

Ideation Phase Literature Survey

Date	14 OCT 2022
Team ID	PNT2022TMID06088
Project Name	Retail Store Stock Inventory Analytics
Maximum Marks	2 Marks

Introduction:

Organizations, and especially those performing activities in the retail sector, face multiple challenges in the planning and management of their resources. For this sector, having efficient management of human, technological, or material resources refers to the performance that companies characterized by the experience gained in their management could obtain over time.

To accomplish the goals described above, the study follows the Fink methodology . It consists of seven main tasks:

- (1) choosing research questions,
- (2) defining bibliographic or article databases,
- (3) selecting search terms,
- (4) applying practical screening criteria,
- (5) applying methodological screening criteria,
- (6) doing the review, and
- (7) synthesizing the results.

The results of the systematic literature review and current trends in inventory management for retail companies are reported and discussed

It is important to mention that all retailers may not be able to employ these technologies due to their high cost of implementation and maintenance. To all those retailers with limited resources, cheaper software is accessible that could help with the management of their inventory like bar codes or policies as EOQ, AUD, and IQD, which will allow optimizing their stock without making considerable investments

LITERATURE REVIEW:

Abramovitz and Modigliani (1957)

They highlighted the relationship between capacity utilization and inventory investment. Existing stock of inventories was expected to adjust to the desired levels. Thus the variable, existing stock of inventories, was essential to be negatively related with the desired stock. The result was that there is positive relation among the ratio of inventory to sales and inventory investment. High ratio of stocks to sales in the past suggests requirement of high levels of inventories in the past and promising high investment in inventories in the current period also.

Krishna Murthy (1964)

Study was aggregative and dealt with inventories in the private sector of Indian economy as a whole for the period 1948-61. This study used sales to represent demand for the product and suggested the importance of accelerator. Short term rate of interest had also been found to be significant

R.S. Chadda (1964)

Study had been made on inventory management practices of Indian companies. The analysis suggested application of modern scientific inventory control techniques like operations research. These modern scientific techniques furnish opportunities for the companies, Companies can minimize their investment in inventory but there is continuous flow of production. He argued that industrially advanced countries, like, USA, were engaged in developing highly sophisticated mathematical models and techniques for modernizing and redefining the existing tools of inventory investment.

National Council of Applied Economic Research (NCAER) (1966)

Conducted a study in 1966 regarding working capital management of three industries namely cement, fertilizer and sugar. This study mainly devoted to ratio analysis of composition, utilization and financing of working capital for the period of 1959 to 1963. The study reveals that inventory constituted a major portion of working capital i.e. 74.06 per cent in the sugar industry followed by cement industry (63.1%) and fertilizer industry (59.58%). It was observed that inventory had not managed properly. So far as the utilization of working capital was concerned, cement and fertilizer industry had better implementation of working capital. The sugar industry had huge accumulation of stocks so there was inefficient utilization of working capital heavily

Krishnamurty and Sastry (1970)

It is the most comprehensive study on manufacturers' inventories. They used the CMI data and the consolidated balance sheet data of public limited companies published by the RBI, in order to analyse each of the major components, like the raw materials, goods-in-process and finished goods, for 21 industries over the period ranging from 1946-62. The study was a time series one although there were some inter-industry cross-section analyses that were carried out in the analysis. The Accelerator represented by change in sales, bank finance and short-term interest rate was found to be an important determinant. The utilisation of productive capacity and price anticipations was also found to be relevant in the study.

REFERENCES:

- [1] R. Ishfaq, C. C. Delee, B. J. Gibson, y U. Raja, "Realignment of the physical distribution process in omni-channel fulfillment", *International Journal of Physical Distribution & Logistics Management*, vol. 46, núm. 6/7, pp.543–561, jul. 2016, doi: 10.1108/IJPDLM-02-2015-0032.
- [2] J. Kembro y A. Norrman, "Exploring trends, implications and challenges for logistics information systems in omni-channels: Swedish retailers' perception", *International Journal of Retail and Distribution Management*, vol.47, núm. 4, pp. 384–411, 2019, doi: 10.1108/IJRDM-07-2017-0141.
- [3] G. Hançerlioğulları, A. Şen, y E. A. Aktunç, "Demand uncertainty and inventory turnover performance: an empirical analysis of the US retail industry", *International Journal of Physical Distribution and Logistics Management*, vol. 46, núm. 6–7, pp. 681–708, 2016, doi: 10.1108/IJPDLM-12-2014-0303.
- [4] J. D. Sterman y G. Dogan, "'I'm not hoarding, i'm just stocking up before the hoarders get here.': Behavioral causes of phantom ordering in supply chains", *Journal of Operations Management*, vol. 39, pp. 6–22, 2015.
- [5] Y. Wang, S. W. Wallace, B. Shen, y T.-M. Choi, "Service supply chain management: A review of operational models", *European Journal of Operational Research*, vol. 247, núm. 3, pp. 685–698, 2015.