

RETAIL STORE STOCK INVENTORY ANALYTICS

1. LITERATURE REVIEW:

i) Dave Piasecki (2001)

He focused on inventory model for calculating the optimal order quantity that used the Economic Order Quantity method. He points out that many companies are not using EOQ model because of poor results resulted from inaccurate data input. He says that EOQ is an accounting formula that determines the point at which the combination of order costs and inventory costs are the least. He highlights that EOQ method would not conflict with the JIT approach. He further elaborates the EOQ formula that includes the parameters such as annual usage in unit, order cost and carrying cost. Finally, he proposes several steps to follow in implementing the EOQ model. The limitation of this literature is that it does not elaborate further relationship between EOQ and JIT. It does not associate the inventory turns with the EOQ formula and fails to mention the profit gain with the quantity is calculated.

ii) Gaur, Fisher and Raman (2005)

In their study examined firm-level inventory behaviour among retailing companies. They took a sample of 311 public-listed retail firms for the years 1987–2000 to examine the relationship of inventory turnover with gross margin, capital intensity and sales surprise. They observed that inventory turnover for retailing firms was positively related to capital intensity and sales surprise while inversely associated with gross margins. They also suggested models that yield an alternative metric of inventory productivity,

adjusted inventory turnover that can be used in study of performance analysis and managerial decision-making.

iii) S. Singh (2006)

Analyzed the inventory control practices of single fertilizer company named IFFCO. He statistically examined the inventory system with consumption, sales and other variables along with growth of these variables and inventory patterns. He concluded that an increase in components of inventory lead to an increase in the proportion of inventory in current assets. A special focus was made on stores and spares in order to calculate excess purchases resulting in loss of profit.

iv) Pradeep singh (2008)

In his study made an attempt to examine the inventory and working capital management of Indian Farmers Fertilizer Co- operative Limited (IFFCO) and National Fertilizer Limited (NFL). He concluded that the overall position of the working capital of IFFCO and NFL is satisfactory. But there is a need for improvement in inventory in case of IFFCO. However inventory was not properly utilized and maintained by IFFCO during study period. The management of NFL must try to properly utilize the inventory and try to maintain the inventory as per the requirements. So that liquidity will not interrupt.

v) Capkun, Hameri and Weiss (2009)

Statistically analyzed the relationship between inventory performance and financial performance in manufacturing companies using the financial information of a large sample of US-based manufacturing firms over a 26-year period, that is, 1980 to 2005. They inferred that a significant relationship existed between inventory performance along with the performance of its components and profitability. Raw material inventory performance was highly correlated to gross profit and operating profit. Work in progress inventory was highly correlated to gross profit measures while finished goods inventory performance was more correlated with operating profit measures.

vi) Gaur and Bhattacharya (2011)

Attempted to study the link- age between the performance of the components of inventory such as raw material, work in progress and finished goods and financial performance of Indian manufacturing firms. The study revealed that finished goods inventory as inversely associated with business performance while raw material inventory and work in progress did not have much effect on same. They emphasized that instead of focusing on total inventory, an attempt should be made to concentrate on individual components of inventory so as to adequately manage the same. They concluded that managers not paying heed to inventory performance may become weak in combating competitors.

vii) Eneje et al (2012)

Investigated the effects of raw materials inventory management on the profitability of brewery firms in Nigeria using a cross sectional data from 1989 to 2008 which was gathered for the analysis from the annual reports of the sampled brewery firms. Measures of profitability were examined and related to proxies for raw materials inventory management by brewers. The Ordinary Least Squares (OLS) stated in the form of a multiple regression model was applied in the analysis. The study revealed that the local variable raw materials inventory management designed to capture the effect of efficient management of raw material inventory by a company on its profitability is significantly strong and positive and influences the profitability of the brewery firms in Nigeria. They concluded that efficient management of raw material inventory is a major factor to be contained with by Nigerian brewers in enhancing or boosting their profitability.

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profitability of the brewery firms in Nigeria. They concluded that efficient management of raw material inventory is a major factor to be contained with by Nigerian brewers in enhancing or boosting their profitability.

ix) Nyabwanga and Ojera (2012)

They Highlighted the association between inventory management practices and business performance of small- scale enterprises (SSEs), in Kisii Municipality, Kisii County, Kenya. They used a cross-sectional survey study based on a small sample size of 79 SSEs. The study inferred that inventory comprised the maximum portion of working capital, and improper management of working capital was one of the major reasons of SSE failures. The empirical results disclosed that a positive significant relationship existed between business performance and inventory management practices with inventory budgeting having the maximum influence on business performance ensued by shelf-space management. The study suggested that by following effective inventory management practices business performance can be enhanced.

x) Sahari, Tinggi and Kadri (2012)

Empirically analyzed the relationship between inventory management and firm performance along with capital intensity. For the purpose they took a sample of 82 construction firms in Malaysia for the period 2006–2010. Using the regression and correlation analysis methods, they deduced that inventory management is positively correlated with firm performance. In addition, the results indicate that there is a positive link between inventory management and capital intensity.

xi) Soni (2012)

Made an in depth study of practices followed in regard to inventory management in the engineering goods industry in Punjab. The analysis used a sample of 11 companies for a period five years, that is, 2004–2009 and was done using panel data set. The adequate and timely flow of inventory determines the success of an industry. She concluded that size of inventory enhanced marginally over the period as compared to a hike in current assets and net working capital. Inventories constituted half of the working capital which was due to over- stocking of inventory as a result of low inventory turnover especially for finished goods and raw materials. Rise in sales and favourable market conditions lead to a rise in inventory levels. It was also inferred that sales increased more as compared to inventory.

xii) Lwika et al (2013)

A survey conducted on all the eight (8) sugar manufacturing firms in Kenya established that there is generally positive co-r relation between each of inventory management practices. Specific performance indicators were proved to depend on the level of inventory management practices. They established that Return on Equity had a strong correlation with lean inventory system and strategic supplier partnerships. As such, they concluded that the performance of sugar firms could therefore be stated as being a function of their inventory management practices.

xiii) Panigrahi (2013)

Undertook an in-depth study of inventory management practices followed by Indian cement companies and its affect on working capital efficiency. The study also investigated the relationship between profitability and inventory conversion days. The study, using a sample of the top five cement companies of India over a period of 10 years from 2001 to 2010, concluded that a considerable inverse linear relationship existed between inventory conversion period and profitability.

xiv) Madishetti and Kibona (2013)

Found that a well designed and executed inventory management contributes positively to a small or medium-sized enterprises (SMEs) profitability. They studied the association between inventory conversion period and profitability and the impact of inventory management on SMEs profitability. They took a sample of 26 Tanzanian SMEs, and used the data from financial statements for the period 2006–2011. Regression analysis was adopted to determine the impact of inventory conversion period over gross operating profit. The results cleared out that significant negative linear relationship occurred between inventory conversion period and profitability.

xv) Srinivas Rao Kasisomayajula (2014)

An analytical study was conducted on "Inventory Management in Commercial Vehicle Industry In India". A sample of five companies' was selected for study. The study concluded that all the units in the commercial vehicle industry have significant relationship between Inventory and Sales. Proper management of inventory is important to maintain and improve the

health of an organization. Efficient management of inventories will improve the profitability of the organization.

xvi) 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.

2. REFERENCES

- i) Gaur, V., Fisher, M. & Raman, A. (2005).” An econometric analysis of inventory turnover performance in retail services”. *Management Science*, vol.5,iss.2, pp.181–194.
- ii) Pradeep Singh(2008),” Inventory and Working Capital Management- An Empirical Analysis”, *The ICFAI Journal of Accounting and Research*, Vol.VII, NO.2, pp.53-73.
- iii) Capkun, Vedran, Hameri, Ari-Pekka & Weiss, Lawrence A. (2009). On the relationship between inventory and financial performance in manufacturing. *International Journal of Operations & Production Management*, vol.29, iss.8, pp.789–806.
- iv) Gaur, Jighyasu & Bhattacharya, Sourabh. (2011). The relationship of financial and inventory performance of manufacturing firms in Indian context. *California Journal of Operations Management*, vol. 9, iss.2, pp.70–77.
- v) Krishnankutty, Raveesh. (2011). Panel data analysis on retail inventory productivity. *The Economic Research Guardian* 1(1),pp.16–23.
- vi) Eneje, B. C., Nweze, A .U. & Udeh, A. (2012). Effect of Efficient Inventory Management on Profitability: Evidence from Selected Brewery Firms in Nigeria. *International Journal of Current Research*, vol.4, iss.11, pp.350- 354.
- vii) Anichebe, N. A. & Agu, O. A. (2013). Effect of Inventory Management on Organizational Effectiveness. *Information and Knowledge Management*, vol.3,iss.8, pp. 92 – 100.

- viii) Srinivasa Rao Kasisomayajula (2014) “An Analytical Study on Inventory Management in Commercial Vehicle Industry in India”, International Journal of Engineering Research, Vol.3, Iss.6, pp.378-383.
- ix) Sanjiv Mittal, R.K. Mittal, Gagandeep Singh, Sunil Gupta (2014).”Inventory Management in Fertilizer Industry of India: An Empirical Analysis” Asia-Pacific Journal of Management Research and Innovation, vol.10,iss.4,pp. 291–303.
- x) Edwin Sitienei, Florence Memba (2015-16) “The Effect of Inventory Management on Profitability of Cement Manufacturing Companies in Kenya: A Case Study of Listed Cement Manufacturing Companies in Kenya” International Journal of Management and Commerce Innovations Vol. 3, Iss.2, pp. 111- 119.