

Enhancing the Efficiency of Inventory Management in FMCG Industry

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1. Introduction

The decision on how much inventory to keep in hand can be identified as one of the key decisions to make in manufacturing, retail and many production industries in various businesses [1]. Basically, inventory is one of the most important items of current assets of an organisation, which permits smooth process of operation, production and sales process [2]. As such, proper management of inventory level is essential, since it leads to reduce the total inventory cost which constitutes a significantly high portion of the total logistics cost [3].

Inventory management is particularly important in the Fast Moving Consumer Goods (FMCG) sector, as the manager's target would be to reduce the logistics cost due to the shorter shelf life time and lower profit margins associated with the sector. According to the research, maintaining appropriate stock level refers to the proper management of the inventory of the company, and it can be identified as one of the most critical factors when it comes to FMCG industry. Hence this research will focus on how to enhance the efficiency of inventory management in FMCG industry.

2. Research Objective

As discussed earlier, inventory management becomes a key factor in most of the businesses. Especially when it comes to FMCG sector, firms cannot even think of a successful business without proper management of inventory.

This study aims to answer two main research problems:

- What are the factors that affect the efficiency of inventory management in FMCG sector?
- How to enhance the efficiency of inventory management with respect to FMCG sector?

3. Research Methodology

This study was carried out in two phases using a mixed research approach, where a qualitative approach was followed by a quantitative approach. The first phase uses a qualitative approach where a comprehensive literature analysis was carried out using around 50 journal papers to identify the factors that impact on the efficiency of inventory management in FMCG industry. This analysis identifies 36 factors that effect on the performance of the FMCG sector around the world. Based on the results, a questionnaire was developed to identify the factors that affect the inventory management and the performance of the FMCG industry.

Based on the factors identified from phase 1, a questionnaire was developed and a survey was carried out. The following hypothesis was formulated to identify the significance of all factors identified through existing literature:

- *H_x - The factor affects to the efficiency of inventory management in FMCG industry*

Data were collected from both local and international companies who are involved in the FMCG sector to identify the gap on the strategies implemented. The survey was carried out using an online questionnaire, which distributed to the potential participants via email. Data were collected from respondents who were actually involved in inventory management operations in FMCG sector. Questionnaires were distributed to 75 FMCG companies around the world, and only 35 companies responded back, so that the response rate was 74.5%. These companies were selected from small scale to large scale operations which handled different volumes per day. The scale of the company was decided by considering the number of employees in the company. This was carried out to ensure fair distribution of data in order to avoid their biasness and to increase their reliability.

4. Analysis

The analysis was carried out using SPSS statistics software. Chi-square testing was used to identify the importance of factors and their level of impact on the performance of the FMCG industry in Sri Lanka. The research statistically proves that pre-identified factors such as collaboration, information sharing, accuracy of information, use of modern technology in warehousing has a strong relationship with the efficient management of inventory in FMCG industry in Sri Lanka. However, according to the analysis it was observed that the factors that are related to quality standards have a very low impact on the inventory performance in FMCG industry in Sri Lanka, whereas it is significantly important in inventory management in international companies in the sector.

Furthermore, the analysis shows that several inventory control methods and strategies such as Vendor Managed Inventory (VMI) system, advanced demand planning methods, maintaining perpetual inventory system, vertical integration, frequent reviews and SKU rationalisation, are now widely used in view of enhancing the efficiency.

Moreover, the study provides a better understanding of the difference between the inventory management strategies and policies between local and international companies in the FMCG industry. Based on the analysis it was observed that local firms still rely heavily on traditional inventory control methods whereas the international firms have shifted toward external integration with suppliers and distribution network to achieve better supply chain performance through efficient inventory management systems. According to the analysis, international FMCG companies mainly focus on full vertical integration to capture the maximum benefits whereas local firms mostly focus on basic strategies such as information sharing (but not real time) and arm's length collaborations.

5. Discussion and Conclusion

In conclusion, this research recommends to improve the local FMCG industry by adopting appropriate strategies that are implemented by the international FMCG inventory management industry, such as:

- The use of much more granular stock management system, which means, instead of using simplistic methods to determine stock levels such as simple SKU segmentation approaches, the usage of more attributes associated with each SKU to create a much larger number of item classes such as lead times, supply and demand variability, consumption patterns, etc.
- Use of sales, inventory and operations planning (SI&OP) instead of sales and operations planning (S&OP). Addition of the specific inventory decisions into the S&OP plan leads to decisions being made on target inventory levels, necessary to support the demand and supply plans.
- Use of distributed order management tools (DOM) to reduce the complexity. These DOM solutions can improve inventory levels in multi-channel environments.

The outcome of this research provides insights into industry partners of the FMCG industry to enhance the efficiency of their operations in inventory management and to improve their overall business performance.

References

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