RETAIL STOCK INVENTORY ANALYTICS

LITERATURE SURVEY

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THE INFLUENCE OF DATA ANALYTICS IN RETAIL INVENTORY STORE ANALYSIS .

1.International Journal of Production Economics

145(1):78-87

September 2013

DOI: 10.1016/j.ijpe.2012.10.002

Author: Mario Pena /University of Cuenca

Citation:

Macas, Cinthya & Aguirre, Jorge & Arcentales-Carrion, Rodrigo & Pena, Mario. (2021). Inventory management for retail companies: A literature review and current trends. 71-78. 10.1109/ICI2ST51859.2021.00018.

Data Analytics, as a capability has been everything it takes to change the face of inventory optimization and retail as a whole.

Inventory analytics refers to tracking metrics that gauge the movement and performance of your physical products. The ongoing assessment and evaluation of inventory provides the insights. Nowadays, 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. Therefore, the correct inventory management has become essential, especially in organizations.

2. Management of Multi-Item Retail Inventory Systems with Demand Substitution

Operations Research

48(1):50-64

February 2000

DOI:10.1287/opre.48.1.50.12443

Authors: Stephen A. Smith

Citation:

Smith, Stephen & Agrawal, Narendra. (2000). Management of Multi-Item Retail Inventory Systems with Demand Substitution. Operations Research. 48. 50-64. 10.1287/opre.48.1.50.12443.

This paper presents the problem of determining the optimal capacity of a storage system with respect to some specified criteria. It assumes that the storage system is subject to an input X and a release Y {1} at least one of which is a random variable following a known distribution function, so that the storage function Z is a stochastic process. The optimal capacity over a time horizon (0, T) is determined by maximizing the expected profit.

3. Stocking Retail Assortments Under Dynamic Consumer Substitution

Operations Research

49(3):334-351

June 2001

DOI:10.1287/opre.49.3.334.11210

Presented by Felipe Caro 15.764 Seminar: Theory of OM April 15th, 2004

Authors: Siddharth Mahajan

Citation:

Mahajan, Siddharth & van Ryzin, Garrett. (2001). Stocking Retail Assortments under Dynamic Consumer Substitution. Operations Research. 49. 334-351. 10.1287/opre.49.3.334.11210.

Retail consumers might substitute if their initial choice is out of stock.
Retailer’s inventory decisions should account for substitution effect
Consumers' final choice depends on what he/she sees available “on the shelf”.
In most previous models demand is independent of inventory levels.
Contribution of this paper: – Determination of initial inventory levels (single period) taking into account dynamic substitution effects