

Factors Affecting Efficient Stores Operations In Kenya Tea Development Agency Managed Factories (KTDA): A Survey of Factories in Zones 4 and 5, Kenya

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Abstract *The purpose of this study was to determine the factors affecting efficient stores operations in KTDA managed factories in Kenya, four objectives guided the study. The study was a descriptive research that adopted a survey design. The targeted populations were employees working at KTDA managed factories in zones 4 and 5 at managerial levels and in store departments. Questionnaires were used to collect data from respondents. The study employed both quantitative and qualitative research in its data analysis. Data was presented using bar graphs, pie charts and tables. Inferential statistics included correlation and regression analysis. Study findings revealed that KTDA factories do not offer regular training to stores personnel especially on store operations and management however the study further revealed that in general IT had helped the factories streamline store operations more effectively. Respondent further indicate that the record management system used in factories was semi-computerized rating it to be average. The findings revealed that the current scheduling process in the KTDA factories is poor and inventories records are rarely audited. The study recommended that KTDA factories should offer regular training programs to the employees in order to improve their skills and knowledge. The study further recommended that they should fully computerise record management systems in order to enhance accuracy. The study further recommended that there was need for improvement of existing scheduling process in order to improve service delivery in stores.*

Key words Staff training on stores operation, records management, effects of information technology and proper scheduling in improvement of stores efficiency

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1. Introduction

Tea industry is one of the world's largest capital intensive industries. Tea is one of the most important non-alcoholic beverage drinks worldwide and has been gaining further popularity as an important 'health drink' in view of its purported medicinal value. It is served as morning drink for nearly 2/3rd of the world population daily. Governments in tea exporting countries acknowledge the significance of the tea industry in their economies as a source of export earnings, job creation, rural infrastructural development and income generation for rural population (Shamsuddoha, Tasnuba and Mohammad, 2011), in spite of the industry been the largest capital intensive, in Kenya the industry is facing problems in the efficiency of its stores operations activities which has led to reduction in revenue.

The stores department is one of the key departments in any tea processing industry. Problems arising from the stores department have a direct negative impact on the organizations perpetuity since it is the driving force towards and behind production (Maeba, 2013). Stores operations are the key activities, practices, procedures or routines that take place within the storehouse or stockyard regarding issue of materials, reception, maintenance, storage, knowledge of materials, security, flow of materials, knowledge on storehouse location systems and the connection from and with central and/or departmental stores.

Kenya tea firms are facing competition in the current markets which has led to the need for coming up with better methods of managing and measuring how inventories are utilized by various jobs or products, and therefore eliminate any wastage in the supply chain (Ondiek and Odera, 2012). Consequently, many tea companies have to adopt appropriate stores operations leading to reduction of

inventory cost and improve operational performance. In addition, tea industry being a private sector in Kenya needs to maximize return on investment in order to achieve stakeholders objectives and this can be achieved through efficient stores operation.

1.1. Statement of the Problem

From the year 2011 production cost in the tea factories in Kenya have increased by 11% contributing to low revenue hence low payment to the farmers (KTDA, 2013). One of major contribution to this increase is the problems in the efficiency of factories stores operations activities. An annual stock taking conducted on July, 2013 in the Kenya Tea Development Agency factories in Zones 4 and 5, revealed that some critical items were out of stock, leading to hasty buying because of low stock levels. The annual stock taking report claimed that the problem might have been attributed to poor stores operations. The report also revealed that there were cases of inaccurate recording or poor entering of some data information, which was a good indication of poor record management.

A study by (Elias, Sarah and Kagwathi, 2012) revealed that KTDA factories have not fully automated their stores operations besides them replacing obsolete IT equipment with modern ones, thus there is low improvement of employees productivity. Workforce efficiency is greatly affected by Improper scheduling processes in most KTDA managed factories (Maeba, 2013) this have increased labor cost, assignment of wrong people to perform task leading to inefficiency in stores operations. These are internal challenges that have contributed to increase in production cost leading to low payment to the tea farmers. In this view the study proposed to assess the factors affecting efficient stores operations in KTDA managed factories with particular focus on zones 4 and 5 factories located in Kirinyaga and Nyeri counties, Kenya.

1.2. General Objective

The main objective of the study was to investigate the factors affecting efficient stores operations in the tea sector with specific reference to KTDA managed factories zones 4 and 5.

1.3. Specific Objectives

1. To determine the effect of staff training on efficient stores operations in KTDA managed factories
2. To determine the effect of record management on efficient stores operations in KTDA managed factories
3. To determine how information technology affects stores operations in KTDA managed factories.
4. To find out how scheduling affect efficient stores operations in KTDA managed factories (Angelo and Brain, 2008).

2.2. Theoretical Review

According (Kothari, 2004) a theory is a coherent group of tested propositions commonly regarded as correct that can be used as principles of explanation and prediction for class of phenomena. In line with this definition, the study will use theories that will help explain the arguments advanced in this study that efficient store operations is affected by various factors and unless these factors are looked into in a harmonious way, store operation and management will be affected and hence poor performance in KTDA factories. The theoretical framework of the study is a structure that can hold or support a theory of a research work. It presents the theory which explains why the problem under study exists. Thus it serves as a basis for conducting research.

2.2.1. Scientific Management Theory

The study will be based on scientific management theory to investigate the influence of staff training and scheduling process on effective store operations. The theory involves the work of Fredrick Taylor. He started the era of modern management in the late nineteenth and early twentieth centuries; Taylor regularly sought to overthrow management by rule of thumb and replace it with actual aimed observations leading to the one best practice (Watson, 2002). Taylor advocated for the systematic training of workers in the one best practice rather than allowing them personal discretion in their tasks. Taylor 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 work, each group doing the work for which it was best suited (Watson, 2002).

Fredrick Taylor strongest positive legacy was the concept of breaking a complex task down into a number of subtasks and optimizing the performance of the subtasks, thus his stopwatch measured time trials (Osborne and Rubinstein, 1990). As a result, he proposed four underlying principles of management. Firstly, there is need to develop a science of work to replace old rule of thumb methods, pay and other rewards linked to achievement of optimum goals, measures of work performance and output. Failure to achieve these would in contrast result in loss of earnings. Second is that workers should be scientifically selected and developed; training each to be first class at some specific task (Watson, 2002). Thirdly the science of work to be brought together with scientifically selected and trained people to achieve the best results. Finally, work and responsibility to be divided equally between workers and management cooperating together in close interdependence.

2.2.2. Adaptive Structuration Theory

Based on this theory, the study intends to determine the effects of information technology on effective store operations. 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 perspective of organization structure. DeSantis and Poole (1994) borrowed from Giddens in order to propose Adaptive Structuration Theory (AST) and the rise of group decision support systems (DSS). AST provides the model whereby the interaction between advancing information technologies, social structures and human interaction is described, which focuses on social structures, rules and resources provided by information technologies as the basis for human activity's is a viable approach in studying how information technology affects effective store operations and management this is because it examines the change from distinct perspectives. In conclusion AST's appropriation process is a good model to analyze the utilization and penetration of new technologies in organization.

2.3. Conceptual Framework

A conceptual framework is a tool researchers use to guide their inquiry; it is a set of ideas used to structure the research, a sort of a map (Kothari, 2004). It is the researcher's own position on the problem and gives direction to the study. It may be an adaptation of a model used in a previous study, with modifications to suit the inquiry. Aside from showing the direction of the study, through the conceptual framework, the researcher can be able to show the relationships of the different constructs that he wants to investigate. The study will be guided by the following conceptual framework (figure 1).

3. Methodology of research

This study employed a descriptive research design; because the study intended to obtain an in depth understanding of factors affecting efficient stores operations in KTDA managed.

The target population of this study comprised of managers, store supervisors and junior store staffs of eight KTDA factories; Kangaita (15), Mununga (14), Ndima (14), Ragati (12), Chiga (14), Gathuthi (15), Gitugi (14), Iriani (14), total of 112 respondents. The sample size will comprised of 40 respondents from a population of 112 which represents 35.71% of the target population which fulfills the minimum threshold sample suggested by (Paton, 2002) who recommended 30% of target population as an adequate sample size in a descriptive case study survey, this is supported by (Neuman, 2000).

Data of this study was collected through questionnaires distributed among managers, stores supervisors and other store staffs in the factories. The researcher developed the questionnaires based on the research questions. The questionnaires consisted of both open and closed ended questions. Open ended questions seek to achieve in-depth responses from the subjects while closed ended responses remained controlled for the sake of analysis.

After data collection, the filled-in and returned questionnaires were edited for completeness, coded and entries made into Statistical package for social sciences (SPSS). Coding is technical process where raw data are transformed into easily tabulated form by way of assigning symbols. This helps in condensing the

responses into few categories for the purposes of data analysis. Descriptive statistics (that is frequency analysis) was computed for presenting and analyzing the data.

Data was presented in the form of frequency distribution tables, graphs and pie charts that facilitated description and explanation of the study findings.

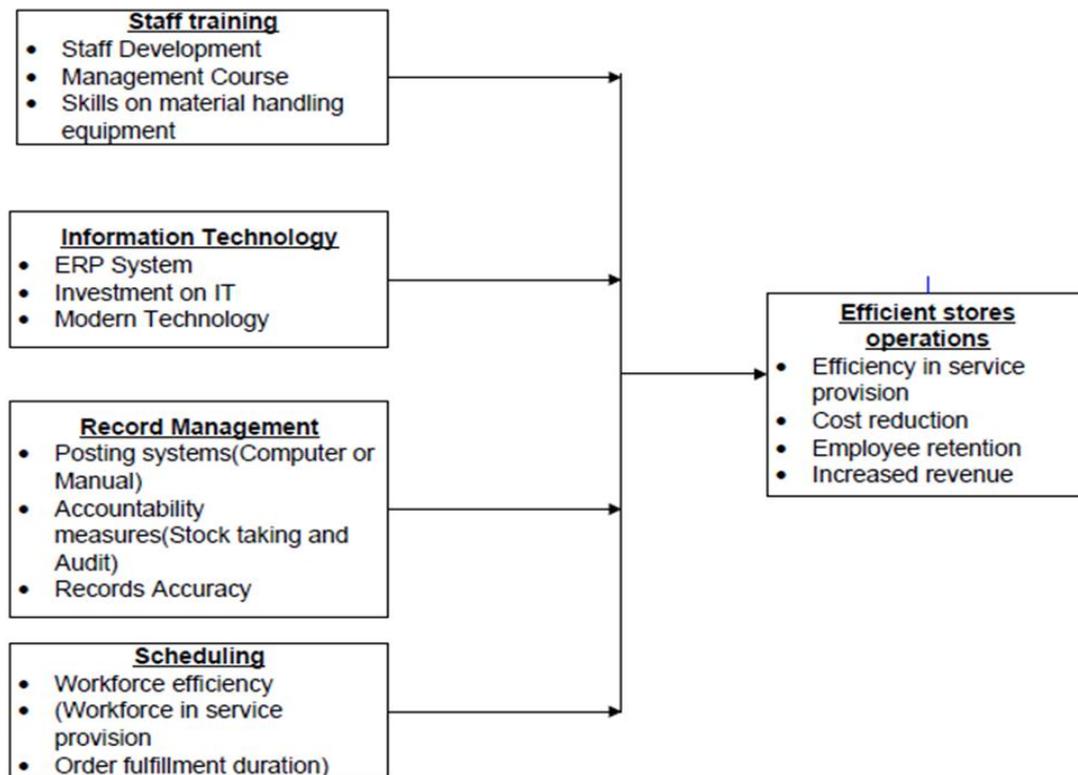


Figure 1. Conceptual framework

4. Research finding and discussion

Effect of staff training on efficient store operations

Based on analysis of the finding, respondents indicated that staff training affect efficient store operations, they further indicated that strategic leadership/management courses for stores personnel was very important in improving performance in store department, majority of respondents further indicated that trained and skillful staffs with wide experience of challenging assignments play a crucial role in improving performance of stores operations. Although the respondents identified the benefits of staff training, they revealed that the factories management do not frequent offer training to the employees especially in areas of store management and operations, lack of frequent training programs have negatively affected stores operations in the factories. Frequent career specialty training provides employees with the opportunity to enhance knowledge, skills and abilities necessary to perform jobs beyond the minimum level; it also allows employees the opportunity to explore new areas of interest and specialization that will enhance abilities and skills in other specialized jobs (Tas, 2008).

Effect of information technology on efficient store operations

Majority of respondents indicated that IT has improved the dissemination of information to other department in the factories and it allows business partners to share information related to customer orders and inventory positions in supply chains, they further indicated that IT have enabled the factories improve efficiency in coordination of material handling and the overall store operations. The respondents further indicated that when technology used in store operation becomes common the competitive advantage is lost implying that there is need of constant replacement of outdated technologies with modern ones, the finding of the study was in agreement with (Frohlich and Westbrook, 2002) who observed that investment

of IT have played a leading role in growth of firms who have invested substantial resources in new types of IT enabling them to improve efficiency in and coordination of material handling operations, hence reducing inventory levels which gives them a competitive advantage. Hence it's undoubtedly that KTDA managed factories use of modern information technology in stores operations can increase efficiency services provision as well as overall efficient stores operations.

Effect of record management on efficient store operations

From the study majority of respondents indicated that the record management systems used in the factories were semi-computerized despite the factories automation and respondents were unsatisfactory with the systems, they further revealed that the factories have no specific time/date of posting store records hence contributing to poor record management, (Jessop & Morris, 1994) share the same idea as they had emphasized on the important to design receipt and issuing times and days for good to and from the store in order to give time stock control staff adequate time to do the posting of records which have negatively affected stores operations. It can therefore be deduced the current record management function in KTDA managed factories though overall rated as average is considerably unsatisfactory which could be the reason of ineffectiveness in stores operations in the factories.

Effect of scheduling process on efficient store operations

According to the analysis of the finding respondents agreed that scheduling affect store operations, they were unsatisfactory with the current scheduling process in the factories which some of them rated it as being average and other poor, they further identified the following problems caused by improper scheduling in the factories, decline in labor utilization and lack of information about order flow and priority when scheduling as one of the problem, delay in service delivery in store departments and increased cost of production and errors in distribution The finding of this study was in agreement with (Lussier, 2009) who argued that lack of proper scheduling process in a store department often led to ineffective stores operations and increase in labour cost.

5. Results and discussions

Improving performance of the store departments through staff training

Table 1. Improving performance of store department

Statement	Very important	Important	Fairy important	Not Important
A strategic leadership programs/management course (training program) for stores personnel are very important in improving performance of stores operation.	28(88%)	2(6%)	0(0%)	2(6%)
Quality of staffs needed to run a store is very important.	20(63%)	10(31%)	0(0%)	2(6%)
Trained and skillful staffs with wide experience of challenging assignments play a crucial role in improving performance of stores operations.	27(84%)	3(9%)	0(0%)	2(6%)
Mentoring by seniors play a major role in improving performance of the stores operation in the factory	17(53%)	13(41%)	0(0%)	2(6%)

The researcher sought to find out ways of improving performance in store departments. The respondent were presented with statement which were required to rate. The finding of the study are shown in table 4.3. from the findings it can be observed that majority 28(88%) of respondents indicated that strategic leadership/management courses for stores personnel was very important in improving performance in store departments, 2(6%) indicated that it was important while 2(6%) indicated not important. The majority of respondent 20(63%) also indicated that the quality of staffs needed to run a

store was very important with 10(31%) rating it as important. The study further indicated that trained and skillful staffs with wide experience of challenging assignments play a crucial role in improving performance of stores operations was very important as indicated by majority 27(84%), 3(9%) as important while 2(6%) rated it as not important. The study also revealed that mentoring by seniors played a major role in improving performance of store operations with 27(84%) indicating that it was very important while 3(9%) rated it as being important.

These findings agree with those of (Awuor, 2013) who stated that staff training play an important role in improving the overall effectiveness of store activities in manufacturing firms, she further stated that through training the quality of employees are improved and their skills are sharpened either through be mentored by seniors or through training seminars.

From the findings, it can be deduced that stores personnel need to be well trained because the quality of staff needed to run a store affects overall efficient store operations.

Table 2. Effects of information technology in stores operations

Other ways	Frequency	Percent
Accuracy in stores operations	4	13
efficiency in stores operations	3	9
security in store rooms	2	6
cost reduction	3	9
Sharing of information with other department.	1	3
none	19	59
Total	32	100

The respondents were requested to mention other ways in which IT have affected stores operations in their factories the finding are displayed in table 4.6, majority 19 (59%) were of view no other ways, while 4(13%) indicated that information technology has enhanced accuracy in the overall operations of stores. Cost reduction was another effect of information technology as mentioned by 3(9%). Security in store rooms by use of CCTV was also another contribution of technology as mentioned by 2(6%) and ease of sharing of information with other departments in the factories.

6. Conclusions

Based on the findings, it can be concluded that KTDA managed factories do not offer frequent training to their staffs especially on store operations hence a major contributor to inefficiency in stores operations. Due to lack of frequency training program to stores personnel the factories face numerous problem in skills and on knowledge in jobs performance, in his study (Tas, 2008) recognized that career specialty training provides employees with the opportunity to enhance knowledge, skills and abilities necessary to perform jobs beyond the minimum level and that it also allows employees the opportunity to explore new areas of interest and specialization that will enhance abilities and skills in other specialized jobs.

On basis of information technology, it can be concluded that KTDA managed factories have embraced technology and has automated most of stores operations and hence IT is major contributor to efficient store operations in the tea sector.it was further concluded that use of IT had helped KTDA managed factories manage inventories more effectively and streamline stores operations. According to the analysis of findings, out dated IT equipment replacement was not being done promptly however in areas where adoption of modern technology had been implemented, delivery of service was found to be faster while the inventory was being economized.

The study further on basis of record management concluded that the record management system used in factories was semi-computerized and function was generally average which falls below expectation and hence a major contributor to ineffectiveness in stores operations , further it can be concluded that the factories had no specific time/date of posting store records hence contributing to poor record management, (Jessop & Morris, 1994) share the same idea as they had emphasized on the important to

design receipt and issuing times and days for good to and from the store in order to give time stock control staff adequate time to do the posting of records in order to manage error free records.

As far as scheduling process is concerned .the study concluded that the nature of scheduling process in the factories was average considerably unsatisfactory hence inefficiency in store. Due to improper scheduling the factories have faced problems in decline in labor utilization and lack of information about order flow and priority when scheduling, delay in service delivery, increased cost of production and errors in distribution (Lussier, 2009), argued that lack of proper scheduling process in a store department often led to ineffective stores operations. Also (Laine, 2011) suggested that all store processes should be standardized and without labor standards which facilitate standardization of store operations and flow of information there is a risk that not all employees will be working effectively hence increase in productivity.

7. Recommendations

The study recommended that KTDA managed factories in zones 4 and 5 should occasionally offer training in form of workshops, seminars or training sessions to their employees so as to enhance their knowledge, skills and abilities necessary to perform jobs especially employees handling stores operations. The study also recommended that proficiency in service training as a component of the career development initiative must be closely coordinated with the organization's training efforts, this will benefits both the organization and its employees by keeping them up-to-date on duties with present job assignments as stores personnel.

On basis of information technology the study recommended that KTDA factories zone 4and 5 should fully automates their stores operations .the greatest potential is not expected to be from the improvement of clerical and administrative tasks, but from the ability of managers and other stores personnel to gain increased control over their operations. Reasons why the factories should consider fully automated systems are; first is a critical need to improve the productivity of employees so as to realize economies of scale and realize predictable quality level and the second reason for fully automation is the increasing complexity of the factories organizational decision making and information needs.

As pertains to record management, the study recommended that the factories should fully computerize record management systems in order to mitigate inaccuracy in records, the factories should set specific days for record posting and the store records should be regularly audited to enhance accountability and mitigate theft.

In relation to scheduling, the study recommended that there is need for improvement of the existing scheduling process especially in demand scheduling and workforce in order to improve on working routines and services in the stores. To create an effective schedule, the factories management should develop labor standards which will facilitate standardization of stores operations.

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