

Inventory Management Practices and Business Performance for Small-Scale Enterprises in Kenya

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Abstract

Small-Scale Enterprises (SSEs) are acknowledged as significant contributors to economic growth through their perceived critical role in providing job opportunities, poverty reduction and their acting as intermediaries in trade. However, the International Labor Organization (2010) estimates that two-thirds of the enterprises generate incomes equal to or below the minimum wage, a sobering finding that must temper one's enthusiasm for the growth of SSE's as a solution to the country's poverty and employment problems. Inventory constitutes much of the working capital held by SSEs and poor working capital management has been identified as one of the major causes of SSE failures. With this backdrop, this study investigated the relationship between inventory management practices and the business performance of SSEs in Kisii Municipality, Kenya. The relationship was probed based on primary data gathered by use of a structured questionnaire from 70 SSEs. The empirical results revealed a positive significant relationship between business performance and effective inventory management practices at 0.05 significance level. Further, they showed that inventory budgeting had the largest effect on business performance with a beta coefficient of 0.329, followed by shelf-space management with a beta coefficient of 0.30. Inventory level management had the least but significant effect with a beta coefficient of 0.297. The study suggests that owners/managers of SSEs embrace effective inventory management practices as a tactic to further their business performance.

Keywords: Inventory Management practices, Business Performance, Small Scale Enterprises

INTRODUCTION

In Kenya, small scale enterprises(SSEs) are acknowledged as vital and significant contributors to economic development owing to their considerable contribution to national income, employment, exports, entrepreneurship development and their acting as a vital link in the economy through their supply chain and intermediary role in trade (Oketch, 2000). The small enterprise sector alone contributes 18.4 per cent of Kenya's GDP and cuts across all

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sectors of the economy providing one of the most prolific sources of employment and income generation. The government also estimates that SSEs employment is growing at the rate of 11 per cent annually. In recognition of this indispensable role of SSEs, many Micro Finance Institutions have been at the forefront in providing these enterprises with microcredit. This has seen their access to microcredit increase from 7.5% in 2006 to 17.9% in 2009 (FSD Kenya, 2009).

Despite their significance and the increased efforts to ensure the success of small scale enterprises, the International Labour Organization (2010) estimates that two-thirds of the enterprises were generating incomes equal to or below the minimum wage, a sobering finding that must temper one's enthusiasm for the growth of SSE's as a solution to the country's poverty and employment problems. A study by Bowen et al. (2009) also established that up to 50% of the small businesses in operation have a deteriorating performance and are said to stagnate at 'small' level hence do not progressively grow into medium or even large enterprises as envisaged in their conceptual plans.

As observed by Mead (1998), the health of the economy as a whole has a strong relationship with the health and nature of the small enterprise sector. Given their importance to a nation's economic growth and the role that they play in poverty reduction, an understanding of the problems negatively affecting small businesses in Kenya is a vital first step in managing and avoiding the massive failure of these small businesses (ILO, 2010). One of the remedies suggested by Baron et al. (2010) to improving the performance of businesses is wise demand management which is anchored in effective inventory management.

Based on this background, the study was intended to investigate the relationship between inventory management practices and business performance of SSEs in Kisii Municipality, Kisii County, Kenya. The study was guided by the following specific objectives:

- i. Establish the effectiveness of inventory management practices of SSEs in Kisii Municipality, Kisii County.
- ii. Evaluate the business performance of SSEs in Kisii Municipality, Kisii County.
- iii. Establish the relationship between effectiveness of inventory management practices and business performance of SSEs in Kisii Municipality, Kisii County.

LITERATURE REVIEW

Inventory Management plays a decisive role in the enhancement of efficiency and

competitiveness of business enterprises. Therefore, there is increased need for business enterprises to embrace effective inventory management practices as a strategy to improve their competitiveness (Rajeev, 2008). 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).

Prudent inventory management requires the analysis of the costs of maintaining certain levels of inventory as there are costs involved in holding too much stock and there are also costs involved in holding too little hence the need to put in place an effective stock management system to ensure reliable sales forecasts (Atrill, 2006). As Ross et al. (2008) observed, the Economic Order Quantity (EOQ) model is an approach of determining the optimal inventory level that takes into account the inventory carrying costs, stock-out costs and total costs which are helpful in the determination of the appropriate inventory levels to hold. Grablowsky (1984) observed that large businesses rely more on quantitative techniques, such as EOQ and linear programming, to provide additional information for decision-making, while small firms make use of management judgment without quantitative back up.

A survey of 351 management accountants by the National Association of Accountants (NAA) in a cross-section of industries to assess current inventory management practices in the U.S indicated that: just-in-time inventory management techniques are increasing in popularity, as are automated time-phased inventory re-order system. The survey further established that 85 percent of respondents have no plans to change their inventory controls and that actual business experience is relied upon more than inventory quantitative models. Also, the survey established that some inventory management practices such as assessing inventory levels and balancing stock-out costs against expenses related to higher inventory levels are seldom used in practice (Romano, 2011).

Maintaining optimal inventory levels reduces the cost of possible interruptions or of loss of business because of scarcity of products, reduces supply costs, and protects against price fluctuations. The inventory conversion period has a negative effect on a business's performance. For instance, shortening the inventory conversion period could increase stock out costs of inventory which results in losing sales opportunities and leads to poor performance (Deloof, 2003). Lazaridis & Dimitrios (2005) highlighted the importance of firms keeping their inventory at an optimum level by analyzing the relationship between

working capital management and corporate profitability and stressed that its mismanagement will lead to excessive tying up of capital at the expense of profitable operations. A similar study by Rehman (2006) established a strong negative relationship between inventory turnover in days and profitability of firms.

Greater seasonality of demand and supply of products; quantity and variety of products demanded and supplied; batch sizes; the need to create ‘buffer’ stocks to cover for supply uncertainties and the lead time affects the level of inventory held by businesses (Cachon & Olivares, 2010). This view is also held by Sander et al. (2010) who asserted that the amount of inventory ordered at particular intervals does affect the replenishment intervals.

Gruen & Corsten (2007) document that stock-outs have serious implications for businesses and they affect consumers, retailers, and manufacturers. Consumer purchase behaviors, such as product replacement, delayed purchase, or not making a purchase sometimes result from such events. Zinn & Liu (2008) posit that when faced with a stock-out, a consumer may find, try, and ultimately prefer a substitute product. This consumer may be lost forever, resulting in a negative impact on the long-term value of the firm’s market share. A loyal consumer also may visit another firm to find the desired product, a situation that may result into loyalty switching. They further assert that repeated stockouts negatively affect retailers through the loss of customers and employee time, while the manufacturer simultaneously is harmed by lost sales, brand switching, and a loss of brand. They also maintained that approximately half of the customers who searched for an out-of-stock product finally quit the search, hence aggravating the negative effect of stock-outs.

To reduce stockouts and improve performance, businesses should employ category management practices and automatic replenishment programs such as continual replenishment planning or vendor-managed inventory (Basuroy, S., Mantrala, M., and Walters, G. (2001). To implement category management practices effectively, proper shelf space allocation must be a priority as the amount of inventory on display may stimulate demand. Borin et al. (1994) recognizes the effects of shelf space allocation on stock outs and operating costs and proposes an optimization model for the joint product assortment and shelf space allocation decision and shows that ignoring the effects of stock outs can yield less than desired results. Eroglu et al. (2011) posits that shelf space management has a direct effect on shelf stockouts and suggests that managers should allocate shelf space not only on the basis of case pack quantity but also on consumer demand. Deloof (2003) established that

shortening inventory conversion period is a precursor to increasing stock out costs and will eventually result in loss of sale opportunities hence poor performance.

On the role of effective inventory management on the performance of businesses, Sushma & Phubesh (2007) in their study of 23 Indian Consumer Electronics Industry firms established that businesses' inventory management policies had a role to play in their profitability performance. Lazaridis & Dimitrios (2005) in their study of 131 companies listed in the Athens Stock Exchange showed that mismanagement of inventory will lead to tying up excess capital at the expense of profitable operations and suggested that managers can create value for their firms by keeping inventory to an optimum level. Also, Rajeev (2008) in his study of 91 Indian Machine Tool SMEs to evaluate the relationship between inventory management practices and inventory cost established that effective inventory management practices have a positive impact on the inventory performance of businesses and also have an eventual effect on the performance of businesses.

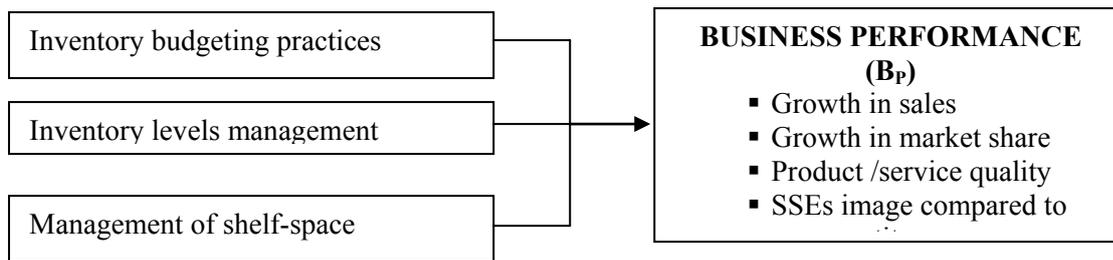
Juan & Mertinez (2002) in their study of 8872 small and medium-sized Spanish firms also demonstrated that managers of firms can create value by reducing the number of days of inventory. Effective inventory management processes helps increase operational efficiency of firms; improves customer service; reduces inventory and distribution costs; and enables businesses track items and their expiration dates consequently balance between availability and demand (Pandey, 2004).

Considering the limited literature related to inventory management, particularly of SSEs, the present study assumes significance. To date there are little or no studies that have been carried out in the Kenyan SSE context to establish the quantitative association between inventory management practices and business performance and no model has been developed to show the relationship. Therefore the objective of this paper is to bridge this gap by investigating the present perception of SSEs about their inventory management practices and how this affects their performance. The present study further validates, using regression analysis, the impact of the degree of effectiveness of inventory management practices on the performance of the SSEs studied

The Literature on inventory management practices reviewed identifies effective inventory management practices as determinants of businesses' performance model. Business performance could therefore be improved if effectiveness levels of inventory management practices are improved. The model variables interrelationship can be conceptualized as shown in figure 1.

FIGURE 1

Conceptual framework for the study



The model hypothesizes that effective inventory management practices have an influence on the growth rate of businesses' sales and market share. They are also conceptualized to have an effect on the quality of products/services offered by the SSEs and the businesses' image as compared to the competitors.

METHODOLOGY

This study employed a cross-sectional survey research design. This research strategy was preferred because it permits the collection of data through questionnaires administered to a sample and that the data collected by this design can be used to suggest reasons for particular relationships between variables and produce models for these relationships (Saunders & Thornhil, 2007). A survey design was also preferred for it facilitates the collection of a considerable amount of data quickly, efficiently and accurately. (Oso & Onen, 2005).

The target population of this study was owners or managers of SSEs operating within Kisii Municipality in Kisii County and registered by the municipal council of Kisii. The study population comprised 230 SSEs consisting of 161 trading and 69 manufacturing enterprises, out of which 70 SSEs consisting of 49 trading and 21 manufacturing SSEs were selected using stratified random sampling technique. The sample size was computed using the formula;

$$n = \frac{NC^2}{C^2 + (N - 1)e^2} = \frac{230 * 0.5^2}{0.5^2 + (230 - 1) * 0.05^2} = 70$$

Where n is the sample size N is the population C is the Coefficient of variation (0.5) e is the level of precision (0.05) (Nasiurma, 2000).

A Structured questionnaire was self-administered to the owners/managers of the SSEs to gather primary quantitative data. The questionnaire was divided into three sections: demographic information, inventory management practices and business performance. The questionnaire was designed to elicit responses relating to inventory management practices

such as preparation of inventory budgets, review of inventory levels and management of shelf-space. It was also aimed at gathering data concerning the business performance in terms of growth in sales, growth in market share, perceived product/service quality and firms' image as compared to competitors.

Perceptual responses were captured in a five-point Likert scale. Perceptual performance measures were preferred since financial data on the majority of the sampled SSEs was not publicly available, making it difficult to check the accuracy of any financial data reported. The Likert scale was also preferred as it is able to deal with a large number of items and difficulties in eliciting specific information from the respondents (Singh & Smith, 2006). Multiple regression analysis was used to establish the relationship and magnitude between inventory management practices (independent variables) and business performance of SSEs (dependent variable). This analysis was based on the model specified below:

$$B_p = \alpha_0 + \beta_1 I_B + \beta_2 I_L + \beta_3 S_M + \varepsilon_0 \quad (1)$$

Where B_p is business performance, α is a constant, I_B is inventory budget, I_L is inventory level, S_M is shelf-space management, β_1 , β_2 , β_3 , are the regression coefficients of independent variables and ε is the error term.

RESULTS AND DISCUSSION

Inventory Management Practices

The first research objective sought to determine the inventory management practices of SSEs. To address this, the respondents were asked to indicate their frequency of inventory budgeting, review of inventory levels and review of shelf-space allocation. The results showed that SSEs often prepared inventory budgets and reviewed inventory levels as mean 3.60 and 3.89 respectively. The SSEs however reviewed inventory levels more than they prepared inventory budgets. These findings suggest that the inventory practices: inventory budgeting and review of inventory levels have been well understood by the SSEs' owners/managers and therefore they are likely to be in a position to effectively track down item quantities and balance availability with customer demand. These findings are similar to findings by Kwame (2007) who established that a majority of the businesses surveyed always reviewed their inventory levels and prepared inventory budgets. The results also show that

SSEs rarely reviewed their shelf-space allocation meaning that they might not be in a position to vary their stock quantities in line with varying customer demand.

TABLE 1
Inventory Management Practices

	Never 1	Rarely 2	Sometimes 3	Often 4	Very Often 5	$\frac{\sum f_i w_i}{\sum f_i}$
Prepare inventory budgets	2	8	12	30	18	3.77
Review inventory levels	2	7	10	18	33	4.04
Review of shelf-space allocations	6	23	27	14	0	2.70

The results in Table 2 below show that majority of the businesses surveyed carried out stock monitoring either daily or weekly or fortnightly as indicated by 54 respondents out of the total of 70 respondents. Also 51 out of the 70 respondents indicated that their inventory ordering frequency was either daily or weekly or fortnightly. The high frequency of inventory ordering may be an indicator that SSEs surveyed either do not stock optimal quantities of stock or have a shortened inventory conversion period and may therefore be experiencing stock-outs. This finding is in line with a finding by Deloof (2003) that shortened inventory conversion period increases stock-out costs resulting to loss of sales. However, as argued by Laziridis & Dimitrios (2005), the short inventory period may be helpful to the businesses since they are likely to avoid tying up excess capital in idle stock at the expense of profitable operations.

TABLE 2
Inventory Monitoring and Inventory Ordering

	Daily	Weekly	Fortnightly	Monthly	Quarterly
Stock Monitoring frequency	14	19	21	12	4
Order frequency	10	12	29	16	3
Total	24	31	50	28	7

Further analysis was done to determine if there was an association between the frequency of stock monitoring and the frequency of inventory ordering. A calculated χ^2 value of 4.25 was obtained. This χ^2 value was much lower than the table value of χ^2 for 4 degrees of freedom at 0.05 significance level which was 9.488. This meant that stock monitoring frequency and inventory ordering frequency were independent operations for the SSEs surveyed. This implies that there was no significant association between the frequency of stock monitoring and the frequency of inventory ordering. This finding is contradictory to the

finding by Rajeev (2008) who established that there was a significant association between the number of frequencies of stock monitoring and inventory ordering frequency.

On the methods used to determine the maximum or minimum inventory levels to hold, the study established that 42.9 percent of the manufacturing businesses used in the survey used either the economic order quantity or inventory turnover ratio for optimizing inventory. All the trading businesses surveyed did not use the economic order quantity or inventory turnover ratio in optimizing inventory. This implies that majority of the SSEs do not make use of quantitative techniques in determining the minimum or maximum inventory levels to hold. A majority of them used owner/manager judgments. This finding is consistent with findings by Kwame (2007) who established that over 90% of the small businesses surveyed relied on the owner/manager's experience in their inventory management practices. It is also in line with a finding by Grablowsky (1984) that most small scale businesses do not make use of quantitative techniques for optimizing inventory.

TABLE 3
Methods used to determine the Maximum or Minimum Inventory Levels to Hold

	Trading SSEs	Manufacturing SSEs
<u>Method</u>	<u>Percentage use (%)</u>	<u>Percentage use (%)</u>
Economic order quantity(EOQ)	0.0	28.6
Inventory turnover ratio	0.0	14.3
Owner/manager judgments	44.9	42.9
Sales projections	22.4	14.2
Past experience	32.7	0.0
No method	0.0	0.0

Effectiveness in the Inventory Management Practices. Respondents were asked to rate on a five-point summated Likert scale their perceived level of effectiveness in the various inventory management practices.

Inventory Budgeting Practices. Table 4 indicates the level of effectiveness of the SSEs inventory budgeting practices. The findings show that the owners/managers of the SSEs were effective in preparation of inventory budgets with a weighted average of 3.57. They were fairly effective in updating their inventory budgets and use of the inventory budgets to track inventory with weighted averages of 3.24 and 3.30 respectively. The SSEs were however least effective in the use of computers in inventory budgeting with a weighted average of 1.74. On aggregate, the SSEs surveyed were effective in inventory budgeting practices.

TABLE 4
Level of Effectiveness in Inventory Budgeting Practices

I _B Indicators	Not effective	Least effective	Fairly effective	Effective	Highly effective	Mean
Preparation of inventory budgeting	2	10	17	28	13	3.57
updating the inventory budgets	9	7	18	30	6	3.24
Use of inventory budgets in tracking inventory	3	16	18	23	10	3.30
Use of computers in inventory budgeting	43	13	3	11	0	1.74

Inventory Level Management. Table 5 indicates the level of effectiveness of the SSEs inventory levels management practices. The finding shows that the owners/managers of the SSEs were effective in their review of inventory levels with a weighted average of 3.63. They were fairly effective in their determination of appropriate maximum and minimum inventory levels with weighted averages of 3.14 and in ensuring availability of adequate inventory at all times with a weighted average of 2.51. The SSEs were however least effective in the determination of appropriate reorder level of stock with a weighted average of 2.23; meaning that the SSEs were not good in determining when to place replenishment orders. This means that their order level is not dependent upon the lead time and the demand during the lead time. The results also show that the SSEs were least effective in the use of computers in monitoring inventory levels with a weighted average of 1.74, a finding that corroborates the assertion by Kwame (2007) that small businesses do not use computers in their business operations. On aggregate, the SSEs surveyed were effective in inventory level management.

TABLE 5
Level of Effectiveness in Inventory Levels Management Practices

I _L Indicators	Not effective 1	Least effective 2	Fairly effective 3	Effective 4	Highly effective 5	$\frac{\sum f_i w_i}{\sum f_i}$
review of inventory levels	5	7	12	31	15	3.63
Determination of appropriate maximum and minimum inventory levels	7	11	23	28	2	3.14
Determination of appropriate reorder level of stock	21	19	23	7	0	2.23
Ensuring availability of adequate stock at all times	12	25	18	15	0	2.51
Use of computers in monitoring inventory levels	43	13	3	11	0	1.74

Shelf-Space Management. Table 6 below shows that SSEs were on aggregate fairly effective in their shelf-space management with a weighted average of 2.66. The SSEs were however more effective in using shelf-space fluctuations to control stock order schedule so as to avoid stock-outs with a weighted average of 2.90. They were equally fairly effective in reconciling customer demand and shelf-space and allocating shelf-space to products and their compliments or supplements with weighted averages of 2.61 and 2.64 respectively. However, the SSEs were least effective in shelf space reorganization to catch customers' attention with a weighted average of 2.47.

The results show that SSEs are not good in their shelf space management. As observed by Eroglu et al. (2011), shelf space ineffectiveness has an effect on stock-outs. Increasing shelf space decreases stock-outs hence helps in achieving product availability targets.

TABLE 6
Level of Effectiveness in Shelf-Space Management Practices

SM Indicators	Not effective	Least effective	Fairly effective	Effective	Highly effective	Mean
Allocating shelf-space to products & their compliments or supplements	21	12	11	23	3	2.64
Reconciliation of inventory demand and shelf-space	13	19	21	16	1	2.61
Using shelf-space fluctuation to control stock order schedule so as to avoid stock-outs	6	17	27	18	2	2.90
Shelf space reorganization to catch customers' attention	21	19	14	8	8	2.47

Performance of SSES

The second objective sought to determine the business performance of SSEs. To address this, the respondents were asked to rate their level of satisfaction with the performance of their businesses based on their growth in sales, growth in market share, business's image as compared to competitors and the quality of the products/services offered compared to close competitors. The results of the analysis as shown in Table 7 shows that the SSEs surveyed rated the performance of these indicators to be satisfactory with weighted averages of 2.51, 2.53, 2.76 and 2.90 respectively. However, they were more satisfied with their view of the quality of their products/services compared to the competitors.

TABLE 7
Distribution of Indicators of Business Performance of SSEs

Bp Indicators	Least satisfactory	Moderately satisfactory	Satisfactory	Very satisfactory	Most satisfactory	Mean
Growth in total sales	11	21	29	9	0	2.51
Growth in market share	9	23	30	8	0	2.53
Business's image	12	13	25	20	0	2.76
Quality of products/ services	2	21	29	18	10	2.90

Effectiveness of Inventory Management Practices and Business Performance.

The third research objective sought to establish the relationship between inventory management practices and business performance. To address this, a multiple regression analysis was used. Multiple regression analysis was used to deduce a model that could be used to explain the effect of effective inventory management practices on business performance. Table 8 shows the contribution of each variable to the business performance model as shown by standardized Beta values, which assess the contribution of each variable toward the prediction of the dependent variable. Effectiveness in inventory budgeting had the greatest effect on business performance with a unit change in the I_B , holding I_L and S_M constant, resulting to a 32.9% increase in business performance, a unit change in effectiveness in I_L holding I_B and S_M constant, results to a 29.7% increase in business performance whereas a unit change in effectiveness in S_M holding I_B and I_L constant results to a 30.1% increase in business performance. The general equation as suggested in the conceptual framework can be represented by use of Un-standardized coefficients as

$$B_p = 0.952 + 0.344I_B + 0.315I_L + 0.311S_M$$

The positive beta values indicate that the level of effectiveness in inventory management practices has a positive influence on business performance of SSEs. This implies that an increase in effective inventory management causes an increase in business performance. Similar views were established by Baron et al. (2010) who asserted that wise demand management which is in turn influenced by shelf space allocations affect performance of businesses. The finding is also consistent with the finding by Hoch et al. (1994) which showed that shelf location, shelf reorganization and shelf positioning have a large positive impact on sales and profits. The finding that effectiveness in inventory management has a positive influence on business performance is in line with a finding by Rajeev (2008) which

showed that formal and efficient inventory management practices have a positive impact on the performance of firms.

TABLE 8
Regression Coefficients (N=70, R² = 0.712)

	Unstandardized Coefficients	Standardized Coefficients	p-value
(Constant)	.942		.003
I _B	.344	.329	.005
I _L	.315	.297	.008
S _M	.311	.301	.006

From Table 8, the regression model explains 71.2% of the variations in business performance. The variations could be attributed to changes in effective inventory budgeting, inventory level management and effective management of shelf-space. Table 9 shows the F-Statistic which indicate that there is a statistically significant relationship between business performance and the set of predictor variables: I_B, I_L and S_M ($F(3,66) = 54.463, p < 0.05$). This means that the three-predictor variables as a whole were contributing to the variation in business performance.

TABLE 9
Summary ANOVA (N=70)

	Sum of Squares	df	Mean Square	F	Sig.
Regression	1123.326	3	374.442	54.463	.000
Residual	453.760	66	6.875		
Total	1577.086	69			

CONCLUSION

The study set out to investigate the relationship between inventory management practices and business performance of SSEs, in Kisii Municipality, Kisii County, Kenya. To achieve this, three specific objectives were addressed. The first objective was to determine the inventory management practices of the SSEs. The findings indicated that inventory budgeting; review of inventory levels and management of shelf-space were on aggregate often carried out by SSEs. Further, the study established that there was no relationship between the frequency of inventory ordering and the frequency of stock monitoring. The study concludes that on aggregate, the SSEs surveyed were fairly effective in their inventory management practices and recommends that SSEs owners/managers seek further knowledge on inventory

management so as to improve their level of effectiveness in inventory management practices. These businesses should appreciate more the vitality of inventory management operations in gaining and sustaining competitive advantage.

Second, the study endeavored to evaluate the business performance of the SSEs. The findings showed that most respondents were satisfied with their performance measured by growth in sales, growth in market share, perceived business image compared to the competitors' and quality of products/services offered compared to competitors with weighted means of 2.51, 2.53, 2.76 and 2.90 respectively. Based on this finding the study concluded that the businesses were fairly performing well.

The final objective was to establish the relationship between inventory management practices and the business performance of SSEs. The study concluded that there existed a relationship between the level of effectiveness in inventory management and business performance of SSEs. Effective inventory budgeting had the largest effect on business performance with a beta coefficient of 0.329, followed by shelf-space management with a beta coefficient of 0.301 and inventory levels management had the least effect with a beta coefficient of 0.297. The study therefore concludes that enhancement in the level of effectiveness in inventory management practices will result in increased business performance of the SSEs.

The current study was a cross sectional survey based on a small sample size taken from only Kisii Municipality of Kisii County. Furthermore, the instrument of study used perceptual measures of business performance and level of effectiveness in inventory management practices of SSEs and so this may limit generalization of results. This study therefore recommends a similar study that will employ longitudinal survey and that will employ a case study design to corroborate these research findings. Furthermore, future research could use other data collection methods such as document analysis so as to obtain more objective data.

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**APPENDIX I:
Operational Definitions of the Key Variables**

	Operational Definition
Effectiveness in inventory management	<p>Effective Inventory budgeting To measure this area, focus will be on:</p> <ul style="list-style-type: none"> • Frequency of preparation of inventory budgets. • Frequency of updating the inventory budgets • Use of inventory budgets in tracking inventory • Use of computers in inventory budgeting <p>Effective Management of Stock levels Stock levels will include different scales used to measure</p> <ul style="list-style-type: none"> • Frequency of review of inventory levels • determination of appropriate maximum and minimum inventory levels • Determination of appropriate reorder levels of stock • Ensuring availability of adequate inventory at all times • Use of computers in monitoring inventory levels <p>Effective Management of shelf space Different scales used to measure this:</p> <ul style="list-style-type: none"> • Allocation of shelf space to products and their compliments or supplements • Matching on-shelf stock with consumer demand • Control of stock order schedule to avoid stock-outs ; • Shelf space reorganization to catch customers' attention
Business Performance: Non-financial measures:	<p>Product/service quality Subjective Indicator: Extent to which organization's product(s) or service (s) is/are perceived to be of superior quality when compared with those of competitors.</p> <p>Business Image Subjective Indicator: Perception of organization's image compared to competitors.</p> <p>Growth in market share Subjective Indicator: Perception of firm's market share growth over time</p> <p>Growth in sales Subjective Indicator: Perception of firm's growth in sales over time</p>