

INVENTORY CONTROL MANAGEMENT IN LIQUOR INDUSTRIES IN INDIA: A CASE STUDY OF WEST BENGAL

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ABSTRACT

India is one of the fastest growing alcohol markets in the world and the largest consumer of whiskey, which accounts for almost 80 per cent of the entire liquor market. Owing to India's affinity for hard liquor, the size of whiskey market, currently worth around Rs 40,500 crore, is expected to cross the Rs 54,000 crore-mark within the next two years. The Indian liquor market, which is divided into various categories like IMFL (Indian-made foreign liquor), imported liquor, domestic liquor and country-made liquor, is brimming with growth. Of late, consumers have developed a fondness for imported liquor and the market is crowded with foreign brands. The liquor industry is a major source of excise revenue for all States in India. In fact, it is the second largest revenue contributor for many States after sales tax. Consumption of alcohol has increased in India in the recent decades. This Paper is a modest attempt to give blueprint of my Research study that is Inventory Control Management in Liquor Industries in India West Bengal, India.

INTRODUCTION

Research suggests that 50% of liquor consumption in India is unrecorded, however, with state & central governments cracking down on illicit liquor, this is expected to decrease significantly. IMFL is the largest segments, though it is growing at a much lower rate 8 % as compared to IMFL 16%. Clear bifurcation in the target segments of IMIL and IMFL; IMFL serves the lower- income group while IMFL caters to the affluent class. The IMFL market is highly concentrated with companies having a pan —India presence. Top 5 companies account for 70 % of the market.

In contrast, IMIL market is regionalized and fragmented due to high state entry barriers requiring presence of a distillery in the state. The overall liquor consumption in India is growing at a compound annual growth rate (CAGR) of about 30 per cent and is likely to reach 20,000 million liter in the next three years, from the current level of 7,000 million liter. This is revealed in a study titled 'India's emerging imported spirits market,' released by the Associated Chambers of Commerce and Industry of India (Assocham).

Besides, in terms of revenue, the alcoholic beverage market is currently estimated at about Rs 52,000 crore and is likely to reach Rs 2 lakh crore during the course of the next three years.

The Ultimate purpose of running a for-profit organization is to maximize the profit for shareholders. In other word, all organization are trying to increase their revenue and reduce cost at the same time. Inventory is the largest single investment in assets for most manufacturing, wholesalers and retailers. As such the associated cost

of carrying inventory represents a significant portion of the costs of running most business. Reducing inventory levels and therefore cost associated with carrying inventory contributing to increasing profit within an organization in achieving economies of scale, balancing demand and supply, as protection against uncertainty, and as a buffer throughout the supply chain. As a result, it is critical to inventory at appropriate levels in order to pursue the greatest profit for the organization.

Cycle stock and safety stock accounts for the major part of inventory. Cycle Stock can be controlled by managing order frequency. However, the safety stock level varies significantly depending on a range of differing uncertainties. In reality, the uncertainties associated with demand cause management to consider the trade-off between inventory carrying cost and stock out costs. Considering the push-pull view of supply chain management, the first step for manager to take into accounts is customer demand in both scenarios. Improvements in demand forecasting can reduce uncertainties and therefore enable an organization to control safety stock level more proficiently.

I have observed that the inventory management is the main issue for Liquor industries in East Zone due to high value of inventory, high seasonality of demand, and long lead time for its supplier to deliver the goods, it is vital for company to plan and manage its inventory at optimal levels in order to achieve its overall goal—Maximizing company profit. So I am planning to research for proper control process on Inventory Management to achieve optimum level of Inventory.

The aim of this research thesis is a study of how inventory level are controlled in liquor industries through inventory planning strategies, Material requirements planning (MRP), 'Manufacturing Resource Planning - MRP II', Customer relationship management (CRM) & improved demand forecasting accuracy.

This thesis will explore how combining statistical demand forecasting method and casual forecasting method with judgmental forecasts via a sales and operation planning process can improve inventory control through improving inventory replacement strategies within an Indian alcoholic beverage importer and distributor. The implementation of a sales and operation Planning process has enabled the company to involve all necessary function of the company in the demand forecasting and requirement planning process and in this way improve the balance of Inventory between demand and supply.

The legal drinking age in India and the laws which regulate the sale and consumption of alcohol vary significantly from state to state. In India, consumption of alcohol is prohibited in the states of Gujarat, Bihar, Manipur and Nagaland as well as the union territory of Lakshadweep. All other Indian states permit alcohol consumption but fix a legal drinking age, which ranges at different ages per region. In some states, the legal drinking age can be different for different types of alcoholic beverage.

In spite of legal restrictions, alcohol consumption in India has risen over 55% over a period of 20 years (according to OECD figures).

The purpose of this research is to describe how the appropriate utilization of a periodic inventory review process, combined with systematic and casual forecasting method, can significantly improve inventory management within a business which operates in the alcoholic beverage industries in India while its supply is considered as less flexible but relatively certain.

TOP 5 LIQUOR COMPANIES IN WEST BENGAL

United Spirits Limited

USL is the leading players in the liquor industry and is not only the best in India but it is known as one of the best in the world. With more than 140 brands of liquors, the company is known globally for McDowell's No.1, Royal Challenge, Black Dog, and Signature Antiquity. The company has 59% market share.

Radico Khaitan

One of the oldest and largest liquor manufacturers of India, Radico Khaitan used to be known as Rampur Distillery. It was established in 1943 and in the year 1999, the company had decided to launch and market its own brands.

Som Distilleries and Breweries Ltd.

SDPL was started by Mr. J K Arora and Som Distilleries Pvt Ltd in the year 1994. The company does brewing, fermentation, bottling, canning and blending of beer and Indian made Foreign Liquor. The beer is sold under the brand names Hunter, Woodpecker, Power, Legend. The various IMFL brands are Legend Premium Whisky, Sunny Malt Whiskey, and Gypsy Fine Whiskey. Run is sold under the flagship of Black Fort and Gin is sold under the brand Blue Chip.

Globus Spirits

The company started its journey in the year 1992 and has become one of the leading players of Indian Liquor Industry. The important segments of the company are Indian Made Indian Liquor, Indian Made Foreign Liquor, IMFL bottling and bulk alcohol.

Allied Blenders and Distillers Pvt. Ltd.

Allied Blenders and Distillers Pvt. Ltd. produces and sells alcoholic beverages. It offers whisky, vodka, rum, brandy, and beers and strong beers. The company also provides snacks, such as wafers and sticks. It sells its products in India and internationally. Allied Blenders and Distillers Pvt. Ltd. was formerly known as BDA Limited. The company was founded in 1986 and is based in Mumbai, India. It has sales offices in Gurgaon, Chandigarh, Ludhiana, Jaipur, Dehradun, Kolkata, Guwahati, Bhubaneswar, Patna, Hyderabad, Bangalore, Chennai, Mumbai, and Bhopal, India.

INVENTORY MANAGEMENT

The overseeing and controlling of the ordering, storage and use of components that a company will use in the production of the items it will sell as well as the overseeing and controlling of quantities of finished products for sale. A business's inventory is one of its major assets and represents an investment that is tied up until the item is sold or used in the production of an item that is sold. It also costs money to store, track and insure inventory. Inventories that are mismanaged can create significant financial problems for a business, whether the mismanagement results in an inventory glut or an inventory shortage.

Successful inventory management involves creating a purchasing plan that will ensure that items are available when they are needed (but that neither too much nor too little is purchased) and keeping track of existing inventory and its use. Two common inventory-management strategies are the just-in-time method, where companies plan to receive items as they are needed rather than maintaining high inventory levels, and materials requirement planning, which schedules material deliveries based on sales forecasts.

Finally, inventory management has to do with keeping accurate records of finished goods that are ready for shipment. This often means posting the production of newly completed goods to the inventory totals as well as subtracting the most recent shipments of finished goods to buyers. When the company has a return policy in

place, there is usually a sub-category contained in the finished goods inventory to account for any returned goods that are reclassified as refurbished or second grade quality. Accurately maintaining figures on the finished goods inventory makes it possible to quickly convey information to sales personnel as to what is available and ready for shipment at any given time.

In addition to maintaining control of the volume and movement of various inventories, inventory management also makes it possible to prepare accurate records that are used for accessing any taxes due on each inventory type. Without precise data regarding unit volumes within each phase of the overall operation, the company cannot accurately calculate the tax amounts. This could lead to underpaying the taxes due and possibly incurring stiff penalties in the event of an independent audit.

It is necessary to understand the role and important of inventory in the supply chain before making any decision of what an optimized inventory level might be.

Inventory plays an important role in four aspects of most business. First of all inventory enables the business to achieve economies of scale. It allows economy of scale in single facility and permit each process to operate at maximum efficiency rather than being constrained by limited recourse of inventory.

REVIEW OF LITERATURE

Inventory Management is a crucial aspect of managing a company successfully. Inventory is a vital part of current assets mainly in manufacturing concerns. Huge funds are committed to inventories as to ensure smooth flow of production to meet consumer demand. Maintaining Inventory also involves holding or carrying costs along with opportunity cost, An efficient inventory management ensures continuous production by maintaining inventory at a satisfactory level. It also minimizes capital investment and cost of inventory by avoiding stock-pile of product. Efficient and Effective Inventory Management goes a long way in successful running and survival of business firm.

The inventory is not managed properly in Liquor Industries located in West Bengal due to the following reasons so we are trying to find out solution to this problem through this research:

It is observed that there is gap in sales forecasting and actual sales of liquors by liquors industries located in west Bengal. There is deviation of 30 % to 40 %.

Kalpana, P., and A. Kaur. (2013) had investigated “Ordering decisions of single period split order supply chain with various demand distributions in West Bengal region and found that two-echelon supply chain (SC) trading short life-cycle products whose production/delivery lead-times are longer than the selling season.

Gunasekaran, A., Kobu, B.(1995—2004), had studied the “ Performance measures and metrics in logistics and supply chain Management in west Bengal A review of recent literature for research and applications”, Cash to cash cycle time and inventory turns have been recognized as very significant methods of performance measurements of supply chain. In Alcohol industry these are one of the most significant measures of measuring the supply chain as the industry is very much dependent upon the inventory turnover.

Ravi Roy(2005), had studied the controlling inventory by improving demand forecasting within the Alcoholic Beverage Industry. This studied explores how combing statistical demand forecasting method with Judgmental forecasts via a sales and operation planning process can improve inventory control throught improving inventory replenishment strategies within an alcohol beverage importer and distributor.

Jennifer Jean Bergman had studied (2014) on ‘A BAYESIAN APPROACH TO DEMAND FORECASTING’ evaluating true fill rate performance in comparative studies, which was done using a supply chain simulation.

Krishnanand (2014) had studied on 'Investigating Supply Chain Metrics of Alcohol and Liquor Industries' each firm's has had different performance level in implementing those supply chain management practices and metrics. In addition, the result revealed that, one supply chain practice is implemented better than the other in the selected alcohol and liquor firms.

STATEMENT OF RESEARCH PROBLEM

Improving inventory levels is not only about reducing inventory, but also maintaining inventory of each SKU at an appropriate level in order to balance demand and supply. Thus the target inventory levels will be achieved by improving demand forecast accuracy. The following problems will therefore be explored within this research and thesis:

1. How should the optimized inventory level to be determined in alcohol industries?
2. What is the relationship between inventory levels and a demand forecast in alcohol industries?
3. How can be demand forecast be improved through applying systematic computer forecasting applications in alcohol industries?
4. How can a demand forecast be improved further by enhancing communication within the organization through implementation of a sales and operations planning(S& OP) process?
5. How does the improved demand forecast translate to an optimized inventory Level in alcohol industries?

PURPOSE AND NEED OF STUDY

The purpose of this study is to evaluate methods of improving inventory levels within a marketing and distribution company in the alcoholic beverage industry by improving demand forecast accuracy. The below key areas are concentrated on during this study:

The relationship between inventory level and ordering cycle. How to determine the optimal inventory level.

The relationship between inventory level and demand forecast with the use of mathematic tools.

Implementation steps critical to successful use of sales and operations planning within the business.

The initial impact (6 Month) on inventory level and associated financial results through the combined use of tools and market intelligence.

The midterm impact (12 Month) on inventory level and associated financial results through the combined use of tools and market intelligence.

Research Methodology

A. Qualitative Approach:

- I will interview who are involved in alcohol business at west Bengal like Indian Made foreign liquors distributor, Inventory Manager, Customer, Sales Manager, Supply chain Management. Interviews will more flexible than a set of structured question in a questionnaire.
- I will be do Market Survey of West Bengal -Involve the use of questionnaires, consumer panels
- I will do Scenario Writing-Process of analyzing possible future events by considering alternative possible outcomes.
- I will be use Brainstorming Technique with west Bengal liquor Industry Professionals.

B. Delphi Technique:

The Delphi method can be used in many ways as a tool for making forecasts or a method of solving problems or eliciting ideas. With the Delphi method you can structure a process of communication within a group of experts in

a systematic and controlled way. In this way one can solve a complex problem using a group of experts in a very effective way.

The idea behind it is to finally achieve expert consensus by means of repeated rounds of written questioning and so attain a much more reliable assessment or forecast than would be the case if the experts were consulted individually or just interviewed orally.

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