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**THE EFFECT OF E-PROCUREMENT AND ACCOUNTABILITY IN UGANDA. A CASE  
STUDY OF THE PARLIAMENT OF THE REPUBLIC OF UGANDA.**

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**ABSTRACT**

*The study aimed at the effect of e-procurement and accountability in uganda using a case study of the parliament of the republic of uganda and it was guided by the following objectives; To establish the role of E-sourcing as an Enablers of the information systems in the organization, to assess the contribution of E-tendering applications on Accountability and Organizational commitment and to determine the relationship between E-Procurement and Accountability in Ugandan Parliament. The study used only one organization which is parliament of the Republic of Uganda; hence it is a case study. The parliament of the republic of Uganda is structured into seven directorates. This study collected data from 4 directorates which are Human Resource; Finance; Administration and Supply Chain Management and services. There are 1,000 employees in these directorates from whom a sample was selected. According to the regression equation established, keeping all other independent variables constant, the Supply Chain performance of Ugandan parliament was - 19.883. The findings also shown that keeping all other independent variables constant, a unit increase in the extent of application of e-Procurement led to a 10.405 increase in the Supply Chain performance of Ugandan parliament. Keeping all other variables constant, a unit increase in the level of ICT expertise will lead to a 9.187 increase in the Supply Chain the Supply Chain performance of Ugandan parliament. Keeping all other independent variables constant, a unit increase in online requisitions will lead to a 2.753 increase in the corporation's Supply Chain performance. The Parliament of the republic of Uganda management was recommended to improve on the preparation and submission of annual procurement plan, update the parliament the republic of Ugandan website with information on*

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*the available goods that were destined for disposal, security measures were to be improved in regards to e-Procurement system and the top Management was advised to always be in the forefront in support for full implementation of e-Procurement.*

*Key words: E-procurement and accountability*

### ***Background of the Study***

*In today's dynamic global competitive business environment, technology-based services are no longer an afterthought; rather, it was a necessity for public and private organizations. It has become imperative for companies to provide their customers with a cost-effective total solution and better customer satisfaction with innovative ideas and methods (Nelson, Christopher, Teddy, et al., 2022). With the emergence of information and communication technology (ICT), companies have been forced to shift their operations from traditional style to e-business, e-procurement and accountability philosophies to sustain themselves (Lee et al, 2015). In the last decade, both private and public sector organizations have been using information technology (IT) to streamline and automate their purchasing and other processes. The mandate of the Ugandan Parliament Service was enshrined in the Constitution of Uganda (2010) under Article 23 (1). The mandate includes: Enact laws that will ensure good governance in the country, recruit and employ trained Ugandan citizens, assign duties to Ugandans employed by the organization, exercise disciplinary control over registered Ugandans, terminate employment in Uganda, review education and training standards for those entering the teaching service, review demand and supply in Uganda and advising the national government on matters relating to the teaching profession (Matthew & Mike, 2016).*

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*As organizations go digital, the Parliament of the Republic of Uganda (PRU) has not been left behind. The Public Procurement Regulations (2016) gave the organization the confidence to implement an e-procurement system. This has been partially implemented with processes such as store requests and purchase requests being processed online. After implementation, the organization was expected to reduce its costs by 30% and save 10% of its resources. The savings realized would be allocated to other deserving areas such as prison management which is concerned with improving the level of education in the country. Stakeholders would also be incorporated, resulting in the purchase of goods in the right quality, quantity and at the right price from a pool of competent suppliers.*

***Statement of the problem.***

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*The purchasing function is one of the most important departments in any organization. It contributes immensely to organizational effectiveness and efficiency (Christopher et al., 2022). The Government of Uganda continues to lose millions of shillings to mainstream government procurement fraud. Each department head is expected to purchase goods/services or work at the right time, price, quantity and quality on site for the use of all departments in the organization so that the organization will benefit greatly and be able to serve its customers (internal and external) in a better way (Racheal et al., 2023). When the purchasing department is inefficient in its purchasing activities, it affects all other departments and thus has an impact on the supply chain of the organization as a whole. E-Procurement has simplified the purchasing, sourcing and disposal of items in an organization (Faridah et al., 2023). However, most government parastatals/agents are reluctant to embrace the concept of e-Procurement. Studies have been conducted on e-procurement both locally and internationally. Batenburg (2015) conducted a study on the adoption of e-Procurement by European firms. The study concludes that there are differences between countries in the adoption of e-procurement and that firms from countries with low levels of uncertainty avoidance, such as Germany and the UK, are early adopters of e-procurement, while countries that are less reluctant change, such as Spain and France have lower adoption rates. Other local studies include: Gitahi (2011) where he researched Nation media Group on its digital platform known as N-Soko which enables its clients to purchase products online. Avino (2011) conducted a survey of selected strategic variables on firm performance. The study focused on Supply Chain Management in large private manufacturing firms in Uganda. It has been found that most of the Supply Chain Management strategies of large manufacturing firms in Uganda are owned not by individuals but also by other organizations within the Supply Chain that provide the required linkages to the overall corporate performance of the manufacturing industry (Emmanuel et al., 2023). However, it is unclear whether past studies on e-procurement have focused on*

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*e-procurement and accountability in public institutions. To address this gap, the study is to focus on e-procurement and accountability with specific reference to the Parliament of the Republic of Uganda. The study is to answer the procurement procedures used in the Parliament of the Republic of Uganda, the level of e-Procurement application and accountability in the implementation of the e-Procurement system in the Parliament of the Republic of Uganda.*

**Objectives of the study**

- 1. To establish the role of E-sourcing as an Enablers of the information systems in the organization.*
- 2. To assess the contribution of E-tendering applications on Accountability and Organizational commitment.*
- 3. To determine the relationship between E-Procurement and Accountability in Ugandan Parliament.*

**Research questions**

- 1. What is the role of E-sourcing as an Enablers of the information systems in the organization?*
- 2. How do you assess the contribution of E-tendering applications on Accountability and Organizational commitment?*
- 3. How can the relationship between E-Procurement and Accountability be determined in the Ugandan Parliament?*

**Methodology**

**Research Design**

*This study used a descriptive research design to determine effects of e-Procurement on Supply Chain Management in Ugandan parliament. The design sought to describe the perception of employees on the applicability of e-Procurement, accountability and challenges encountered in its implementation in Ugandan parliament. Therefore, the case study techniques were used. The data collected was measured, classified, analyzed, compared and then interpreted.*

**Target Population**

*The study used only one organization which is parliament of the Republic of Uganda; hence it is a case study. The parliament of the republic of Uganda is structured into seven directorates. This study collected data from 4 directorates which are Human Resource; Finance; Administration and Supply Chain Management and services. There are 1,000 employees in these directorates from whom a sample was selected.*

**Sampling Technique**

*The sample was selected using quota system. Stratified random sampling method was then applied where the strata were the 4 directorates. One hundred employees (10% of the target population) from the four directorates were selected as the sample. These employees were conversant with e-Procurement procedures and they had an access to the system. They were therefore competent in using the e-Procurement applications and possess the much needed knowledge on e-Procurement. The sample size was appropriate since each employee in the strata had a chance of being selected and ensured that the core departments were well represented. According to Mugenda (2003) a sample size of 10%-30% of a target population is adequate enough to make a generalization. Therefore, the sample was large enough to make a generalization about the population. The respondents selected were also willing to fill the questionnaire. Table 3.1 indicates the sample size.*

**Table 1 Sample Size**

| <i>Directorate</i>      | <i>No. of employees</i> | <i>Sample Size</i> |
|-------------------------|-------------------------|--------------------|
| <i>Administration</i>   | <i>150</i>              | <i>15</i>          |
| <i>Finance</i>          | <i>300</i>              | <i>30</i>          |
| <i>Human Resource</i>   | <i>500</i>              | <i>50</i>          |
| <i>Supply Chain Mgt</i> | <i>50</i>               | <i>5</i>           |
| <i>Total</i>            | <i>1000</i>             | <i>100</i>         |

*Source: primary Data*

### **Data Analysis**

*The data collected was analyzed using quantitative analysis. The data was assigned numerical values. The quantitative data analysis entailed calculating the mean and performing regression analysis. The mean was calculated from the scores obtained from liker scale using SPSS (Nelson, Christopher, & Milton, 2022). The mean score of each factor indicating Supply Chain practices at Ugandan parliament, level of e-Procurement application at Ugandan parliament and the effects of e-Procurement and accountability on Supply Chain performance at Ugandan parliament on liker scale was calculated. A mean of 3.0 and above in each factor implied satisfaction in Supply Chain Management. The global mean of the factors on Supply Chain practices at Ugandan parliament level of e-Procurement application at Ugandan parliament and the effects of online requisitions on Supply Chain Management was calculated.*

### **RESULTS**

*Table 2 show the responses on the stores requisitions that are made online.*

**Table 2: Stores requisition**

| <b>Stores requisition online</b> | <b>Frequency</b> | <b>Percent (%)</b> |
|----------------------------------|------------------|--------------------|
| Not at all                       | 1                | 1.4                |
| Very low extent                  | 3                | 4.2                |
| Moderate extent                  | 3                | 4.2                |
| High extent                      | 15               | 21.1               |

|                         |           |              |
|-------------------------|-----------|--------------|
| <i>Very high extent</i> | 48        | 67.6         |
| <i>No response</i>      | 1         | 1.4          |
| <b>Total</b>            | <b>71</b> | <b>100.0</b> |

**Source: Survey data (2020)**

On the receipt of the purchased goods online, 3 respondents indicated that no goods are received online, 20 respondents indicated that the goods are received online to a very low extent, 13 respondents felt that the receipt of goods online is at a moderate extent, 17 respondents indicated that the online receipt is at high extent while 14 respondents felt that the receipt of goods online is to a very high extent. Four respondents did not respond. The percentages of the responses were 4.2%, 28.2%, 18.3%, 23.9%, 19.7 % and 5.6% respectively.

**Table 3: Responses on receipt of goods online.**

| <i>Receipt of goods online</i> | <i>Frequency</i> | <i>Percent (%)</i> |
|--------------------------------|------------------|--------------------|
| <i>Not at all</i>              | 3                | 4.2                |
| <i>Very low extent</i>         | 20               | 28.2               |
| <i>Moderate extent</i>         | 13               | 18.3               |
| <i>High extent</i>             | 17               | 23.9               |
| <i>Very high extent</i>        | 14               | 19.7               |
| <i>No response</i>             | 4                | 5.6                |
| <b>Total</b>                   | <b>71</b>        | <b>100.0</b>       |

**Source: Survey data (2020)**

***Level of e-Procurement application.***

*The second objective of the study was to establish the level of e-Procurement application on Supply Chain at UPS. This is covered by the statements in questions 5-9. Table 4. 11 show the frequency rates of the responses regarding the extent of stock outs when e-Procurement applications are used in supply chain. The responses were as per the table below. Two respondents indicated that the use of e-Procurement application did not affect the stock outs, 5 respondents showed that it affected the stock outs to a very low extent, 11 respondents felt that the stock out was not experienced to a moderate extent, 15 respondents indicate that it affected the stock out was not experienced to a high extent and 37 respondents felt that there was no stock out was experienced to a very high extent. This represented a 2.8%, 7%, 15.5%, 21.1% and 52.1% respectively. More than half of the respondents indicated that no stock out are experienced when an e-Procurement application is used in supply chain. One respondent did not give a feedback which represented 1.4% of the respondents.*

**Table 4: Level of e-Procurement application.**

| <b>Level</b> | <b>of</b> | <b>e-Procurement</b> | <b>Frequency</b> | <b>Percent (%)</b> |
|--------------|-----------|----------------------|------------------|--------------------|
|--------------|-----------|----------------------|------------------|--------------------|

|                         |           |              |
|-------------------------|-----------|--------------|
| <b>application</b>      |           |              |
| <i>Not at all</i>       | 2         | 2.8          |
| <i>Very low extent</i>  | 5         | 7.0          |
| <i>Moderate extent</i>  | 11        | 15.5         |
| <i>High extent</i>      | 15        | 21.1         |
| <i>Very high extent</i> | 37        | 52.1         |
| <i>No response</i>      | 1         | 1.4          |
| <b>Total</b>            | <b>71</b> | <b>100.0</b> |

*Source: Survey data (2020)*

Table 4 shows the responses towards the statement on reduction of requisition to issuing period when e-Procurement applications are used. One (1) respondent indicated that e-Procurement application reduced the requisition period to a very low extent, 9 respondents said that it reduced the requisition period to a moderate extent, 19 respondents indicated that it reduced the requisition period to a high extent and 40 respondents said that it reduced the requisition period to a very high extent. This was more than half of the respondents. Two (2) respondents declined to give a response towards this statement. This represented 1.4%, 12.7%, 26.8%, 56.3% and 2.8% of the total respondents.

**Table 5: Reduction of requisition period**

| <b>Stores requisition online</b> | <b>Frequency</b> | <b>Percent (%)</b> |
|----------------------------------|------------------|--------------------|
| <i>Very low extent</i>           | 1                | 1.4                |
| <i>Moderate extent</i>           | 9                | 12.7               |
| <i>High extent</i>               | 19               | 26.8               |
| <i>Very high extent</i>          | 40               | 56.3               |
| <i>No response</i>               | 2                | 2.8                |
| <b>Total</b>                     | <b>71</b>        | <b>100.0</b>       |

*Source: Survey data (2020)*

Table 5, it shows the responses on availability of disposable items online. It shows that 42 respondents said that disposable items are not found in the website, 11 respondents said that the disposable items are only available in the website to a very low extent, 9 respondents indicated that availability was to a moderate extent, 3 respondents said that availability of disposable items in the website was to a very high extent. Three(3) respondents did not give their responses This represented 60.6%, 15.5%, 12.7%, 2.8%, 4.2%, and 4.2% of the respondents respectively.

**Table 6: Disposable items online**

| <b>Online Disposal of items</b> | <b>Frequency</b> | <b>Percent (%)</b> |
|---------------------------------|------------------|--------------------|
| Not at all                      | 43               | 60.6               |
| Very low extent                 | 11               | 15.5               |
| Moderate extent                 | 9                | 12.7               |
| High extent                     | 2                | 2.8                |
| Very high extent                | 3                | 4.2                |
| No response                     | 3                | 4.2                |
| <b>Total</b>                    | <b>71</b>        | <b>100.0</b>       |

**Source: Survey data (2020)**

Table 6 indicates the responses on preparation and submission of annual procurement plan online. It shows that 51 respondents said that annual procurement planning is never prepared and submitted on line, 4 respondents indicated that it is prepared and submitted online to a very low extent, 8 respondents said that it is done to a moderate extent, 3 respondents indicated that it was done to a high extent and 3 respondents said that it was done to a very high extent. No response was given by 2 respondents. This represented 71.8%, 5.6%, 11.3%, 4.2%, 4.2% and 2.8% of the respondents respectively.

**Table 7: Annual procurement planning**

| <i>Annual procurement planning</i> | <i>Frequency</i> | <i>Percent (%)</i> |
|------------------------------------|------------------|--------------------|
| <i>Not at all</i>                  | 51               | 71.8               |
| <i>Very low extent</i>             | 4                | 5.6                |
| <i>Moderate extent</i>             | 8                | 11.3               |
| <i>High extent</i>                 | 3                | 4.2                |
| <i>Very high extent</i>            | 3                | 4.2                |
| <i>No response</i>                 | 2                | 2.8                |
| <b>Total</b>                       | <b>71</b>        | <b>100.0</b>       |

*Source: Survey data (2020)*

### ***The practice of Supply Chain Management***

*The respondents had been asked questions on the challenges encountered in use of e-Procurement in Supply Chain Management. This was covered under the third objective. It sought to answer to various practices that affect the implementation of e-Procurement in the Supply Chain Management. The responses to this were covered in statements 9-15. In determining this, the researcher sought to establish the ratio of the personal computers to that of the personnel. The results showed that 10 respondents indicated that the ratio was not recommendable at all, 6 respondents felt that the ratio was recommendable to a very low extent, 27 respondents felt that the ratio was recommendable to a moderate extent, 24 respondents said that the ratio was recommendable to a high extent while 3 respondents said that the ratio was recommendable to a very high extent. One (1) respondent did not give a response to this statement. This represents a 14.1%, 8.5%, 38%, 33.8%, 4.2% and 1.4% respectively.*

*Table 7 shows the frequencies on the responses regarding the statement on the current ratio on the number of personal computers to that of the personnel. The research showed that majority of the respondents felt that the ratio is moderately recommendable.*

***Table 7: Ratio of personal computers to number of personnel***

| <i>Ratio of computers to personnel</i> | <i>Frequency</i> | <i>Percent (%)</i> |
|----------------------------------------|------------------|--------------------|
| <i>Not at all</i>                      | 10               | 14.1               |
| <i>Very low extent</i>                 | 6                | 8.5                |
| <i>Moderate extent</i>                 | 27               | 38.0               |
| <i>High extent</i>                     | 24               | 33.8               |
| <i>Very high extent</i>                | 3                | 4.2                |
| <i>No response</i>                     | 1                | 1.4                |
| <b>Total</b>                           | <b>71</b>        | <b>100.0</b>       |

*Source: Survey data (2020)*

Table 7 indicates the frequency of the responses on the ability of the server to operate throughout. Five (5) respondents felt that the server does not at all operate throughout, 11 respondents felt that the server operated throughout to a low extent, 19 respondents said that the server operated throughout to a moderate extent, 26 respondents said that the server was operational throughout to a high extent while 4 respondents felt that the server operated throughout to a very high extent. No response was received from 6 respondents.

This represents 14.1%, 8.5%, 38%, 33.8%, 4.2%, and 1.4% of the respondents respectively.

**Table 7: Server operations**

| <i>Server Operations</i> | <i>Frequency</i> | <i>Percent (%)</i> |
|--------------------------|------------------|--------------------|
| <i>Not at all</i>        | 5                | 7.0                |
| <i>Very low extent</i>   | 11               | 15.5               |
| <i>Moderate extent</i>   | 19               | 26.8               |
| <i>High extent</i>       | 26               | 36.6               |
| <i>Very high extent</i>  | 4                | 5.6                |
| <i>No response</i>       | 6                | 8.5                |

|              |           |              |
|--------------|-----------|--------------|
| <b>Total</b> | <b>71</b> | <b>100.0</b> |
|--------------|-----------|--------------|

*Source: Survey data (2020)*

Table 7 represents data on responses towards the integration of e-Procurement system with the other systems in the Organization. One (1) respondent felt that e-Procurement system was not integrated at all with the other existing systems, 12 respondents felt that the e-Procurement system is integrated with other systems to a very low extent, 33 respondents showed that the systems are moderately integrated, 20 respondents indicated that the systems are integrated to a high extent and 4 respondents felt that the systems are integrated to a very high extent. One (1) respondent did not response to this statement. This represented 14%, 16.9%, 46.5%, 28.2% 5.6%, and 1.4% of the respondents respectively.

**Table 8: E- procurement integration with other systems**

| <b>E-Procurement integration</b> | <b>Frequency</b> | <b>Percent (%)</b> |
|----------------------------------|------------------|--------------------|
| Not at all                       | 1                | 1.4                |
| Very low extent                  | 12               | 16.9               |
| Moderate extent                  | 33               | 46.5               |
| High extent                      | 20               | 28.2               |
| Very high extent                 | 4                | 5.6                |
| No response                      | 1                | 1.4                |
| <b>Total</b>                     | <b>71</b>        | <b>100.0</b>       |

*Source: Survey data (2020)*

Table 8 shows a response results on the appropriateness of the communication channels that have been established at the Organization. One (1) respondent felt that the communication channels are not established, 14 respondents felt that the

communication channels are established to a very low extent, 38 respondents felt that the communication channels are established to a moderate extent, 13 felt that the communication channels are established to a high extent while 2 respondents felt that the communication channels are established to a very high extent. Three respondents did not give their output to this statement. This represents 1.4%, 19.7%, 53.5%, 18.3% 2.8% and 4.2% respectively.

**Table 9: Response on communication channels**

| <i>Communication channels</i> | <i>Frequency</i> | <i>Percent (%)</i>  |
|-------------------------------|------------------|---------------------|
| <i>Not at all</i>             | <i>1</i>         | <i>1.4</i>          |
| <i>Very low extent</i>        | <i>14</i>        | <i>19.7</i>         |
| <i>Moderate extent</i>        | <i>38</i>        | <i>53.5</i>         |
| <i>High extent</i>            | <i>13</i>        | <i>18.3</i>         |
| <i>Very high extent</i>       | <i>2</i>         | <i>2.8</i>          |
| <i>No response</i>            | <i>3</i>         | <i>4.2</i>          |
| <b><i>Total</i></b>           | <b><i>71</i></b> | <b><i>100.0</i></b> |

**Source: Survey data (2020)**

The study findings on the security measures of the e-Procurement system showed that only 1 respondent felt that there was no adequate measures, 34 respondents said that adequate security measures were in place to a very low extent, 21 respondents felt that the security measures were adequate to a moderate extent, 11 respondents said that the security measures were adequate to a high extent and only 2 respondents said that the adequacy of the security measures in regard to e-procurement measures is very high. There was no response from 2 respondents. This represented 1.4%, 47.9%, 29.6%, 15.5%, 2.8% and 2.8% of the respondents respectively.

In regards to payment of supplier on time when e-Procurement is used, the research findings showed that 49 respondents said that e-Procurement did not at all attribute

to the timely payment of suppliers, 7 respondents felt that the e-Procurement system contributes to suppliers timely payment to a very low extent, 7 respondents said that the system contribution to timely payment of suppliers was to a moderate extent, 6 respondents said that the contribution of e-Procurement was to a high extent while 1 respondents felt that the e-Procurement only contributes to suppliers timely payments to a very high extent. No response was received from one respondent. This represented 69.0%, 9.9%, 9.9%, 8.5%, 1.4% and 1.4% of the respondents respectively.

**Table 9: Response on Supplier payments**

| <b>Supplier payment</b> | <b>Frequency</b> | <b>Percent</b> |
|-------------------------|------------------|----------------|
| Not at all              | 49               | 69.0           |
| Very low extent         | 7                | 9.9            |
| Moderate extent         | 7                | 9.9            |
| High extent             | 6                | 8.5            |
| Very high extent        | 1                | 1.4            |
| No response             | 1                | 1.4            |
| <b>Total</b>            | <b>71</b>        | <b>100.0</b>   |

**Source: Survey data (2020)**

The last statement in the third objective was aimed at establishing whether the top Management supports the e-Procurement activities. Out of the 71 respondents, 47 respondents felt that the top management did not support the e-Procurement activities, 5 respondents felt that the top Management only supported e-Procurement to a very low extent, 9 respondents felt that the top. Management only supported e-Procurement activities to a moderate extent, 7 respondents said that top management supported e-Procurement to a high extent and 2 respondents said

that top management supported e-Procurement to a very high extent. No response was received from one respondent.

Table 10 shows the responses on support from top management on use of e-Procurement application on all procurement activities.

**Table 10: Response on top management support**

| <b>Top management support</b> | <b>Frequency</b> | <b>Percent (%)</b> |
|-------------------------------|------------------|--------------------|
| Not at all                    | 47               | 66.2               |
| Very low extent               | 5                | 7.0                |
| Moderate extent               | 9                | 12.7               |
| High extent                   | 7                | 9.9                |
| Very high extent              | 2                | 2.8                |
| No response                   | 1                | 1.4                |
| <b>Total</b>                  | <b>71</b>        | <b>100.0</b>       |

*Source: Researcher (2020)*

### **The Relationship between e-Procurement and Supply Chain efficiency**

**Table 11: Supply Chain Performance**

| <b>Supply Chain Performance</b> | <b>Frequency</b> | <b>Percent</b> | <b>Valid Percent</b> | <b>Cumulative Percent</b> |
|---------------------------------|------------------|----------------|----------------------|---------------------------|
| 10%                             | 4                | 5.6            | 5.6                  | 5.6                       |
| 20.0                            | 6                | 8.5            | 8.5                  | 14.1                      |
| 30.0                            | 3                | 4.2            | 4.2                  | 18.3                      |
| 40.0                            | 5                | 7.0            | 7.0                  | 25.4                      |
| 50.0                            | 4                | 5.6            | 5.6                  | 31.0                      |
| 60.0                            | 31               | 43.7           | 43.7                 | 74.6                      |
| 70.0                            | 13               | 18.3           | 18.3                 | 93.0                      |

|              |           |              |              |       |
|--------------|-----------|--------------|--------------|-------|
| 80.0         | 4         | 5.6          | 5.6          | 98.6  |
| 90.0         | 1         | 1.4          | 1.4          | 100.0 |
| <b>Total</b> | <b>71</b> | <b>100.0</b> | <b>100.0</b> |       |

**Source: Researcher (2020)**

The results in Table 11 indicate that 43.7% of the departments reported a performance of 60%. Only 10% of the respondents reported a performance level of less than 10%. 25.35% of the departments indicated a performance level of over 70%. The results therefore support the fact that e-Procurement has a positive impact on Supply Chain performance in the UPS.

#### **Descriptive Statistics on e-Procurement**

Descriptive statistics were used to test the significance of e-Procurement yielding the results in Table 12.

**Table 12: Descriptive Statistics on e-Procurement**

| <b>Descriptive statistics</b> | <b>Supply Chain Performance</b> | <b>Extent of Application e-Procurement</b> | <b>Level of ICT Expertise</b> | <b>Online Requisitions</b> |
|-------------------------------|---------------------------------|--------------------------------------------|-------------------------------|----------------------------|
|                               | 71                              | 71                                         | 71                            | 71                         |
| Mean                          | 53.944                          | 4.099                                      | 2.056                         | 4.465                      |
| Std. Error of Mean            | 2.2826                          | .1378                                      | .0598                         | .1149                      |
| Median                        | 60.000                          | 5.000                                      | 2.000                         | 5.000                      |
| Mode                          | 60.0                            | 5.0                                        | 2.0                           | 5.0                        |
| Std. Deviation                | 19.2338                         | 1.1607                                     | .5039                         | .9685                      |
| Variance                      | 369.940                         | 1.347                                      | .254                          | .938                       |
| Skewness                      | -.931                           | -1.156                                     | .113                          | -2.131                     |
| Std. Error of Skewness        | .285                            | .285                                       | .285                          | .285                       |
| Kurtosis                      | .108                            | .417                                       | 1.077                         | 4.250                      |

|               |        |       |       |       |
|---------------|--------|-------|-------|-------|
| Std. Error of | .563   | .563  | .563  | .563  |
| Kurtosis      |        |       |       |       |
| Range         | 80.0   | 4.0   | 2.0   | 4.0   |
| Minimum       | 10.0   | 1.0   | 1.0   | 1.0   |
| Maximum       | 90.0   | 5.0   | 3.0   | 5.0   |
| Sum           | 3830.0 | 291.0 | 146.0 | 317.0 |

Source: Researcher (2020)

From Table 12 shows the mean Supply Chain performance level is 53.944%. This implies that e-Procurement has led to a 53.944% improvement in Supply Chain performance of UPS over the last five years. On average the various departments in Ugandan parliament have applied e-Procurement to a High Extent as indicated by the mean (4.099). The mean of 2.5056 postulates that the level of ICT Expertise is moderate among the departments in UPS. However, the departments have adopted online requisitions to a high extent with a mean of 4.465.

A t-test was applied to test the significance of the variables. The results are shown in Table 4.24.

Table 13: One-Sample Test

| E-Procurement variables             | Significance test |    |                  | Mean Difference | 95% confidence interval of the Difference |        |
|-------------------------------------|-------------------|----|------------------|-----------------|-------------------------------------------|--------|
|                                     | t                 | Df | Siga. (2-tailed) |                 | Lower                                     | Upper  |
| Supply Chain Performance            | 23.632            | 70 | .000             | 53.9437         | 49.391                                    | 58.496 |
| Extent of Application e-Procurement | 29.753            | 70 | .000             | 4.0986          | 3.824                                     | 4.373  |

|                        |        |    |      |        |       |       |
|------------------------|--------|----|------|--------|-------|-------|
| Level of ICT Expertise | 34.385 | 70 | .000 | 2.0563 | 1.937 | 2.176 |
| Online Requisitions    | 38.844 | 70 | .000 | 4.4648 | 4.236 | 4.694 |

Source: Researcher (2020)

The findings in Table 13 show a p-Value of 0.00 for all the variables. This implies that all the variables are significant at 5% confidence level.

Table 14: Correlations

| Correlations        |                                     |                          |                                     |                        |                     |
|---------------------|-------------------------------------|--------------------------|-------------------------------------|------------------------|---------------------|
| Correlation Models  | Supply Chain Variables              | Supply Chain Performance | Extent of Application e-Procurement | Level of ICT Expertise | Online Requisitions |
| Pearson Correlation | Supply Chain Performance            | 1.000                    | .917                                | .758                   | .874                |
|                     | Extent of Application e-Procurement | .917                     | 1.000                               | .674                   | .912                |
|                     | Level of ICT Expertise              | .758                     | .674                                | 1.000                  | .677                |
|                     | Online Requisitions                 | .874                     | .912                                | .677                   | 1.000               |
| Sig. a. (1-tailed)  | Supply Chain Performance            |                          | .000                                | .000                   | .000                |
|                     | Extent of Application e-Procurement | .000                     |                                     | .000                   | .000                |
|                     | Level of ICT Expertise              | .000                     | .000                                |                        | .000                |
|                     | Online Requisitions                 | .000                     | .000                                | .000                   |                     |

**Source: Researcher (2020)**

*It is clear from Table 14 shows that, there was a near perfect positive relationship between the extent e-Procurement application and Supply Chain Procurement evident from the high correlation coefficient (0.917). The next most critical variable is online application with a correlation coefficient of 0.874. The level of ICT expertise is also positively correlated with a correlation coefficient of 0.758. All the independent variables have a p-value of 0.00 implying that they have a significant effect on the Supply Chain performance of the departments in UPS.*

**Regression Analysis**

*The relationship between e-Procurement practices and Supply Chain performance was established by regression. The independent variables were: Extent of Application e-Procurement; Level of ICT Expertise; and Online Requisitions. The Dependent variable was Supply Chain Management.*

**Table 15 Model summary**

| R    | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics |          |     |     |               | Durbin-Watson |
|------|----------|-------------------|----------------------------|-------------------|----------|-----|-----|---------------|---------------|
|      |          |                   |                            | R Square Change   | F Change | df1 | df2 | Sig. F Change |               |
| .938 | .879     | .874              | 6.8349                     | .879              | 162.439  | 3   | 67  | .000          | .476          |

*Table 15 show a high coefficient of multiple determination of 0.879. This implies that the model is of good fit since it explains 87.9% of the variation in the Supply Chain performance of the various departments in Ugandan parliament.*

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*According to the regression equation established, keeping all other independent variables constant, the Supply Chain performance of Ugandan parliament will be - 19.883. The findings also show that keeping all other independent variables constant, a unit increase in the extent of application of e-Procurement, will lead to a 10.405 increase in the Supply Chain performance of Ugandan parliament. Keeping all other variables constant, a unit increase in the level of ICT expertise will lead to a 9.187 increase in the Supply Chain the Supply Chain performance of Ugandan parliament. Keeping all other independent variables constant, a unit increase in online requisitions will lead to a 2.753 increase in the corporation's Supply Chain performance*

### **Conclusion**

*The research findings showed that procurement practices were in use in Ugandan parliament since the global mean surpassed that of the researcher which was (3.0). The global mean of 4.10 showed that procurement practices in use to a high extent. The level of e-Procurement application was very high since it was 4.5 compared to the target (3.0). According to research findings, the researcher had achieved the research objectives. The Ugandan parliament was portrayed as an organization which used procurement practices in its Accountability. This was as per the high positive correlation between e-Procurement, Accountability and its applications. The global mean for research findings in objective three was the lowest. This was due to the lack of support from the Management and the fact that majority of the respondents said that e-Procurement application did not assist in timely payment of suppliers.*

### **Recommendations**

*The Parliament of the republic of Uganda management was recommended to improve on the preparation and submission of annual procurement plan, update the parliament the republic of Ugandan website with information on the available goods that were destined for disposal, security measures were to be improved in*

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*regards to e-Procurement system and the top Management was advised to always be in the forefront in support for full implementation of e-Procurement. This was to help minimize Supply Chain risks and make the Supply Chain more efficient for the benefit of the Organization.*

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