EFFECTS OF INVENTORY MANAGEMENT ON BUSINESS PERFORMANCE OF ELECTRONIC COMPANIES IN MOGADISHU, SOMALIA.

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ABSTRACT: *The study will be examining the role of inventory management and cost reduction in organization in Electronic Companies. Nowadays, we usually think of stocks being held by organizations to allow efficient and continuous operations. Managers are aware of the vital roles inventory plays in the activities of organizations. The research design of this study will be quantitative design. In addition, clear definition of the details of the quantitative makes the desired statistical analyses possible, and usually improves the usefulness of the results. The Electronic Companies are Target Population .Research instruments can be helpful tools to your research study,. Because the information needed can be easily and quickly gathered from the respondents, and it can target respondents in widely dispersed locations, in questionnaire development, Research instrument used in the Data collection is questionnaire to measure the variable(s), characteristic(s), or information of interest, often a behavioral or psychological characteristic. Data processing is essential for a scientific study and for ensuring that we have all relevant data for making contemplated comparisons and analysis. the study recommends that the electronic companies should not only undertake Inventory planning in order to improve operation and sustain failing businesses but also improve their competitiveness and financial performance.*

Keywords: Inventory Management, inventory planning, inventory recording, inventory valuation

INTRODUCTION

Background of the Study

Companies face a dilemma in today's competitive marketplace, where on one hand, customers demand customized products and services and require that their orders are filled quickly, but on the other hand, they do not want to pay a premium for this customisation and availability (Graman and Magazine, 2006). Therefore, organisations are exploring ways toward postponement strategy in response to constantly changing demands (Yang et al.(2004). Graman and Magazine (2006) argued that today, the cost of holding inventory, extensive product proliferation and the risk of obsolescence, especially in rapidly changing markets, make the expense of holding large inventories of finished goods excessive and that high demand items naturally have safety stock assigned to them, but in many organizations there are so many very-low-demand items that keeping any stock of these items is unreasonably expensive, so they argue that companies must now provide good service while maintaining minimal inventories. Therefore, inventory management approaches are essential aspects of any organisation.Inventory is the raw materials, work-in-process goods and completely finished goods that are considered to be the portion of a business's assets that are ready or will be ready for sale. Inventory represents one of the most important assets that most businesses possess, because the turnover of inventory represents one of the primary sources of revenue generation and subsequent earnings for the company's shareholders/owners.

In traditional settings, inventories of raw materials, work-in-progress components and finished goods were kept as a buffer against the possibility of running out of needed items. However, large buffer inventories consume valuable resources and generate hidden costs. Consequently, many companies have changed their approach to production and inventory management. Since at

least the early 1980s, inventory management leading to inventory reduction has become the primary target, yet right to sell products on the shelves based on the principle of FIFO cycle (Kenneth lysons and Michael gilligham, 2003).

Inventory is classified basing on the business undertaking from organization to organization. Common criteria used and are nature of inventory for example manufacturing, sale or retail, purpose for which inventory is being held in stock or function and the related usage in the supply chain. Typical classifications are raw materials (items in unprocessed state awaiting conversion e.g. timber, steel and coffee seeds), components and sub-assemblies. These are for incorporation into the end product e.g. side mirrors, glasses for car assembling company and monitors or keyboards for a computer assembling company), consumable (all supplies in an undertaking which are classified as indirect and which do not form part of saleable product. (Divided into production, maintenance, office and welfare). Proper classification of inventory and its control .

Inventory management involves the planning, ordering and scheduling of the materials used in the manufacturing process. It exercises management over three types of inventories that is raw materials, work in progress and finished goods. Purchasing is primary concerned with management over the raw materials inventory, which includes; raw materials or semi-processed materials, fabricated parts and items (Maintenance, Repair and Operations) (Garry, 2000).However, Lau and Snell (2006) argued that inventory management is primarily about specifying the size and placement of stocked goods. Inventory management is required at different locations within a facility or within multiple locations of a supply network to protect the regular and planned course of production against the random disturbance of running out of materials or goods for improved performance. Poor inventory management had become an issue

of great concern since performance is regarded as the main stream for development of organizations..

According to Jayeff (2011) argued that from a financial perspective, inventory management is no small matter. Oftentimes, inventory is the largest asset item on a manufacturer's or distributor's balance sheet. As a result, there should be a lot of management emphasis on keeping inventories. The objectives of inventory reduction and minimization are more easily accomplished with modern inventory management processes that are working effectively for improved performance. The inventory management is much more complex than the initiated understood. In fact, in soft drinks industry the inventory control department is perceived as little more than a clerical function as it is probably not very effective. The result of this to inventory management is lots of material shortages, excessive inventories, high costs and poor customer service (Briers, 2001).
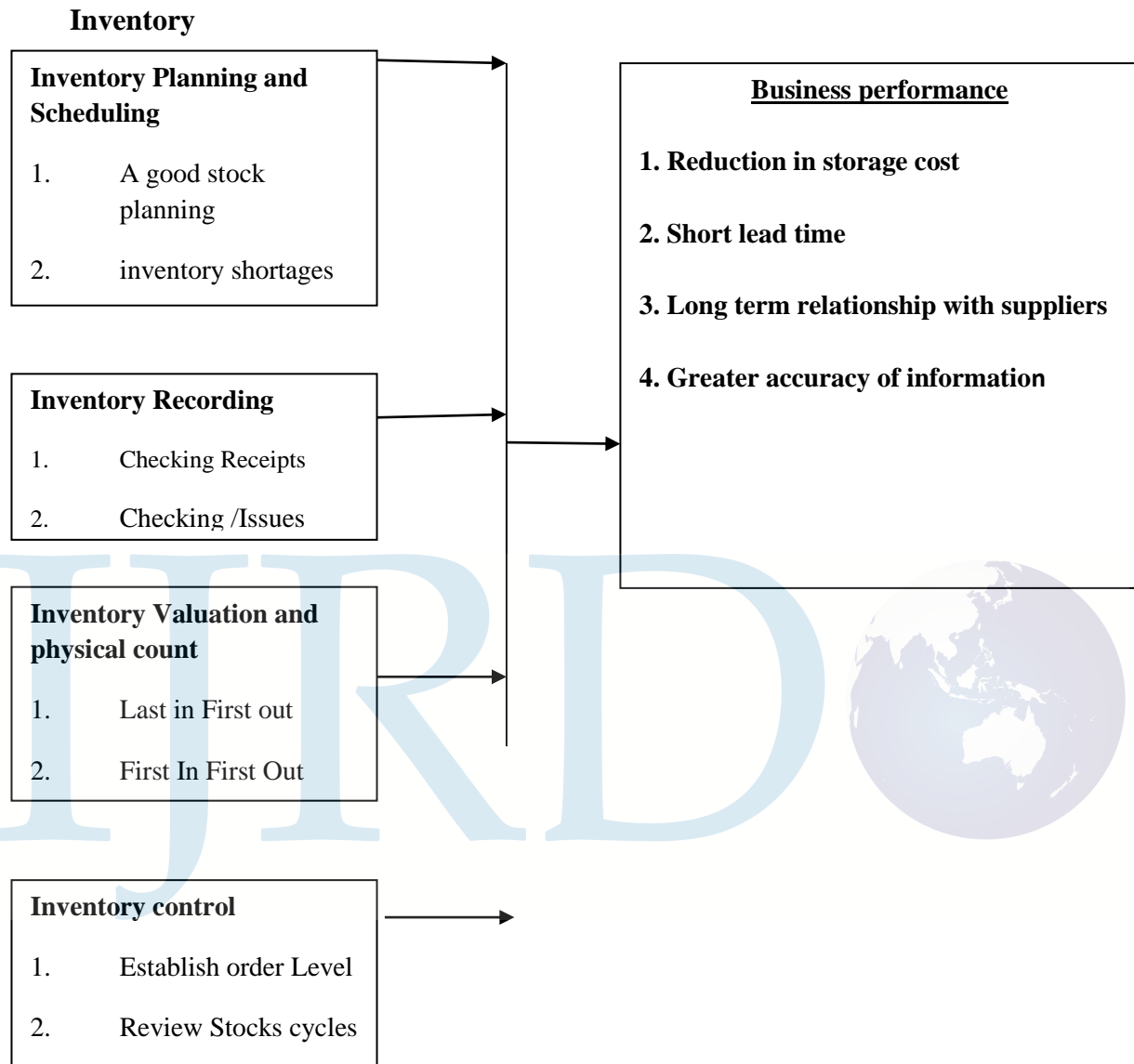
Statement of the Problem

Problems of inventory management and control have been around for a very long time. The need to collect food when it is readily available and then stores it for times of shortage is perhaps the fundamental stock holding Problem, which was tackled long ago by man. Nowadays, we usually think of stocks being held by organizations to allow efficient and continuous operations.). Graman and Magazine (2006) Managers are aware of the vital roles inventory plays in the activities of organizations. In most organizations, direct materials represent the total product cost, as a result of the money entrusted on inventory, there by affecting the profitability of the organization. Organizations at times do not control their inventory holding, resulting in under stocking and causing the organizations to stay off production, thereby resulting to organizational ineffectiveness.

According to Lord Keynes (2002), good inventory management from top to the bottom ready emphasizes effective production process and reduces production costs. Despite this growth in value and importance of more rigorous inventory techniques, many organizations continue to rely on simple, item based approaches (Thonemann, Brown, &Hausman, 2002). Under these traditional approaches to inventory management, inventory levels for an item are determined by simple formulas that balance inventory holding, ordering, and stock out costs (Thonemann et al., 2002). Such approaches are considered simpler due to a lack of sophistication and because decisions on the individual inventory item levels are often made without considering other items. They go on to identify the use of simplistic inventory stocking policies as one of the common pitfalls of supply chain management. The lack of and evident need for "real world" evidence related to the use of a system approach to inventory management, especially as a means for addressing supply chain disruptions in in electronic companies bakaro market served as the motivation for this study

Specific Objectives of the Study

1. To find out how the inventory planning affects the Business performance of the electronic companies in Bakara Market, Mogadisho Somalia.

2. To examine how the recording of inventory affects the Business performance of the electronic companies in Bakara Market, Mogadisho Somalia.

3. To assess how the inventory valuation affects the Business performance of the electronic companies in Bakara Market, Mogadishu Somalia.

4. To evaluate how the inventory control affects the Business performance of the electronic companies in Bakara Market, Mogadishu Somalia.

2.3 Conceptual framework

Inventory

Inventory Planning and Scheduling 1. A good stock planning 2. inventory shortages	**Business performance** **1. Reduction in storage cost** **2. Short lead time** **3. Long term relationship with suppliers** **4. Greater accuracy of information**
Inventory Recording 1. Checking Receipts 2. Checking /Issues	
Inventory Valuation and physical count 1. Last in First out 2. First In First Out	
Inventory control 1. Establish order Level 2. Review Stocks cycles	

Independent variable   **Dependent variable**

Figure 2.1 Conceptual framework

Inventory Planning and Scheduling

This is how units of stock are required by an organization in a given period to enable smooth business operations. A good stock plan set in advance will enable planners to set procurement/

purchase dates and quantities that are consistent with the plan to avoid disruptions due to inventory shortages (Dilworth 2004).

According to Garry, J.Z, (2002) involves the planning, ordering and scheduling of the materials used in the manufacturing process. It exercises control over three types of inventories i.e. raw materials, work in progress, and finished goods. Purchasing is primary concerned with control over the raw materials inventory, which includes; raw materials or semi-processed materials, fabricated parts and maintenance, repair and operations.

Inventory Recording

Accurate and up-to- date stores records are keys to effective stores management. The basic procedures include counting and recording promptly after receipt or production and whenever there is a store transaction, issue of stores should be properly authorized and show details such as code number, quantity of the transaction and the voucher reference (Muller, 2003).It is undertaken by organizations to reduce the errors of stock management and to ensure accurate and reliable stock records. It involves spot checks/ surprise checks, stock taking, which is the physical counting and measuring of quantity of each item in stock and recording the results (Brooks et al 2007). Checking Receipts - Receipts into store are normally checked (or either by weighing, counting or measuring). If this is done properly, it provides a good foundation for all subsequent operation by ensuring, that the quantities are correct in the first instances. Checking /Issues - It should be a matter of routine for the store house staff to check the quantities and descriptions of all issues made before they are handed over. It is also common practice to expect the recipient to counter-check the quantity received and to sign for it. This provides a reasonable assurance that quantities taken off stores are correct. Spot checking - Spot-checking is the practice of making random checks of some items at irregular and unspecified intervals. It is often

done by senior stores officers in course of their supervisory duties, but can also operate in paralleled with the stocktaking programmed, irrespective of whether the periodic or continuous method is in use. Where the main stocktaking is carried out annually on a periodic basis, spot-checking throughout the year is the best safe guard against malpractice during the period between stocktakingsABC Analysis- This has already been covered before, but is also regarded as a material control tool.

Inventory Valuation

It is also a stock control technique, which refers to the establishment of the value of stock and therefore its implication on the profits. Lacey (2005) identified the following methods of stock valuation; First in First out (FIFO), Last in First out LIFO) and the average price method. First in First out (FIFO) is a method whereby prices of goods are determined by depending on the oldest stock until all the units are finished and then the second oldest is used to determine the prices and the trend continues. According to (Kamukama, 2006)FIFO method follows the principle that materials received first are issued first. After the first lot or batch of materials purchased is exhausted, the next lot is taken up for supply. The inventory is priced at the earliest costs. This means that the unused raw materials (closing stock) are constituted by the goods, which were not recently purchased. Physical Inventory Counts -The inventory value should be provided to UIS Accounting Office within one week after the fiscal year end. Adjustments to correct discrepancies must be adequately documented by management (Piasecki, 2003).

Inventory control

Inventory control is the activity, which organizes the availability of items to the customers of the organization. It co-ordinates the purchasing, manufacturing and distribution functions to meet the marketing needs. This role includes the supply of current sales items, new products,

consumables, spare parts, obsolescent items and all others supplies (wild, 2002) Lysons and Gillingham (2003) write that inventory/stock control refers to the techniques used to ensure that stocks of raw materials, WIP and finished goods are kept at levels which provide maximum service levels at minimum costs. An effective Inventory Control System should; Minimize time and carrying costs, Maintain sufficient stock for smooth production, sales operation and on sufficient customer service. In addition, control investment in inventories or keep an optimum level (Pandey, 2002). Different business concerns may apply different inventory practices to meet specific requirements and circumstances to help in containing the costs associated with inventory

Stock valuation; According to Wood Frank (2002), the way materials are valued has amplification on the firms reported profit and the material usage and balance therefore different inventory profit reported by firms. The different materials valuation techniques include Last in First out (LIFO), First in First out (FIFO), average cost method and net realizable value

According to Kotler (2000), inventory management refers to all the activities involved in developing and managing the inventory levels of raw materials, semi-finished materials (work-in- progress) and finished good so that adequate supplies are available and the costs of over or under stocks are low. Rosenblatt (2002) Thus, the overall goal of inventory is to have what is needed, and to minimize the number of times one is out of stock.Drury (2004) defined inventory as a stock of goods that is maintained by a business in anticipation of some future demand. This definition was also supported by Schroeder (2000) who stressed that inventory management has an impact on all business functions, particularly operations, marketing, accounting, and finance.

Business performance

Performance is a measure of the results achieved. Performance efficiency is the ratio between effort extended and results achieved. The difference between current performance and the theoretical performance limit is the performance improvement zone. Performance assumes an actor of some kind but the actor could be an individual person or a group of people acting in concert. The performance platform is the infrastructure or devices used in the performance act (Malcom, S. 2005).

According to Likert (2003) there are two main ways to improve performance: improving the measured attribute by using the performance platform more effectively, or by improving the measured attribute by modifying the performance platform, which in turn allows a given level of use to be more effective in producing the desired output. Performance can be measured by obtaining the magnitude of a quantity, such as length or mass, relative to a unit of measurement, such as a meter or a kilogram. Performance involves performance improvement is the concept of organizational change in which the managers and governing body of an organization put into place and manage a programmed which measures the current level of performance of the organization like inventory management. The primary goals of organizational inventory management are to increase organizational effectiveness and efficiency to improve the ability of the organization to deliver goods and or services (Ronald, H 2005).

Empirical Literature Review

However, many researches were made from the current topic by different authors from different countries below are some of those:

According to Irene Rotech, Charles and kagai 2015 investigated Effect of inventory management on business performances using questionnaires the result indicated that access to credit, Mobilization and training in small enterprises investment was on average satisfactory to the entrepreneurs.

In a study done by Kolias (2011), in order to test inventory-performance link using construction firms listed in Bursa Malaysia, it was found that there is a positive correlation between inventory turnover and capital intensity as a result of the nature of investments. A study by Fullerton et al (2003) provides empirical support that manufacturing firms that implement higher degrees of modern inventory management techniques should outperform competitors; it was found that a positive relationship exists between firm's profitability and the degree to which waste reducing production practices such as reduced set up times, preventive, maintenance programs, and uniform workloads are implemented. These findings indicate that manufacturing enterprises employing modern inventory management techniques are consistently more profitable than their counterparts are. Another study suggesting a positive relationship between inventory management and performance was Eroglu and Hofer (2011), which used the Empirical Leanness Indicator (ELI) as a measurement for inventory management. They argued that inventory leanness is the best inventory management tool. Lean production considers inventory as a form of waste that should be minimized and has become synonymous with good inventory management Their study on USA manufacturing firms covering the period 2003-2008 found that leanness affects profit margins. According to Eroglu and Hofer (2011), firms that are leaner than the industry average generally see positive returns to leanness. They found that the effect of inventory leanness on firm performance is positive and generally non-linear. Their study also implies that the effect of inventory leanness is concave which is in line with inventory

management theory that there is an optimal degree of inventory leanness beyond which the marginal effect of leanness on financial performance becomes negative.

Research Gap

Most of the literatures that researcher reviewed focus on the study variables in certain situations which is rather different from that of the current study. Reviewed literatures refer to a situation where mostly all financial institutions exists such as banks, investment institutions, government policy, chamber of commerce, labor union etc. This current study deals with a situation where no enabling factors such inventory, financial institutions, law and order. So that is why this study is very important because it investigates the study variables (inventory management & performance of the business) in practical way. This is the gap current study aims to fill and specifically it explains deeply how these variables impact each other in such situations where there are no enabling factors whereas the other old studies focused generally the casual relationship between the factors which is not convincing all situations for these variables. A return gap is a gap between the returns of a pair of assets .We explores the differences between correlation and the return gap as a measure of the benefits of diversification and show that the benefits of diversification across asset classes remain substantial.

Methodology

The research design of this study will be quantitative design. And clear definition of the details of the quantitative makes the desired statistical analyses possible, and almost always improves the usefulness of the results. The overall data collection and analysis plan considers how the quantitative design factors, both controlled and uncontrolled, fit together into a model that will meet the specific objectives of the experiment and satisfy the practical constraints of time and money. The desired

result is to produce a layout of the design along with an explanation of its structure

and the necessary statistical analyses. (Burns & Grove 2001)

The Target Population of This study was conducts in Mogadishu and targeted population is the

electronic companies In Bakaara Market. These were the major Distributors of electronic

companies in Mogadishu in south and central Somalia.

The sampling frame describes a list of all population units from which the sample will be

selected (Schindler, 2013).It is a physical representation of the target population and comprises

all the units that are potential members of a sample (Kothari, 2013).

Sample size measures the number of individual samples measured or observations used in a

survey or experiment. Sample size is also important for economic and ethical reasons as Russell

lenth form the University of Low explains under sized study can be a waste of resources for not

having the capability to produce useful results Slovin's formula will be used to this study to

determine the sample size. Sloven'sformula for obtaining the sample size. Denoting by *n* the

sample size, Slovin's formula is given by

$$n = \frac{N}{1 + Ne^2}$$

Where *N* is the population size and *e* is the margin of error (Almeda, Capistrano, Sarte, 2010).

The sample consists of 74 employees of Electronic Companies in Mogadishu according the Sloven's

formula.

Data processing and analysis

Data analysis is a process of analyzing all the information and evaluating the relevant

information that can be helpful in better decision making, (Skilling, 2006).The data collected will

be analyzed using the software called Statistical Package for the Social Sciences (SPSS)version 20.Quantitative data will be generated and analyzed through questionnaires. Data will be presented in the form of frequencies, percentages cross tabulation and correlation analysis, so as to establish the relationship of variables. Correlation analysis will be done in order to test some of the assertions raised. Correlation coefficient will be used to quantify the strength of association between the variables as well as testing the significance of relationships.

Table 4.1 Response Rate

Response	Total	Percent %
Returned	71	96
Unreturned	3	4
Total	**74**	**100**

Table 4.1: Test of Reliability

Research Variable	Reliability Value	Remarks
Inventory Planning	0.758	Accepted
Inventory Recording	0.898	Accepted
Inventory Control	0.763	Accepted
Inventory Evaluation	0.789	Accepted
Business Performance	0.729	Accepted

Regression Analysis

Multiple regression analysis was performed to assess the effects between the dependent variable (Business Performance) and the independent variables (Inventory management) and to test the research hypotheses on the Inventory Plannning determinants on Business performance multiple regression analysis was conducted in order to establish the best combination of independent (predictor) variables would be to predict the dependent (predicted) variable and to establish the best model of the study (Cooper & Schindler, 2013).Multiple regressions is an extension of simple linear regression. It is used when we want to predict the value of a variable based on the value of two or more other variables. The variable we want to predict is called the dependent variable (or sometimes, the outcome, target or criterion variable). The variables we are using to predict the value of the dependent variable are called the independent variables (or sometimes, the predictor, explanatory or regress or variables).

Table 4.11 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.877[a]	.770	.757	.40509

Model summary is a summery that describes how far the in dependent variables explain the dependent variables that mean the greater R value has the great number the greater independent variables explain with dependent variable. In order to test the research hypotheses, a standard multiple regression analysis was conducted using Businessl performance the dependent variable,

and the four investigations determine effect of Inventory planning, inventory receding, inventory control and inventory evalaution of the Business Performance.

In order to test the research hypotheses, a standard multiple regression analysis was conducted using value addition as the dependent variable, and the four inventory management determinants of business performance inventory planning, inventory recording, inventory control and inventory evaluation as the predicting variables. Tables 4.10, 4.11 and 4.12 present the regression results. From the model summary in table 4.6.1, it is clear that the adjusted R2 was 0. .877[a] indicating that a combination of Inventory planning, inventory receding, inventory control and inventory evalaution explained 75.7% of the variation in the Business Performance of Electronic Comanies in Mogadishu, Somalia.

Analysis of Variance

Table 4.11 Analysis of Variance

	ANOVA[b]				
Model	**Sum of Squares**	**Df**	**Mean Square**	**F**	**Sig.**
1 **Regression**	37.897	3	9.474	57.734	.000[a]
Residual	11.323	71	.164		
Total	49.220	74			

From the ANOVA table 4.11, it is clear that the overall standard multiple regression model (the model involving constant, inventory planningy, inventory recording and inventory control) is 1`qsignificant in predicting how , inventory planningy, inventory recording and inventory control determine Business performance of the Electronic comanies in bakara market Mogadishu Somalia. The regression model achieves a degree of fit as reflected by an R2 of 0.877 (F = 57.73.00; P = 0.000 < 0.05).

Table 4.12 Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.196	.134		1.461	.0048
	inventoryplaning	.247	.092	.301	2.682	.004
	InventoryRecording	.160	.094	.174	1.699	.000
	InventoryValuation	.208	.088	.222	2.376	.020
	Inventorycontrol	.265	.092	.280	2.873	.002

Table 4.13 presents the regression results on how , inventory planningy, inventory recording and inventory control determine business performance of the Electronic companies in bakara market Mogadishu Somalia. The multiple regression equation was that: Y= β0+β1X1+β2X2+ β3X3 + ε

and the multiple regression equation became: $Y = .196 -160X_1\ 0.208X_2 + 0.247\ X_3$ .As depicted in table 4.9, there was positive and significant effects of inventory management on business performance ($\beta = 0.301$; $t = 2.682$; $p < 0.05$). There was positive and significant effects of inventory planning on business performance ($\beta = 0.222$; $t = 2.376$; $p < 0.05$.

Conclusions

Based on the findings of this study, the following conclusions were drawn. The results reveal that inventory planning, inventory recording and profitability have significant and positive effects on organizational performance in the Electronic business in bakara market mogadishusomalia. Stepwise regressions revealed that inventory determinants of profitability including planning and evaluation explained statistically significant portion of the variance associated with the extent of profitability of the Electronic business in bakara market Mogadishu Somalia.

Recommendations

Based on the findings of the study, it is essential to give recommendations in order to gather more gains from inventory. It is recommended that;

1. Management should not only undertake Inventory planning in order to improve operation and sustain failing businesses but also improve their competitiveness and financial performance.

2. Management should come up with a sound strategy towards inventory management so as to avert the problem of mismatching investments and also the quality of inventory should be enhanced.

3. Management should put into consideration the degree of control and evaluation of inventory invested in so that these assets can provide liquidity to the firm with ease.

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