INFLUENCE OF NEED ASSESSMENT ON PROCUREMENT PERFORMANCE IN PUBLIC UNIVERSITIES IN EASTERN REGION KENYA.

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ABSTRACT
There has been effort by the public institutions in Kenya to improve performance of the procurement function. However, poor procurement performance in terms of delays and poor quality goods received is still a challenge. The objective of the study was to investigate need assessment on procurement performance in public universities. The study adopted a descriptive research design. The population of the study was 324 participants, the sample size was 102 and stratified sampling was adopted. Data which was collected by means of questionnaires. Multiple linear regression models aided in analysis to bring out the influence of independent variables on the dependent variable with the help of Statistical Packages for Social Sciences (SPSS Version 28.0). The significance of the independent variable was tested using t-test. The t statistics and significance level established a statistically significant positive effect of needs assessment on procurement performance of public universities in Eastern region at a 5% significance level with coefficient of 0.059, and p-values 0.405. The study concluded that public universities should encourage effective use of need assessments to

1.1 INTRODUCTION
Background of Information
Need assessment involves processes in analysing the market, analysing procurement organisation needs and involvement of the end users (Karin *et al*.2017). These plans ensure that procuring user needs are met at the best possible cost, quality, time and other relevant factors that support organization performance (Shabani & Yaghin (2021). Gambo, and Musonda (2021) posit that needs assessment is a critical step in procurement planning since procurement is

done only to satisfy the needs of the customer, enhance competitiveness of the product in terms of the price, quality and reduce any restrictions. It also ensures clarity in communication of the firm's needs. Previous studies have failed to adequately address the link between need assessment and procurement performance.

Despite the Public Procurement and Asset Disposal Act (2015) section (VI) emphasizing the need for need assessment in

procurement planning, extant literature has shown that the public sector firms have faulted in carrying out the process as per the dictates of the Act. Literature by Mutangili (2021) and Gambo and Musonda (2021) opined that the procurement performance challenges experienced by firms could result from the inappropriate needs assessment. Extant literature by Ezeh (2019) and Kariuki & Wabala (2021) postulated that procurement needs assessment is critical for procurement performance. Nevertheless, extant literature is yet to show the influence of procurement needs assessment on performance. This is despite extant studies (Karin et al.(2017)and Williamson (2019) and a report by Public Procurement and Oversight Authority(2021) pointed out an inadequate and inappropriate needs assessment in the universities and postulated poor procurement performance as a result. A study (Uyarra, 2019) notes that procurement needs assessment in public universities has a lot of grey areas ranging from tendering process, which takes too long, thus causing delays in the procurement of goods and services. Majamaa (2018) adds that public service has had serious capacity constraints since immemorial, and the procurement function has yet to be spared. This, to a great extent, affects service delivery by the few officers involved in the procurement planning hence negating the performance of the entities.

The Public Procurement and Asset Disposal Act (2015) makes it compulsory for public firms to conduct procurement needs assessments to ensure efficient procurement of goods, works, and services. It is also important for all actors to cooperate and perform their roles for the success of the procurement function. Each procurement activity for the acquisition of goods, works, and services should be assigned to the responsible officers, and within which it should be completed as per the guidelines (Public Procurement and Asset Disposal Act (2015). Previous studies by Majamaa (2018) and (Ng et al., 2021) have noted that firms need to comply with the needs assessment dictate and have pointed out possible procurement performance problems. Mutangili (2021) adds that a lack of needs assessment may lead to poor procurement

performance in customer satisfaction, timely delivery, and quality of goods and services.

The current study departs from extant literature in four ways. First, it fully examined the effect of procurement needs assessment based on three constructs; market analysis, need analysis, and user involvement. Second, unlike previous studies, the study evaluated the effect of procurement needs assessment on an index of all procurement performance measures; customer satisfaction, timely delivery, and quality of goods and services. Third, the study used correlation and regression analysis to examine the relationship between the variables. In contrast, extant studies resulted in literature reviews, frequencies, and percentages that did not examine the relationships between the variables. Fourth, the study focused on public universities in the eastern region of Kenya, which have reported poor procurement performance.

Kenya has 31 chartered public universities, 18 private charted universities,5 private university constituent colleges and 13 institutions with letter of interim authorities (CUE,2021). These universities are established through institutional Acts of Parliament under the Universities Act, 2012 which provides for the development of university education, the establishment, accreditation and governance of universities. Public Universities are the universities that get their funding from the Government. Procurement department in public universities is one of the fastest growing departments and they are headed by the Procurement managers whose main responsibility is to coordinate procurement and disposal activities as well as offer professional advice to the University. The focus of the study will be the five chartered public universities in the eastern region of Kenya. CUE report (2021) notes that the eastern region has the highest concentration of public chartered universities that existed as university constituent colleges before the Universities Act No. 42 of 2012. These universities are better able to link procurement planning to procurement performance since they existed just immediately the PPADA (2015) and after and are less likely to be influenced by institutional procurement

cultures caused by inadequate procurement regulation prior to 2015.

The departments face several challenges arising from the implementation of the Public Procurement and Asset Disposal act (2015) which requires strict adherence to the long bureaucratic procedures. However by and large, Universities have met the requirements of the Public Procurement and Asset Disposal Act, 2015. As the Universities moves forward procurement function will continue to become more important in the management of public affairs. Furthermore, efficiency in procurement policies of the public universities is enhanced by government bodies such as the Public Procurement Regulatory Authority (PPRA) and Kenya Institute of Supply Management (KISM) which assist in assuring customers, employees and stakeholders' confidence as the University institution proves that they not only procure for maximum profits but also for utmost service (Republic of Kenya, 2015). In 2003, the Government of Kenya (GoK) began to implement reforms to address inefficiency in the use of public resources and weak institutions of governance. Reforms included the development of anti-corruption strategies to facilitate the fight against corruption and the enactment of the Public Officer Ethics Act 2003, the Anti-Corruption and Economic Crimes Act 2003, the Financial Management Act 2004 and the PPDA 2005. The latter was meant to make public procurement process more transparent, ensure accountability and reduce wastage of public resource (Republic of Kenya, 2015)

1.2 Statement of the Problem

Regardless of the effort by the public institutions in Kenya to improve performance of the procurement function, poor performance still poses as a key challenge. These institutions are burdened with delays and occasional inability to deliver the goods of the right quality to the designated organizations within the required time. The goods are of poor quality that does not meet the user's requirements. Successive reports by the auditor general for the financial years 2018, 2019, 2020 and 2021 have shown irregularities in procurement planning in 90% of public Universities in Kenya. Similarly, successive audit reports by the Public Procurement and Oversight Authority for the financial years 2019, 2020 and 2021 have revealed that public universities procurement performance has been low in terms of customer satisfaction, timely delivery and quality of goods. Despite the problem of procurement performance and with legal mandates and standards set forth for procurement planning need assessment, there is scanty and inconclusive research on the effect of procurement planning need assessment on procurement performance.

1.3 Objectives of the Study

The objective of the study was to investigate the influence of need assessment on procurement performance in public universities in Eastern Region Kenya.

1.4 Hypotheses

$H0_1$ Need assessment has no statistically significant influence on procurement performance in public universities in Eastern Region Kenya.

2. LITERATURE REVIEW
2.1 Need Assessment Concept in Procurement Planning

A needs assessment is a process used by organizations to determine priorities, make organizational improvements, or allocate resources. It involves determining the needs, or gaps, between where the organization envisions itself in the future and the organization's current state. You then develop a plan of action to address the needs (or closing the gaps) to bring the organization closer to its desired future state (Kim *et al*, 2021). Conducting a needs assessment protects the assets of an organization and assures that resources set aside to address need issues are conserved and used only for that purpose. A needs assessment can help determine whether the procurement is necessary to improve performance. For example, if increasing an employee's knowledge and skills will not help resolve a deficiency, then training is not appropriate. Procuring an item without assuring there is a need is a waste of time and resources (Kembro and Naslund, 2019)

Procurement Planning entails the identification of what needs to be procured (which is the result of a Needs Assessment), how the organizations need can best be met, the scope of the goods, works or services required, what procurement strategies or methods to be deployed, setting the time frames, and the accountability for the full procurement process. Kariuki and Wabala (2021) studied the influence of procurement planning on the procurement performance of selected county governments in Kenya. The study identified needs assessment as critical to procurement performance. The study however focused on once aspect of needs assessment (market analysis) while the current study focuses on the three aspects of needs assessment as posited by the section 130 of the procurement regulations (2015) market analysis, need analysis and user involvement. The study also used frequencies and and percentages which did not allow for inferential relationships between variables to be tested. According to Ezeh (2019) Needs Assessment is "a systematic process for determining and addressing the needs, or gaps between current conditions and desired conditions or wants. This is important in procurement; because it is an effective tool to identify appropriate interventions or solutions by clearly identifying the problem to ensure that finite resources (Prior Budget appropriations) are directed towards developing and implementing a feasible and applicable solution for identified projects. According to the PPOA (2009), the beginning of the procurement process is need realization and identification of the requirements. This is informed by the inventory status, projects plan, production schedules, work plans, capital or operational requirements budgets and the procurement plan. Establishment of the requirements is the foundation for conducting market survey to ascertain aspects such as prices, new products or alternative or substitute products, new sources of supply, nature of competition and environmental aspects that may affect the supply market.

In a report, Karin *et al* (2017) singled out non-adherence to procurement methods as a major impediment to public procurement

development in Kenya. They however did not specify the stage of procurement where this happened. In as much as the above studies highlight the core role of proper need assessment as a foundation for an effective procurement, they fail in bringing to the fore the link between need assessment and institutional performance. Recent theorists also point to the importance of public administration as a moral and ethical concern and recognize that administrative action is permeated by moral choices and are therefore models of not only technical and professional competencies but also of moral behavior (Schlosser, 2015).Procurement Planning is an extraneous process that does not only involve the needs of the organization that guarantees what to be procured by an organization, how best to meet these organizational needs, the services needed by the organization, the scope of the procurement and therefore, procurement of the goods, the strategies to be employed, the time frame to accomplish the procurement, but also the accountability criterion, (Ezeh, 2019). It should be noted that needs assessment, is not only a rigorous but also systemic process for identifying and addressing the needs, which are therefore the ultimate gaps between current situations and desired situations. This is therefore the most important issue in the procurement processes because it acts as conveyor belt to an effective mechanism to identify the most appropriate measures by evidently pinpointing the challenge to make certain that fixed assets (preceding Budget appropriations), are thus not only channelled towards developing but also executing a practicable and relevant resolution for known programs.

It is important to note that when we realize and identify our needs then all this will enable us to initiate the procurement process, (PPOA, 2009). All these processes are informed by the intervention status, the plan of the project, the schedules of the production, the working plans, and the budget required for all these operations, and lastly, the procurement plan. This will guarantee the market survey to ascertain the prices of the products that are of course supposed to be procured, and to the extension, to establish the new products in the market,

and to the extension, to establish the new products in the market, and ultimately, latest supply sources, rivalry nature and surroundings facets that can dictate the market supply.

The main hindrance to the public procurement development in Kenya is the tendencies of singling-out no-compliance (Karin et al.2017). The challenge however is that they did not successfully ascertain the stage in procurement where non-compliance happened. Even though Karin et al, highlights the essential function of an appropriate need consideration is a basis to resourceful procurement, its fall short of clearly bringing out the forefront connection between need assessment and institutional performance. In need analysis Loeb (2019) assert that every procurement process should be preceded by a preparatory study, where business needs and user needs are identified and analysed. The needs are then transformed into requirements and award criteria, to be included in the Call for Tenders. To ensure that good tenders can be obtained, a market analysis should be carried out. Loeb (2019) By "user" is here meant a person who interacts with a product or a service. A user could be a person employed by the contracting authority or a citizen utilizing an ICT-based service provided by the contracting authority. User needs should be identified in order to establish a basis for the user requirements to be stated in the technical specification and for the award (sub) criteria.

An approach similar to the one described in ISO 9241-210:2010 Human-centred design for interactive systems could be applied. A brief overview of how a user-centred approach to a preparatory process can look like is presented below. First, you need to understand and specify the context of use. You need to identify the user and stakeholder groups and their relationship with the intended subject-matter of the procurement; the relevant characteristics of the users or groups of users. These can include knowledge, skill, experience, education,

training, physical attributes, habits, preferences and capabilities. If necessary, the characteristics of different types of users should be defined, e.g. with different levels of experience or physical capability. In order to achieve accessibility, the procured products, systems and services should be designed to be used by people with the widest range of capabilities in the intended user populations. This is a legal requirement in many countries the goals of the users and the overall goals of the system. The characteristics of tasks that can influence usability and accessibility shall be described (Wiliamson, 2019).

User Involvement is key when preparing a procurement plan. From a social-exchange perspective, government organizations need things such as cooperation and compliance from service recipients to meet not only people's material but also their symbolic and normative needs (Alford, 2020). Even though the cooperation with users and the surrounding community has been recognized essential for public procurement's success, the resources given to user's involvement in public procurement processes are often slim (Wiliamson, 2019). The early detection of user requirements and needs guides the procurement project towards better end results, efficiency and innovative solutions straight from the beginning (Satish & Shah, 2019; Majamaa,2018). In addition to creative mind, users can also bring other resources to the process for instance by positively influencing other users and lowering the public opposition (Karin et al.2017). Some existing studies indicate that the end-user of public procurement can be seen rather similar as a competent customer on a private market setting (Majamaa, 2018). Majamaa (2018) and (Ng, Wong & Wong, 2021) approach the end-user perspective with the concept of public-private-people partnership. The definition of "people" includes all the individuals impacted by or interested about the procurement from the core users of the public infrastructure and services to the whole taxpayer community (Ng, Wong & Wong, 2021). End-users appreciate the chance to do independent choices and are able

understand the value for money-principle behind the procurement process. For the supplier, the competent customer is also a strategic partner that actively takes part in the development and commercialization of products by transferring information about the market characteristics and specific customer demands (Johansson, 2020).

2.2. Procurement Performance

There has been increasing demand by the public and other government services consumers' world over for timeliness in materials, goods and services availing by the public procurement entities to enhance efficiency, effectiveness, transparency and accountability by various user departments; all these are captured in the World Bank Procurement guidelines (World Bank, 2021).Objective of maximization of economy and efficiency, promotion of competition and for fair treatment of competitors, integrity promotion and fairness of procedures, increasing transparency and accountability of procedures, increasing public confidence of the said procedures and facilitation of promotion of local industry and economic development. It is critical to note that most government procurement policies, reforms guidelines and regulations (world over) have been customized from World Bank procurement guidelines 2005, likewise the Government of Kenya own Public Procurement and Asset Disposal Act 2015. The World Bank approximates that of the world's total expenditure, 75 percent goes towards procurement related activities according to its report of 2020(World Bank, 2021). The report goes further to mention that this amount spent translates to close to five trillion United States dollars. Kenya suffered a ban from the World Bank in the year 2020 where the bank noted that a staggering figure of Kenya shillings 500 billion had been lost due to corruption in procurement related scandals (World Bank, 2021).

It is essential to note that these limiting factors to effective performance of PPEs are not unique to Kenya. In Bangladesh for example, the World Bank decided to deploy an independent oversight institution to mon-itor utilization of its funds and check corruption in projects funded by it in the 2020/2021 fiscal year. While the bank is committed in doubling its assistance to Bangladesh in four years, it says the country continues to face pervasive corruption problems especially in roads, local government engineering and energy sector. A Washington based oversight institution (Department of institutional Integrity) assigned to monitor WB funded projects will independently investigate corruption charges when it receives complaints. On the basis of the probe reports, the WB will take various measures to stop corruption. If the problem persists, it will discontinue funding the project concerned (World Bank, 2021).

A research by Caroline (2015) on procurement planning strategy and service delivery on public institution performance, a case study of medecins sans frontieres, kenya supply unit found out that procurement planning has made it possible to offer customer service to clients by anticipating clients' needs, formulating a method to meet their needs with client participation while monitoring the system to ensure consistency of service and reliability of the same. The enlightened public of the twenty first century has continually demanded good governance, proper monitoring and evaluation of public funds as well as total compliance to the law by officers given the responsibility to manage public funds through procurement as contained in the recent report by National Tax Payers Association (NTPA, 2016). Customer satisfaction indicates the fulfilment that customers derive from doing business with a firm. In other words, it's how happy the customers are with their transaction and overall experience with the company. Lead time is the amount of time between the commencement and finishing of a process. In procurement, lead time includes the first effort to initiate acquisition of goods or services, up to the time of their arrival. Procurement lead time includes identifying a need, selecting a good or service and sourcing vendors, in addition to time spent negotiating, ordering and paying. (Uyarra,2019).

Lead time in procurement also includes purchasing and its lead time. The procurement process is more variable than purchasing lead time, depending on sizes and scopes of what is being procured. Usually lead time in procurement is measured in months. Purchasing lead time starts when the goods or services are ordered and ends when they are received. This lead time includes availability confirmation, ordering, order acknowledgement, shipping notice, receipt of goods or service, invoice recording and payment. Purchase processes are less customized than procurement processes and tend to have similar practices across various types of businesses (Uyarra, 2019). Quality includes ensuring that products are free of defects and working exactly as expected and claimed to do. Nothing is worse for a business than allowing a poor-quality product to go to the market. A company is only as strong as the quality of the good and services it produces, as consumers are less likely to invest in a business if the product did not meet expectations. Advertisement for what a product or service provides should be accurate, and if a consumer does not feel it does, the company suffers. Everyone makes mistakes, but prevention is necessary to keeping consumers happy (Uyarra, 2019).

2.1 Theoretical Framework

This research is embedded on the Stakeholder Theory. The theory also known as the stakeholders' perspective theory was postulated by (Laplume, Sonpar & Litz, 2008). The theory postulates that stakeholders needs assessment are critical in corporate planning. The theory also postulates that the performance of corporate plans should be assessed based on perspective of the stakeholders. If the stakeholder interests are not addressed then the organisation plans are considered to have failed Otaki *et al* (2022). Key internal stakeholders in procurement include: procurement managers; senior management; and the managers and staff of other functions in the organization whose work interact with those of the procurement or supply chain activities. According Miles (2017) and

(Bryson (2018) the theory focuses upon management decision making, explains how stakeholders try and influence organizational decision-making processes so as to be consistent with their needs and priorities. In terms of organizations, these should attempt to understand and balance the interests of the various participants. Taking these premises into consideration, and according to Wagner, Alves and Raposo (2012), the concept of stakeholder management was developed so that organizations could recognize, analyse and examine the characteristics of partners being influenced by organizational behaviour. Both user departments and external providers are stakeholders. Involvement of stakeholder's influence customer satisfaction, Timely delivery of goods/services and quality of goods and services hence procurement performance. If the universities don't engage the right stakeholders in procurement planning this will affect the performance.

3. METHODOLOGY

3.1 Location of the Study

The research was undertaken on all Public Universities in Eastern region, Kenya which comprises of Meru, Tharaka Nithi, Embu, Kitui and Machakos Counties. Eastern region was chosen for the purpose of this study because of the proximity of the region. Further the area has the highest concentration of the public universities that were existing as university colleges before being newly chartered as per the university act of December, 2012.

3.2 Research Design

The study used descriptive research design.

3.3 Study Population

The entity under investigation was 73 employees in procurement department in all the six University, 270 Heads of Departments and 45 Technicians. Therefore, the target population of this research was 324 respondents.

Table 1: Target Population

	Participants	Target Population			
		Procurement Employees	Heads of Depart-ments	Techni-cians	Total
1	Chuka University	13	49	9	71
2	University of Embu	12	42	6	60
3	Meru University	13	47	8	68
4	South Eastern Kenya University	13	43	6	62
5	Machakos University	12	44	7	63
	Total	63	225	36	324

University Profiles (2022).

3.4 Sample Size and Sampling Procedure

Since the target population is not large the researcher used 30% of the total population of participants to get a sample size of 112. Kothari (2018) says that a representative sample is one which is at least 10% to 30% of the population thus the choice of 30% was considered as representative of the population. In this study the total sample size of the respondents was 102 respondents.

The sample size is shown in the table 4 below;

Table 2: Sample Size

	Participants	Target Population			
		Procure-ment Em-ployees	Heads of Depart-ments	Techni-cians	Total
1	Chuka University	4	16	4	24
2	University of Embu	4	13	2	19
3	Meru University of Science and Technology	4	14	3	21
4	South Eastern Kenya University	4	13	2	19
5	Machakos University	4	13	2	19
	Total	20	69	13	102

3.5 Data collection and Analysis

Data was collected using structured questionnaires. The study generated quantitative data owing to the nature of the instrument that was adopted which included closed ended questions. Descriptive statistics of frequencies, percentages, mean and standard deviation were used to describe the characteristics of the respondents and variables with the aid of statistical package for social sciences (SPSS) version 28.0 since was the latest version. Data was analyzed using ordinary least squares and multiple regression was done for the overall model. Data was presented inform of tables and charts and using t-test and F-test. Estimated linear regression models was adopted to examine the information

inform of tables and charts and using t-test and F-test. Estimated linear regression models was adopted to examine the information where hypotheses was tested using t-test while the overall significance of the model was tested using F-test at 5% level of significance.

A regression model for hypothesis H_{01} which stated that need assessment has no statistically significant influence on procurement performance in public universities in Eastern Region, Kenya took the form of:

$$Y_1 = a_0 + \beta_1 X_1 + e_1$$

3.10 Ethical Consideration

The study obtained the introduction letter from the Chuka University, after that, the research permit was obtained from the National Council for Science and Technology to go to the field for data collection. Confidentiality was assured, and data collection instrument did not bear their names and those that were not willing to participate in the study were not forced to do so

4.1 RESEARCH FINDINGS AND DISCUSSION

4.2 Descriptive Statistics of Need Assessment Indicators and Parameters

Need assessment is an essential part of pre-procurement that helps the organization understands user needs in order to have clear metrics for forecasts. It enables the organization budget for user needs and associated risks in such a way that it ensures procurement performance. To be effective in needs assessment the organization needs to do a proper market Analysis, Need assessment and involve the users in the entire of this process. This study aimed to find out how universities carry out their needs assessment procedures and link this to procurement performance. This is presented in Table 14 and 15.

Table 3: Are Needs assessment undertaken by respective heads of department for goods and services required

Needs assessment undertaken by respective heads of department for goods and services	Frequency	Percent
Yes	62	63.3
No	36	36.7
Total	98	100.0

Source: Primary Data, (2022)

The study established that 62% of the universities undertook needs assessment through respective heads of department, while 36 percent of the respondents indicated that their institutions never conducted needs assessment. This finding is similar to previous study by Nuwagaba et al., (2021) who found that more than average of all public institutions had included needs assessment into their everyday procedures. The study however was based in public firms in Uganda while the current study was based in universities in Kenya. Therefore, the current study findings add to existing literature in procurement. The implication of this finding as noted by Karin et al., (2017) is that organisations need to embrace and develop a policy on needs assessment approach in their procurement methods. Thogori and Gathenya (2014) posit that to ensure procurement meets all the needs of the user departments, there is need for institutions to conduct a proactive needs assessment.

The study further aimed to establish how universities carried out their procurement needs assessment. Respondents were required to respond to a Likert rating scale

scale on the extent needs assessment has been adopted by the university. The results obtained are shown in table 15. The results obtained are shown in table4. Where 1-

Very Low Extent, 2-low extent, 3-moderate extent, 4-large extent, 5-very large extent

Table 4: Needs Assessment Practices

Descriptive Statistics			
	N	Mean	Std. Deviation
My organisation conducts market analysis in procurement planning to ensure procurement performance	98	4.2653	.89155
My organisation conducts need analysis in procurement planning to influence performance of Procurement process	98	4.4286	.87343
My organisation ensures user involvement in procurement planning to influence performance of procurement process	98	4.0816	.63690
Valid N (listwise)	98		
Aggregate	98	4.2585	0.8006

The aggregate score obtained by the study showed that public universities in Eastern Region, Kenya adopted need assessment practices to a large extent (4.2585) with deviations as shown by the standard deviation (0.8006). The universities conducted market analysis before commencement of procurement activities to a large extent (4.2653) with deviations as shown by the standard deviation (0.89155). The results showed that the universities conducted need analysis in procurement planning to a large extent (4.4286) with deviations as shown by the standard deviation (0.87343). Further the universities ensured user involvement in procurement planning to a large extent with a mean of 4.0816 and standard deviation of 0.63690. The aggregate standard deviation is relatively low compared to those of other items in the questionnaire, which shows that average scores of indicators of needs assessment practices were close to each other. The implication of this finding is that universities are expected to have superior procurement performance in terms of customer satisfaction, timely delivery and enhanced quality of goods and services. These results are similar to those of a study Kariuki and Wabala (2021) who found that needs assessment through market analysis was highly adopted in Kenyan public firms. The current study finding adds to existing literature by showing that universities have adopted the three needs assessment indicators as posited by the section 130 of the procurement regulations (2015) market analysis, need analysis and user involvement.

4.3 Procurement Performance Indicators and Parameters

A likert scale rating was used to measure this effectiveness where 5-Very satisfied, 4 - Satisfied, 3- Indifferent, 2-Dissatisfied and 1-Very dissatisfied. These results are presented in table 22.

Table 5: Performance of Procurement Process

Descriptive Statistics			
	N	Mean	Std. Deviation
State how satisfied you are with your firm's cost reduction as a result of procurement planning	98	2.8878	1.40604
Quality of Goods delivered	98	3.9082	1.22758
Cost of Goods Purchased	98	3.8673	.79480
Order Processing time	98	3.4490	1.17642
Receiving Time	98	3.7857	1.22895
Total lead-time	98	3.5612	1.19333
Overall response time	98	4.3367	.75905
Ability to get procurement feedback	98	4.4592	.89866
Level of customer satisfaction	98	3.5306	.80211
Aggregate	98	3.7539	1.0541

Source: Primary Data, (2022)

The result in Table 22 presents the level of performance in the universities in the eastern region of Kenya. The aggregate $(mean = 3.7539 \ and \ SD = 1.0541)$.

The average scores of items ranged between 2.8878 and 4.4592 (Range = 1.5714). The highest score was recorded by the ability to get procurement feedback (mean score=4.4592 and standard deviation .89866) followed by the overall procurement response time in the university (mean score=4.3367 and standard deviation .75905). The lowest score was recorded by the respondents level of satisfaction with their firm's cost reduction as a result of procurement planning (mean score=2.8878 and 1.40604). Generally the findings imply that respondents agreed on the effect of procurement planning on procurement performance. These results agree with the conclusions of Nyeko (2020) that procurement processes in public corporations were effective and that procurement customers were receiving the value of their money. Therefore public corporations are reaping the benefits posited by the systems theory (1940), that when procurement systems and processes are working smoothly the organization enjoys the benefits of enhanced transparency, accountability and value for money.

4.6 Need Assessment and Procurement Performance

The study objective aimed at determining the influence of need assessment on procurement performance in public universities in Eastern Region Kenya. Simple regression analysis was done to test the null hypothesis H_{01} which hypothesized that need assessment has no statistically significant influence on procurement performance in public universities in Eastern Region Kenya. Simple regression analysis was carried out. The results are presented in Table 6.

Table 6

Model Summary								
				Std. Error	sChange Statistics			
Model	R	R Square	Adjusted R Square	of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.373ᵃ	.139	.130	.38055	.139	15.550	1	96	.000
a. Predictors: (Constant), Need assessment								
b. Dependent Variable: Procurement Performance								

Source: Primary Data, (2022)

As indicated in Table 6(a) the study shows the value of R-squared obtained by the study was 0.139 at a probability value 0.000, which is less than significance value of 0.05. The R-squared 0.139% obtained in this study implies that 13.9 % of the variations in procurement performance can be explained by the independent variable need assessment while 86.1% of variations in procurement performance are explained by random error or other factors.

To further test for the influence of need assessment on the procurement performance, Analysis of Variance (ANOVA) was carried out to ascertain the significance of the estimation model. Results presented in table 24 (b).

(b): The Overall Significance of the Model

		Sum of Squares	df	Mean Square	F	Sig.
Model						
1	Regression	2.252	1	2.252	15.550	.000ᵇ
	Residual	13.902	96	.145		
	Total	16.154	97			
a. Dependent Variable: Procurement Performance						
b. Predictors: (Constant), Need assessment						

ANOVAᵃ

Source: Primary Data, (2022)

As presented in Table6 (b) the study shows the analysis of variance (ANOVA) of the regression analysis. F-value was found to be 15.550 and a p-value of 0.000. The p-value is less than the significance level (0.000<0.05) hence indicating that the overall model testing the effect of need assessment on the procurement performance was statistically significant. The findings of this study show that need assessment is a good predictor of the procurement performance.

Regression Coefficients for the model on need assessment and procurement performance were presented in Table 6(c).

(c): The Individual Significance of the Model

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.246	.440		5.106	.000
	Specification	.417	.106	.384	3.928	.000

Coefficients[a]

a. Predictors: (Constant), Need assessment

b. Dependent Variable: Procurement performance

Source: Primary Data, (2022)

Table 6 (c) shows that constant of regression was 2.246. The slope of regression model obtained was 0.417. The t-statistic obtained for this model was 3.928 at a P-value of 0.000 which is less than the significance value of 0.05. This implies that need assessment has a statistically significant influence on the procurement performance.

This study therefore rejects the null hypothesis H_{01}: Need assessment has no statistically significant influence on the procurement performance among Public Universities in Eastern Region, Kenya. The P value obtained (P< 0.05) does not support the hypothesis that need assessment has no statistically significant influence on the procurement performance among Public Universities in Eastern Region, Kenya. Therefore the hypothesis was rejected implying that need assessment is a good predictor of the procurement performance. The findings of this study bring out the importance need assessment on the procurement performance. From the theoretical literature, the postulates of the systems theory which was proposed by Ludwig (1972). The theory emphasizes on the significance of systems to the performance of organisations processes. This has been supported by the results of this study which implies that having proper needs assessment in terms of market analysis, need analysis and user involvement boosts the procurement performance in terms of enhanced quality, better lead times, cost reduction and enhanced customer satisfaction. Further the findings of this study are consistent with study findings by Davis (2022) who found that proper need assessment in terms of market analysis had a significant effect on procurement performance. This means that, proper specification will lead to procurement performance by creating an environment where user departments are satisfied due to reduced costs and receiving of quality goods, works and service within the specified timelines.

The simple regression model for influence of need assessment on the procurement performance can therefore be presented by the equation below.

$$Y = 2.246 + 0.417X_1 + \varepsilon$$

where;

$Y = $ Procurement performance ,

$2.246 = $ constant, $0.417 = $ slope of regression model

$X_1 = $ specification writing

, ,

$\varepsilon = $ error term

5. CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

The conclusion of this study is that organisations should emphasize of effective use of cost estimation strategies such as market analysis, needs analysis and lucrative user involvement to ensure procurement performance. Therefore, lack of proper cost estimations may lead to decreased customer satisfaction, extended deliveries and lead times and receiving of poor quality products

5.2 Recommendations

The study recommends that universities should sustain and continually improve on their need assessment programmes in order to boost procurement performance among Public Universities in Eastern Region, Kenya. This can be done by investing in proper research and involvement of user departments. Universities should be able to prepare their specifications based on the information generated from research and participation of user departments as this will increase customer satisfaction by providing quality goods, works and services at reduced costs.

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