

**INFLUENCE OF INVENTORY CONTROL SYSTEMS ON PROCUREMENT
PERFORMANCE IN THE COUNTY GOVERNMENT OF UASIN GISHU, KENYA**

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Abstract

An inventory control system allows the firm to separate the process of purchasing, manufacturing, and marketing of its primary products. The purpose is to achieve efficiencies in areas where costs are involved by reducing the risk of production shortages and avoiding lost sales. The study was conducted in order to determine the influence of inventory control systems on procurement performance at County Government of Uasin Gishu, Kenya. To achieve the objective, the study established the relationship between ERP Software and inventory forecast analytic on procurement performance. This study was founded on theory of Constraints and Lean theory. A descriptive survey research design was used. The target population was procurement staff; the accessible population was involving 65 procurement staff at the county government of Uasin Gishu. A pilot study was conducted in order to test the validity and reliability of the research questionnaire. Content validity was used as a validity test while reliability was tested using Cronbach's alpha coefficient. The study used primary data, which was collected using structured questionnaires. Both descriptive and inferential statistics were used for data analysis. Findings revealed that ERP software ($\beta_1 = 0.103$; $p < 0.05$), inventory forecast analytics ($\beta_2 = 0.315$; $p < 0.05$), positively and significantly influenced procurement performance in the county. It was concluded that proper inventory control systems enhance efficiency and improve procurement operations. The study recommends that decision-making and understanding how risk influences decisions is imperative. The study further recommends that the management should focus on the timely release of purchase orders and procurement data in order to increase procurement performance. The study findings will guide the County to reduce financial losses due to the delivery of poor quality inventory. It is expected that the findings will improve on inventory control systems in the County.

Keywords: *ERP Software, Inventory Forecast Analytics, Procurement Performance*

INTRODUCTION

An inventory control system is a system that encompasses all aspects of managing a company's inventories; purchasing, shipping, receiving, tracking, warehousing and storage, turnover, and reordering. In different firms the activities associated with each of these areas may not be strictly contained within separate subsystems, but these functions must be performed in sequence in order to have a well-run inventory control system. Computerized inventory control systems make it possible to integrate the various functional subsystems that are a part of inventory management into a single cohesive system. Inventory management system solely maintaining records and reporting on inventory to more strategic inventory requirements to plan, project and fill customer orders and improve profitability (HR & Aithal, 2020).

Inventory control helps coordinate the shifting supply and demand functions, plays a key role in manufacturing and distribution, and needs to be integrated closely with other core business functions such as finance and sales. Maintaining inventory in real-time is a challenge for many organizations at every stage of business development. The newest trend in the area of inventory control and management are vendor-managed inventory (VMI) systems and agreements. In a VMI system distributors and/or manufacturers agree to take over the inventory management for their customers. Based on daily reports sent automatically from the customer to the distributor, the distributor replenishes the customers' stocks as needed (Schaefer & Konur, 2015).

Procurement performance is the pillar of a company's success as it contributes to the competitive purchase and acquisition of quality goods that puts the organization's products or services in the competitive edge in the market. Nevertheless, poor procurement performance has led to organizations financial loss due to the delivery of poor quality work materials, loss of value for money and inflated prices. Low procurement performance also contributes to decrease of profitability (Juma, 2010). According to (Migai, 2010) poor procurement performance is a major hindrance to organizational growth since it causes the delay of delivery, increases of defects, delivery of low-quality goods or non-delivery of all.

ERP inventory management refers to an integrated approach to business planning and operations, in which businesses can manage all their finances, logistics, operations, and inventory in one place. An enterprise resource planning (ERP) solution helps keep together the various moving components related to inventory control and warehouse management. There are huge time-saving implications of using an ERP inventory management system. Managing operations using a centralized system not only cuts down on double-handling but also allows for automation of daily tasks. Rather than paying for segmented resources or systems to handle different parts of the business, ERP inventory management systems handle many working parts simultaneously, reducing overall workload and minimizing expenses (Farhat, & Owayjan, 2017).

In general, the ERP software makes the business processes throughout your company smooth and efficient. This frees up your time (and your employees' time) to focus on the business functions that help your business grow, rather than just maintain the status quo. With key updates on stock, orders, and customers in a single location, ERP inventory management enables quality data collection. Most systems also allow you to create and save custom inventory and sales reports to track business performance and plan for growth (Weston, 2011). Inventory forecast analytics is the process of predicting customer demand for an inventory item over a defined period of time. Accurate inventory demand forecasting enables a company to hold the right amount of stock without over or under-stocking, for optimum inventory control.

Statement of the Problem

Organizations use internal inventory practices as a way to achieve organizational objectives such as enhanced efficiency and improved procurement operations, adoption of effective internal inventory control systems practices have been a challenge to many. The procurement departments of Uasin Gishu County are responsible of providing the necessary goods and services to all of their customers and individuals by keeping the stock levels at most economical costs possible. However there has been an outcry from the customers that the county has poor instituted procurement performance functions that has led to organizations financial loss due to delivery of poor quality materials. Hence low procurement performance contributes to decrease of profitability (Juma, 2010). The effectiveness of internal stock control is directly measurable by how successful an organization is providing services to its customers (Kamau, & Kagiri, 2015). It will be therefore important to expand knowledge on internal inventory control practices, their adoption and benefits to organizations. Most of such studies had focused on external inventory control practices. (Ogbo, & Ukpere, 2014) studied the impact of effective inventory control management on organizational performance. In Kenya (Makori, & Muturi, 2018) conducted a study on the effect of inventory control on firm performance in health sector. Very limited study had been done on internal inventory control systems. It is therefore evident that knowledge gap exists on the specific relationship between inventory control systems and procurement performance. This study intended to bridge this gap by determining the relationship between internal inventory control systems and procurement performance of county government of Uasin Gishu, Kenya.

Objectives of the Study

The general objective of the study was to determine the influence of inventory control systems on procurement performance in the County Government of Uasin Gishu, Kenya.

Specific Objectives were;

- To examine the role of ERP software on procurement performance in the County Government of Uasin Gishu.
- To investigate the inventory forecast analytics on procurement performance in the County Government of Uasin Gishu.

Research Hypotheses

This study is based on the following hypotheses:

H₀₁: There is no statistically significance relationship between ERP software on procurement performance in the County Government of Uasin Gishu.

H₀₂: There is no statistically significance relationship between forecast analytics on procurement performance in the County Government of Uasin Gishu.

LITERATURE REVIEW

Theory of Constraints

The theory of constraints is a management philosophy that ensure the ERP selection process is a business decision based on targeted objectives, and that the benefits will be verifiable it seeks to increase manufacturing throughput efficiency or system performance measured by sales through the identification of those processes that are constraining the manufacturing system (Goldratt, 2004). Kazim, (2008), The difficulties in the theory of constraints are: very long lead times, large

number of unfulfilled orders or they are executed with much extra effort (overtimes), high level of unnecessary inventories or lack of relevant inventories, wrong materials order, large number of emergency orders and expedition levels, high levels of devolution, lack of key customers engagement, frequent changes or absence of control related to priority orders, which implies on schedule conflicts of the resources (Goldratt, 2004).

Theory of constraints emphasizes focus on effectively managing the capacity and capability of these constraints if they are to improve the organizational competitiveness of their organization. This can be achieved by telecommunication firms applying appropriate inventory management practices. Companies have struggled to invest in the technology and organizational structures needed to achieve to-date systems synchronization that enable coordinated inventory flows (Fawcett, Ogden, Magnan, & Cooper, 2006). Theory of Constraints measurements are based on a simple relationship that highlights the effect of inventory control system on progress toward the organizational competitiveness. The proof of effectiveness for any inventory control system is the degree to which it improves organizational competitiveness of business firms (Boyd & Gupta, 2004).

They also noted that while the theory appears to meet the criteria of a good theory, it has not been empirically tested for the most part. Criticism that has been leveled against theory of constraints includes its sub optimality. Trietsch, (2005), argues that the theory is inferior to competing approach. The theory to establishing an optimal product mix that is likely not to yield optimum results. According to Theory of Constraints Problems are likely to raise when inventory is not tracked properly, inefficiency and additional costs mount. Supplies get lost, shrinkage can go unchecked, stock-outs occur, critical equipment locations are uncertain, billing is inefficient since supplies are used without being associated to work's record, and on-hand inventory can balloon unnecessarily. All of this leads to inefficiency and additional costs (Linhares, 2009).

Lean Theory

Lean Theory Lean theory is an extension of ideas of just in time (JIT). Kros, Falasca, and Nadler, (2006), elaborate just in time as a pull-based system designed to align the production and business processes throughout the supply chain. Green and Inman (2005) assessed the impact of lean theory on financial performance. They say that theory may eliminate buffer stock and minimize waste in production process. Eroglu and Hofer (2011) found that leanness positively affects profitability of a business firm. They argue that inventory leanness is the best inventory control tool. The theory elaborates on how manufacturers gain flexibility in their ordering decisions, reduce the stocks of inventory held on site and eliminate inventory carrying costs.

However in the theory, inventory constrains a firm's ability to respond to fluctuations in demand. Scholarly studies indicate that companies successfully optimize inventory through lean supply chain practices and systems to achieve higher levels of asset utilization and customer satisfaction leading to improved organizational growth, profitability and market share (Green & Inman, 2005). Another study suggesting a positive relationship between inventory management and performance was that of Eroglu and Hofer, (2011) in which their study focused on US manufacturing firms covering the period of 2003-2008. They found that leanness positively affects profit margins. Eroglu and Hofer, (2011) examine that firms that are leaner than the Industry average generally see positive returns to leanness.

Criticism leveled against the theory is that it can only be applicable when there is a close and long-term collaboration and sharing of information between a firm and its trading partners. According to Lean Theory, inventory management act as a major component of any supply chain irrespective of whether it is a product or service supply chain. Inventory management plays an important role in matching demand and supply ultimately providing flexibility in coping up with external and internal events of the today's uncertainty globalized business environment (Floyd et al. 2010). Ineffective inventory control is a major problem faced by industries in developing countries and that even the very basic inventory control concepts and techniques are not used by the majority of the companies studied. (Chen, Frank & Wu, 2007).

Empirical Studies

Mjomba and Kavale (2015) conducted a study on the effects of enterprise resource planning on the organizational performance of Kenya Power and Lighting Company with a case study of Kenya Power and Lighting Company Voi branch. The specific objectives of this study were; to establish the effects of Enterprise Resource Planning on reduction of costs, managerial efficacy, and competitiveness instrumental mentality in relation to organizational performance. The study found that the organization experienced reduced operation costs; management efficiency, competitive advantage and increased shareholder's profitability. The study recommended that top leadership should support the adoption of ERP system for to be successful, adoption of cost-effective modules to improve efficiency, adoption of cost friendly modules and organizations should embrace change for them to reap the full benefits of technology.

Musyoka and Kwasira, (2012) conducted a study on the Effect of Enterprise Resource Planning (ERP) in enhancing service delivery in the procurement function in public universities in Kenya. A case study of Egerton University study findings showed that Enterprise Resource Planning have a significant relationship in enhancing service delivery in the procurement function at Egerton University. The researcher recommended that since the implementation of ERP systems require long-term planning for their success in improving the efficiency of the procurement function, the management has a great role to play in enhancing service delivery and also ensuring that personnel is trained on the implementation issues relating to the adoption and use of various systems for enhanced service delivery in the procurement function

Njihia and Mwirigi (2014). Studied the effects of enterprise resource planning systems on firm's performance and found that financial resource availability, organizational complexities, employee perceptions, regulatory requirements, and having a top management support all affects the effective implementation of an ERP system which in turn will affect the firm's performance. However, the researcher could have used a multi-dimensional approach to be used in the implementation of change.

Hwang and Min, (2013) conducted a study on assessing the impact of ERP on supplier performance. The purpose is to analyze its role in supply chain operations and assesses its impact on supplier capabilities and performances from supply chain perspectives; based on both a contingency theory and resource-based view of the firm. The research develops a series of hypotheses regarding the use of ERP for strategic sourcing in the large survey of Korean manufacturers and their suppliers was conducted. A structural equation model will be used for data analysis, however, the firm's external environment has little influence on the decision to adopt and implement.

Syntetos, Boylan, and Disney, (2009) established a study on forecasting for inventory planning: a 50-year review the relevance of this literature is reviewed and synthesized to promote some convergence between these different approaches to inventory forecasting and planning. There have been significant methodological developments, such as the emergence of system dynamics, control theory and statistical forecasting methods. These developments have been mirrored by new software applications, reflecting their importance in practical situations. However, the researcher did not use ARIMA models which have proven to be useful for strategic modeling purposes and for developing insights into the bullwhip effect.

Conceptual Framework

A conceptual framework is a concise description of a phenomenon usually aided by the graphic of major variables of the study. The study has ERP software and inventory forecast analytics as the independent variables while procurement performance as the dependent variable. This is depicted in Figure 1.

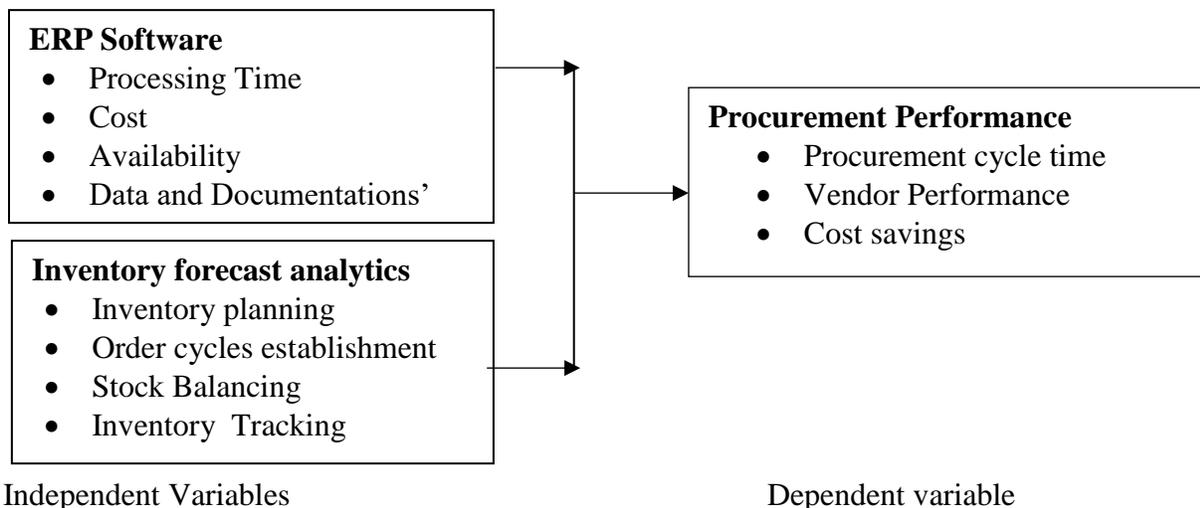


Figure 1: Conceptual Framework

METHODOLOGY

This study used a descriptive survey research design. Target population of this study comprised of all procurement officers. Accessible population was 65 procurement officers in Uasin Gishu County. The study used census survey. The study used self-administered questionnaire in order to gather primary data on the influence of inventory control systems on procurement performance. A pilot study was conducted to test the validity and reliability of the research questionnaire. Data got from the field was cleaned, sorted coded, transformed and model data to identify and highlight useful information that was used to support the decision making process (Barako, 2010). The analysis was through descriptive and inferential statistics. In particular, descriptive statistics include the use of mean, frequencies and standard deviations. Inferential statistics included the use of regression and correlation analysis.

RESEARCH FINDINGS

Descriptive Analysis for ERP software

The study sought to determine the effect of ERP software on public procurement performance in County Government of Uasin Gishu. Table 1 presents the study results.

Table 1 Descriptive Analysis for ERP software

Statements		SA	A	N	D	SD	Mean	Std. Dev.
An ERP connects adequate processing time of functions	F %	26 45.7	22 38.6	6 10.5	1 1.7	2 3.5	4.13	0.906
The companies can dramatically reduce costs by having time data available.	F %	16 28.0	11 19.3	20 35.1	9 15.8	1 1.8	3.47	1.032
The availability of raw materials is a big factor in managing warehouse space and scheduling manufacturing.	F %	22 38.6	23 40.4	8 14.0	3 5.2	1 1.8	4.11	0.942
The ERP helps companies to create the right reports for deep analytics, using real-time data.	F %	22 38.6	10 17.5	15 26.3	9 15.8	1 1.8	3.353	1.021
Valid N		57					3.77	

Table 1 shows that 48(84.3%) of the respondents agreed with the statement that an ERP software connects adequate processing time of functions. However, 3(5.2%) of the respondents disagreed. Further the study findings showed in terms of means and standard deviation that the respondents agreed with the statement that ERP software connects adequate processing time of functions. (Mean, =4.13, Std. dev=0.906). Also, 26(45.7%) of the respondents agreed with the statement that the ERP software is necessary in enhancing procurement performance and good service delivery in County Government.

Findings indicated that 10(17.6%) of the respondents disagreed with the statement that the companies can dramatically reduce costs by having real time data available, However 27(47.3%) of the respondents agreed. Further the study findings showed in terms of means and standard deviation that the respondents agreed with the statement that the companies can dramatically reduce costs by having real time data available. (Mean, =3.47, Std. dev=1.032). Also, 16(28.0%) of the respondents agreed with the statement that the companies can reduce costs by having real time data available. Furthermore 45(79.0%) of the respondents agreed with the statement that the availability of raw materials is a big factor in managing warehouse pace and scheduling manufacturing However, 4(7.0%) of the respondents disagreed. Further the study findings showed in terms of means and standard deviation that the respondents agreed with the statement that the county asses availability of raw materials as a big factor in managing warehouse space and scheduling manufacturing (Mean, =4.11, Std. dev=0.942). Finally, 32(56.1%) of the respondents agreed with the statement that the ERP helps companies to create the right report for deep analytics using real time data. However, 10(17.6%) of the respondents disagreed. Further the study findings showed in terms of means and standard deviation that the respondents agreed

with the statement that the county ERP systems helps to create the right reports for deep analytics using real time data. (Mean, =4.11, Std. dev=0.942).

The study results also showed that inventory control systems has a positive influence on procurement performance in County Government of Uasin Gishu. This implies that an ERP system connects adequate processing time of functions. Also, County can dramatically reduce costs by having real time data available. Further, the availability of raw materials is a big factor in managing warehouse space and scheduling manufacturing finally, an ERP system helps county to create the right reports for deep analytics using real time data. The study results concur with (Mjomba & Kavale, 2015) the study found that the organization experienced reduced operation costs; management efficiency, competitive advantage and increased shareholder's profitability.

Descriptive Analysis for inventory forecast analytics

The study sought to determine the effect of inventory forecast analytics on procurement performance in County Government of Uasin Gishu Table 2 presents the study results.

Table 2: Descriptive Analysis for inventory forecast analytics

Statements		SA	A	N	D	SD	Mean	Std. Dev	
Time of ordering inventory when depleted is critical	F	21	25	7	1	3	4.226	1.098	
	%	36.8	43.9	12.3	1.8	5.2			
There is establishment of order cycles by evaluating excess stock.	F	20	10	20	5	2	3.500	0.972	
	%	35.1	17.5	35.1	8.8	3.5			
The county has an ongoing monitoring and balancing of stock during high demands.	F	24	19	9	1	4	4.01	1.156	
	%	42.1	33.3	15.8	1.8	7.0			
There is quality assurance and accurate data regulation through tracking of inventory.	F	15	26	6	7	3	3.71	1.145	
	%	26.3	45.6	10.5	12.3	5.3			
Valid N		57						3.862	

Table 2 shows that 46(80.7%) of the respondents agreed with the statement that the time of ordering inventory when depleted is critical However, 4(7.0%) of the respondents disagreed. Further the study findings showed in terms of means and standard deviation that the respondents agreed with the statement that the time of ordering inventory when depleted is critical (Mean, =4.226, Std. dev=1.098).

Findings indicated that 30(52.6%) of the respondents agreed with the statement that there is establishment of order cycles by evaluating excess stock However, 7(12.3%) of the respondents disagreed. Further the study findings showed in terms of means and standard deviation that the respondents agreed with the statement that there is establishment of order cycles by evaluating excess stock (Mean, =3.500, Std. dev=0.972). Further 43(75.4%) of the respondents agreed with the statement that there is ongoing monitoring and balancing of stock during high demands in the county.

However, 5(8.8%) of the respondents disagreed. Further the study findings showed in terms of means and standard deviation that the respondents agreed with the statement that there is ongoing monitoring and balancing of stock during high demands in the county. (Mean, =4.01,

Std. dev=1.156). Finally, 41(71.9%) of the respondents agreed with the statement that there is quality assurance and accurate data regulation through tracking of inventory. However, 10(17.6%) of the respondents disagreed. Further the study findings showed in terms of means and standard deviation that the respondents agreed with the statement that there is quality assurance and accurate data regulation through tracking of inventory (Mean, =3.71, Std. dev=1.145).

The study results also showed that inventory forecast analytics has a positive influence on procurement performance in County Government Uasin Gishu. This implies that the time of ordering inventory when depleted is critical. Also, there is establishment of order cycles by evaluating excess stock. Further, there is ongoing monitoring and balancing of stock during high demands in the county. Finally, there is quality assurance and accurate data regulation through tracking of inventory.

The study results concurred with (Syntetos, Boylan & Disney, 2009) that there is significant methodological developments, such as the emergence of system dynamics, control theory and statistical forecasting methods. These developments have been mirrored by new software applications, reflecting their importance in practical situations.

Descriptive Analysis for Procurement Performance

The study sought to determine the effect of procurement performance in County Government Uasin Gishu. Table 3 presents the study results.

Table 3: Descriptive Analysis for Procurement Performance

Statements		SA	A	N	D	SD	Mean	Std. Dev.
There is decreasing cycle times associated with procuring of materials in an effective way.	F	27	24	2	1	3	4.35	0.897
	%	47.4	42.1	3.5	1.8	5.2		
Monitoring vendors can help boost efficiency ,profits and reduce stock levels	F	24	27	1	3	2	4.20	0.978
	%	42.1	47.4	1.8	5.3	3.4		
Investing in digital technology and processes enhances cost savings.	F	27	25	2	1	2	4.29	0.907
	%	47.4	44.0	3.4	1.8	3.4		
Valid N		57					4.19	

Table 4.10 shows that 51(89.5%) of the respondents agreed with the statement that there is decreasing cycle times associated with procuring of materials in an effective way. However, 4(7.0%) of the respondents disagreed. The study findings showed in terms of mean and standard deviation that the respondents agreed with the statement that there is decreasing cycle times associated with procuring of materials in an effective way (Mean, =4.35, Std. dev=0.897). Also, 51(89.5%) of the respondents agreed with the statement that monitoring vendors can help boost efficiency profits and reduce stocks levels. However, 5(8.7%) of the respondents disagreed. the study findings showed in terms of mean and standard deviation that the respondents agreed with

the statement that monitoring vendors can help boost efficiency profits and reduce stocks levels (Mean, =4.20, Std. dev=0.978).

Finally, 52(91.4%) of the respondents agreed with the statement that investing in digital technology and processes enhances cost savings. however, 3(5.2%) of the respondents disagreed. The study findings showed in terms of mean and standard deviation show that the respondents agreed with the statement that investing in digital technology and processes enhances cost savings. (Mean, =4.29, Std. dev=0.907).

Inferential Statistics

Correlation Analysis

Table 4: Correlations Analysis Results

		Procurement performance	ERP software	Inventory forecast analytics
Procurement performance	Pearson Correlation	1		
	Sig. (2-tailed)			
ERP software	Pearson Correlation	.407**	1	
	Sig. (2-tailed)	.000		
Inventory forecast analytics	Pearson Correlation	.895**	.334**	1
	Sig. (2-tailed)	.000	.001	

The findings revealed that ERP software was positively and statistically significant correlated to procurement performance (r=0.407; p<0.01). Further, inventory forecast analytics was positively and statistically significant correlated to procurement performance (r= 0.895; p<0.01). This gave an implication that all the study variables were positively correlated to procurement performance. ERP software contributes 40.7% to procurement performance. Inventory forecast analytics contributes 89.5% to procurement performance. The study connection was determined to be statistically substantial as the substantial figure was less than 0.05. These findings concur with (Makori & Muturi, 2018) who found that inventory control systems has an effect on procurement performance.

Regression Analysis Results

Multiple regression analysis was conducted to establish relation between variables of the study. Model summary provides the coefficient of determination (R²) which shows proportion of the variance in the dependent variable that is predictable from the independent variable and correlation coefficient (R) shows the degree of association between the dependent and independent variables. The results presented in Table 5 present the fitness of model used of the regression model in explaining the study.

Table 5: Regression Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
.926 ^a	.858	.852	.41295	1.838

From Table 5, the value of R is 0.926, R square is 0.858 and adjusted R squared is 0.852. This therefore implies that 85.8% changes in procurement performance are contributed by the ERP software and inventory forecast analytics.

Model Fitness

Model fitness results using analysis of the variance are presented in Table 6.

Table 6: Model Fitness Results

	Sum of Squares	df	Mean Square	F	Sig.
Regression	50.012	2	25.006	146.633	.000 ^b
Residual	16.929	99	.171		
Total	66.941	101			

The study results in Table 6 revealed that F-significance value of p less than 0.05 was established ($p=0.000 < 0.05$). This gave an implication that the regression model has a confidence level of above 95% hence high reliability of the results. The regression model was significant in predicting the relationship between dependent and independent variables. Therefore, the null hypothesis that; the ERP software and inventory forecast analytics combined do not influence the procurement performance is rejected.

Regression Coefficients

The study sought to determine the coefficients of the study variables. The study results were presented on Table 7.

Table 7: Regression Analysis Coefficient

	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	t	
(Constant)	.232	.161		1.441	.153
ERP software	.103	.035	.122	2.955	.004
Inventory forecast analytics	.315	.109	.317	2.901	.005

Regression of coefficients results in Table 7 shows that ERP software has a positive and significant influence on procurement performance ($\beta_1=0.103, p<0.05$). It was also established that inventory forecast analytics has a positive and significant influence on procurement performance ($\beta_2=0.315, p<0.05$). Therefore, when all the variables are held constant, procurement performance would be at 0.232. A unit increase in ERP software when other variables are held constant would increase procurement performance by 0.103. A unit increase in inventory forecast analytics holding other variables constant would increase procurement performance by 0.315.

Hypotheses Testing

H₀₁: ERP software has no significant effect on procurement performance at County Government of Uasin Gishu. The regression results indicate that there is significant relationship between ERP software and procurement performance at County Government of Uasin Gishu with a beta coefficient of 0.103 and significance of ($p<0.005$). The study rejected the null hypothesis and adopted the alternative hypothesis that ERP software has a significant effect on public

procurement performance at County Government of Uasin Gishu County Government. These results concur with (Richardson, Kefford & Hodkiewicz, 2013) who indicated that optimized asset replacement is performing on the negative in all the four determinants of procurement performance studied as they all recorded negative mean scores.

H₀₂: Inventory forecasts analytics has no significant effect on procurement performance at County Government of Uasin Gishu. The regression results indicate that there is significant relationship between inventory forecasts analytics and procurement performance at County Government of Uasin Gishu with a beta coefficient of 0.315 and significance of ($p < 0.05$). The study rejected the null hypothesis and adopted the alternative hypothesis that inventory forecasts analytics has a significant effect on procurement performance at County Government of Uasin Gishu. These results concur with (Ogbo & Ukpere, 2014) who found a significant variation between the inventory control management on company, as well as in the overall positive impact of past wins and in the detailed impact patterns and thresholds of each company.

Conclusions

From the findings of the research, the study arrives at the following conclusion; ERP software has a positive and significant influence on procurement performance. Availability of data helps in analyzing the inventory. Also, the county has a wide scope of analysis in order to understand the size and structure of the organizational inventory control systems.

The county evaluates the financial implication of the main players including studying their cost analysis and their profitability in order to compete well. Finally, the county studies industry trends and forces in the stock control to flow with the market forces. ERP software has a positive and significant influence on procurement performance. The county creates a order cycles scorecard in order to understand all the important elements they require in an inventory.

Recommendations of the Study

Based on the study results, some recommendations can be proposed by the study; to improve the procurement performance of County Government this study recommends; a well systematic process to identify procurement requirements and procurement procedures should be established in the County. The management should focus on timely release of purchase orders and procurement data in order to increases procurement performance.

This study focused only on relationship between inventory control systems and procurement performance at County Government of Uasin Gishu. Further research study should be carried out to establish the challenges facing procurement in Counties in Kenya.

REFERENCES

- Ahmed, A. D., Modibbo, S., Modu, K., & Muhammad, B. (2016). Effect of inventory management on financial performance: Evidence from Nigerian conglomerate companies. *International Journal of Social, Behavioral, Educational, Economic, Business and Industrial Engineering*, 10(9), 33-89.
- Barako, D. G. (2010). HIV/AIDS Information by African Companies: An Empirical Analysis. *Journal of Asian and African studies*, 45(4), 387-405.
- Bon, A. T., & Ng, T. K. (2017). An optimization of inventory demand forecasting in university healthcare centre. In *IOP Conference Series: Materials Science and Engineering* (Vol. 166, No. 1, p. 012035). IOP Publishing.

- Farhat, J., & Owayjan, M. (2017). ERP neural network inventory control. *Procedia computer science, 114*, 288-295.
- Hamza, K., Mutala, Z., & Antwi, S. K. (2015). Cash management practices and financial performance of small and medium enterprises (SMEs) in the Northern region of Ghana. *International Journal of Economics, Commerce and Management, 3(7)*, 456-480.
- Horvat, T., & Antoni, A. (2016). Implementing internal controls in logistics costs. In *Проблемы современной аграрной науки* (pp. 59-63).
- Hwang, W., & Min, H. (2013). Assessing the impact of ERP on supplier performance. *Industrial Management & Data Systems*.
- Janda, S., & Seshadri, S. (2001). The influence of purchasing strategies on performance. *Journal of Business & Industrial Marketing*.
- Kamau, L. W., & Kagiri, A. W. (2015). Influence of inventory management practices on organizational competitiveness: A case of Safaricom Kenya Ltd. *International Academic Journal of Procurement and Supply Chain Management, 1(5)*, 72-98.
- Makori, J. K., & Muturi, W. (2018) Influence of Inventory Management Practices on Performance of Procurement Function in Health Institutions in Kenya. A Survey of Selected Public Health Institutions in Western Kenya. *International Journal of Social Sciences and Information Technology 4(10)*.
- Mashaka, J. W. (2016). *Effectiveness of inventory management towards reduction of stock-outs in health organizations: a case of Dodoma referral hospital* (Doctoral dissertation, The University of Dodoma).
- Masudin, I., Kamara, M. S., Zulfikarijah, F., & Dewi, S. K. (2018). Impact of inventory management and procurement practices on organization's performance. *Singaporean Journal of Business Economics and Management Studies (SJBEM), 6(3)*, 32-39.
- Mjomba, M. M., & Kavale, S. (2015). Effects of enterprise resource planning on organisational performance on Kenya Power and Lighting Company: a case study of Kenya Power and Lighting Company Voi branch. *International Journal of Advanced Research in Management and Social Sciences, 4(10)*, 119-131.
- Musyoka, M. R., & Josphat, K. (2012). Effect of Enterprise Resource Planning in Enhancing Service Delivery in the Procurement Function in Public Universities in Kenya, A Case study of Egerton University-Njoro, Kenya. *International Journal of Science and Research, 3(10)*, 37-43.
- Ng'ang'a, K. (2013). An Assessment of the Factors Influencing Effectiveness of Inventory Control; Ministry of State for Provincial Administration and Internal Security, Nairobi-Kenya. *International Journal of Business and Commerce, 3(1)*, 33-53.
- Njihia, E., & Mwirigi, F. M. (2014). The effects of enterprise resource planning systems on firm's performance: A survey of commercial banks in Kenya. *International journal of business and commerce, 3(8)*, 120-129.
- Ogbo, A. I., & Ukpere, W. I. (2014). The impact of effective inventory control management on organisational performance: A study of 7up bottling company Nile Mile Enugu, Nigeria. *Mediterranean Journal of Social Sciences, 5(10)*, 109-109.
- Onchoke, B. N., & Wanyoike, D. M. (2016). Influence of inventory control practices on procurement performance of agrochemicals distributors in Nakuru central sub-county, Kenya. *International Journal of Economics, Finance and Management Sciences, 4(3)*, 117-126.

- Pan, J. C. H., & Yang, J. S. (2002). A study of an integrated inventory with controllable lead time. *International Journal of Production Research*, 40(5), 1263-1273.
- Richardson, S., Kefford, A., & Hodkiewicz, M. (2013). Optimised asset replacement strategy in the presence of lead time uncertainty. *International journal of production economics*, 141(2), 659-667.
- Schaefer, B., & Konur, D. (2015). Economic and environmental considerations in a continuous review inventory control system with integrated transportation decisions. *Transportation Research Part E: Logistics and Transportation Review*, 80, 142-16
- Weston Jr, F. C. (2011). ERP implementation and project management. *Production & Inventory Management Journal*, 75-82.
- Zhang, Y., Hua, G., Wang, S., Zhang, J., & Fernandez, V. (2018). Managing demand uncertainty: Probabilistic selling versus inventory substitution. *International Journal of Production Economics*, 196, 56-67.