

organizational knowledge and routines, promote more effective cooperation between network members, achieve a transparent and easy flow of information and adapt rapidly and flexibly. Innovation; which is the capacity to lower costs, improves products or introduces new products ahead of competitors, Reputation; which is the capacity to instill confidence in a firm's credibility, reliability, responsibility, trustworthiness and accountability. The following propositions can be derived from the insights provided by TCT and RBT [4]. Arm's length relationships are associated with low asset specificity and low supplier competences that can easily be bought off the shelf because there are many potential suppliers. Internal contracts are associated with high asset specificity and core competences. And lastly partnership relationships apply to assets of medium specificity and ascend in steps according to the distance of the complimentary competences provided by external suppliers. The five steps in the ladder of contractual relationships represent a higher level of asset specificity and strategic importance to the firm of the specific goods and services. Each step represents relative degrees of power between the relationships participants and in the relative ownership of the goods and services emanating from the relationships. Strategic supplier alliances being the last stage before a company consider a complementary supplier to be so important that vertical integration through merger and acquisition is undertaken [4]. The Cox Model, through its Transaction cost and Resource based theories heavily helps the procurement department in managing a healthy buyer-supplier relationships and reduced lead time, which is a basis for its self-evaluation and performance, service delivery and eventual customer satisfaction.

6.2 Empirical Literature Review

In this section, the researcher reviewed empirical studies touching on the effects of Enterprise Resource Planning on Enhance Service Delivery that had been conducted. The review looks into the pertinent studies carried out globally, regionally and in Kenya respectively. The studies were reviewed in tandem with the study variable which captures the study objective.

6.2.1 Enterprise Resource Planning

Electronic Resource Planning (ERP) concept is an approach whereby the resource requirements of the whole firm and its associates in the supply chain can be considered in the entire planning [1]. It's a multi-mode suite of software that operates on a company-wide basis where all departments operate with the same data and concerned with all the business aspects like procurement, inventories, production, sales, human resource management, marketing and cash flows. Whatever happens in one department has direct effects in others and all the data is reduced to the common denominator of financial data which helps the management with the information it needs to the entire business successfully; for example, the inventory levels and values, status of work in progress, finished goods, etc. are known at all times and this helps in managing favorable lead times for the supply and delivery of goods and services throughout. ERP is an integration of business management practices and modern technology. It was sold as a solution to the problems

with MRP11 but in practice it is just manufacturing resource planning (MRP11) with some additional features [1].

Enterprise resource planning (ERP) is a software package from vendors designed to optimize the resource planning of a company. In the manufacturing process, an ERP system can generate purchasing schedules in order to achieve an ideal Just-In-Time or lean production cycle. ERP software has the ability to automatically generate purchase orders using the bill of materials for the finished product as a basis. The web based ERP system can improve this process by forwarding the purchase orders to suppliers in order to fully automate the procurement process to facilitate the materials or products to be made available in time.

ERP software can also issue rescheduled notices to suppliers which can perform actions such as cancelling, speeding up or altering the size of pending orders [3]. ERP software can be able to envelop a broad range of enterprise-wide functions and integrate them in to a single unified database. Functions such as human resources, supply chain management, customer relationship management, finance, manufacturing, warehouse management and logistics were all stand-alone software applications but they can all work together under ERP architecture [3]. Introducing an enterprise resource planning (ERP) system in an organization can bring about many significant benefits which can only be dependent on an effective implementation of a fully functioning ERP system [9]. Some of the advantages of ERP systems are; an integrated system connecting all the functional areas together, the capability to streamline different organizational processes and workflows, the ability to continuously communicate information across various departments, improved efficiency, performance and productivity levels, enhanced tracking and forecasting and improved customer service and satisfaction [3].

The implementation of Enterprise Resource Planning (ERP) systems in an organization will result in near-term improvements in the operational performance of the firm, firms equipped with ERP systems can be expected to use early improvements as launching points for more bottleneck identification, reduction and control of variability and improvement, all this on condition that continuous improvement is an established norm in the organizational culture [2]. ERP is expected to provide both an initial transformation and a learning dynamic that persists over time as the continuous capabilities of data acquisition of ERP architecture together with the greater visibility and standardization mechanisms it puts in place justifies that an enterprise system is an evolving resource that is well suited to an organization concerned with ongoing learning and process improvement [2]. Despite all the above mentioned benefits of Enterprise Resource Planning (ERP) application, it requires heavy capital outlay and expertise to implement. The costs associated with maintaining experts and in some cases full time employees to run the ERP systems discourage most institutions from adopting the mechanism.

7. Research Methodology

The study adopted descriptive research design. Specifically, the researcher used a case study of Egerton University. This is because case study designs allow an empirical inquiry that

investigates a contemporary phenomenon within its real-life context. Targeted population in this study comprised of all levels, from senior managers to the subordinates, a population of forty (40) people which is the total number of all employees working in the procurement department of Egerton University. The researcher therefore used a census to carry out the study. The researcher relied on the primary data that was collected by use of self-administered questionnaires to all the respondents. Primary data is usually basic, unbiased information, original data from the population and its very reliable in that the researcher collects information for specific purposes of his/her study. Secondary data was sourced by referring to existing materials such as journals, past research in the area, financial reports of the institution and all other relevant documents that relate to lead time factors and service delivery. Pilot testing was done in order to ensure reliability and validity of the questionnaires used for the study. Reliability is concerned with the estimates of the degree to which a measure is free of random error and a reliable instrument can be used with confidence that transient and situational factors are not interfering [6]. This was done by administering ten questionnaires with a clear and brief explanation of the purpose of this study to a selected group of ten (10) respondents who work at the procurement department at Kenyatta University. The expected results for the pre-testing was computed by Cronbach's Coefficient Alpha which should yield a reliability coefficient greater than 0.77 [7]

7.1 Data Processing and Analysis

Correlation analysis was used to determine the degree of relationships between the independent variable and the dependent variable. Regression analysis was used to determine the relationships between variables. The Regression Model was given by the following function

$$\text{Regression Model } Y = \beta_0 + \beta_1 X_1 + \epsilon$$

Where Y is the dependent variable (Enhanced service delivery) and X₁ is the independent variable (enterprise resource planning), β₀ and β₁ are Coefficients and ε is the error term of the model

7.2 Research Findings

The analysis was based on all the questionnaires that were issued to the respondents and returned on time. As a result, the findings were generated from 37 questionnaires out of 40 which were issued. It was reported that all the questionnaires returned were correctly filled hence were used in conducting data analysis of the study. This accounted for 93% response rate based on the sample size.

7.2.1 Enterprise Resource Planning (ERP) and Service Delivery

The study sought to establish the effect of Enterprise Resource Planning (ERP) on lead time in the procurement function at Egerton University. The respondents were asked their views and the findings were as follows;

Table 1: Enterprise Resource Planning and Service Delivery

	N	Min	Max	Mean	Std. Dev.
Contribution to improved customer service by providing	37	4	5	4.62	.492
Provision of the information	37	4	5	4.62	.492
Increase in Inventory Accuracy	37	4	5	4.68	.475
Increase in Inventory Turnover	37	4	5	4.59	.498

According to table 1, it was strongly agreed by majority of the respondents that ERP system contributes to improved customer service by providing the right product in the right place and at the right time as evidenced by the mean of 4.62. Further, the findings revealed that ERP system proactively pinpoints quality issues, providing the information required to increase production efficiency and also eliminate rework. This was evidenced by majority of the respondents who strongly agreed on the matter at a mean of 4.62. It was also established that ERP system can increase inventory accuracy to more than 90% while reducing the need for physical inventory audits as supported by majority of the respondents who strongly agreed (mean=4.68). Consequently, the respondents overwhelmingly agreed (mean=4.59) that ERP system can make an organization increase inventory turns tenfold and reduce inventory costs by 10-40%.

7.2.2 Correlation Between ERP and Service Delivery

Table 2: Effects of ERP on Lead time in enhancing service delivery

		ERP	Service Delivery
ERP	Pearson	1	.141
	Sig. (2-tailed)		.045
	N	37	37
Service Delivery	Pearson	.141	1
	Sig. (2-tailed)	.045	
	N	37	37

As shown in table 2, ERP has r-value of .141 indicating a weak positive relationship between use of ERP and service delivery. This is satisfactory to the objective of the study; to establish the effect of Enterprise Resource Planning (ERP) on lead time in the procurement function at Egerton University. The p value of (.045) is below .05. This implies that the Null Hypothesis (Ho: There is no significant relationship between Enterprise Resource Planning and Service Delivery) was rejected at 5% level of significance. It is therefore concluded that the relationship between ERP and Service Delivery is significant.

7.2.3 Regression Results

Table 3: Regression Model Results

Model	Unstandardized Coefficients		Standardized Coefficients	Sig.
	B	Std. Error	Beta	
(Constant)	8.185	3.263		.017
ERP	.055	.149	.076	.716

From the regression model in table 3, the regression equation was obtained. Using the unstandardized beta coefficient, the following regression equation was developed.

$$Y = 8.185 + 0.055X$$

From the regression model, the beta values were obtained which explained the regression equation. The standardized beta coefficients give a measure of the influence of each variable to the model. The coefficient for Enterprise Resource Planning is Positive (i.e. 0.055). This implies that Enterprise Resource Planning has a positive effect on service delivery.

8. Summary, Conclusions and Recommendations

The researcher summarized the findings in line with the variables and objective of the study. This was followed by drawing of relevant conclusions. Lastly, recommendations for pertinent actions were suggested.

8.1 Summary

The role of ERP was analyzed towards lead time reduction in the procurement function. It was reported that ERP system contributes to improved customer service by providing the right product in the right place and at the right time. Further, the findings revealed that ERP system proactively pinpoints quality issues, providing the information required to increase production efficiency and also eliminate rework. This was evidenced by majority of the respondents who strongly agreed on the matter at a mean of 4.62. It was also established that ERP system can increase inventory accuracy to more than 90% while reducing the need for physical inventory audits as supported by majority of the respondents who strongly agreed.

In addition, it was overwhelmingly agreed upon that ERP system can make an organization increase inventory turns tenfold and reduce inventory costs by 10-40%. The study revealed that among the respondents, majority strongly agreed that management support is very vital for an organization to be able to implement an EDI system effectively. In addition, with the support of the management, the study revealed that procurement officers can better ensure the use of stock maintenance and control tools in an organization as strongly agreed upon by majority of respondents. The findings further showed that majority of the respondents strongly agreed (mean=4.70) that the cost of training employees to use ERP system can be high and management support is required to ensure there is no employee resistance to change.

8.2 Conclusions

The influence of using ERP on service delivery focused on its significance on lead time reduction in the procurement function. The study revealed that among the respondents, majority strongly agreed that management support is very vital for an organization to be able to implement an EDI system effectively. In addition, with the support of the management, the study revealed that procurement officers can better ensure the use of stock maintenance and control tools in an organization as strongly agreed upon by majority of respondents. The findings further showed that majority of the respondents strongly agreed (mean=4.70) that the cost of training employees to use ERP system can be high and management support is required to ensure there is no employee resistance to change.

8.3 Recommendations

It was reported that implementation of ERP require greater level of trust and information sharing. The study recommends that to effectively achieve the objective, there is need for high level of transparency in sharing quality information among the supply chain partners. This would boost the success of the role of ERP in reducing lead time hence service delivery.

8.3.1 Recommendation for further Studies

The research was focusing on the determinants of lead time reduction in enhancing service delivery among public universities. The researcher recommends that similar or related studies should be conducted in other sectors including manufacturing or even health sector among others. It was established that issues surrounding the adoption and implementation of ERP, EDI and stock management techniques are complex and can be expensive. The study recommended that more research should be conducted to clearly present measures that should be undertaken to encounter the challenges associated with successful implementation of various determinants of lead time reduction in an organization.

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