AN ASSESSMENT OF FACTORS INFLUENCING TO THE INVENTORY MANAGEMENT PRACTICES IN SMALL AND MEDIUM SIZED ENTERPRISES: SPECIAL REFERENCE TO ANURADHAPURA DISTRICT

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Abstract: Inventory constitutes the most significant part of current assets in most of the companies. Business organization neither keeps 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. The purpose of this paper is to examine the factors that influence to the inventory management practices in small and medium sized enterprises in Anuradhapura district. 100 SMEs had been applied based on convenient sampling method. The study was conducted on five hypotheses which were constructed to reveal about procurement procedure, Planning, Documentation, Funding and skills of the staff significantly influence for inventory management practices among SMEs in Anuradhapura. And those five hypotheses were tested by multiple regression analysis, Reliability analysis, descriptive analysis and inferential analysis. The findings of this study revealed procurement procedure, Documentation and Funding are significantly influence to the inventory Management Practices but Planning and Skills of the staff are influence but these factors are not significant. 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 SMEs in Anuradhapura to a great extent. The study therefore recommended that there is a need for SMEs in Anuradhapura to enhance their procurement procedures through elimination of overlapping or conflicting jobs or duties and behavior of the system is predicable. The findings of the study hold practical implications for Policy makers, Managers, investors and stock keepers.

Keywords: Inventory Management practices, Supply chain management, Small Medium Enterprises

1. INTRODUCTION

Inventory management practices is an integral part in making all the decisions in handling the inventory in an organization such as activities to be carried out, policies of inventory management, and procedures in handling the inventory in order to ensure enough quantity of each item is kept in the warehouse at all times.

Small and Medium Enterprises (SMEs) occupy a place of strategic importance in developing as well as developed countries owing to its considerable contribution to national income, employment, exports, and entrepreneurship development (Saxena, 2012). Inventory for many small business owners is one of the most visible and tangible aspects of doing business. Raw materials, goods in process and finished goods all represent various forms of inventory. Each type represents money tied up until the inventory leaves the company as purchased products.

1.1 Research Questions

- Does procurement procedure affect to inventory management practices in SMEs?
- Does inventory planning affect to inventory management practices in SMEs?

- Does Documentation affect to inventory management practices in SMEs?
- Does funding affect to inventory management practices in SMEs?
- Does skill of the staff affect to inventory management practices in SMEs?

1.2 Research Objectives

- To examine the influence from procurement procedure to inventory management practices in SMEs.
- To examine the influence from inventory planning to inventory management practices in SMEs.
- To examine the influence from Documentation to inventory management practices in SMEs.
- To examine the influence from funding to inventory management practices in SMEs.
- To examine the influence from skills of the staff to inventory management practices in SMEs.

1.3 Literature Review

Magad & Amos (1989) Assert that the primary objective of inventory management is to improve customer service. This is done through protection against stock out due to demand variability in the market place. The inventories generally are very sensitive assets in any organization since they are required for the existence of the company. Among other aspects, the researcher is going to focus on the effectiveness and efficiency of inventory management practices.

According to Jonsson and Mattsson (2008), planning is one of the critical factors in attaining good inventory control. Planning can be also described as a future approach in which the inventory is strategized to be controlled. Inventory control planning assists in arranging physical count requirements to cover preparations for spread sheets used to evaluate inventories at year end.

Jonsson & Mattsson (2014) as the method which is used to control and manage the inventory such as forecast the market demand, make the plan for maintaining the safety quantity of materials, setting reorder point and manage the stock level in an organization. Without the coordination of sellers in inventory planning, the probability of failure in predicting the inventory requirement in the future market demands and another requirement will rise.

Ondari and muturi (2016) 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, Documentation, funding and skills of staff had a positive impact on the efficiency of inventory management among firms in Kisii town**.**

Tasmin & chan (2017) observed that the problems of inventory management faced by manufacturing organization were underproduction, overproduction, stock out situation, delays in the delivery of raw materials and discrepancy of records. The factors, documentation/store records, planning, knowledge of employees/staff skill have shown to significantly influence the effectiveness of inventory management while the funds

have shown slightly significant influence on the inventory management in manufacturing small medium enterprises.

2. METHODOLOGY
2.1 Population of the Study

There are 8928 SMEs established in Anuradhapura district. So small and medium Enterprises located in Anuradhapura District taken as population.(The study considered small businesses as those employing less than 10 people and medium size businesses as those employing between 11-50 people based on the common practice.)

2.2 Sample and Sampling Method

The research is aim to examines the factors affecting to inventory management practices in SMEs. To achieve this aim by collecting enough data, a survey was conducted through questionnaires. In total 100 questionnaires were distributed to owners, managers and stores keeper of SME firms which located in Anuradhapura district as a sample under the Convenient sampling method and 100 SMEs were selected by researcher considering all regional secretariat offices in Anuradhapura District as a weight from population as well as accessibility.

2.3 Research Approach

Quantitative research approach was applied for the study. As this research based on SMEs of Anuradhapura, it is wise to choose that questionnaire for getting the information. The questionnaire related to efficiency of inventory management of small and medium size enterprises of Anuradhapura. First Part is based on demographic questions and others are based on Likert scale questions with five indicating strongly Agree and one indicating Strongly Disagree. The aim of seeking both responses is to gather a mixture of data from the SMEs for an ultimate result.

a. Multiple Regression Analysis

$$\gamma = \beta_0 + \beta_1\chi_1 + \beta_2\chi_2 + \beta_3\chi_3 + \beta_4\chi_4 + \beta_5\chi_5 + \epsilon_i$$

Where;
χ_1 = Procurement Procedure
χ_2 = Planning
χ_3 = Documentation
χ_4 = Funding
χ_5 = Skill of the staff
γ = Inventory Management
β_0 = Constant
$\beta_1, \beta_2, \beta_3, \beta_4, and\ \beta_5,$ = Coefficients of Independent Variables
$\epsilon_{i=}$ Error Term

3. DISCUSSION AND RESULTS

Table 1. Summary of Descriptive Statistics

	Min stat	Max stat	Mean stat	SD stat	Varian Stat	Skew. Stat	Kurtosis Stat
PP	1.40	4.60	3.176	0.729	0.533	-0.038	-0.555
PL	1.40	4.60	3.168	0.708	0.502	-0.092	-0.486
DC	1.60	5.00	3.316	0.765	0.586	-0.192	-0.597
FU	1.50	5.00	3.495	0.849	0.721	0.035	-0.682
SS	1.75	5.00	3.537	0.674	0.455	-0.093	-0.530
IM	1.00	5.00	3.422	0.682	0.465	-0.741	1.54

Summary statistics given in Table 1 show that the procurement procedure, around mean value is 3.176in the sample. The standard deviation of procurement procedure is about 0.729. It can be seen the variance, minimum, and maximum value as 0.533, 1.40 and 4.60 respectively. Skewness of procurement procedure is -0.038. As well as, Kurtosis of Procurement procedure is -0.555. Considering the planning, shows that given Table 1 mean value are 3.168in the sample. The standard deviation of PL is about 0.708. As well as, variance, minimum, and maximum value are 0.502, 1.40 and 4.60 respectively. Skewness of planning is -0.092. As well as, Kurtosis of IP is 0.486.

Considering the documentation, shows that given Table 1 mean value is 3.316 in the selected sample. The standard deviation of DC is about 0.765. As well as, variance, minimum, and maximum value are 0.586, 1.60 and 5 respectively. Skewness of DC is 0.35. As well as, Kurtosis of DC is -0.597. Considering the funding, shows that given Table 1 mean value is 3.495 in the selected sample. The standard deviation of FU is about 0.849. As well as, variance, minimum, and maximum value are 0.721, 1.50 and 5 respectively. Skewness of FU is 0.35. As well as, Kurtosis of FU is -0.682. Considering the skill of the staff, shows that given Table 1 mean value is 3.537 in the selected sample. The standard deviation of SS is about 0.674. As well as, variance, minimum, and maximum value are 0.455, 1.75 and 5 respectively. Skewness of SS is -0.093. As well as, Kurtosis of SS is -0.530. Dependent variable is an inventory management practices that show Table 1, and also it is presented mean value which is 3.422, furthermore variance, minimum, and maximum value are 0.465, 1.00 and 5.00 respectively. Skewness of IM is -0.741. As well as, Kurtosis of IM is -0.540.

Table 2. Summary of the Reliability Analysis

Variable	No of Items	Cronbach's Alpha
Procurement Procedure	5	.766
Planning	5	.721
Documentation	5	.817
Funding	4	.851
Skill of the Staff	4	.747
Inventory Management	5	.760

According to the Table 2, All variable in cronbach's alpha value and that value should be greater than 0.7, then it is the acceptable level of the reliability test of the variables. The dependent variable of this study is the level of Inventory Management practice among small and medium sized enterprises and Cronbach's Alpha value is 0.760, this amount more than 0.700. Independent variable of this study is procurement procedure, planning, Documentation, funding, skill of the staff. Those have Cronbach's alpha value 0.766, 0.721, 0.817, 0.851 and 0.747 respectively, and all variable Cronbach's Alpha values are above to the standard levels. That means good, reliable value of this study variable According to that statistical measurement above table values are greater than

0.7.Therefore all data are reliable and accepted in stability and consistency of the variables.

Table 3. Co–relation Matrix Analysis with IM

		Mean IM	Mean PP	Mean PL	Mean DC	Mean FU	Mean SS
Mean IM	P. Correlation	1					
	Sig. (2-tailed)						
Mean PP	P. Correlation	.462**	1				
	Sig. (2-tailed)	.000					
Mean PL	P. Correlation	.211*	.109	1			
	Sig. (2-tailed)	.036	.282				
Mean DC	P. Correlation	.534**	.231*	.195	1		
	Sig. (2-tailed)	.000	.21	.052			
Mean FU	P. Correlation	.688**	.365**	.208*	.618**	1	
	Sig. (2-tailed)	.000	.000	0.38	.000		
Mean SS	P. Correlation	.459**	.269**	.044	.295**	.473**	1
	Sig. (2-tailed)	.000	.007	.665	.003	.000	

(* Correlation is significant at the 0.05 level (2- tailed)
(** Correlation is significant at the 0.01 level (2 - tailed)

According to table 3, the Pearson correlation value for inventory management and procurement procedure was 0.462 and it was the moderate positive relationship between above variables. According to the above table the significant value is 0.000 (P<0.05) hence both variables are significant at 0.05 level. Therefore, it can be statistically say that there was significant and moderate positive relationship between inventory management and procurement procedure. The Pearson correlation value for inventory management and planning was 0.211 and it was the week positive relationship between above variables. Therefore, it can be statistically say that there was significant and week positive relationship between inventory management and planning.

Above table represented that the Pearson correlation value for inventory management and documentation was 0.534(53.4%) and it was the moderate positive relationship between above variables. According to the above table the significant value is 0.000(P<0.05) hence both variables are significant at 0.05 level. Therefore, it can be statistically say that there was significant and moderate positive relationship between inventory management and documentation. The Pearson correlation value for inventory management and funding was 0.688 and it was the strong positive relationship between above variables. According to the above table the significant value is 0.000 (P<0.05) hence both variables are significant at 0.05 level. Therefore, it can be statistically say that there was significant and strong positive relationship between inventory management and funding.

According to table 4.9 the Pearson correlation value for inventory management and skill of the staff was 0.459 (45.9%) and it was the moderate positive relationship between above variables. According to the above table the significant value is 0.000 (P<0.05) hence both variables are significant at 0.05 level. Therefore, it can be statistically say that there was significant and moderate positive relationship between inventory management and skill of the staff.

3.1 Relationship between Dependent and Independent variables
Table 4. Model summary of Independent Variables and Dependent Variable

Model	R	R Square	Adjusted R Square	Std. Error of the estimate	Durbin- Watson
1	.750^a	.563	.539	.46306	2.044

As per the results of above table 4.10, the R value shows the simple correlation and it was 0.750. Then there is a strong relationship between independent and dependent variables. Coefficient of Determination (R Square) indicates the explanatory power of the selected independent variable on the dependent variable. This means 56.3% of the variation in IM is explained by independent variables. Once the degree of explanatory power is adjusted to R square, it is referred to as Adjusted R square and it is 53.9% between these two variables. Standard deviation of the error term is around 0.463 and Durbon-Watson value is 2.044.

Table 5. Regression Analysis- Coefficient table

Model	Unstandardized Coefficient		Standardized Coefficients	t	Sig.
	B	Std.Error	Beta		
(constant)	.372	.352		1.056	.294
PP	.209	.069	.223	3.026	.003
PL	.058	.068	.060	.851	.397
DC	.148	.078	.166	1.908	.039
FU	.339	.078	.421	4.328	.000
SS	.150	.079	.148	1.895	.061

Coefficient table show the intercept (constant) and predictor variable in regression equation which is,

$$\gamma = \beta 0 + \beta 1\chi 1 + \beta 2\chi 2 + \beta 3\chi 3 + \beta 4\chi 4 + \beta 5\chi 5 + \epsilon i$$

Dependent and Independent variables of the research had included in this regression equation when entered values coefficient table for the follow regression equation. Where,

$\beta 1$ = Procurement procedure, β_2 = Planning, β_3 = Documentation, β_4 = Funding, β_5= Skills of the staff and γ = Inventory Management. According to the results of regression analysis can be developed the regression model as follows.

$$\gamma = (0.372) + 0.209x_1 + 0.058x_2 + 0.148x_3 + 0.339x_4 + 0.150x_5 + 0.463$$

The regression coefficient of procurement procedure indicates that it has a positive impact on inventory Management Practices (β = 0.209, p<0.05). This result further supports the first hypothesis (H1) of the study. That means if increase procurement procedure, will cause to improve the inventory management practices in SME. According to the regression coefficient of Planning can be concluded as it has a moderate positive impact inventory Management Practices, but it is not significant (β = 0.058, p>0.05). This result not much supported the second hypothesis (H2) of the

study. Also regression coefficient of documentation toward the inventory management is 0.148 and significance value is 0.039. Those figures specify that there is a positive impact to the inventory management practices from documentation ($\beta = 0.0148$, $p<0.05$). Furthermore, the third hypothesis (H3) is supported with this result. That means if documentation of the SME's will affect to reduce inventory Management Practices. The regression coefficient of regarding the funding indicates that it has a positive impact on IM practices ($\beta = 0.339$, $p<0.05$). This result further supports the forth hypothesis (H4) of the study. According to above table, skills of the staff can be concluded as it has a moderate positive impact inventory Management Practices, but it is not significant ($\beta = 0.150$, $p>0.05$). This result not much supported the second hypothesis (H2) of the study.

4. CONCLUSION

The objective of this paper is to examine on factors affecting to the inventory management practices in Small and medium sized enterprises in Anuradhapura District. This study focused to the primary data and structured questioners to collect the required data. 100 Small and medium sized enterprises in Anuradhapura district are used as the sample of study. Researcher used Descriptive Analysis, Correlation analysis and Regression Analysis, as the analysis methods. In contrast to the findings in most prior studies on foreign countries, some of this study indicate that the Procurement procedure, Planning, Documentation, funding and skills of the staff are affected to the Inventory management Practices and prior studies.

This study is conducted to achieve for five research objectives. The first research objective understands whether procurement procedure influence to the inventory management practices. According to regression, procurement procedure is significantly influence to the inventory management and it represent positive relationship among variables. That's why procurement procedure goes up inventory management also goes up. The second research objective mentioned that whether planning influence to the inventory management practices. According to result, planning is influence to inventory management practices, but it's not significant impact.

The third research objective finalized whether documentation influence to the inventory management practices. Using analysed result concluded that documentation is significantly impact to the inventory management practices and it represent positive relationship among variable. Then it revealed that documentation is crucial in establishing effectiveness of inventory management practices, stock record provide the management with the information which is used to ensure accountability. Fourth research objective understand whether funding significantly impact to the inventory management practices.

According to results, funding also is significantly influence to the inventory management practices and there is a moderate positive relationship among these variable. It investigated that allocation of adequate fund to the inventory management is essential for maintain proper inventory level. Final research objective was to identify that does skills of staff significantly influence to the inventory management practices. According to results, skills of staff is positively influence to the inventory management but it's not significant.

Based on the findings made in this study, the following recommendations are suggested:

- Advanced planning, communication and strategies are needed.
- Practices must be made clear.
- Additional staff training and motivation is needed.

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