



THE EFFECTS OF INVENTORY MANAGEMENT ON THE PROFITABILITY OF THE SMALL BUSINESSES IN THE BANGLADESH

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ABSTRACT

No economy can survive without the development and growth of the small and medium size enterprises. For development of small size businesses, inventory management plays important role. In this study, the inventory management of small businesses in the Bangladesh is assessed. We tested the influence of the effect of inventory value on profitability of small businesses for a period of 10 years. The analysis is based on the regression analysis framework. The results show that there is positive and significant relationship between inventory management of small businesses and the profitability of small businesses in the selected areas of Pakistan. We conclude that for small businesses, effective inventory management is important for generating higher profitability.

Keywords: Inventory Management, Profitability, Small Businesses, Bangladesh

INTRODUCTION

For all type of organization, inventory management is very important. For businesses, it is necessary to control the purchased input, its storage, work in progress, and the final goods inventory. At one point, a business wants to maintain a large stock of inventory for not running in to problems such as out of stock. But on the other hand, a business wants to minimize the inventory because with large inventory, a lot of capital is tied up in the

business. Thus, we can say that inventory management is a challenging task since a business need to balance the conflicting demands.

Generally, inventory management involves identification of items based on their demand or requirements and setting the required size and order level. For large organizations, inventory management may involves setting up various locations for making sure the smooth functioning of the organizational activities. Effective inventory management can influence business profitability since it can improve the functioning of the organization and can reduce the amount of capital which is tied up in the inventory. With large inventory, there is also other risks such as fire or theft which can be reduced by decreasing the size of the inventory.

Objectives of the Study

In this study, the objective of the study is to test the effects of inventory management on business profitability in the context of small businesses.

LITERATURE REVIEW

Inventory is defined as the aggregate of those items of tangible personal asset of a firm which are held for sale in the day to day activities of the business and include raw material, work in progress, and the finished goods (Robert, 1998). The total balance is labelled as stock in hand or closing stock which is calculated after from storage, some new stock is issued to some department or some new stock is received (Lucey, 1992). Generally, inventory refers to the finished goods, work in progress, spare parts, and the raw material form. The benefit of effective inventory management is that it enable smooth functioning of an organization and organization don't find itself in problems such as out of stock options.

For organizations, the reasons for maintaining the large inventory include smooth functioning of the production process, taking advantage of the discount offered on purchasing large quantity, overcoming shortage problems in the marketplace, and fulfilling the anticipated demand. Other reasons for maintaining the inventory include speculative motive, precautionary motive, and the transactionary motive. Accordingly, the speculative motive is about making inventory decision for making profit from the market price fluctuations of the inventory. The precautionary motive is to avoid the risk of unpredictable changes in the demand and supply of the particular product for which the inventory is related. The transactionary motive is about maintaining the smooth transactions including the production and sales. If organization maintains good inventory management system, it will reduce the cost and this reduction of the cost will be transferred to the customers. On the other hand, if inventory management is poor, it will increase the cost and this cost has to be bear by the

customer or the business. Other experts also stressed on the organization to maintain inventory most efficiently in order to reduce the cost and its total value (Morris, 1995).

The Effects of Inventory Management on Small Businesses

Large organizations have a lot of finance and they can easily maintain and absorb cost related to the maintenance of large inventory. On the other hand, small businesses have limited resources and they need to maintain their inventory very efficiently. In small businesses context, maintaining less inventory can lead to decrease in profit due to the market price fluctuations and the changes in demand made by the customers. Mostly, small businesses rely on the stock or inventory purchased on credit which reduce some of the risks and improve the quantity of the stock maintained by the firm (Peel, Wilson, & Howorth, 2000). For small businesses, the focus is to improve the profitability by giving attention the market niche of the product and related inventories (Howorth & Westhead, 2003). Peel and Wilson (1996) instruct small businesses to develop a routine inventory management policy in order to maintain good inventory and maximize profit.

Previous studies also show that there is positive influence of inventory management on the business profitability. For example, study by Grablowsky (1976) shows that inventory management policy and practices leads to the improved businesses profitability. Study by Deakins (2001) also shows that those businesses which have efficient inventory management, perform better in terms of profitability compare to the businesses which have weak inventory management system. In small businesses context, Berry (2002) study showed that small businesses can enhance their profitability by giving greater attention to the inventory management. Study by Narasimhan and Murty (2001) showed that there is positive and significant relationship between a small business inventory management practice and profitability of a small business. One advice they provided to small business is that in for improving the inventory management, small businesses can purchase goods on longer account payable and sell on shorter account receivable terms and conditions. A study by Padachi (2006) showed that there is positive and significant influence of small businesses inventory management on their profitability. Finally, a study by Deloof (2003) showed that in small business context, inventory management positively leads to the business profitability.

RESEARCH METHODOLOGY

The methodology of the study is based on the primary data collected from businesses owners and managers who belonged to a smalls scale businesses located in the capital city of Dhaka,

Bangladesh. We collected data on two variables namely the inventory management and the business profitability. The data is analyzed using the regression analysis using the SPSS version 22. A total of 112 participants formed the study sample. The sampling of the study was based on convenience non-random sampling.

RESULTS

Demographic Details

Demographic details are provided below.

Table 1
Demographic Details

	Frequency
Gender	
Male	85
Female	27
Age	
18 to 30 Years	39
30 to 45 Years	43
45 to 60 Years	30

Gender wise, there were 85 males and the 27 female participated in our study. Age wise, there were 39 participants belonged to the 18 to 30 years of age; 43 participants belonged to the 30 to 45 years of age; and 30 participants belonged to the 45 to 60 years of age.

Regression Analysis

The results of the regression analysis is provided below.

Table 2
Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.886 ^a	.784	.776	4532.73328	1.998

The Rvalue indicate that our variables are 88.6% associated. The Rsquare value indicate that inventory management explains 78.4% change in the dependent variable of the profitability of the small businesses. The DW statistics is also close to 2 which shows that there is no problem of autocorrelation in our data.

Table 3
ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.3232	1	1.13693	252.323	.000 ^a
	Residual	1.5871	9	2.11393		
Total		3.9103	10			

The Fstatistics indicate that our model shows good fitness of the data as the Fstatistics is 252.323 which is greater than the minimum value of 4. Furthermore, the p value of the Fstatistics is also 0.000 which is less than 0.05 so it is highly significant.

Table 4
Coefficients

	Unstandardized Coefficients		t-value	Sig
	Beta Value	Std. Error		
Constant	1.2335	.8945	1.378	0.543
Inventory Management	2.3234	.4343	5.349	0.000

The coefficient table indicate that inventory management has positive and significant effects on the business profitability in the context of small businesses in the Dhaka, Bangladesh. The beta value indicate that as the small business improve the inventory management by one unit, there will be 2.3234 unit increase in the small business profitability. The t-value presented is 5.349 which is greater than the tabulated value of 1.96. The significance value is 0.000 which is less than 0.05. overall, these results shows that inventory management has positive and significant change on the profitability of small businesses in this local context.

Discussion of the Study

The objective of the study was to test the influence of the inventory management on the small businesses profitability in the context of the Bangladesh small businesses. The study used the survey method for data collection and collected data from 112 participants who were either owner or managers of small businesses. The results shows that there is positive and significant change of inventory management on small business profitability. These results are similar to the findings of other studies such as Deakins (2001). There are other studies which also found similar results for example, Berry (2002) which showed that profitability of the business is positively predicted by the inventory management. The study by Padachi (2006) also showed that there are positive and significant effects of inventory management on the small businesses profitability. The Study by Deloof (2003) also showed that there are positive and significant effects on the profitability by the inventory. Overall, our results are consistent with the findings of the other studies.

CONCLUSION AND RECOMMENDATIONS

The prime aim of the study was to test the influence of inventory management on the profitability of the small businesses. The data is collected from the 112 small business owner and the managers. The data is analyzed using the regression analysis framework. The results

of the study show that there are positive and significant effects of inventory management on the profitability of the small businesses. From these findings, we can conclude that for small businesses, inventory management is important. We can also conclude that a firm's inventory management practices can have significant influence on the profitability of the business.

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