# LITREATURE SURVEY

## RETAIL STORE STOCK INVENTORY ANALYTICS

#### **ABSTRACT**

Retail stores are facing problems like discrepancies, damages, pilferages and delay time in the inventory storage in all the sectors of store owing to lack of proper stacking. This paper is mainly emphasis to improve productivity of inventory management in toy section in retail stores. And the paper also recommends strategy for both productivity and profitability in toys section. This can be solved and prevented in the future by recommended changes in the SOP. The wastage and loss can be eliminated by this process. We have mainly used structured survey questionnaire and personnel interview for this study

#### INTRODUCTION

Inventory refers to the goods stocked for future use. Every retail chain has its own warehouse to stock the merchandise to be used when the existing stock replenishes. The retailer keeps a track of the stocked goods and makes sure there is surplus inventory to avoid being "out of stock". Such a process is called as inventory management. A day has gone when clients had restricted alternatives for shopping. In the present situation, if a customer does not locate the sought stock at one retail shop, he has a second brand to depend on. A retailer can't stand to free even a solitary customer. It is truly essential for the retailer to hold his current customer and in addition pull in potential purchasers. The retailer must guarantee that each customer leaves his store with a grin. Inaccessibility of stock, void racks leave a negative impact on the clients and they are hesitant to visit the store in not so distant future. Inventory management prevents such situations. This paper is to show the discrepancies, damages and pilferages happening in the products and its operations and to recommend possible ways to overcome it.

The toys section is taken as an example for this paper and the research is carried out in Central Mall Bangalore, India. The objective of the paper is to increase the profitability of toys category by means of reduction in shrinkage rate from vendor to customer. The damage and pilferage contribution in a retail store in general is 15% of shrinkage and thus reduction of shrinkage is of paramount importance to improve profitability. This paper is limited to toys only and the warehouse management is not covered. The pilferages could not be tracked and solved. The storage and handling procedures in the vendor warehouse is not analyzed. There was a time constraint in studying the benchmarking processes and competitive studies.

#### LITERATURE REVIEW

"Inventory" means physical stock of goods, which is kept in hands for smooth and efficient running of future affairs of an organization at the minimum cost of funds blocked in inventories. The fundamental reason for carrying inventory is that it is physically impossible and economically impractical for each stock item to arrive exactly where it is needed, exactly when it is needed. Inventory management is the integrated functioning of an organization dealing with supply of materials and allied activities in order to achieve the maximum co-ordination and optimum expenditure on materials. Inventory control is the most important function of inventory management and it forms the nerve center in any inventory management organization. An Inventory Management System is an essential element in an organization. It is comprised of a series of processes, which provide an assessment of the organization's inventory.

Inventory management is defined as a science based art of ensuring that just enough inventory stock is held by an organization to meet demand [1], [2]. Inventory management refers to all the activities involved in developing and managing the inventory levels of raw materials, semifinished materials (working-progress) and finished good so that adequate supplies are available and the costs of over or under stocks are low [4]. Inventory record inaccuracy refers to the discrepancy between physical and recorded inventory levels, and is a pervasive problem in retailing and it causes loss to the company [5]. Inventory record inaccuracy can be attributed to shrinkage (e.g., spoilage and theft), transaction errors, and misplacement. Because it is difficult to fully eliminate these execution errors, IRI becomes a norm rather than an anomaly in the retail sector [6]. Inventory control is vitally important to almost every type of business, whether product or service oriented. Inventory control touches almost every facet of operations. A proper balance must be struck to maintain proper inventory with the minimum financial impact on the customer. Inventory control is the activities that maintain stock keeping items at desired levels. In manufacturing since the focus is on physical product, inventory control focus on material control. Inventory control is the supervision of the storage, supply and accessibility of items to ensure an adequate supply without excessive oversupply [3].

The lean principles and techniques can be successfully applied in the retail sector. In the retail sector, lean approach improves operational flows. The concept of lean retailing is to give quick response to fluctuations in demand rather than holding large stocks. Lean retail enables faster movement of goods from suppliers to sales locations. The application of lean principles, Radio Frequency Identifier (RFID) technology and inventory management at the level of individual items significantly contributes to creating value for customers and retailers [7]. The foremost objective of inventory management and control is to inform managers how much of a good to re-order, when to reorder the good, how frequently orders should be placed and what the appropriate safety stock is, for minimizing stock-outs. The EOQ (Economic Order Quantity) has been previously defined as the ordering quantities which minimizes the balance of cost between inventory holding costs and re-order costs.

### **CONCLUSION**

This paper deals with improving productivity and profitability by improvising the inventory management of toys. The analysis is carried out in the zone three (floor and back store room). The Mera Toy brand contributes to the maximum damage and also package damage is the most. In fresh stock store room the damage happens mainly due to abnormal carton stacking and multiple removals each time due to lack of access aisle and packing list. For battery operated products there is no inspection point in the warehouse to check for internal damage. Hence, root cause for product damage in battery operated products cannot be determined. The documentation of products in fresh stock store room is not happening. This results in removal of all fresh stock in excess store room increasing the damage in handling.

#### REFERENCES

- [1] Coleman, B. Determining the Correct Service Level Target. Production and Inventory Management Journal, 41(1):169-176, 2000.
- [2] Jay, H., & Barry, R., Principles of Operations Management. 6th Edition. New Jersey; Pearson Prentice Hall, Eduation Inc, 2006.
  - [3] Miller, R, Inventors Control: Theory and Practice. New Jersey: Prentice Hall, 2000.
  - [4] Kotler, P., Marketing Management. 2nd Edition. New Delhi: Prentice Hill, 2002.
- [5] Howard Hao-Chun Chuang and Rogelio Oliva Inventory record inaccuracy: Causes and labor effects, Journal of Operations Management, available at http://www.researchgate.net/publication/280614462\_Inventory\_record\_inaccuracy\_Causes\_and\_labor\_effects, 2015.
- [6] K"ok, A.G., Shang K. Inspection and replenishment policies for systems with inventory record inaccuracy. Manufacturing Service Oper. Management. 9(2) 185-205, 2007.
- [7] Hardgrave, Bill C., Goyal , Sandeep , Aloysiu, John, Improving inventory management in the retail store: The effectiveness of RFID tagging across product categories, Operation Management Research, 4(1), 6-13 available at www.researchgate.net/publication/225735580\_Improving\_inventory\_management\_in\_the\_retail\_store\_The\_effectiveness\_of\_RFID\_tagging\_across\_product\_categories, 2011.