by Mchopa (2012), which indicates that the successful implementation of the selected electronic procurement system requires expertise from both the supplier entity and the buying organisation, who are in charge of day-to-day procurement operation. Moreover, the study failed to find an association between gender and the adoption of electronic procurement at TBL. This study is contrary to the study conducted by Raufu (2014), who found that gender (Male and female) influences the adoption of new technology in an organisation by observing that males were able to adopt the new changes of technology very faster compared to female.

Table 3: Influence of Individual Factors on Electronic Procurement Adoption at TBL

	B	**S.E.**	**Wald**	**Df**	**Sig.**	**Exp(B)**	**95%C.I.for EXP(B)**	
							Lower	Upper
Individual skills	1.175	1.268	.859	1	.354	3.238	.270	38.871
Age	3.317	1.338	6.148	1	.013**	27.590	2.004	379.808
Education	2.607	1.170	4.961	1	.026**	13.556	1.367	134.383
Sex	-.858	.733	1.371	1	.242	.424	.101	1.783
Constant	-15.798	6.719	5.528	1	.019	.000		

Dependent variable: Electronic procurement adoption (1=if adopted 0=if not adopted**) **** denote significant level

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4.2 Influence of Organisational Factors on Electronic Procurement Adoption

This second part of the objective aimed to find the existing relationship between factors of organisation and the adoption of electronic procurement. The organisation factors were analysed by considering four indicators including organisational structure, employee motivation, teamwork and leadership style. The outcomes from the findings (See Table 4) noted that there is a positive and significant relationship between organisational structure and electronic procurement adoption at TANESCO as the *p*-value is lower than 5 per cent ($p<0.05$), resulting in the acceptance of the alternative hypothesis of the study. This implies that a well-established structure that allows smooth interaction of communication among employees within the organisation enables easy adoption of new technology because the employees can communicate smoothly with the top management concerning any innovation which is likely to be made in an organisation and the top management provides the support to the lower level. To this extent, a good organisation structure facilitates or encourages innovation which leads to easy adoption of any changes of new technology such as electronic procurement adoption. This is supported by the study done by Rahman Seresht, Alizadeh, & Abdullahi, (2017), who found that the adoption of new technology in an organisation is supported much by a good organisational structure which allows easy communication between top-level management and lower-level employees. Also, the study is supported by the Technology Acceptance Theory (TAC) done by Davis (1986). The employees will accept the technology if they find it easy to use and if the management within the organisation insists on the benefit that can be gained from the system.

Moreover, the results revealed a significant relationship between teamwork and the adoption of electronic procurement at TANESCO as the p-value is lower than 5 per cent ($p<0.05$). In this case, the alternative hypothesis of the study is accepted. This implies that electronic procurement adoption in an organisation is influenced by the teamwork of employees because the availability of teamwork among the employees in performing tasks and any other issues facilitates easy adoption of electronic procurement in an organisation through participation in understanding and implementing the new technology and software. This is underpinned by a study conducted by Gunaseharan, McGaughey, Ngai, & Rai (2009), which found that having teamwork among employees and top management facilitates and encourages the fast adoption of electronic procurement because of the easy sharing of knowledge and skills. Also, these results are similar to the study by Teo *et al. (*2009) which concluded that there is a significant positive relationship between teamwork and the adoption of electronic procurement in an organisation.

However, the results failed to establish the relationship between motivation of employees and leadership style with the adoption of electronic procurement in an organisation as the p-value is more than 5 per cent ($p>0.05$), whereby the alternative hypothesis of the study was rejected and the null hypothesis was accepted. The study is contrary to the study done by Chopra (2002), who found that motivation factors such as better wages, promotion and allowances by motivating the employees to increase their productivity through innovation and adoption of new technology influenced the adoption of electronic procurement in an organisation. Also, there is an insignificant relationship between the leadership style and the adoption of electronic

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procurement. Thus, whether leadership style is good or bad did not influence the adoption of electronic procurement which is supported by the study done by Abdullah, Arokiasamy, & Ismail, (2015) Who found that there is no association between the leadership style of top management and the adoption of electronic procurement within an organisation. Further, Bohoris, (2007), said that leadership style encourages or discourage employee to perform a better job but with the adoption of electronic procurement the study failed to establish the existing relationship.

Table 4 Influence of Organisation Factors on E-Procurement Adoption at TANESCO

	B	**S.E.**	**Wald**	**Df**	**Sig.**	**Exp(B)**	**95% C.I.for EXP(B)**	
							Lower	Upper
Organisation structure	2.602	1.112	5.476	1	.019**	.074	.008	.655
Employee motivation	-2.404	5.217	.212	1	.645	.090	.000	2491.685
Teamwork	3.275	1.561	4.404	1	.036**	.038	.002	.806
Leadership style	1.381	5.234	.070	1	.792	3.981	.000	113609.813
Constant	17.228	7.485	5.297	1	.021	30352317.444		

Dependent variable: Electronic procurement adoption (1=if adopted 0=if not adopted**) **** denote significant level
Research findings (2018)

For the case of TBL, findings indicate that (See Table 5) there is a statistically significant relationship between employee motivation and adoption of electronic procurement as the p-value was less than 5%, which supports the alternatives hypothesis. This implies that electronic procurement adoption at TBL was influenced by the motivation of an employee. Through motivation, employees might be eager to learn new technology which may increase organisation performance. In this case, the motivation of the employee was in terms of a better salary, overtime payment, promotion and extra duty allowance. These results are consistent with that study of Chopra, (2002) which found that the adoption of electronic procurement in an organisation was influenced by the motivation factors such as better wages, promotion and allowances by motivating the employees to increase their productivity through innovation and adoption of new technology. This result is also supported by the Theory of Planned Behavior (TPB) which indicates that certain variables influenced the new technology adoption, in the sense that, employee behaviour toward the new technology adoption is predicted by the organisation's intention.

Also, the adoption of electronic procurement at TBL was influenced by the teamwork within the organisation as the p-value was less than 5 per cent. This implies that the presence of teamwork, such as collaboration in tasks or work at TBL among employees, contributes to easily adopting electronic procurement because of sharing knowledge, technology, and experience among the employees. This corresponds with the study conducted by Gunaseharan *et al.*, (2009) which

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found that having teamwork among employees and top management facilitates and encourages the fast adoption of electronic procurement because of the easy sharing of knowledge and skills. This is the same as the study conducted by Teo, *et al. (*2009) who concluded that there is a positive and significant relationship between teamwork and the adoption of electronic procurement in an organisation.

However, the findings failed to identify the relationship existing between organisation structure and electronic procurement adoption at TBL as the p-value was greater than 5%, and the alternative hypothesis was rejected. This indicates that the organisation structure did not influence the adoption of electronic procurement. Thus, having a good or bad organisation structure does not influence electronic procurement adoption. This is contrary to the findings of TANESCO which show the positive and significant relationship between organisation structure and electronic procurement adoption. Also, the findings were contrary to the study done by Rahman Seresht et al., (2017) who found that the adoption of new technology in an organisation was supported much by a good organisational structure which allows easy communication between top-level management and lower-level employees. Also, the findings at TBL failed to establish a significant relationship between leadership style and adoption of electronic procurement. Thus, the adoption of electronic procurement was not influenced by the leadership style. The study opposes the study done by Bohoris (2007), which indicates that leadership style encourages or discourages employees to perform a better job.

Table 5: Influence of Organisational Factors On E-Procurement Adoption at TBL

	B	**S.E.**	**Wald**	**Df**	**Sig.**	**Exp(B)**	**95% C.I. for EXP(B)**	
							Lower	Upper
Organisation structure	.550	2.457	.050	1	.823	1.733	.014	213.709
Employee motivation	2.789	1.106	6.364	1	.012**	16.266	1.863	142.029
Teamwork	3.583	1.523	5.536	1	.019**	35.983	1.819	711.686
Leadership style	.582	2.159	.073	1	.787	1.790	.026	123.166
Constant	-18.923	7.892	5.748	1	.017	.000		

Dependent variable: Electronic procurement adoption (1=if adopted 0=if not adopted**) **** denote significant level
Research findings (2018)

5 CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

Based on the study findings, shows that TANESCO as a public organisation is at the preliminary stage of adopting electronic procurement. The main tools used were e-informing and e-sourcing, which indicates that the application of electronic procurement in public organisations still lagging. Practically, public organisations were still in pilot-study on implementing the system of electronic procurement despite the public procurement regulation of 2013, Reg. 342 which

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require public entities to implement the use of electronic procurement in procurement proceedings. But at TBL as a private organisation, the findings indicate that the organisation was in a transactional perspective on electronic procurement adoption and the main tools used were e-tendering and e-payment and including all tools which were used in information perspective because the organisation moved from the preliminary stage to final stage of electronic procurement adoption. TBL through adopting electronic procurement had advantages of reductions in paperwork in procurement, reductions in procurement cycle-time, improve integrity, transparency and ease in conducting an audit.

Therefore, in this study researchers observed that technology is growing fast and most activities can be easily completed with the use of technology and still achieve efficiency and effectiveness. In this sense, if TANESCO (which represents public institutions in this study) will not adopt the new system immediately, the organisation will continue to face cost overruns, inefficiency, ineffectiveness and overall failure to achieve value for money in procurement. However, electronic procurement adoption as observed in TBL may lead to the reduction of employees in the future.

5.2 Recommendations

Based on the study findings, the following are the recommendations made by researchers;

- The Government of the United Republic of Tanzania should make sure that public institutions adopt e-procurement full to enjoy the advantages which private organisations obtain in implementing e-procurement.

- Secondly, the Government must ensure that there are adequate electronic facilities, train its staff and suppliers, maintain a steady supply of electricity and network, as e-procurement requires well-maintained infrastructures as well as trained staff from buying and selling organisations which will build trust among participants in the implementation of the system. Otherwise, it will be a nightmare to reduce the cost, and procurement cycle and achieve other advantages if the adopted system is poorly facilitated and supported by the Government.

- Lastly, organisations must ensure that members are provided with enough training concerning e-procurement to build awareness among employees and increase their efficiency as it has been found the system is influenced by the availability of technical knowledge among employees. Also, organisations should make sure that they recruit more youth employees than elders as they are the ones who can easily adapt to changes which will increase efficiency and effectiveness in their daily work.

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