

Supply chain management of mirinda



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Pepsi was founded in 1898 by Caleb Bradham, a new Bern North Carolina, druggist who first formulated Pepsi-Cola. Today Pepsi has expanded at a large scale and has a portfolio of beverage brands that includes carbonated soft drinks, juices and juiced drinks,

Ready-to-drink teas and coffees, isotonic drinks, bottled water and enhanced water.

PepsiCo has well known beverages such as Mountain Dew, Diet Pepsi, Tropicana Pure Premium, Aquafina, Tropicana Juice Drinks, Tropicana Twister , MIRINDA and much more.

PepsiCola markets Frapoccuino ready-to-drink coffee through a partnership with Starbucks.

PEPSI CO PRODUCT: the product we are taking for the project of supply chain management is MIRINDA.

RIAZ BOTTLERS:

Riaz Bottlers (PVT) Limited (RBL) incorporated in Pakistan as a private limited company in 1976. RBL is the franchise holder of Pepsi Cola International with seven brands. Like PEPSI, PEPSI MAX, 7UP, MIRINDA and MOUNTAIN DEW etc. They have recently launched Aquafina and are in process of moving towards some other products.

RBL today is one of the best National Companies in Pakistan. At RBL, they believe that “ Our existence and success is more than just meeting our business objectives and we are proud of the success that the company has achieved. Together our people provide the skills, knowledge and expertise to

deliver the quality of service that our customers expect and upon which our reputation depends.”

RIAZ BOTTLERS AND SUPPLY CHAIN MANAGEMENT:

RBL’s primary functions are to demeanor a methodical manufacturing and supply of the product without any tactical and strategic flaws. Backed by a powerful competitive strategy and empowered by some effective supply chain strategies, the group has been managing an effective supply chain through out the region. It has set up a urbane manufacturing and storage plant in Lahore with production units and huge production capacity.

RBL has different management departments dealing with specialized Marketing, HR, IT and Supply Chain Processes. In this report we conducted the process of the basic supply chain management functions of RBL for MIRINDA by Pepsi co.

COMPREHENSION OF MIRINDA SUPPLY CHAIN:

The goal of every supply chain is to maximize the overall value generated. The value of a supply chain generates is the difference between what the final product is worth to the customer and the costs the supply chain incurs in filling the customer’s request. (Chopra, Meindl 2006)

DECISION PHASES IN SUPPLY CHAIN OF MIRINDA SUPPLY CHAIN DESIGN OF MIRINDA:

A proper decision regarding how to structure the supply chain over next upcoming years have been made and the short term aswell as the longterm decisions have been made by the company in regards to location and

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capacities of production and warehousing facilities, the products to be manufactured or stored at various

locations, the modes of transportation to be made, information systems and so on.

Their supply chain design is very expensive to alter on short notice and supports the company's strategic objectives. In order to ensure a good supply chain strategy, Riaz Bottlers plans one to two years in advance. It has several contracts with manufacturers, and receives raw material on a convenient basis. The company also decides where production plants are to be placed. RBL has production plants at Lahore. The production process is 80% automated.

The company has to provide and manage transport for the delivery of products as well as the arrangement of third party services for the procurement of products. The shipping department handles orders and the transport department decides the vehicles for safe delivery. Material planning and sourcing is carried out as well. Sources of supply of raw material both local and foreign are identified and terms and conditions are negotiated. Capacity planning is also done at this stage.

Sales forecasting and production planning depends upon the capacity of the organization with respect to:

- Production.
- Storage: Raw and packing.
- Storage: Finished goods.

Riaz bottlers Lahore has a procurement budget of nearly Rs 10 billion.

Approved suppliers cannot go beyond this budget. The supplier is audited by the most cost efficient quality control department. Distributors are also decided by the company, keeping in mind past performances. The company has increased its distribution capacity from one to ten filling lines during the last few years lending it a competitive edge over Coca Cola.

SUPPLY CHAIN PLANNING OF MIRINDA:

After RBL set the design of their supply chain they do the planning which increases their surplus in supply chain and that's their goal too. The planning launches and make them set their constraints over some span of time according to the demand of Mirinda. Pepsi co carries out sales forecasting for local demand as well as for export purposes to countries such as Afghanistan etc for Mirinda. The annual sales target is conveyed to the supply chain department of RBL. Planning is carried out on a monthly, weekly and daily basis for order planning allocation , warehousing , production scheduling inventory planning and optimization. at RBL.

SUPPLY CHAIN OPERATION OF MIRINDA:

In RBL , the production , sales and supply chain departments get united to decide the inventory on weekly basis. There is always less uncertainty about the demand . the operation process includes customer orders in the best possible manner. During this RBL , allocate inventory or production to individual orders, set a date (which is always according to the will of customers and they don't get disappointed) that an order is to be filled, generate a proper pick lists at a warehouse in gulberg , allocate to shipping, set delivery and so on.

PROCESS VIEWS OF MIRINDA SUPPLY CHAIN

The processes in a supply chain are divided into a series of cycles each performed at the interface

between two successive stages of a supply chain.

CYCLE VIEW OF SUPPLY CHAIN:

Supplier / manufacturers: The suppliers to Pepsi Co are franchise operative (RBL) as well as company operative (LAYS chips) system and are located in eight cities of Pakistan. The cities are Lahore, Islamabad, Karachi, Peshawar, Hyderabad, Sukkhar, Gujranwala and Faisalabad. PepsiCo has its Plant , Factory , Workshop and Warehouse at the same place in Lahore . the Address is : Guru Mangat Road, Gulberg Lahore

Distributors: They are located throughout the country; every city has its distributors. The distribution done on direct and indirect ways that would be discussed in the distribution section of the report.

Retailers : retailers outlets are all sort of shopkeepers, malls , hotels etc to whom the distributors provide the stock via transportation i. e. trucks etc which carries distribution from point to point in different allocative routes.

Customers: Its customers are all sort of target markets from social class A to C and range within all demographical and psychographical parameters.

PUSH AND PULL VIEW OF MIRINDA SUPPLY CHAIN:

The push process implementation is commenced in anticipation to a customer order. MIRINDA has a seasonal demand. Just in time concept is pertinent in non-seasonal period and not pertinent in seasonal period. All

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processes that are part of the procurement cycle, manufacturing cycle, replenishment cycle, and customer order cycle are push processes.

MIRINDA Sales order and processing: The Shipping Manager receives sales order from Sales Team, distributors through telephone, fax & email one day before dispatch. The sales are made to base distributors on advance payment against orders then shipping manager plans according to the demand of distributors on daily basis.

COMPETITIVE AND SUPPLY CHAIN STRATEGIES:

There are three major sustainable advantages that give PepsiCo a competitive edge as they operate in the global marketplace:

- Big, muscular brands.
- Proven ability to innovate and create differentiated products.
- Powerful go-to-market systems.

PepsiCo's (Mirinda) overall mission is to increase the value of shareholder's investment. They do this through sales growth, cost controls and wise investment of resources. They believe their commercial success depends upon offering quality and value to their consumers and customers; providing products that are safe, wholesome, economically efficient and environmentally sound; and providing a fair return to their investors while adhering to the highest standards of integrity.

A customer while purchasing a bottle of Mirinda will consider product quality, price and availability of the product. Thus, Mirinda in Pakistan particularly focuses its competitive strategy as to producing sufficient variety, reasonable prices, and the availability of the product.

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SUPPLY CHAIN STRATEGIES

STEP ONE: THE CUSTOMER AND SUPPLY CHAIN UNCERTAINTY.

Identifying customer needs:

RBL needs to understand the customer needs for each targeted segment and the uncertainty the supply chain faces in satisfying these needs. As RBL deals with beverages, which are a fast moving consumer good, it knows the requirements of consumers.

Mirinda is considered as a drink which is refreshing during summer, and taken regularly during winter, with demand hiking around festivals such as Eid and occasions such as weddings. RBL caters to both cities and rural areas. It understands the needs of both. As demand for beverages is seasonal, the quantity of product needed for each lot is taken care of with past demand in mind. Consumers generally require a small response time, high service level, reasonable price and some variety (for example mirinda has apple flavor too now).

Demand uncertainty and implied demand uncertainty:

Demand for Mirinda varies by product. For example there is a greater demand for “ Mirinda” as

compared to “ Mirinda Apple,” which is sort of new. Hence, Mirinda has a low demand uncertainty as compared to “ Mirinda Apple.” The product “ Mirinda” is approaching its maturity stage in the PLC whereas “ Mirinda Apple” is in the introductory stage. Mirinda’s implied demand uncertainty varies with the product type as well as the customer needs.

Due to decreased lead time (the customer may purchase its competitor's product if Mirinda is not available at that time such as Fanta, Gourmet cola, Amrat cola), need for greater variety and higher level of service, implied demand uncertainty increases. This is true for cities where unmet demand by Mirinda is met by Coca Cola Company, Gourmet Cola and other such competitors. Supply uncertainty is also affected by new products. New products have higher supply uncertainty.

Uncertainty for the capability of the supply chain:

After determining the demand uncertainty it takes a look at the uncertainty resulting from the supply chain. " Mirinda" is not a new product and its market is going towards maturation. The company does not have many difficulties in delivering a product and has a fixed delivery schedule (on daily basis). " Mirinda" hence has a predictable supply and somewhat uncertain demand depending on market conditions.

STEP TWO: UNDERSTANDING THE SUPPLY CHAIN CAPABILITIES:

The efficiency and responsiveness varies according to the consumer needs, implied demand

uncertainty, product type and market segments. In remote areas Pepsi Co (Mirinda) focuses on being somewhat efficient as other modes of transportation could turn the product to be highly expensive. According to the company it does not deal with distributors who do not have 20 to 25 vehicles, therefore as the company has focus on cost reduction, uses slow and inexpensive modes of transportation, the demand is certain, and uses

economies of scale in production, the product Mirinda is more inclined towards being somewhat efficient.

In cities, the company focuses its attention on being highly responsive as Mirinda has to meet short lead time, meet a high service level, handle a large variety of products and respond to wide ranges of quantity demanded especially at the retail stage.

**Highly efficient somewhat efficient somewhat responsive
highly responsive**

In towns MIRINDA In cities

STEP 3: ACHIEVING THE STRATEGIC FIT:

The Mirinda supply chain assign different roles to its different stages, the company has to decide either to transfer the responsiveness to the manufacture stage or to the retailer stage as making one stage more responsive allows the other stage to focus on being more efficient. While discussing the Mirinda's supply capability it is seen that Mirinda tends to be more responsive in the cities and a bit less in towns.

Therefore, transferring the responsiveness to the retailer and distributor, allowing them to face the higher implied demand uncertainty. This in return allows the manufacturer and supplier to be more efficient. At the same time, multiple beverage types contribute to a broader product portfolio causing RBL to adjust its strategies accordingly; tailoring the supply chain to best meet the needs of each beverage demand.

SUPPLY CHAIN DRIVERS AND METRICS:

Bonding drivers with Product Life Cycle (PLC) Supply chain strategy:

Mirinda mainly follows a combined cost effective responsive supply chain strategy in lahore. The intensive supply of the product is being ensured throughout the city market with the help of RBL distributors. Mirinda has been able to reach out to all market segments without any delays because of its business maturity and comparative business strength. It has the normal beverages sales volumes as compared to any other cities.

Although there is an overwhelming stability in the product market yet there are some remote areas where there are conditions for a possible stock out due to their remoteness. For addressing this risk Mirinda has financed different whole sellers in those areas to respond immediately. Mirinda in Lahore and in most parts of Pakistan can be rightly placed into the category of an “ ever growing mature business.”

Responsiveness: In case of Fast Moving Consumer Goods (FMCGs) that target a huge segment

of market, responsiveness is a deciding factor for the organizational success. In a typical Pakistani market, quick response enables supply chains to meet the customer demands for evershorter lead times, and to synchronize the supply to meet the peaks and troughs of demand. Mirinda’s supply chain has been able to reinforce a greater response to the uncertain and unpredictable market behavior only because it has multisided processing facilities and

corresponds to a systematic production network with both dedicated and multi-product facilities.

The major focus is to determine the processes that are to be integrated in the supply chain network with their corresponding suppliers, distribution centers and the associated transport links between them. The major considerations in the design are the supply chain responsiveness and profitability.

Framework for Structuring Drivers:

The framework is based on a motive to create strategic fit between the competitive and supplychain strategy. Mirinda Competitive strategy stands to provide a large variety of products very quickly; simultaneously the supply chain strategy stands to materialize the availability of that variety of products. Mirinda mainly follows a responsive supply chain strategy.

Alignment of mirinda's business strategy to a corresponding supply chain strategy is achieved through proper deployment of supply chain drivers. Mirinda has to deal with different set of market segments simultaneously. Most of the time the approach needs to be responsive enough to grow substantially to be able to compete with uncertain demand, while in many areas demand is certain and very much predictable, so there it incorporates an efficient supply chain strategy.

THE FACILITY DRIVER

ROLE, LOCATION AND CAPACITY:

In RBL the Mirinda is stored, assembled and fabricated at gulberg Lahore..

Mirinda has established a flexible and a product-focused production facility in

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order to respond effectively to the variability in demand. The storage facilities are designed in order to provide maximum possible capacity for the inventory. It has franchising holding bottling operations.

OVERALL TRADE OFF (RESPONSIVE): In order to ensure the responsive strategy implementation, the role of facilities is of prime importance in the supply chain of RBL. The large amount of excess capacity allows the facility to be very flexible and to respond to wide surges in demands placed on it. In alignment with the responsive supply chain strategy the facilities have been geographically located close to the market.

THE INVENTORY DRIVER

ROLE , LOCATION AND SEASONAL INVENTORY: RBL has established a comprehensive plan to ensure the sufficient inventory levels to keep up with the market demand effectively. The inventory type is seasonal . For this purpose the main inventory storage has been established within the main plant area maneet road gulberg Lahore inside RBL. It has the storage capacity of 200, 000 Sq Ft and the area is being utilized both horizontally and vertically.

The shipping department is in charge for storage and subsequent displacement of the product orders. The inventory capacity is being utilized and maintained in coordination with the production department and is based on the term production estimates.

OVERALL TRADE OFF (RESPONSIVE): Increasing inventory makes the supply more responsive to the customers. At RBL, managers bear a high inventory

cost to ensure maximum levels of inventory and to reduce the production and transportation costs.

THE TRANSPORTATION DRIVER

DESIGN AND CHOICE OF TRANSPORTATION MODE: PTN is providing transport to PEPSI CO(mirinda) in the form of big large trucks. Faster transportation of the products allows RBL to maintain sufficient levels of stock on the shelves. RBL's transportation network is the collection of routes, modes and locations along which the product can be shipped. With the help of distributors the product is being supplied to the market.

There are multiple supply and demand points within the city which cater to the market demand. RBL decides and selects different modes of transportation having different characteristics with respect to the speed and size of shipment.

OVERALL TRADE OFF (RESPONSIVE): The transportation network has been designed with a view to ensure responsiveness and boost the availability of the product. For RBL using fast mode of transport increases responsiveness as well as the transportation cost but lowers the inventory holding cost. Transportation driver has a large impact on the responsiveness of the business.

THE INFORMATION DRIVER

COMPONENTS OF INFORMATION DECISIONS: Connects all the supply chain stages effectively allowing them to coordinate and maximize total supply chain profitability. It is also crucial to the daily operations of each stage in the supply chain. The unit manager utilizes the production scheduling

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system that is based on information on demand to create a schedule that allows RBL to produce the right amount of product. The warehouse in charge uses this information to create visibility of the warehouses inventory items. They don't have any enabling technologies such as EDI, ERP and RFID

OVERALL TRADE OFF (RESPONSIVE): Information sharing helps these firms improve its responsiveness within the market. It helps to accurately forecast demand and realize frequency of updates, measurements of the effects of seasonal factors influencing the production, measurements of variances from the plan and the ratio of demand variability to order variability. Timely and accurate information enables the distribution managers to fix potential stock out or oversupply problems.

THE PRICING DRIVER

FIXED PRICING VERSUS MENU PRICING: Mirinda keeps its pricing strategy with the comparison of its competitors for example FANTA. And the demand is seasonal so during the season on period the pricing is done on the fixed basis i. e. summers. And during winters which is the off season period the pricing is done on menu basis for example Rs 2 to Rs 5 rupees off per 1.5 litre bottle etc.

THE SOURCING DRIVER:

OUTSOURCED, SUPPLIER SELECTION AND PROCUREMENT: Pepsico has outsourced decisions in its supply chain as RBL is an outsourced company for it. They think that it was best to outsource Mirinda and other beverages as well because the growth in total supply chain is significant with little additional risk. The responsive components are outsourced such as the PTN

aswell which provides transportation to Pepsico (Mirinda). It has number of suppliers within Lahore and all districts of the country. Both procurement in direct aswell as indirect ways are doneand they have a good coordination between its suppliers and buyers.

DISTRIBUTION NETWORK OF MIRINDA

Direct distribution:

Delivery of post mix cylinders & handling of key accounts: The key accounts are different wholesalers, restaurants and hotels like Pizza Hut, KFC, Metro which serve as a place for key sale. These are known as national key accounts and are very important in terms of competition.

Export Parties.

Indirect distribution:

Through Base market distributors

Through Outstation distributors

Before delivering the product some certain guiding principles are followed for the assessment of distributor's capability by RBL.

Applicant must have 30 to 40 vehicles (depending on the area).

Applicant must have 40, 000 cases of empty bottles.

Applicant must deposit Rs. 5, 000, 000 as a security.

RBL uses light and heavy vehicles for safe delivery of goods to the distributors for timely delivery. It follows the just in time concept which is applicable in Non-seasonal period and not applicable in the seasonal period.

REVIEW AND REVISE DISTRIBUTION:

This is usually done through taking over key revenue areas. If the distributor does not achieve its sales target, the distribution is taken back and an addition of new distributor is done. Therefore MIRINDA'S supply is low supply uncertainty. Some of its supply source capabilities are:

- Less breakdowns
- High quality
- Flexible supply capacity
- Mature production process

FACTORES INFLUENCING DISTRIBUTION NETWORK DESIGN:

At the highest level, performance of a distribution network should be evaluated along two dimensions:

1. Customer needs that are met
2. Cost of meeting customer needs

While customer service consists of many components we will consider those measures that are influenced by the structure of the distribution network for Mirinda .

Response Time: For Mirinda is minimal as the direct customers for it are the retailers and then the consumers. So with over 30 to 40 delivery trucks in <https://assignbuster.com/supply-chain-management-of-mirinda/>

Lahore , it is readily available to every retailer within 30 minutes or an hour max . Lahore has 12 warehouses from where the supply to the market is done through trucks provided by PTN.

Product Variety: They have made their place in the market with their unique product line ranging from Mirinda to Mirinda Apple with refreshing taste and great quality.

Customers Desire: customer desire more for mirinda instead of apple mirinda . Recently, the sales for 250 ml bottles has increased and 1. 5 litre bottle decreased but they are trying to increase it as it gives the company higher profits.

Availability: The product is always available in stock whenever an order arrives. Whenever the distributors feel that after one loading there could be a stock out they place an order to RBL in advance just to keep the floor with enough stock in hand. The Distributors have 3 days stock as back up with them in order of any malfunctioning of the plant or other such external factors.

Customer Experience For Mirinda has always been positive as they receive the product with ease and on time. The retailers are the direct customers as they place an order to the distributors. There has never been a shortage or a delay for mirinda in Metro or Pizza Hut which are the key accounts for the company.

Order Visibility They are not really an electronic phenomenon where you can track your order through computer. It is more of person-to-person contact

and one can easily track down their orders through the designated staff in each sector of Lahore or for that sake all over Pakistan.

Returnability: Pepsi Co (mirinda) has always been very strong in a sense that unsatisfactory items can be returned and changed on the spot. This is true for both the consumers and the retailers. They have laid down a system through which they can effectively manage this requirement. The retailers are told to take down the comments and the address or phone numbers from the person who is returning the bottle. It seems at first that a customer always wants the highest level of performance along all these dimensions, in practice however this is not always the case.

DESIGN OPTION FOR DISTRIBUTION NETWORK::

Distributor Storage with Carrier Delivery:

In Pepsi Co (mirinda) inventory is not held by the manufacturers at the factories but is held by distributors/retailers in intermediate warehouses and package carriers are used to transport the products from the intermediate location to the final customer. This requires distributor storage to keep high levels of inventory because distributor/retailer aggregates demand uncertainty to a lower level than the manufacturer.

Transportation costs for Pepsi are somewhat lower because an economic mode of transportation (e. g. truckload) can be employed for inbound shipments to the warehouse, which is closer to the customer. Facility cost is high because of a loss of aggregation and often end up with higher processing costs. The information structure needed is not that complex.

The distribution warehouse serves as a buffer between manufacturer and customer. Real time visibility between customers and warehouse is needed whereas as visibility between customer and manufacturer is not required. Response time is also reduced.

Customer convenience is high and order visibility with manufacturer storage becomes easier. Distributor storage is well suited for medium to fast moving goods and it can also handle higher level of variety than retail stores

VALUE OF DISTRIBUTION SYSTEM:

There are basically two components of distribution:

- Storage
- Distribution

The storage facilities of RBL are designed in order to boost the timely availability of the product. For this purpose the distributors are fully equipped with facilities that are needed to ensure intensive supply of the product. The storage facilities are designed to contain the maximum possible inventory items that are needed at any given time. RBL has established several storage units nearer to the market in order to boost availability.

Transportation conducts inventory movement from point to point in supply chain of RBL. It incorporates a combination of modes and routes at different stages. Transportation choices have a large impact on the responsiveness strategy of the business. RBL has several contracts with several distributors with multiple transport facility that ensure the maximum possible transport of inventory within a short period of time. The distribution does not work

between specific supply chain components but it performs a basic function of integration amongst all supply chain components.

The “Pepsi Co” distribution system linked the entire supply chain for all product categories. The distribution centers and its information network play a key role in that regard. The major object is to carefully track sales of items and offer short replenishment cycle times. The distributors offer stored deliveries to many retail outlets in the twin cities. Different products are being delivered conveniently on pre-orders. The distribution system is flexible enough to alter delivery schedule depending on customer demand.

The Territory Distributor Managers maintain a contact with the retailers in order to book and place the orders. Whenever a store places an order it is immediately transmitted to the supplier through the distribution manager. Now RBL receives orders from all distribution centers and the shipment department delivers the orders. At the distribution centre, products from the manufacturer are delivered into different trucks and each truck makes deliveries to multiple retail stores. The number of stores depends upon the sales volume. The system works on trust and does not require the delivery person to be present when store personnel scan the delivery. This reduces the delivery time at each store.

Each truck has a capacity of 1572 cans. The distribution department is in direct contact with the manufacturers and keeps updating inventory levels. They keep in stock spare three days stock to combat external uncertainty. The distribution department is responsible for all the variety of the products in their portfolio. PepsiCo’s overall distribution network spreads throughout

Pakistan connecting the remotest of places and providing great customer service.

Globalization has increased the competition that the company for its products like mirinda is constantly coming up with new projects, campaigns and distribution.

RECOMMENDATIONS:

RBL doesn't have proper enabling technologies such as EDI , ERP , RFID and EDD . they should be having that for the better performance of its supply chain activities. These engagements would

- Identify specific opportunities to improve operational performance and reduce costs within your manufacturing, assembly, supply chain, and customer support processes
- Define specific process changes and the auto-id technology required to streamline each process step
- Address the business, manufacturing, logistics, information technology, and financial implications of RFID — including starting points and scale-up plans

When integrated with enterprise resource planning (ERP) system, demand planning applications can help:

- Compare calculated forecasts to actual results over time for trend analysis.
- Focus on “ hot spots” to prepare for what's coming into high demand.
- Share forecast information securely via the Web through role-based portals.

- Reduce operating costs.
- Streamline production.

The end result: lower inventory costs, fewer stock outages, faster time to market, and happier customers.