

**A STUDY ON THE IMPACT OF INVENTORY MANAGEMENT ON PROFITABILITY
WITH REGARDS TO SHIVA LOGISTICS**

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Abstract

Inventory management is very important as it affects job performance and it will influence the Profitability of the company. Company's quality and profitability depends upon effective inventory management hence, determining the factors that help in the enhancement of quality and performance company to propel them to peak performance. The respondents of the study are the employees of the company "Shiva Logistics". In this survey, Quantitative survey was taken by using a Google Forms. The result of the study shows that there is significant association between the inventory management and the profitability of the company as $p = 0.001$ which is less than 0.05. This finding supports the hypothesis and so there is significant association between the inventory management and the profitability of the company. There is significant association between the inventory management and the profitability of the company. Once inventory is wisely managed, they turn out to render quality products, increase their performance and results in increase in profitability.

Key Words: Inventory, profitability, performance.

Introduction

No company can work efficiently without inventory management. This study aims at analyzing the relationship between inventory management and profitability with regards to shiva logistics. Inventory can be managed in a way that it should contribute something in return to the company in the name of profit. This study is formulated in such a way that it focuses first on the relationship between inventory management and profitability and it also analyzes the factors which affects the profitability which can be used for concluding the relationship between inventory management and profitability. This will also help the company to identify the main factor they should focus on in terms of profit.

Objectives of study:

Primary objectives

1. To study the relationship between inventory management and profitability with regards to Shiva Logistics.

Secondary objectives

1. To identify the factors affecting the Profitability of Shiva logistics.
2. To ascertain the complications faced by the company during Inventory management.
3. To find the relationship between Inventory management and profitability.
4. To enhance the improvements of Inventory management and its maintenance.

Review of literature

Budiharjo & Hadikurniawati (2020) used historical data to process data to be processed further. Both studies have similarities with the previous reference, which using the forecasting method in their research. This research aims to forecast future order demand which can be used to manage the inventory. This method is also believed to be an indicator to measure success in selling and offering the products that the companies researched. Candra (2019) conducted research about inventory problems resulting in overstocks on some goods and shortage of stock in other goods. The purpose of their research is to find available inventory space and to determine the maximum usable inventory. Another research from Nisa (2019) studied hospitals that had problems with expired drugs. Data processing requires several data such as demands, order cost, and storage cost in this study. She uses analyses of the ABC, EOQ, and ROP methods for data processing. This research aims to identify and

analyze drug grouping based on the ABC method, the optimum amount of drug ordering using the EOQ method, and the time of reordering medicine using the ROP method. Edwin Sitienei and Florence Memba(2015) Conducted a study on Effect of Inventory Management on profitability of Cement Manufacturing Companies in Kenya. The study concluded that Gross profit margin is negatively correlated with the inventory conversion period, increase in sales, which denotes the firm size enriches the firm's inventory levels, which pushes profits upwards due to optimal inventory levels. It is also noted that firms inventory systems must maintain an appropriate inventory levels to enhance profitability and reduce the inventory costs associated with holding excessive stock in warehouses.

Research design:

Descriptive research design: Qualitative data includes respondents' opinions and ideas. It is also applied in order to describe current conditions or to investigate relationships.

Sources of data:

- Primary Data – Questionnaire was given to 95 respondents
- Secondary Data – Websites and online journals, Published reports & Review of literature from published articles

Hypothesis:

H0: There is no significant association between the Inventory Management and the profitability in Shiva Logistics

H1: There is significant association between the Inventory Management and the profitability in Shiva Logistics

Tools for analysis:

Research questions are always answered with a descriptive statistic: generally, either a percentage or mean. The percentage is appropriate when it is important to know how many of the participants gave a particular answer. When the responses have discrete categories, percentage is reported.

Chi-square

A **chi-squared test** (symbolically represented as χ^2) is basically a data analysis on the basis of observations of a random set of variables. Usually, it is a comparison of two statistical data sets. This test was introduced by **Karl Pearson** in 1900 for [categorical data analysis and distribution](#). So, it was mentioned as **Pearson's chi-squared test**.

Percentage analysis

Table showing factors affecting profitability

Particulars	Percentage
Levels of competition	53%
Demand trends	53%
Level of advertisement	78%
Relative costs of operation	66%
Price discrimination	60%

Interpretation:

- From the above table it can be interpreted that 53% of respondents selected Levels of Competition as the factor which affects profitability of the firm.
- From the above table it can be interpreted that 53% of respondents selected Demand Trends as the factor which affects profitability of the firm.
- From the above table it can be interpreted that 78% of respondents selected Level of Advertisement as the factor which affects profitability of the firm.
- From the above table it can be interpreted that 66% of respondents selected Relative cost of operations as the factor which affects profitability of the firm.
- From the above table it can be interpreted that 60% of respondents selected Price Discrimination

as the factor which affects profitability of the firm.

Table showing complications faced by the company during inventory management

Particulars	SA		A		N		D	SD		
	NOS	%	NOS	%	NOS	%	NOS	%	NOS	%
Product Ordering system	10	11%	12	13%	10	11%	50	56%	8	9%
Shortage of supply of raw materials	10	11%	10	11%	30	33%	24	27%	16	18%
Rejection of products	8	9%	8	9%	12	13%	44	49%	18	20%
Delay in receiving the orders	2	2%	16	18%	22	24%	44	49%	6	7%
Wants of transportation	10	11%	38	42%	18	20%	14	16%	10	11%

Interpretation:

- 11% of respondents strongly agreed that Product Ordering System as the complication faced during inventory management
- 13% of respondents agreed Ordering System as the complication faced during inventory management
- 11% of respondents are in a neutral state that Ordering System as the complication faced during inventory management.
- 56% of respondents disagreed Ordering System as the complication faced during inventory management.
- 9% of respondents Strongly disagreed Ordering System as the complication faced during inventory management.
- 11% of respondents strongly agreed that Shortage in supply of raw materials as the complication faced during inventory management
- 11% of respondents agreed that Shortage in supply of raw materials as the complication faced during inventory management.
- 33% of respondents are in a neutral state that Shortage in supply of raw materials as the complication faced during inventory management
- 27 % of respondents disagreed that Shortage in supply of raw materials as the complication faced during inventory management
- 18 % of respondents Strongly disagreed that Shortage in supply of raw materials as the complication faced during inventory management
- 9 % of respondents Strongly agreed that rejection of products as the complication faced during inventory management
- 9 % of respondents agreed that rejection of products as the complication faced during inventory management
- 13 % of respondents are in a neutral state that rejection of products as the complication faced during inventory management
- 49% of respondents disagreed that rejection of products as the complication faced during inventory management
- 20 % of respondents Strongly disagreed that rejection of products as the complication faced during inventory management
- 2 % of respondents Strongly agreed that delay in receiving the orders as the complication faced

during inventory management

- 18 % of respondents agreed that delay in receiving the orders as the complication faced during inventory management
- 24% of respondents are in a neutral state that delay in receiving the orders as the complication faced during inventory management
- 49 % of respondents disagreed that delay in receiving the orders as the complication faced during inventory management
- 7% of respondents Strongly disagreed that delay in receiving the orders as the complication faced during inventory management
- 11 % of respondents Strongly agreed that wants of transportation as the complication faced during inventory management
- 42 % of respondents agreed that wants of transportation as the complication faced during inventory management.
- 20 % of respondents are in neutral state that wants of transportation as the complication faced during inventory management.
- 16 % of respondents disagreed that wants of transportation as the complication faced during inventory management.
- 11 % of respondents Strongly disagreed that wants of transportation as the complication faced during inventory management.

Statistical analysis

Chi-Square

H0: There is no significant association between the Inventory Management and the profitability in Shiva Logistics

H1: There is significant association between the Inventory Management and the profitability in Shiva Logistics

Table: association between inventory management and profitability of shiva logistics.

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	19.942 ^a	4	.001
Likelihood Ratio	15.124	4	.004
Linear-by-Linear Association	8.781	1	.003
N of Valid Cases	300		

a. 4 cells (40.0%) have expected count less than 5. The minimum expected count is 1.38.

Interpretation:

The result in the above table shows that there is significant association between the inventory management and profitability as $p = 0.001$ which is less than 0.05. **This finding supports the hypothesis and so there is significant association between the inventory management and profitability.**

Findings, suggestions and conclusion

- Majority (56 %) of the respondents are above 45 years of age.
- Majority (74%) of the respondents are Male.
- Majority (60%) of respondents opted want of transport as the problem faced frequently during inventory management.
- Majority 68 (76%) of respondents have agreed that the existing method of inventory is effective.
- Majority (60%) of the respondents have agreed that Inventory management facilitates shorter operating cycle.

- Majority (78%) of the respondents have selected Level of Advertisement as the main factor which affects the profitability.
- Majority (56%) of the respondents have stated that their company is efficient in managing the inventory.
- Majority (42%) of the respondents have chosen Want of Transportation as the complication faced by the company during inventory management.
- There is significant association between the inventory management and profitability of Shiva Logistics.

Suggestions & recommendations

- Establish clear inventory goals that align with the overall business strategy. This will help you track progress and ensure that your inventory management results in profitability.
- Invest in an inventory management system that can help you track inventory levels, automate ordering processes, and manage suppliers. This may result in reducing manual errors and save time.
- Use forecasting techniques to predict demand for products and plan inventory levels accordingly. This will result in avoiding, stockouts and overstocking and reduce the need for emergency orders.
- Train employees on inventory management, best practices and procedures. This will help to reduce human errors.

Limitations of study

- The study is confined to small scale industry only.
- Due to shortage of time and other constraints, the study has been limited to 90 respondents only.
- Lack of transparency is the main limitation to conduct this study.

Conclusion

Finding reveals that there is a positive relationship between materials handling and the profitability of the organization. I, therefore concluding that Inventory Management aids the profitability of an organization in a way that it facilitates a shorter operating cycle, reduces the handling costs, eliminates unproductive handling of materials, reduces idle time for labor, eliminates factory hazards, maintains quality of materials, enables optimum usage of space, facilitates better quality products and timely production. Therefore, for a company to ensure its profitability, it has to take deliberate measures to improve and standardize its Inventory management system through mechanization of this department.

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