DATA ANALYTICS IN RETAIL STORE STOCK INVETORY ANALYTICS

LITERATURE SURVEY-1

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Inventory management for retail store:
A literature review and current trends

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ANALYZED DATA

In recent years, the correct management of inventories has become a fundamental pillar for achieving success in enterprises. Unfortunately, studies suggesting the investment and adoption of advanced inventory management and control systems are not easy to find. In this context, this article aims to analyze and present an extensive literature concerning inventory management, containing multiple definitions and fundamental concepts for the retail sector. A systematic literature review was carried out to determine the main trends and indicators of inventory management in Small and Medium-sized Enterprises (SMEs). This research covers five years, between 2015 and 2019, focusing specifically on the retail sector. The primary outcomes of this study are the leading inventory management systems and models, the Key Performance Indicators (KPIs) for their correct management, and the benefits and challenges for choosing or adopting an efficient inventor.

SURVEY-2

Inventory management for retail store:
RESEARCH METHODOLOGY

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ANALYZED DATA

Database Number of articles Relative percentage Emerald Insight 39 13% Science Direct 167 54% Scopus 99 32% Taylor and Francis 7 2% Total 312 100% The final sample articles consisted of 312 potentially relevant studies. The full text of each document was retrieved for detailed evaluation to discard those that did not fulfill the selection criteria with the inventory management and control topic in retail companies. To determine the article's contribution, the main sections, such as abstract, results, discussions, and conclusions, were analyzed in-depth (Step 5). As a result, 42 primary studies were subsequently selected for doing the review using the Atlas.ti software (Step 6). In each article, information extracted was the following: (1) demographics information (title, authors, journal name, country and year), and (2) information related to the study (enterprise activity, implementation sector, theoretical foundation). The data were collected thought suitable codes such as technology, inventory type, cost, stock type, order form, control method, reposition, information levels, planning, and policies. This information was used to construct code nets and to establish the main topics of this contribution. Finally, a quantitative (metadata analysis) and qualitative (content) analysis was performed .

SURVEY-3

Inventory management for retail store:

Content Analysis

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ANALYZED DATA

Actual inventory and its relationship with the company's information system. A retail store must have the same data in all its records, that is, the data that has been recorded in the information system must be the same data that is physically held [13]. This is considered necessary due to continuous inconsistencies that exist between the physical inventory record and the inventory that appears in the system, incurring operational consequences [14]. Furthermore, this inaccuracy of inventory registration causes an increase in the number of shortages [15] and damages the operating performance and the reputation of the retailer with consumers [16], which could be improved by providing inventory information to the customer. In this way, the level of quality of service received by the customer can be projected and, in turn, the existence of the product is ensured [17]. Another benefit of maintaining an inventory information system is to know how much physical inventory the company has and how much stock was diverted from the records [15]. Ultimately, a retail store has monetary losses as a direct result of the difference between the information recorded on actual inventory and the record in the company's information system.
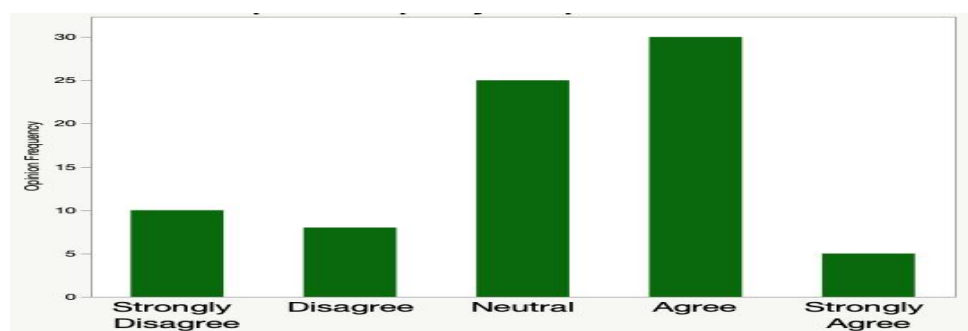
SURVEY-4

Inventory management for retail store:

Metadata Analysis

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ANALYZED DATA

Based on the literature review, several results were obtained with the codes used. Within these codes are demographic data, such as year and country. In the results obtained between the years 2015 and 2019, it can be seen that studies have been increasingly carried out in such a way that in Fig 1, it is observed that 34.21% of the investigations were published during the year 2018 and 15.79% during the years 2015, 2016, and 2019.It is worth mentioning that during 2019 there is a reduction in publications since not all publications are covered due to the period in which this study is carried out. Also, in Fig 2, it is observed that 23.68% of studies were performed in the United States, being the year 2018 in which the majority of publications were made in this country, 18.42% in the United Kingdom, and 15.79% in the Netherlands. Finally, countries with less number of reported studies are China, Hong Kong, India, Poland, Singapore, Switzerland, Taiwan, Vienna, and France, all with a contribution of 2.63%.

SURVEY-5

Inventory management for retail store: Product reordering or replenishment

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In the retail environment, preventing the loss of sales opportunities requires the accurate and timely replacement of products to customers [25]. A periodic replenishment policy is essential, which is based in the variation of the levels of services and costs under the specific policies established [26]. Failing to perform a timely replenishment, the products are considered depleted. It is possible to have inventory in the backroom and still have an empty shelf, thus causing a loss of sale [27]. Finally, it is essential to emphasize that the total cost of a product may increase due to short delays in its replacement [23].

Poor service level results from having inadequate inventory control parameters [28]. A higher level of service is obtained if there is a decrease in the level of unsatisfied demand and if the levels of the finished product at the beginning of a period increase [19]. The level of inventory service for seasonal products should be kept high for basic clothing fashion retail companies. Conversely, the fashion manufacturer can reap benefits by improving its profit level if the inventory service level target is low. Also, it is best to maintain a low inventory service level on certain products in the luxury fashion market as it projects product exclusivity.

SURVEY-6

Retail store Management: Concept and Objectives

AUTHOR

Artical by Siddharth sai : 2020

ANALYZED DATA

Marketing management is that specialized branch of general management, which has developed with a view to providing maximum consumer satisfaction and ensuring maximum enterprise profitability; through- planning, organizing, directing and controlling the marketing activities and designing the entire organizational functioning with a marketing orientation.

OBJECTIVES OF MARKETING MANAGEMENT

Basic Objective
(Maximising consumer satisfaction)

Auxiliary Objectives
(i) Creation of demand
(ii) Maximising market share
(iii) Building goodwill
(iv) Survival & growth amidst intense competition
(v) Conducting marketing research
(vi) Development of Marketing Mix.

Societal Objectives
(i) Best Utilisation of nation's precious resources
(ii) Undertaking quality production at reasonable prices.
(iii) Minimising cost of distribution.
(iv) Avoiding unfair trade practices.
(v) Emphasis on after-sales service

SURVEY-7

Retail store Management: - Sales Data, and Inventory Balance

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ANALYZED DATA

Marketing management is that specialized branch of general management, which has developed with a view to providing maximum consumer satisfaction and ensuring maximum enterprise profitability; through- planning, organizing, directing and controlling the marketing activities and designing the entire organizational functioning with a marketing orientation.

Retailers suffer from product misplacement problems; the reason could be that the product is sent to wrong storage shelves [32]. Having lost articles gives the possibility of lost sales because the products are misplaced [25]. The concurrence of lost items is one of the causes of inventory inaccuracy [33]. Other reasons that affect the registration of inventories are the incorrect scanning of products at the time of payment .

SURVEY-8

Retail store Management:

Systems, methodologies, and tools focused on inventory records and localization.

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ANALYZED DATA

In this group, bar code and Radio Frequency Identification (RFID) were identified. Unlike price labels where the checkout employees have a chance to validate the cost with the product, bar codes are not commonly used to control the product-specification created out of the bar code scan with the existent product.

To evade ticket switching, it is required the integration of the product weight next to its cost and additional data in the payment method. In addition, the staff is needed at the checkout counter to scan the product's bar code and position the product on the machine in order to measure its weight. If the product weight is considered into the outlet protocol, an alert can be triggered by any relevant deviation in existent and measured weight.

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