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FACTORS AFFECTING THE EFFICIENCY OF INVENTORY MANAGEMENT IN ORGANIZATIONS IN KENYA

A CASE OF FIRMS IN KISII TOWN

Lenah Mong'ina Ondari

Student MSc, Procurement & Logistics, Jomo Kenyatta University of Agriculture and Technology, Kenya lenahondari@gmail.com

Willy Muturi

Jomo Kenyatta University of Agriculture and Technology, Kenya

Abstract

Inventory constitutes the most significant part of current assets in many manufacturing companies. Firms in Kisii town neither keep excess inventories to avoid an unnecessary tying down of funds as well as loss in fund due to pilferage, spoilage and obsolescence nor maintain too low inventories so as to meet users demand as at when needed. This study sought to examine the factors affecting the efficiency of inventory management in organizations in Kenya. The population for this study constituted 112 employees who work at with four firms in Kisii Town. Stratified random sampling was used to select a sample size of 56 respondents. Primary data was collected using a self-administered questionnaire and was analyzed by descriptive statistics. The study established that bureaucratic procurement procedures had a positive impact on the efficiency of inventory management among firms in Kisii town. The study revealed that documentation is crucial in ensuring efficient inventory management, stock records provide the management with the information which is used to ensure accountability through stocktaking and stock audit exercise. Also, funding positively affects efficiency of inventory management among firms in Kisii town to a great extent. The study therefore recommended that there is need for firms in Kisii town to enhance their bureaucratic procurement procedures through elimination of overlapping or conflicting jobs or duties and behaviour of the system is predicable.

Keywords: Bureaucratic Procurement Procedures, Documentation, Stores Record, Funding, inventory management



INTRODUCTION

Inventory Management plays a decisive role in the enhancement of efficiency and competitiveness of business enterprises. Effective inventory management entails holding an appropriate amount of inventory. Too much inventory consumes physical space, creates a financial burden, and increases the possibility of damage, spoilage and loss. On the other hand, too little inventory often disrupts business operations, and increases the likelihood of poor customer service (Dimitrios, 2008). As Rajeev (2008) argues, there is increased need for business enterprises to embrace effective inventory management practices as a strategy to improve their competitiveness.

Empirical evidence suggests that institutions throughout the world have adopted inventory management systems into their operations. Jones and Riley (1985) argued that changes in the corporate environment would necessitate and result in changes of inventory management. In particular, institutions will seek for systems that will enable them manage their supply chains more effectively and efficiently (Jones & Riley, 1985). In the current century, the inventory management practices have changed significantly. Developments in IT have made most of the institutional processes within organizations more efficient (Gunasekaran, Patel & Tirtiroglu, 2001). It is for this reason that system developers and technological experts have linked up with inventory managers to develop systems that will enhance the efficiency of the inventory management process (Cachon & Fisher, 2000).

Furthermore, there has been an increase in the demand for more effective supply chain management processes. Lai, Wong and Cheng (2006) posit that the adoption of IT has become inevitable in the enhancement of supply chain performance. Institutions are increasingly being pressurized by their supply chain partners to adopt information technology. However, institutional inventory management practices differ from one institution to another. It is therefore the duty of an institution to adopt inventory systems that will suite its operations and activities.

Inventory management systems are developed with the aim of reducing costs associated with inventory management. Inventory management systems are however described as complex systems to develop (Jones & Riley, 1985). This is attributed to the fact that inventory management spans through most of the departments within an institution each having its own heterogeneous functions. Moreover, institutions should integrate their inventory management systems with those of their suppliers (Power, 2005). By so doing, the efficiency of the supply chain process will be significantly enhanced. According to Power (2005), developing integrated inventory systems is one of the challenges that organizations face as they develop inventory systems. In addition, complex systems are costly to develop and thus discourage organizations from developing them. According to Cagliano, DeMarco, Rafele and Volpe (2011), adoption of inventory management systems have huge initial cost implications for the firm but the firm stands to benefit in the long run. Some of the benefits cited in the study include: increased operational efficiency, lower institutional and operational costs, shorter lead-times and reduced inventory (Cagliano et al. 2011).

In Kenya, more and more institutions including small-scale enterprises are increasingly adopting inventory management systems with the aim of achieving competitive advantage and enhancing their performance (Nyabwanga & Ojera, 2012). Nyabwanga and Ojera (2012) conducted a research study in Kisii County whose study population was 230 small-scale enterprises – out of which were 69 manufacturing firms and 161 trading companies. The findings of the study revealed that more and more small scale enterprise were adopting inventory management systems into their operations. The findings further revealed that inventory management enhances business performance. Irungu and Wanjau (2011) argue that Kenyan supermarkets are increasingly adopting inventory management systems in order to enhance their operational efficiency, customer service and performance. This suggests that inventory management spans across the globe. This study will examine the factors affecting the efficiency of inventory management in organizations in Kenya with reference to Firms in Kisii Town.

Statement of the Problem

Inventory constitutes the most significant part of current assets in many manufacturing companies. Because of the relative largeness of inventories maintained by the Manufacturing firm considerable sum of an organization's fund is being committed to them. It thus becomes absolutely imperative to manage inventories efficiently so as to avoid unnecessary cost and ensure high quality product to customers (Thai, 2009). Many business organisations the world over do not give inventory management the prominence it deserves in spite of its varied importance. The problem of inventory management has existing for too long. This problem is still with us to date and is a universal rather than a peculiar problem. Thus, it is not limited to a single organisation but all business for a. it is not only limited to the private sector with its background motive of profit maximization's, such as Kisii town firms (Leung, 2007)

The problem of inventory management may be attributable to the failure, on the part of the top management officials, to give a deserved attention to the function of stores as well as their inability to employ the services of as well qualified stores officer to take charge of stores supervision and management. Added to this problem is the issue of the dearth of storage facilities and the habit of stores procedure violation by the top, the middle, and the junior cadre personnel's in the organisation (Neef, 2001).

Inventory management represents an important development for the purchasing process (Neef, 2001). In order for organizations to be competitive and stay updated, there is need to have a paradigm shift in the way procurement is carried out so as to solve numerous procurement problems evident in the business world especially in developing economies which include increased corruption, high costs of doing businesses, a lot of non-value adding paper work procedures, long time elapse to respond to tenders and non-competitiveness (Chartered Institute of Purchasing and Supplies, 2011).

Firms in Kisii town neither keep excess inventories to avoid an unnecessary tying down of funds as well as loss in fund due to pilferage, spoilage and obsolescence nor maintain too low inventories so as to meet users demand as at when needed. Therefore, the mere fact that inefficiency in inventory management affects virtually the organizational objectives necessitates this type of research work. According to Sunil and Sameer (2008), to compete more effectively in a global marketplace, it is important that firms understand the issue of inventory management and align their purchasing to the diverse environments in which they operate.

This study sought to examine the factors affecting the efficiency of inventory management in organizations in Kenya with reference to Firms in Kisii Town. The general objective of the study was to examine factors affecting the efficiency of inventory management in organizations in Kenya with reference to Firms in Kisii Town. The specific objectives of the study are:

- i. To investigate the effect of bureaucratic procurement procedures on efficiency of inventory management among Firms in Kisii Town.
- ii. To determine the effect of documentation on efficiency of inventory management among Firms in Kisii Town.
- iii. To investigate the effect of funding on efficiency of inventory management among Firms in Kisii Town.
- iv. To investigate the effects of skills possessed by staff on efficiency of inventory management among Firms in Kisii Town.

THEORETICAL REVIEW

Scientific Management Theory

To investigate the influence of staff training on effective stores management, the study was based on scientific management theory. The theory basically consists of the works of Fredrick Taylor. Fredrick Taylor started the era of modern management in the late nineteenth and early twentieth centuries; Taylor consistently sought to overthrow management by rule of thumb and replace it with actual timed observations leading to the one best practice Watson (2002). He

advocated for the systematic training of workers in the one best practice rather than allowing them personal discretion in their tasks. He further believed that the workload would be evenly distributed between the workers and management with management performing the science and instruction and the workers performing the labor, each group doing the work for which it was best suited. Taylors" strongest positive legacy was the concept of breaking a complex task down into a number of subtasks, and optimizing the performance of the subtasks, hence, his stopwatch measured time trials (Osdorne & Rubinstein, 1990). As a result, he proposed four underlying principles of management.

Adaptive Structuration Theory

Based on Structuration theory, the study intends to determine the effects of information technology on effective stores management. Structuration theory was first proposed by Anthony Giddens in his Constitution of Society in 1984, which was an attempt to reconcile social systems and the micro/macro perspectives of organizational structure. De Sanctis and Poole (1994) borrowed from Giddens in order to propose AST and the rise of group decision support systems. AST provides the model whereby the interaction between advancing information technologies, social structures, and human interaction is described, and which focuses on the social structures, rules, and resources provided by information technologies as the basis for human activity. AST is a viable approach in studying how information technology affects effective inventory management in an organization because it examines the change from distinct perspectives.

Theory of Inventory and Production

The theory of inventory and production is described as specialty in operations research and is commonly referred to as the mathematical theory of inventory and production (Hillier & Lieberman, 2001). The theory is concerned with the development and adoption of inventory and production systems that are effective and that will result in the minimization of institutional cost. In this connection, the theory studies the following organizational functions: supply chain, warehousing, manufacturing and production, spare part allocation, and logistics.

According to Hillier and Lieberman (2001), institutions should follow the following steps in order to have an effective inventory management system: (1) develop a mathematical model which describes the behavior of inventory; (2) design and adopt an optimal inventory policy with respect to the firm's mathematical model; (3) develop a computerized information processing system that will provide information on the current inventory levels; (4) use the current inventory levels information to apply the optimal inventory policy to replenish existing inventory levels. In addition, the theory of inventory and production considers and uses the following measures: ordering costs, shortage costs, holding costs, salvage costs, discount rates, and revenues.

Bureaucratic **Procurement Procedures** Red tapes and paper work. Rigid rules and policies **Documentation /Stores Record** Adequate personnel Accurate recording **Efficiency in inventory Stock Procedure** management Posting system Inventory turnover **Funding** Lead time Adequate funds. Timely dispatch of funds profitability **Skills** Professional qualification **Training**

Figure 1. Conceptual Framework

Research Gap

One might expect the seemingly infinite stream of inventory theory related research to be a key resource for managers seeking to gain a competitive advantage through inventory control. However, some have suggested that managers who turn to inventory theory research may find it to be of little significance (Krautter, 2009) or that it has little to offer in terms of enhancing inventory practices (Wagner, 2002). This has led many to suggest a gap exists between inventory theories and practice (Lenard & Roy, 2005; Silver, 2001; Wagner, 2002). While the varied solutions offered to bridge this gap represent valuable research, input from practitioners is noticeably absent (Patton & Steele, 2010). Therefore, an empirically derived agenda founded on practitioner-identified issues, is needed (Vigoroso, 2005). There is no study that have been comprehensively been done on factors influencing efficiency inventory management in Kenyan organizations and hence the study intended to fill those gaps.

RESEARCH METHODOLOGY

This research problem was studied through the use of a descriptive research design. The research focused on factors affecting the efficiency of inventory management in organizations in Kenya with reference to Firms in Kisii Town. The population of this was 112 constituting of all the employees who work at four firms in Kisii Town; these are Ouru superstores, Umoja enterprises, Nakumatt and Tuskys. The target population was stratified into top management, middle level management and low level management.

Table 1: Target Population

Firm Top		Top Level Mgt	Middle Level	Lower Level	Total
			Mgt	Mgt	
1.	Ouru superstores	4	8	16	28
2.	Umoja enterprises	4	8	16	28
3.	Nakumatt	4	8	16	28
4.	Tuskys	4	8	16	28
	Total	16	32	64	112

Source: Human Resource Manual (2015)

This study applied stratified random sampling technique to select a sample size of 56 respondents that was done proportionately from each stratum. The selection was as follows.

Table 2: Sampling Size

FIRM	T	ARGET PO	PULATION	I		SAMPL		
	Top Level Mgt	Middle Level Mgt	Lower Level Mgt	Total	Top Level Mgt	Middle Level Mgt	Lower Level Mgt	Total
Ouru superstores	4	8	16	28	2	4	8	14
Umoja enterprises	4	8	16	28	2	4	8	14
Nakumatt	4	8	16	28	2	4	8	14
Tuskys	4	8	16	28	1	4	8	14
Total	16	32	64	112	8	16	32	56

This study collected both primary and secondary data. The secondary data was collected through a review of literature relevant to the study area and specifically that targeting the broad area to assess factors affecting the efficiency of inventory management in organizations, with reference to Firms in Kisii Town. The main source of this data type was the print and electronic journals. Primary data was collected using a self-administered questionnaire. The study used a semi-structured questionnaire to collect data from the respondents. The instruments were divided into six sections. The questionnaires were dropped at the respondents' places of work and picked within two weeks. Follow up calls were then made where appropriate to ensure effectiveness in filling the questionnaires. The research instruments were pre-tested before final administration of questionnaires to the respondents. This involved administering questionnaires to four respondents purposively selected from the population. This represented 10% of the sample size which was considered adequate for a pilot studyQuantitative data collected was analyzed by the use of descriptive statistics using SPSS (Version 22) and presented through percentages, means, standard deviations and frequencies. The information was displayed by use of bar charts, graphs and pie charts and in prose-form.

ANALYSIS

Descriptive and inferential statistics have been used to discuss the findings of the study. The study targeted a sample size of 56 respondents from which 54 filled in and returned the questionnaires making a response rate of 96.4%, this response rate was satisfactory to make conclusions for the study as Mugenda and Mugenda (1999), states that a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good and a response rate of 70% and over is excellent to represent the opinion of the entire population.

Bureaucratic Procurement Procedure

Table 3: Statements on Bureaucratic Procurement Procedure on firms' inventory management

Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Std Deviation
management should try to make procurement	10	24	2	0	0	1 70	0.22
processes less bureaucratic, through procurement reforms	18	34	2	U	0	1.79	0.32
Bureaucracy expects conformity in behavior rather than performance	16	30	6	2	0	1.84	0.28
By understanding the steps involved with procurement, it is possible to get a better understanding of the real cost involved with attaining any good or service	24	27	2	1	0	1.81	0.27
Inflexible and bureaucratic systems of procurement contribute to unacceptable contract delays, increased costs	17	35	1	1	0	1.69	0.29

The study sought to establish the extent to which respondents agreed with the above statements, from the study findings, majority of the respondents agreed that inflexible and bureaucratic systems of procurement contribute to unacceptable contract delays, increased costs as shown by a mean of 1.69 and a standard deviation of 0.29, management should try to make procurement processes less bureaucratic, through procurement reforms as shown by a mean of 1.79 and a standard deviation of 0.32, by understanding the steps involved with procurement, it is possible to get a better understanding of the real cost involved with attaining any good or service as shown by a mean of 1.81 and a standard deviation of 0.27, and finally that bureaucracy expects conformity in behavior rather than performance as shown by a mean of 1.84 and a standard deviation of 0.28. The above findings concurs with the findings by (Kenneth, 2005) according to Kenneth (2005), bureaucracy expects conformity in behaviour rather than performance since employees are treated impersonality and they are expected to rely on rules and policies, they are unwilling to experience individual judgment and avoid risks.

Documentation

Table 4: Statements on effect of Documentation on firms' efficient inventory management

Statements	Strongly agree	Agree	Neutral	disagree	Strongly disagree	Mean	Std deviation
Information is critical to an effective and efficient inventory management process	14	33	6	1	0	1.76	0.26
Accuracy of inventory records is necessary to provide satisfactory customer service	18	29	6	1	0	1.67	0.24
Accuracy of inventory records is necessary to determine replenishment of individual items	15	30	8	1	0	1.83	0.24
Proper documentation ensures that material availability meets repair or project demand.	19	26	8	1	0	1.67	0.28
Accuracy of records provide the management with the information which is used to ensure accountability	18	31	5	0	0	1.60	0.27
Information is critical to an effective and efficient procurement process	18	28	7	1	0	1.79	0.25

The study sought to establish the extent to which respondents agreed with the above statements, from the study findings, majority of the respondents agreed that; Accuracy of



records provide the management with the information which is used to ensure accountability as shown by a mean of 1.60 and a standard deviation of 0.27, Proper documentation ensures that material availability meets repair or project demand and that accuracy of inventory records is necessary to provide satisfactory customer service as shown by a mean of 1.67 in each case and a standard deviation of 0.28 and 0.24 respectively, Information is critical to an effective and efficient inventory management process as shown by a mean of 1.76 and a standard deviation of 0.26, Information is critical to an effective and efficient procurement process as shown by a mean of 1.79 and a standard deviation of 0.25, Accuracy of inventory records is necessary to determine replenishment of individual items as shown by a mean of 1.83 and a standard deviation of 0.24. The above findings concurs with the findings by (Susan, 2000) according to Susan (2000), accuracy of inventory records is necessary to provide satisfactory customer service, determine replenishment of individual items; ensure that material availability meets repair or project demand, analyze inventory levels and dispose of excess inventory. Stock records also provide the management with the information which is used to ensure accountability through stocktaking and stock audit exercise.

Funding

Table 5: Statements on effect of funding on firms' efficiency of inventory management

Statements					O		
	Strongly agree	Agree	Neutral	disagree	Strongly disagree	Mean	Std deviation
With enough funds the organization can run its activities efficiently	12	27	5	2	0	1.83	0.27
with inadequate funds an organization may have difficulties in running its activities	19	29	5	1	0	1.69	0.26
Funds can be a constraining factor to effective inventory control when funds allocated cannot cater wholly for the organizations material requirements within the budget period	15	32	6	1	0	1.83	0.28
The stature of financial management in the organization can affect adversely its effectiveness and in the finance resource application in various activities	18	30	6	0	0	1.81	0.30

for inventory management function to achieve a							
superior performance, it's necessary to recruit,							
train and develop personnel with the capacity							
and motivation to do better job	22	25	5	1	1	1.71	0.24
Funds can be a constraining factor to effective							
inventory control when funds allocated cannot							
cater wholly for the organizations material							
requirements within the budget period	20	27	5	1	1	1.84	0.29

The study sought to establish the extent to which respondents agreed with the above statements, from the study findings, majority of the respondents agreed that with inadequate funds an organization may have difficulties in running its activities as shown by a mean of 1.69 and a standard deviation of 0.26 for inventory management function to achieve a superior performance, it's necessary to recruit, train and develop personnel with the capacity and motivation to do better job as shown by a mean of 1.71 standard deviation of 0.24, the stature of financial management in the organization can affect adversely its effectiveness and in the finance resource application in various activities as shown by a mean of 1.81 standard deviation of 0.30, with enough funds the organization can run its activities efficiently as well funds can be a constraining factor to effective inventory control when funds allocated cannot cater wholly for the organizations material requirements within the budget period as shown by a mean of 1.83 in each case standard deviation of 0.27 and 0.28 respectively an finally the study observed that funds can be a constraining factor to effective inventory control when funds allocated cannot cater wholly for the organizations material requirements within the budget period as shown by a mean of 1.84 in each case standard deviation of 0.29.

The above findings concurs with the findings by (Dobler et al, 2000) according to Dobler et al (2000), funds can be a constraining factor to effective inventory control when funds allocated cannot cater wholly for the organizations material requirements within the budget period. Resources lead to a better organizational commitment and also overcome organizational obstacles. Sufficient resources also lead to organizational implementation success and project implementation success the stature of financial management in the organization can affect adversely its effectiveness and in the finance resource application in various activities.

Skills possessed

Table 6: Statement relating to the effect skills possessed affect on firms' efficiency of inventory management

Statements							
	Strongly agree	Agree	Neutral	disagree	Strongly disagree	Mean	Std deviation
Qualified staff that is competent and skilled helps the organization to achieve its goals and objectives by being efficient and effective when carrying out their various functions.	18	27	7	2	0	1.81	0.23
For an organization to succeed, qualification is therefore a pre-requisite and must be matched with job requirement.	14	34	4	1	1	1.93	0.25
For inventory management function to achieve a superior performance, it's necessary to recruit, train and develop personnel with the capacity and motivation to do better job.	15	28	5	2	4	2.10	0.21
Training of staff is vital if full use is to be made of their abilities and talents.	10	33	8	2	1	2.07	0.26

The study sought to establish the extent to which respondents agreed with the above statements, from the study findings, majority of the respondents agreed qualified staff that is competent and skilled helps the organization to achieve its goals and objectives by being efficient and effective when carrying out their various functions, as shown by a mean of 1.81 and a standard deviation of 0.23, for an organization to succeed, qualification is therefore a prerequisite and must be matched with job requirement as shown by a mean of 1.93 and a standard deviation of 0.25, training of staff is vital if full use is to be made of their abilities and talents as shown by a mean of 2.07 and a standard deviation of 0.26, for inventory management function to achieve a superior performance, it's necessary to recruit, train and develop personnel with the capacity and motivation to do better job as shown by a mean of 2.10 and a standard deviation of 0.21. The above findings concurs with the findings by (Bailey et al, 2012) according to Bailey et al (2012), for inventory management function to achieve a superior performance, it's necessary to recruit, train and develop personnel with the capacity and motivation to do better job. Training of staff is vital if full use is to be made of their abilities and talents. For an organization to succeed, qualification is therefore a prerequisite and must be

matched with job requirement, hence the need to hire and develop ambitious personnel. If staff involved in inventory management is not qualified and competent, then there will be ineffectiveness in inventory management.

CONCLUSIONS

The study established that the advantages of bureaucracy are many folds, apart from consistent employee's behaviour, it eliminates overlapping or conflicting jobs or duties and behaviour of the system is predicable, thus the study concludes that bureaucratic procurement procedures had a positive impact on the efficiency of inventory management among firms in Kisii town.

The study revealed that documentation is crucial in ensuring efficient inventory management, stock records provide the management with the information which is used to ensure accountability through stocktaking and stock audit exercise, therefore the study concludes that documentation had appositive impact on the efficiency of inventory management among firms in Kisii town.

The study revealed that funding positively affect the efficiency of inventory management among firms in Kisii town to a great extent, thus the study concludes that funding positively affect the efficiency of inventory management among firms in Kisii town to a great extent.

The study revealed that for inventory management function to achieve a superior performance, it's necessary to recruit, train and develop personnel with the capacity and motivation to do better job, thus the study concluded that the skills possessed by staff had a positive effect on the efficiency of inventory management among firms in Kisii town.

RECOMMENDATIONS

The study recommends that there is need for firms in Kisii town to enhance their bureaucratic procurement procedures through elimination of overlapping or conflicting jobs or duties and behaviour of the system is predicable as the study revealed that effective bureaucratic procurement procedures had a positive impact on efficiency of inventory management among firms in Kisii town.

There is need for organizations to ensure Accuracy of records provide the management with the information which is used to ensure accountability thus the study established that Proper documentation ensures that material availability meets repair or project demand and that accuracy of inventory records is necessary to provide satisfactory customer.

The study revealed that funding positively affect efficiency of inventory management among firms in Kisii town to a great extent, thus there is need for organizations to do inventory in management through mobilizing funds as it positively affect their efficiency.

There is need for organization to monitor the skills the employees possess as the study revealed that skills possessed had a positive effect of on efficiency of inventory management among firms in Kisii town.

REFERENCES

Bailey, P., & Farmer, D. (2012). Managing materials handbook. Aldershot: Gower Press.

Beamon, B. M., & Kotleba, A. S. (2006). Inventory management support systems for emergency humanitarian relief operations in South Sudan. The International Journal of Logistics Management, 17(2), 187-212.

Bose, C. D. (2006). Inventory management. New Delhi: PHI Learning Pvt. Ltd.

Burton, J.A (2011). Effective warehousing. (2nd ed.). Polymouth: MAC Donald and Evans limited.

Calavita, K., Tillman, R., & Pontell, H. N. (1997). The savings and loan debacle, financial crime, and the state. Annual Review of Sociology, 23(1), 19-39.

Capkun, V., Hameri, A. P., & Weiss, L. A. (2009). On the relationship between inventory and financial performance in manufacturing companies. International Journal of Operations & Production Management, 29(8), 789-806.

DeSanctis, G., & Poole, M. S. (1994). Capturing the Complexity in Advanced Technology Use: Adaptive Structuration Theory. Organization Science, 5 (2), 121-147. INFORMS. doi:10.1287/orsc.5.2.121

Dobler, K & Burt, H (2006). Purchasing management. (6th ed.). Mcgraw hill international Edition.

Feagin, J., A. Orum, G., & Sjoberg. (1991). A Case for the Case Study. Chapel Hill, NC: The University of North Carolina Press.

Francis, A. (1998). Business mathematics and statistics (5 Ed.). Nottingham: Ashford Colour Press.

Fried, O. H., Lovell, C. A., & Schmidt, S. S. (2008). The measurement of productive efficiency and productive growth. New York: Oxford University Press, Inc.

Giddens F. (1984). Constitution of Society: An analysis. International Journal of Management, 23 (4), 845-850

Gunasekaran, A., Patel, C., & Tirtiroglu, E. (2001). Performance measures and metrics in a supply chain environment. International Journal of Operations & Production Management, 21(1/2), 71-87.

Jones, T. C., & Riley, D. W. (1985). Using inventory for competitive advantage through supply management. International Journal of Physical Distribution & Logistics Management, 15(5), 16-26.

Kenneth, A., & Kenneth, D. A. (2005, November 2). Explorations in classical Sociological theory: Seeing the Social World. Pine Forge Press. pp. 172–176.

Kothari, C. R. (2008). Research methodology: methods and techniques. (2nd Ed.). Delhi: NewAge International (P) Ltd.

Lai, K. H., Wong, C. W., & Cheng, E. (2006). Institutional isomorphism and the adoption information technology for supply chain management. Computers in Industry, 57(1), 93-98.

Mangan, J., Lalwani, C., & Butcher, T. (2008). Global logistics and supply chain management. New Jersey: John Wiley & Sons.

Mugenda, O. M., & Mugenda, A. G. (2003). Research methods: quantitative and qualitative approaches. Nairobi: Acts Press. American Management Association.

National Institute of Governmental Purchasing (2001). Journal of public procurement, Volume 1, issue 1, 71-95.



Nyabwanga, R. N., & Ojera, P. (2012). Inventory management practices and business performance for small-scale enterprises in Kenya. KCA Journal of Business Management, 4(1), 11-28.

Olson, A. (2012). The bottom-line impact of poor inventory management. Retrieved January 12, 2014, from http://blog.ecrsoft.com/bid/163429/The-Bottom-Line-Impact-of-Poor-Inventory-Management.

Osborne, D., & Plastrik, P. (2007). Banishing Bureaucracy: The Five Strategies for Reinventing Government (NY): Addison-Wesley.

Osdorne, M.J. & Rubinstein, A (1990): Bargaining and Markets. Academic Press, Inc., San Diego

Periasamy, P. (2009). Financial management. (2nd Ed.). New Delhi: Tata McGraw-Hill Education.

Power, D. (2005). Supply chain management integration and implementation: A literature review. Supply Chain Management: An International Journal, 10(4), 252-263.

Rich, S. J., Jones, J. P., Heitger, D. L., Mowen, M. M., & Hansen, D. R. (2009). Cornerstones of financial & managerial accounting: Current trends update. Connecticut: Cengage Learning.

Rocco, S. T., & Hatcher, T. (2011). The handbook of scholarly writing and publishing. California: John Wiley & Sons.

Sapsford, R., & Jupp, V. (2006). Data collection and analysis. California: Sage Publications.

Smaros, J., Lehtonen, J. M., Appelqvist, P., & Holmstrom, J. (2003). The impact of increasing demand visibility on production and inventory control efficiency. International Journal of Physical Distribution & Logistics Management, 33(4), 336-354.

Smith, A. D. (2005). Accountability in EDI systems to prevent employee fraud. Information Systems Management, 22(2), 30-38.

NJ: John Wiley & Sons.

Welman, J. C., & Kruger, S. J. (2001). Research methodology for the business and administrative science. (2nd Ed.). Cape Town: Oxford University Press.

Williams, B. D., & Tokar, T. (2008). A review of inventory management research in major logistics journals: Themes and future directions. International Journal of Logistics Management, 19(2), 212-232.

Wood, F., & Sangster, A. H. (2008). Business accounting 1. New Jersey: Financial Times Prentice Hall.

APPENDIX: Questionnaire

Bureaucratic Procurement Procedure

Indicate your level of agreement with the following statements relating to effects of bureaucratic procurement procedure on efficiency of inventory management among Firms in Kisii Town (key =5-Strongly Agree, 4-Agree, 3-Neutral, 2-Disagree- strongly disagree)

Statements	1	2	3	4	5
management should try to make procurement processes less bureaucratic, through procurement reforms					
Bureaucracy expects conformity in behavior rather than performance					
By understanding the steps involved with procurement, it is possible to get a better understanding of the real cost involved with attaining any good or service					
Inflexible and bureaucratic systems of procurement contribute to unacceptable contract delays, increased costs					

Documentation

Indicate your level of agreement with the following statements relating to effects of documentation on efficiency of inventory management among Firms in Kisii Town (key =5-Strongly Agree, 4-Agree, 3-Neutral, 2-Disagree- strongly disagree)



Statements	1	2	3	4	5
Information is critical to an effective and efficient inventory management					
process					
Accuracy of inventory records is necessary to provide satisfactory					
customer service					
Accuracy of inventory records is necessary to determine replenishment of					
individual items					
Proper documentation ensures that material availability meets repair or					
project demand.					
Accuracy records provide the management with the information which is					
used to ensure accountability					
Information is critical to an effective and efficient procurement process					

Funding

Indicate your level of agreement with the following statements relating to effects of funding on efficiency of inventory management among Firms in Kisii Town (key =5-Strongly Agree, 4-Agree, 3-Neutral, 2-Disagree- strongly disagree)

Statements	1	2	3	4	5
With enough funds the organization can run its activities efficiently with inadequate funds an organization may have difficulties in running its activities					
Funds can be a constraining factor to effective inventory control when funds allocated cannot cater wholly for the organizations material requirements within the budget period					
The stature of financial management in the organization can affect adversely its effectiveness and in the finance resource application in various activities					
for inventory management function to achieve a superior performance, it's necessary to recruit, train and develop personnel with the capacity and motivation to do better job					
Funds can be a constraining factor to effective inventory control when funds allocated cannot cater wholly for the organizations material requirements within the budget period					

Skills possessed by staff

Indicate your level of agreement with the following statements relating to effects of skills possessed by staff on efficiency of inventory management among Firms in Kisii Town

(key =5-Strongly Agree, 4-Agree, 3-Neutral, 2-Disagree- strongly disagree)

Statements	1	2	3	4	5
Qualified staff that is competent and skilled helps the organization to					
achieve its goals and objectives by being efficient and effective when					
carrying out their various functions.					
For an organization to succeed, qualification is therefore a pre-requisite					
and must be matched with job requirement.					
For inventory management function to achieve a superior performance, it's					
necessary to recruit, train and develop personnel with the capacity and					
motivation to do better job.					
Training of staff is vital if full use is to be made of their abilities and talents.					