



Inspiring Excellence

Internship Report on Supply Chain of Berger Paints Bangladesh Limited

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Letter of Transmittal

Ms. Afsana Akhtar

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Dear Madam;

This is to inform you that I have completed the internship report **A Study on the Supply Chain Management of Berger Paints Bangladesh Limited**, which has been prepared as a requirement for the completion of the BBA Program of BRAC University. I am fortunate enough that I have got an experience and efficient professional team in the organization. I have got an opportunity to work with them at different Departments to learn their process effectively.

I tried my level best to cover everything I have learned here. Finally I would like to assure that I will remain standby for any clarification and explanation when required. Thank you in advance for your kind assistance. I enjoyed working on the report and hope you will consider all my mistakes generously.

Sincerely Yours,

Md. Abdul Alim

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Acknowledgement

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I would like to show my warm hearted gratitude to the whole Department of Berger Paints Bangladesh Limited which has provided me with great deal of information's, adequate data and finally cooperated me for the accomplishment of the report successfully. I am especially grateful to **Mr. Masnadiar Rahman**(Line Manager) and my collogues for invaluable support and direction that lead me to the successful completion of my internship report.

I am very much thankful to Berger Paints Bangladesh Limited and its Supply Chain Management Department specially the employees of the entire Department for their cordial support to prepare this difficult study with important information and data. Without them it would not possible for me to complete this difficult task. I got all necessary guidelines, cooperation and advice from them to complete this complicated task.

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EXECUTIVE SUMMARY

Berger Paints Bangladesh Limited has achieved praiseworthy reputation by offering sincere personalized service to its customers in a technology based environment since its origin. The organization has introduced new standard in financing in the Industrial, Trade and Foreign exchange business.

The main objective of the study is to analyze and evaluate the Supply Chain Management procedure and performance of Berger paints Bangladesh Limited. BPBL is the leading Brand in the paint industry who holds the largest market Share .BPBL has sophisticated technological methods to run its every department. SAP software is used for analyzing data in BPBL. This software performs the required function of speeding up the cash receipts and payments as well as provides greater accountability which enables the management at the top to take efficient decisions in regards of customer satisfaction level

The BPBL has SOP (standard operational procedure) for its every department. BPBL practices SOP very strictly

This report will mainly focus on the supply management of BPBL and the complaint managements. The supply management has three major units. The demand and supply plan unit, Procurement unit and Customer service and Distribution. The demand and supply plan unit deals with consensus demand planning, recognizing gap and solution, develop trade and customer activity, customer satisfaction level and demand and the valued dealer.

The procurement unit is about purchasing selecting vendors purchasing raw materials and planning production and implement production. The customer service and distribution is focused in the distribution channel and customer service. On the basis of the volume of the production the distribution planning is done. The customer satisfaction level is one of the specific considerations for planning new distribution and supply plan. Berger Paint Bangladesh Limited efficiently run its entire department thus they are leading the paint industry of Bangladesh and looking forward for more achievements and innovations.

1. Background of the study

1.1 Origin of the report:

The complement of BBA (Bachelor of Business Administration) requires 3 month involvement with any organization followed by a report assigned by the supervisor and guided by the faculty advisor of the organization. I got the opportunity to do my internship in Berger Paints Bangladesh Limited (BBPL) .The topic of my internship is selected from the head office of Berger paints Bangladesh Limited. My faculty supervisor Ms. Afsana Akhter, Assistant Professor & BBA Coordinator, BRAC Business School, BRAC University, has also given me approval on the topic and authorized me to prepare this report to complete my BBA program.

1.2 Background of the Report

I have worked in Supply chain department of Berger Paints Bangladesh Limited, in Demra sales and distribution depot. This report will cover my analysis on Supply chain management of Berger Paint Bangladesh Limited and I try to give a brief description of the full process to distribution network.

1.3 Objective of the Report

The study has been done with the objective given below-

- To have a clear concept about supply chain management.
- To have practical experience of inventory planning and replenishment and also have a vast idea about distribution system and network.
- To get an idea about Berger Paint Bangladesh Limited's working process.
- To know about the strategies and tactics that made BBPL the leader in Paint industry.

1.4 Scope of the study

Berger Paint Bangladesh Limited has been playing a significant role in the economic development of the country. This study contains an overall analysis about the Supply chain management process the most complex full proof process of Berger Paint Bangladesh Limited and the sectors that which can be improved in a view to survive as a leader in this competitive Paint Industry.

1.5 Methodology

The data for the study were collected following several ways

Primary Data: Primary Data were collected mostly by -

- Face to face conversation with my Line manager, the other stuff of Berger Paint Bangladesh, vendors and its dealers.

Secondary Data: Secondary Data were collected from

- Previous research papers
- Different journals on Berger Paint Bangladesh Limited
- Different book to know about different terminology
- Official websites of Berger Paints Bangladesh Limited.
- SOP (Standard operational process) book of Berger Paints Bangladesh Limited.

1.6 Limitation of the study

- Time was too short to analyze to conduct the entire research
- Some information cannot be included for the confidential purpose of the company
- The location of the office made it difficult to contact with my supervisor about the research.

2. Introduction

The paint industry in Bangladesh is estimated to be around BDT 30 billion. In terms of sales volume, Berger controls more than 56% of the market share with an equivalent amount of BDT 17 billion net sales. Asian Paints, Roxy Paints, Pailac and Elite Paints are some main competitors of Berger Paints in the local market. The industry in Bangladesh has three specific segments,

1. Decorative
2. Industrial
3. Marine.

Among these, decorative paints are dominating with 84% of total sales, followed by marine paints (about 12%). Most of the company's focus on decorative paints segments. The July-September period is considered as the "off season" for the paint industry because of weather conditions but that is the third quarter for Berger in their accounting period.

The company has come a long way since its small beginning in 1760. Berger has also expanded its footprint in Nepal by setting up a second unit. Today, Berger's sister company in Bangladesh is the dominant leader, with a large market share.. As Berger continues to grow internationally, it also remains to be the second largest paint company in India. Berger is the only supplier to Nuclear Power Plants with its protective coatings. The company has been spread across the Caribbean, the Middle East, South Asia, South East Asia, Africa and South Pacific regions. It has 30 paint manufacturing facilities worldwide which serves the customers of more than 50 countries. .

2.1 History of Berger paints

The name Berger or Lewis Berger nowadays is synonymous with color worldwide but actually the origin of the name dates back to over two & a half centuries in England in 1760, when a young color chemist named Lewis Berger, started manufacturing in Europe, 'Prussian blue' using a confidential method that every designer and householder desired to get. Mr. Berger perfected this process & art of the blue color, which was the color of most military uniforms of that time. Louis changed the status of the business by involving his family into the business and the company was turned into Berger & sons limited. With a strong reputation for excellence in innovation and entrepreneurship the company grew and expanded rapidly. The company continued the growing and expanding process by establishing branches all over the world and through mergers and acquisitions with other leading paint and coating manufacturing companies. Enriched by the imagination of Lewis Berger, the unending quest for creation and innovation in the world of color & paints still continues.

2.2 Berger Paints in Bangladesh

Since the independence Berger Paints started painting in Bangladesh. The company served its customer at its level best and tried to meet the demands and expectations of the customers thus it transformed itself in becoming the leading paint solution provider in the country with a diversified product range that caters to all your painting needs. With its strong distribution network, Berger has reached almost every corner of Bangladesh. Nationwide Dealer Network, supported by 13 Sales Depots strategically located at Dhaka Central & North, Dhaka South, Fani, Brahmanbaria, Chittagong, Rajshahi, Khulna, Bogra, Sylhet, Comilla, Mymensingh, Barisal, Rangpur has an unmatched capability to answer to paint needs at almost anywhere in Bangladesh.

2.3 The major milestones of Berger Paints in Bangladesh:

By importing paint from UK Berger Paint the operation in Bangladesh was started in 1950. The Chittagong factory was built in 1970 and the name Berger Paint Bangladesh Limited was given in 1980. Double tight can manufacturing process was established in 1999. In 2002

Berger paint Bangladesh established its own co-operate building in Dhaka and in 2004 they established a power coating plant in Bangladesh.

2.4 Business Principles

Berger paint Bangladesh has a very specific, understandable and clear vision. Their main philosophy is to bring changes through innovations and they are very strict in ethical practice and they always try to serve greater value to the customers.

2.4.1 Vision

“To be the most preferred brand in the industry ensuring consumer delight.”

2.4.2 Mission

“We shall increase our turnover by 100% in every five years. We shall remain a socially committed ethical company.”

2.4.3 Goals

- Of the Paint: Profit Maximization and Sustained Growth.
- Of the Customer: Maximum Benefit and Satisfaction.
- Of the Society: Maximization of Welfare.

2.4.4 Tag-line

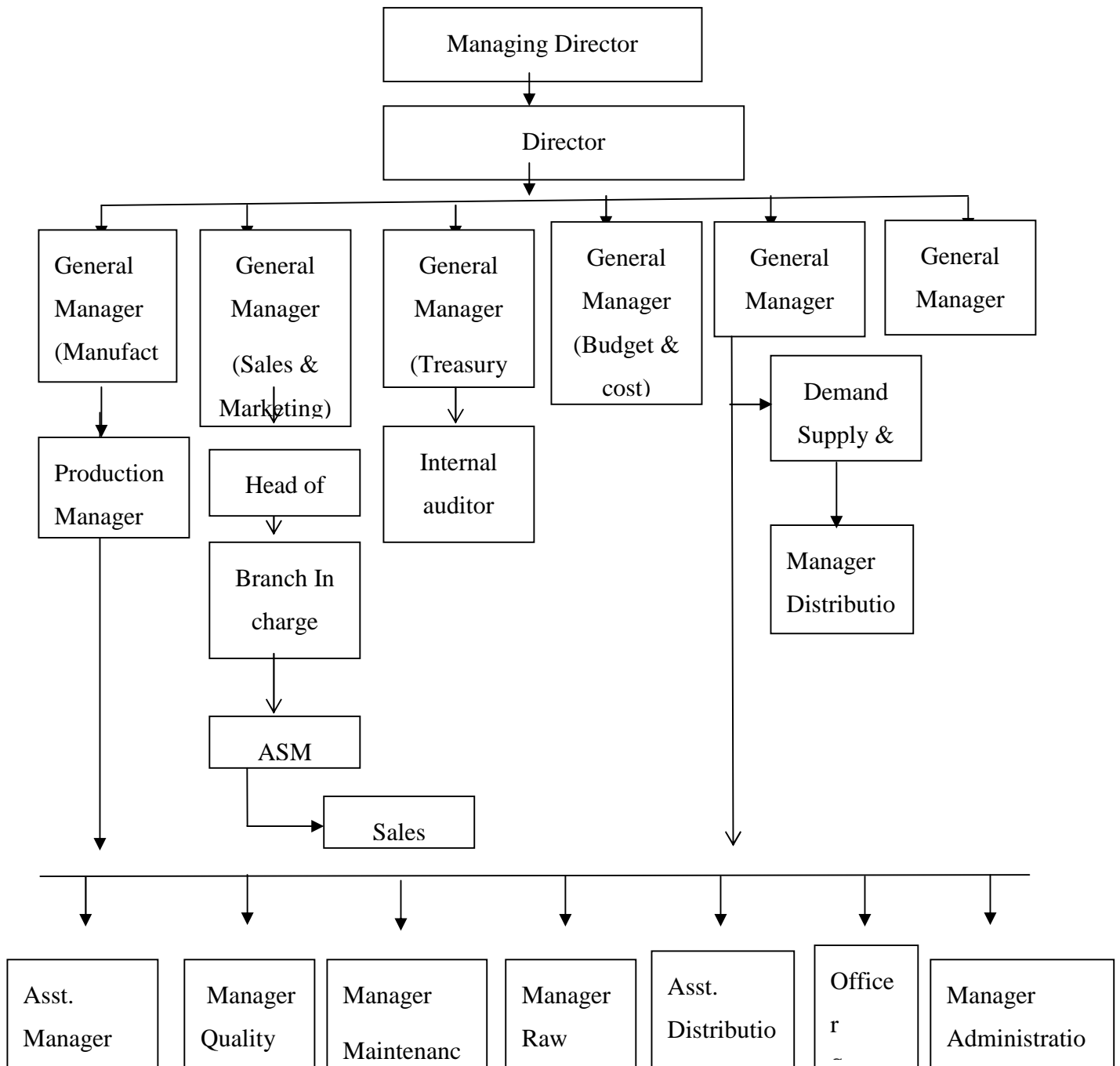
‘*Trusted worldwide*’ is the Tagline of Berger paint which is all over the world which delivers the message that the quality of Berger paint has been trusted by the customers for its promising quality.

2.5 Organization Structure:

Like any other organization Berger is also headed by a Managing Director. He/ She is directly supported by two general managers (General Manager of Operation and General Manager of Finance) and two Managers (Manager- HR a Liaison Manager). By the sufficient support of these four functional head MD is running the organization very effectively.

2.5.1 Executive Management Team

Fig. 2.5.1.1 Executive Management Team



2.6 Quality Policy

Burgers objective is to achieve business excellences through quality by understanding, accepting, meeting and exceeding customer expectations. Berger follows international standard on quality management system to ensure consistent quality of product and services to achieve customer satisfaction.

2.7 Product Description

The product range of the company includes specialized outdoor paints to protect against adverse weather conditions, Color-Bank, Superior Marine Paints, Textured Coatings, Heat Resistant Paints, Roofing Compounds, Epoxies and Powder Coatings. Each of these categories was introduced to the country by Berger Paint. Besides, Berger offers illusions-the first designer paint solution in Bangladesh. The company also launched Power Bond adhesive, Innova Wood Coating in collaboration with Sherwin-Williams, Vehicle Refinish in collaboration with world renowned PPG-USA, Tex-bond binder to cater to the growing needs of the customers. Berger Color paint maintains very high quality of its product and they invest more on product development but the various research work and technological involvement. It selects the raw materials from some of the best known names in the world: Mitsui, Mobil, Dupont, Hoechst and Basf are a few to name. The superior quality of Berger's products has been possible because of support from its advanced plants and an international-standard of strict quality. Investment in technology and plant capacity is even more evident from the new factory of Berger Paints Bangladesh Limited at Savar. The state-of-the-art factory is an addition to Berger's capacity to make it the paint-giant in Bangladesh. Not to forget about the first Double Tight Can manufacturing unit in its Chittagong factory. All, together with devotion to make it the reputed center of Basic & Applied Research in paint and Resin Technology, proof the commitment that Berger has for this industry.

2.7.1 Product Classification

Berger markets both water based and solvent based paints in our country. Besides these Berger also markets construction chemicals and emulsion. In addition to that Berger also

markets small quantity of 25 types of powder coating paint. Paint can be divided into various types by considering different aspects.

Painting is mainly of three categories,

- Decorative
- Industrial
- Marine

In Decorative sector, the two major classifications are,

1. Exterior
2. Interior

From the application sequence, paints can be categorized as,

1. Primer
2. Under coat
3. Finish coat

Paints can be divided into two categories according to thinner/ solvent usage,

1. Water-based
2. Solvent-based

3. Job

It is a great opportunity for me to work in Berger Paints Bangladesh Limited as an Officer, Inventory Planning & Replenishment in the distribution department.

The principle responsibilities of my job are,

- Plan inventory considering true customer demand and indent

- Manage working capital efficiently
- Coordinate & ensure liquidation for slow and non-slow moving SKUs
- Maintain distribution related transaction in SAP
- Prepare distribution activity report as and when required
- Manage distribution cost at optimum level and maintain cost within target
- Capture true customer demand
- Analyze data and propose action plan
- Monitor missing item & feed necessary stakeholders for improvement
- Complain management

3.1 Specific Responsibilities

3.1.1 Plan inventory considering true customer demand and indent

Inventory planning has a direct impact on the companies' cash-flow and profit margins because if inventory is less than the customer demand then it will cause decrease in profit due to insufficiency of products to meet the customer demand. Again if the inventory is more than the customer demand then it will increase the product handling cost and carrying cost. Inventory should not be more than the customer demand or less than the customer demand. When planning inventory lead time is one of the important factors need to be considered. As the production capacity is constant in both the factory Dhaka and Chittagong it should be kept in mind that all inventory should not be ordered in one depot at a time. The lead time for Chittagong is 2 days and for Dhaka is one day. So when ordering from Chittagong factory the amount of inventory should be that which can be delivered within two days before the arrival of next shipment. Moreover it is my responsibility to maintain a standard level of inventory which will maximize the profit and minimize the cost.

3.1.2 Manage Working Capital Efficiently

Working capital is a measure of both a company's efficiency and its short-term financial health. Working capital is calculated as,

➤ Working Capital = Current Assets - Current Liabilities

In a view to increasing profit of the company one of my major tasks is to optimize the company capital. The proper inventory planning is related to the working capital efficiency. If the inventory is increased then the working capital will stuck. At the same time the handling and carrying cost will increase which will increase inventory cost. Increase in inventory cost will results into decrease in profit. The ultimate result is non- moving and slow moving product. To avoid these sought of problem regular DSL (desire stock level) is maintained. If regular DSL is not maintained then there is high possibility of stock out.

3.1.3 Coordinate and Ensure Liquidation for Slow and Non-Slow Moving SKUs

Berger Paints Bangladesh Limited has different SKUs (stock keeping units) such as Berger Robbialac, Berger luxury Silk etc. for every different products Berger Paints Bangladesh Limited has different sales force. My responsibility is to coordinate with the different sale force considering the nature of SKU's. If any of the SKU's become slow moving or nonmoving my responsibility is to sit with the sales force and corresponding territory officers to know about the reason and to justify the reasons and know their plans for the solution. Slow moving product means if the desired stock level of the product is higher than the last six months sales then the product become slow moving and nonmoving product means no movement of the product from the inventory with in last six month.

3.1.4 Maintain Distribution Related Transaction in SAP

One of my core responsibilities is to maintain distribution related transaction. Berger Paints Bangladesh Limited uses SAP software for the calculation. My main duty in this sector is to identify the physical presence of products assigned theoretically and report to the factory if any miss matched found.

3.1.5 Prepare Distribution Activity Report as and When Required

In some special cases when the product delivered from the factory doesn't match the theoretical amount than my responsibility is to make a report mentioning the product description which doesn't match the data. If the mismatch occurs to the products which are delivered to the customer then my responsibility is to make report about the incidence describing product details.

3.1.6 Placing Additional Order

Placing additional order also falls under my responsibilities. When the customer demand increases and exceeds the expected and the sales force exceeds the targeted amount than additional orders are required. Special order is for those products which are not in regular use but for the customers demand we have to bring it again. There are mainly three types of products

- Regular products
- Obsolete
- Disqualified

Special orders are placed when customers demand for the obsolete products. Berger Paints Bangladesh Limited always reserves a unit of each product so that no products get totally vanished and whenever it is needed they can provide it.

3.1.7 Manage Distribution Cost at Optimum Level and Maintain Cost within Target

Vehicle optimization and minimizing delivery cost is role I have to play in this sector, it is needed to be monitored that the vehicle selected for the delivery is loaded properly. No vehicle should carry less amount of product than its capacity and should not carry more than its capacity.

3.1.8 Capture true customer demand:

On the basis of CSL (customer satisfaction level) true customer demand is captured. A common practice in Berger Paints Bangladesh Limited is to maintain CSL 97%. My duty is to analyze the data and calculate the current customer satisfaction level.

$$\text{➤ Customer satisfaction level} = \frac{\text{Delivery quantity}}{\text{order quantity}} \times 100\%$$

On the basis of CSL the true customer demand can be understood which helps in production planning of new products.

3.1.9 Warehouse Management

The basic thing I have to do in this sector is maintaining FIFO (first in first out). Berger Paints Bangladesh Limited strictly follows this rule which means the product arrived first should be delivered first. This helps to retain the quality of the products as well as the distribution of products are well maintained. Another important sector that runs under my supervision is the availability of right product on right time.

3.1.10 Complain Management

Complain management is one of my key responsibilities in supply chain department. Complains mainly arises from two sectors either from the dealer or from the customers. If the complain comes from the customer they place complain to the dealer first and then complain is delivered to the sales officer. The sales officer further reports to the head of distribution. The head of the distribution then report to the R&D department. R&D department further justify complain. On the basis of the R&D report feedbacks are given. Two actions can be taken

1. On credit
2. Exchange

The SOP followed by Berger Paints Bangladesh Limited is giving feedback within 7 working days.

3.2 Distribution Network

According to an investment report of BRAC EPL, Berger commands a strong distribution network which includes a nationwide dealer network of thirteen sales depots in Dhaka, Mymensingh, Chittagong, Rajshahi, Khulna, Bogra, Sylhet, Comilla, Feni, Brahmanbaria, Rangpur and Barishal. Currently Berger has planning to expand depots all over the Bangladesh which indicates BPBL is continuously expanding its distribution network though out the country. These strategically placed depots cater to the nationwide dealer network to reach all parts of the country. The direct and secondary dealers supply the products to the retailers. The dealers and retailers are entitled to 5-15% of the retail price as commission among themselves. Because of the superior quality compared to the locally manufactured ones, Berger's products are traded at slightly higher prices, which, consequently, translate into higher commission for dealers and retailers. This makes Berger as a favorite among the retailers.

4. Description of the Project

4.1.1 Background of the project:

Every business graduate must do internship to finish their graduation under an organization. It is the part of the practical study and main purpose is to introduce in the corporate or practical work field. It gives a student the real life work knowledge and experience. I have done my internship in the supply chain department of Berger Paints Bangladesh Limited. The topic of my project focuses on the customer satisfaction and distribution process and the role of inventory replenishment planner.

4.1.2 Origin of the Project

The main reason for internship (BUS-400) is giving the real life work experience and knowledge. This course must be performed by the student under BRAC Business School, BRAC University. The report is a fractional satisfaction of BBA program under the supervision of Ms Afsana Akhtar done by me. This report is a result of three month working experience in BPBL.

4.1.3 Objective of the study

I work in BPBL supply chain department to achieve few objectives to satisfy my internship program.

- To have practical experience of inventory planning and replenishment and also have a vast idea about distribution system and network.
- To get an idea about Berger Paint Bangladesh Limited's working process.
- To know about the strategies and tactics that made BBPL the leader in Paint industry.
- To have a clear concept about supply chain management.

4.1.4 Scope of the study

In my internship period I had a good understanding on corporate culture, the various strategies that a company follows and its values. Berger Paint Bangladesh Limited has been playing a significant role in the economic development of the country. This study contains an overall analysis about the Supply chain management process the most complex full proof process of Berger Paints Bangladesh Limited and the sectors that which can be improved in a view to survive as a successful market leader in this competitive market of Paint Industry.

4.1.5 Methodology

The research focuses on the supply chain management system and the distribution process and thus falls under the category of descriptive research and the information sought is qualitative. I gather the information mostly from the primary data sources and some from the official site of BPBL.

4.1.6 Limitation of the study

It's a great opportunity for me to work in BPBL and I learned a lot from here. Everything has some positive and few negative sides. So here also I face some limitations. The major limitation is I faced read difficulties to collect information. Another problem I faced is the time frame. Time is too short to gather lots of information which is needed for the report. The location of my office is a problem is to communicative with my supervisor. Despite all this limitation I had tried my best to learn and give in as much as I have learnt.

4.2 SUPPLY CHAIN

Supply chain management encompasses the planning and management of all activities involved in sourcing and procurement, conversion, and all logistics management activities. Importantly, it also includes coordination and collaboration with channel partners, which can be suppliers, intermediaries, third-party service providers, and customers. In essence, supply chain management integrates supply and demand management within and across companies. Efficient 'SUPPLY CHAIN MANAGEMENT' is imperative for growth and profit. Supply chain management (SCM) at BERGER is the process of planning, implementing and controlling the operations of the supply chain as efficiently as possible. It spans all movement and storage of raw materials, work-in-process inventory, and finished goods from point-of-origin to point-of-consumption. In essence it ensures supply and demand management within and across companies. Burger Paint Bangladesh considers the supply chain as a two way management of flow of goods, services and information between the manufacturers, customers, wholesalers, dealers, stores and the end users.

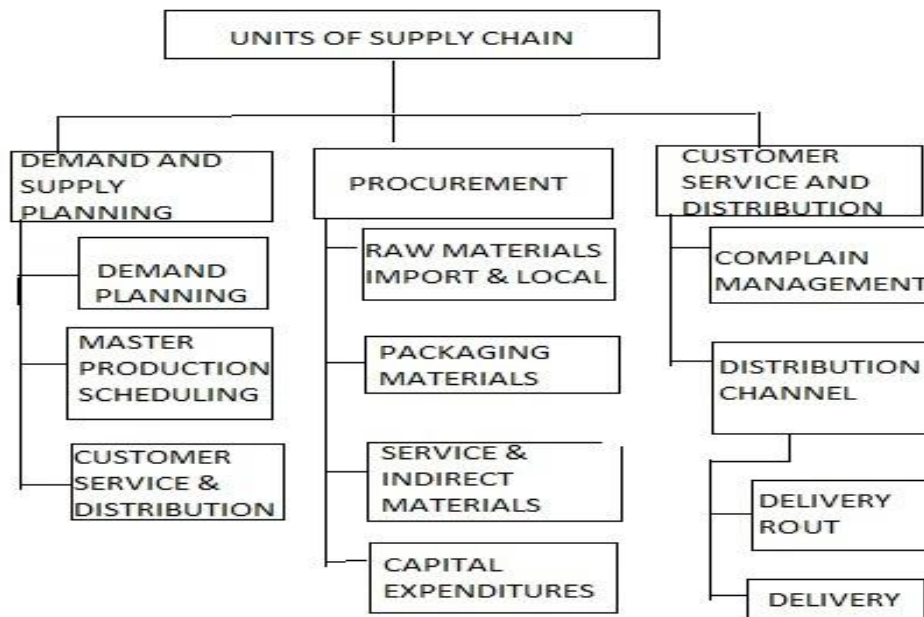


Fig- 4.2.1 Units of Supply Chain

4.2.1 Mission of Supply Chain

Enable achievement of rapid and profitable growth by providing competitive advantage to the business and want to be the best 'Supply Chain Management' in Bangladesh.

4.2.2 Objectives of Supply Chain

- Achieving 95% cumulative CSL at both factories throughout the year
- Efficient Inventory management as per given target throughout the year
- Optimizing "Cost to Serve" as per given target throughout the
- Maintain total distribution cost according to the sop.
- Ensure 100% error free product delivery to the customer with clubbing shipments
- Stock accuracy to be maintain 100% at depot level

4.3 Demand and Supply Planning

Demand and supply planning is very important for any organization. Knowing the true customer demand and supply the products need to be handled properly, one of the important goals of supply chain management is to arrange and co-ordinate the set of information from the original source to the final customer. If customer demand forms the activating element in the supply chain, it becomes clear that the process of demand planning can play an active role in improving the effectiveness of a supply chain. The correct management of information can thus greatly influence the level of integration, the responsiveness, level of customer service and value added to the end product.

4.3.1 Demand Planning

The multi-step process carried out in the operational supply chain management that is used to create reliable forecast is considered as demand planning. Forecast is a statement about the future value of a variable such as demand. Forecasting is one input to all types of business planning and controls both inside and outside the operations function. Effective demand planning can monitor users for the betterment of accuracy of revenue forecasts, align inventory levels with peaks and troughs in demand, and increase profitability for a selected channel or product. Planned sales orders, customer contracts and intercompany standing orders are the contents included in the data source of forecast. The final forecast is shared with key stakeholders, such as suppliers.

The key steps in demand planning includes,

- Reduced inventory
- Improved service level
- Customer satisfaction
- Lead this business towards achieving top line and bottom line numbers in respect each periodicity.

Ultimately this will ensure sustainable profitable growth of Berger paints Bangladesh Limited.

4.3.2 Mission of Demand Planning

Mission of demand plan is to generate accurate Consensus Demand Plan which will result in reduced inventory, improved service level and customer satisfaction and lead the business towards achieving top line and bottom line numbers in respect to each periodicity and thus ultimately will ensure sustainable profitable growth of Berger Paints Bangladesh Limited.

4.3.3 Objectives of Demand Planning

- Drive the Business towards achieving top line and bottom line figures at each SKU/business division level.
- Achieving Demand Plan Accuracy.
- Carry out the Formal Learning Log to capture, prioritize, analyse and input generating demand events and demand impacts.
- Estimate Base-line demand for top 90% value contributing total 20 brands of Berger Paints Bangladesh Limited.
- Implement and Monitor Weekly Demand Refreshment.
- Order Frequency Analysis (OFA) of potential project/industrial customers

4.3.4 Consensus Demand Plan

Consensus Demand planning is a multi-step cross-functionally integrated business planning process used to create reliable forecasts. It stretches out from Sales & Marketing to Manufacturing and back to Sales through distribution. Effective demand planning helps to improve accuracy of revenue forecasts, align inventory levels in line with demand changes and enhance product-wise/channel-wise profitability. Its purpose can be seen as to drive the supply chain to meet customer demands through effective management of company resources. The process of consensus demand plan can be explained by five major steps.

4.3.5 Steps of Consensus Demand Plan

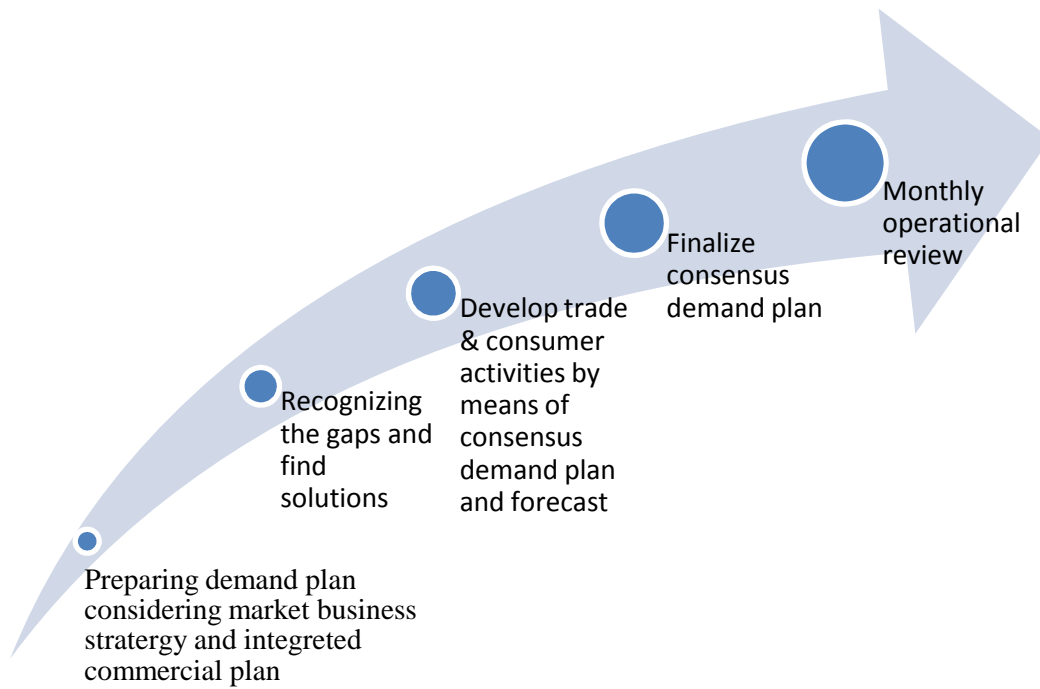


Fig. 4.3.5.1 Steps of Consensus demand Plan

4.3.6 Prepare Demand Plan

The demand plan is prepared based on three key factors. The first one is the market business strategy which combines all the business goals in one comprehensive plan. Then comes integrated commercial planning which is nothing but connecting the planning functions of each department in an organization to align operations and strategy with the organization's financial performance. Then the last factor is updated customer plan and brand plan. These three factors mainly influence the entire preparation process of demand plan. The main objectives of preparing demand are,

- Enrich the Demand Plan taking into account Customer and consumer activities
- Historical sales analysis, trend and seasonality
- Product availability

4.4 Recognizing the Gaps and Find solutions

Implemented Top-line and Bottom-line review dynamically through Monthly GAP Review (MGR) Meeting in respect to Budget and Direct business focus towards achieving business objectives in each periodicity Process:

- Informal Communication for Face to face meeting
- Operational Demand & Supply Review Meeting (OpDSR)
- Weekly Production Review Meeting
- Monthly Gap Review (MGR) Meeting
- Monthly Forecast Review (MFR) Meeting

4.5 Develop trade and Consumer activities

Development in trade has direct in the economy of a company. To increase sells any changes can be make and how the consumers would respond to the changes are needed to be considered.

4.6 Finalize Consensus Plan

When previous steps have successfully completed then the plans needed to be finalized through some agreements.

4.7 Monthly Operational Review

After consensus plan has been finalized the responsible person need to monitor the entire operation. If any problem arises effective initiative should be taken. Analyzing overall situation development of new forecast is done.

4.8 Demand Plan Accuracy

Demand Plan Accuracy (DPA) is measured according to the formula mentioned below,

$$\text{Accuracy (\%)} = \left(1 - \frac{\sum \text{ABS}(\text{Demand Plan} - \text{Actual Demand})}{\sum \text{Demand Plan}} \right) \times 100\%$$

$$\text{Bias (\%)} = \left(\frac{\sum (\text{Demand Plan} - \text{Actual Demand})}{\sum \text{Demand Plan}} \right) \times 100\%$$

Fig. 4.8.1 Demand Plan Accuracy calculation

4.9 Master Production Scheduling

The master production schedule (also commonly referred to as the MPS) is effectively the plan that the company has developed for production, staffing, inventory, etc. It has as input a variety of data, e.g. forecast demand, production costs, inventory costs, etc and as output a production plan detailing amounts to be produced, staffing levels, etc for each of a number of time periods.

4.9.1 Mission of Master Production Scheduling

We want to convert consensus demand plan into Master Production Schedule on weekly basis to ensure 97% customer satisfaction level within next three years.

4.9.2 Steps Involved in Master Production Plan of BPBL

- Creating Design and Implementing FG Stock norms at SKU-level for all the location (Factories and Sales Depots)
- Weekly Production Review Meeting for more frequent planning and coordination and thereby, more dynamically adjustment of the operations according to the current market scenario , optimizing Inventory through nullifying/ reducing unwanted SKU's/ Qty production and improving Customer Service.

4.9.3 Objectives of Master Production Scheduling

- Inventory Management as per DSL (Desired Stock Level) norms
- Implement and improve Weekly Master Schedule
- Ensure optimum Customer Service Level
- Maintain constant and cost effective production growth of factories
- Maintain Nonmoving, Slow moving FG stock within target level at factories
- Collaborative Line Capacity Planning for factories at factory level

4.10 Procurement

Procurement is the process includes formation and managing of a demand as well as the last receipt and confirmation of revenue .Management in any organization must know the art of obtaining products and services. The procurement cycle follows selective steps for identifying a requirement or need of the company through the final step of the award of the product or service. Responsible management of public and corporate funds is important when dealing with this necessary process, in both the strong and weak economic markets. Following a proven step-by-step technique will help management successfully reach its destination.The purpose of this standard operation procedure is to provide Berger Paints Bangladesh Limited with an efficient and consistence way of purchasing raw materials, packaging material, and trading item as required to run the operation of the business

This standard operating procedure applies to the activities to be performed for requesting, approving, ordering and receiving raw materials, packaging materials, and trading items as well as tracking orders throughout entire purchasing cycle exercising competitive sourcing, import processing, clearing and transporting the materials.

4.11 Process

The process “Import Procurement – Direct Materials and Trading Items” contains following process. The process starts with preparing purchase requisition. After preparing purchase requisition the next step is to identify the vendor for purchasing the raw materials. Considering the criteria and quotations the specific vendors are then selected. The next step is opening LC and before that selecting the suitable bank. Amendment can be made if necessary and finally the shipment is followed up and the materials are transported.

Steps are given below.

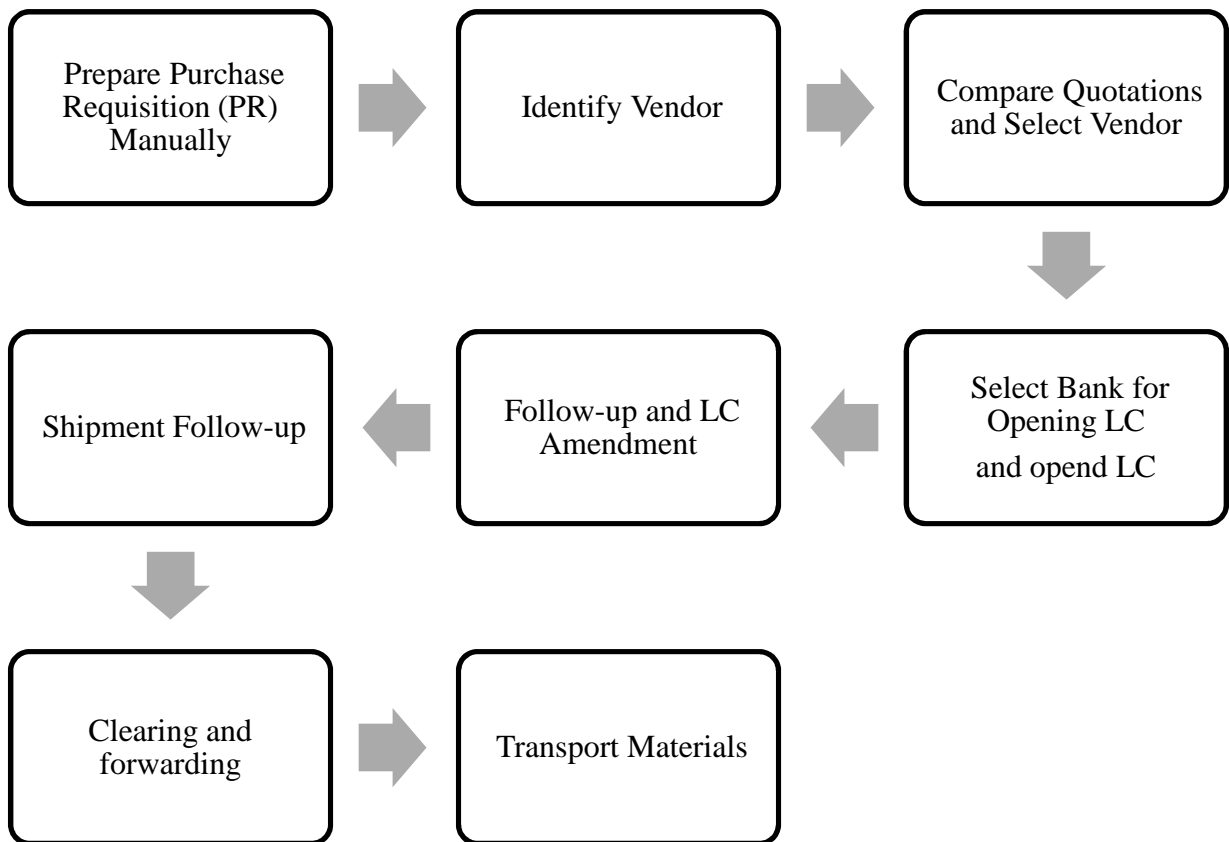


Fig. 4.11.1 Procurement process

4.12 Customer Service and Distribution

To manage & lead the overall Customer Service & Distribution of Berger Paints Bangladesh Limited for all inbound & outbound requirements, from and to all manufacturing location and Sales Depots to all the national customers at optimum 'cost-to-serve'

Ensure robust functioning of Sales Order Management process to achieve the Customer Service levels in line with the set objectives by maintaining Berger Quality & Safety Standards through-out the value chain.

4.12.1 Customer Service and Distribution Profile

Customer service and distribution serves primary stock as per a scheduled Customer Service Plan. The schedule of service for a particular Customer may be from once or twice in a day, depending upon

- The volume of business
- The Customers' location
- Ease of Logistics & Cost Considerations
- Operational importance of the market

These plans are drawn up in agreement with Sales and reviewed on a half yearly basis.

4.12.2 Distribution Setup

The two main factories are situated in Dhaka and Chittagong. The distribution of Berger Paints Bangladesh Limited occurs from this two factory and supply products to Dhaka Central & North, Dhaka South, Feni, Brahmanbaria, Chittagong, Camilla, Maymensingh, Sylhet, Khulna, Rajshahi, Bogra. Rangpur and Barisal.

4.13 Supply Chain End to End Integration Process

Supply chain end to end integration process concludes the steps that are interrelated. The process begins with-

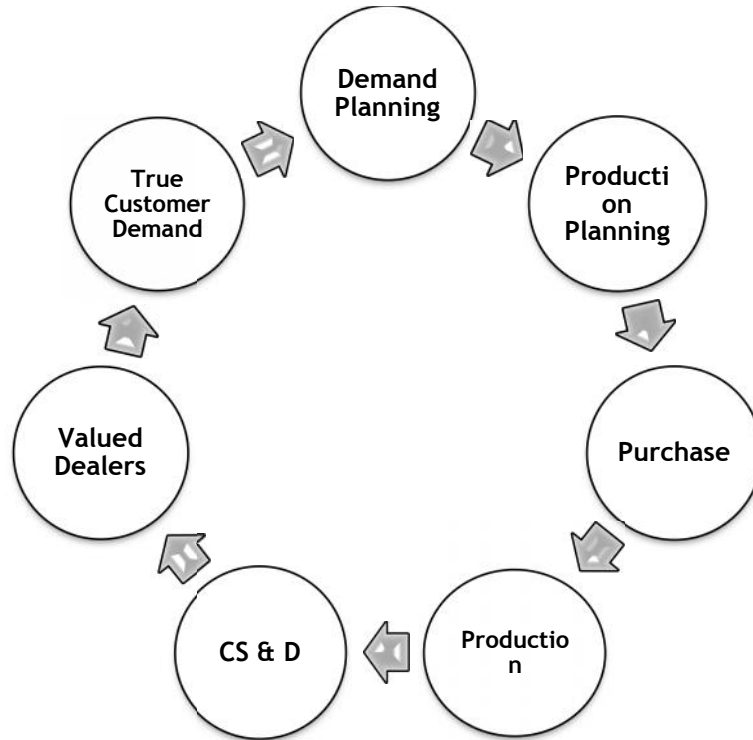


Fig. 4.13.1 End To End Integration Process

4.13.1 Demand planning

Demand planning is basically based on customer satisfaction level and true customer demands. Once the demand planning is done the process proceeds towards production planning.

4.13.2 Production Planning

Production planning will be the arranging about production what's more manufacturing modules for the business. It uses those asset allotment for exercises about employees, materials what's more creation capacity, so as with serve separate clients. Production Planning is very important as profit of the company lies on production planning. The customer demand in different in different territory, the current status and SKU's trend are needed to be considered during production plan.

4.13.3 Purchase

After the production plan the next step is purchase. Basically purchase includes determining appropriated vendors for raw materials and selecting efficient employees for the production of products.

4.13.4 Production

According to production plan manufacturing the products, packaging and leveling all falls under the production.

4.13.5 CS&D

Customer satisfaction level and demands are analyses from different data and observation. Its very important to identify the true customer demand and the market trend to satisfy the customer and available the right product to the right place or market. Customer satisfaction level is basically judge by the delivery quantity against the ordered quantity of the customer. It is the core job of the distribution team is to available and ensure the delivery of the product according to the customer demand.

4.14 E2E- Order to Dealer

E2E order to dealer process is the process which starts from the dealers and end at dealers. Four major steps are involved in this process.

They are:

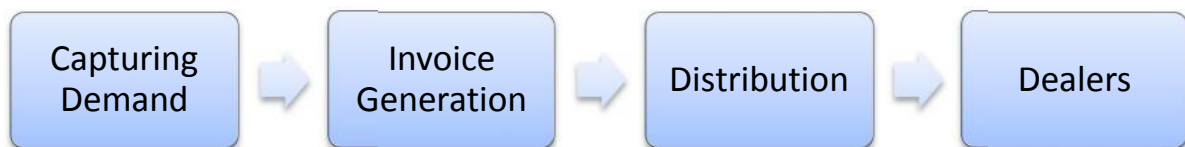


Fig. 4.14.1 End to End- Order to Dealer

4.14.1 Capturing Demand

Capturing demand is important for any company. In BPBL demand are captured by phone calls or by visit. The sales officers visit the dealers to know about their demand. They also use phone calls to the dealers, some proactive phone calls are also made to inform about new services and goods with some promotional offers. Demand capturing is a continuous process for the company to stay one step ahead from the competitors. Follow the recent trends, vast idea about the global and national economy and political, economic, educational growth can give the idea of the demand of the next generation market or demand. To follow the recent trend “Berger Home Decor” and “Berger Apps” is a successful idea and it helps them to reach the young generation and change the concept of painting.

4.14.2 Invoice Generation

Invoice generation is the process of making the list of products going to be delivered and the total cost of the product. Sales Office Distribution In-Charge receives hand delivery of two copies of invoice issued to deliver goods from Sales Support Officer responsible for preparing invoices

4.14.3 Distribution

Distribution process includes route planning and load optimization of the vehicle. From which route the delivered product can reach the destination in appropriate time need to be considered. According to the customer's demand enlisted (listed in vendor database) carrying vendors with their enlisted Driver, Delivery man and vehicle can deliver the product. Vehicle planning is very important and a vehicle should not carry more or less product than its capacity and this is a core job for the distribution officer to optimize the vehicle load. To maintain the distribution cost there are specific target amount are set and it needs to be achieved by the distribution officer.

4.14.4 Dealers

Dealers receive the product and give feedback. If any changes required or any problem occurs they need to contact immediately to the customer service department. Duration for any changing action is within seven working days of product delivery and it's also fixed for the complains.

4.15 Objective of Customer Service Level

The main objective of customer service level is to give a standard internal measure of the reliability of Berger Paints Bangladesh Limited's service level to its customers that is applicable across businesses and markets.

5. Findings and Recommendation

Being a leader of Bangladesh paint industry BPBL has always tried to increase the customer satisfaction level by providing the better service to the customers. Berger Paints Bangladesh Limited has succeeded to run its supply chain department very effectively. Working in the supply chain department of Berger Paint Bangladesh I have observed that there are many complexities in supply chain department and Berger Paints Bangladesh Limited is continuously trying to reduce it, which in turn may cause the increase in customer satisfaction level. Regarding the issue I have some recommendation which I think can help Berger Paints Bangladesh Limited to improve the overall situation of supply chain department.

- I. Increase the number of depots:** There are 64 districts in Bangladesh where as the number of depots are only 13. It is a big challenge for the company to reach its every customer only with 13 depots in the country. Besides the delivery cost for the products are high because of the transport and carrying cost, if the depot's number is increased then it will be easy to deliver the product to the customers and reach the rural market. This will not only reduce the delivery cost also will reduce the delivery time as the product will be already stored in the nearest depot.
- II. Reducing dealer's involvement by establishing own showrooms:** Berger Paints Bangladesh Limited deliver product to the customer via dealers. They provide high range of commissions to the dealers which are indirectly related to the higher cost of the products. Sometimes company has to pay for dealers fault such as if a dealer cannot provide the color customer actually wanted they will have a negative impression about the company. Besides as the company only deals with the dealer not with the customer there is a gap which is one of the greatest obstacles in building good customer relationship. Being not dependent on dealer if Berger Paint Bangladesh opens its own showroom in selective areas this will help to build a good customer relationship through direct interactions with the customers. Also will increase the customer reliability towards the product. There will be less incidents of miss matching as customers will directly order from the company. Such as Samsung. Samsung gadgets and electronics are available in the general showrooms also in its own showroom. Most of the Samsung products are sold from the Samsung's own

showroom because they can rely on and they know they are not buying the duplicate one. Also a showroom acts as great marketing resource because sometimes a location gets entitled by the showrooms name. Such as place near a signal point where Bata showroom is situated is sometimes entitled as Bata signal. So I think this is a very effective process and this will help for the proper distribution of the products and will increase product availability which will gradually help to achieve 100% customer satisfaction Level.

- III. Production Uniformity in both factories:** There are two factories in Berger Paints Bangladesh Limited one is in Chittagong and another is in Dhaka. The problems are they are some products which are manufactured in Dhaka but not in Chittagong also there are some products as well which are manufactured in Chittagong but not in Dhaka. Now if a product is required in Rajshahi which is manufactured in Chittagong but not in Dhaka will increase both the delivery time and cost. It would not be the same if the product manufactured in Dhaka because the distance between Dhaka to Rajshahi is less than that of Chittagong to Rajshahi. This will add an relative advantage in the proper distribution will reduce the inventory cost.
- IV. Manufacture plan for wide range of raw materials:** Berger Paint Bangladesh imports raw materials from some of the best known names in the world: Mitsui, Mobil, Dupont, Hoechst and Basf are a few to names. This increases the production cost of the products. If the raw materials are manufactured within the company then it will reduce the production cost also will add an extra value to the company. It is really hard to reduce price of a product with same quality. Berger Paint Bangladesh has already started manufacturing some of the raw materials but it should be turned in to all the raw materials

6. Conclusion:

It was a great opportunity for me to work with one of the leading company of Bangladesh and I am looking forward to build my career by continuing the job with my consistent hard work. I am still learning how efficiently Berger Paints Bangladesh Limited is managing its supply chain management department one of the complex management system and also got to know the strategy that made them the leader in Bangladesh Paint Industry. Bank Reconciliation, Foreign Exchange Rate Forecasting and Settlement, Calculation and analyzing the bill of daily/Monthly sales, Annual Forecasting and the most important SAP (System Applications and Products in Data Processing) in Supply chain management departments was the part of my learning's.

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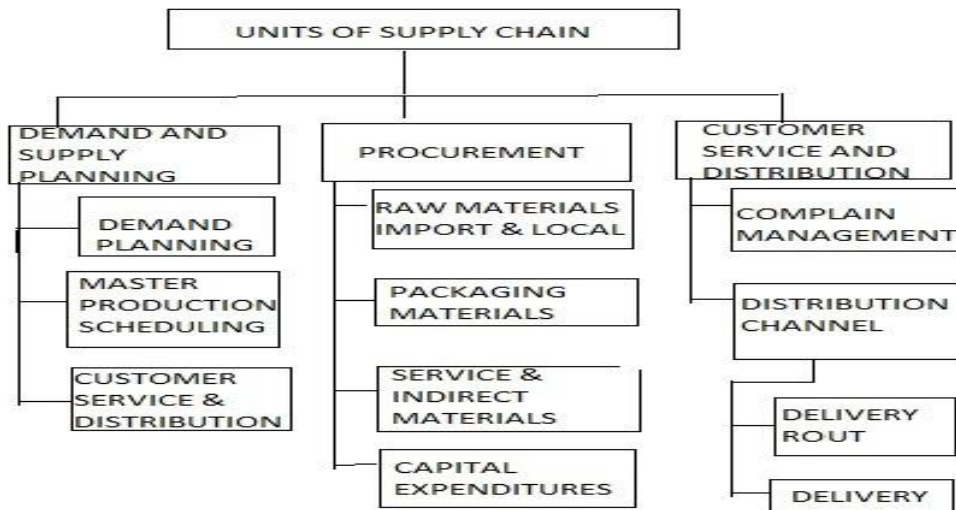
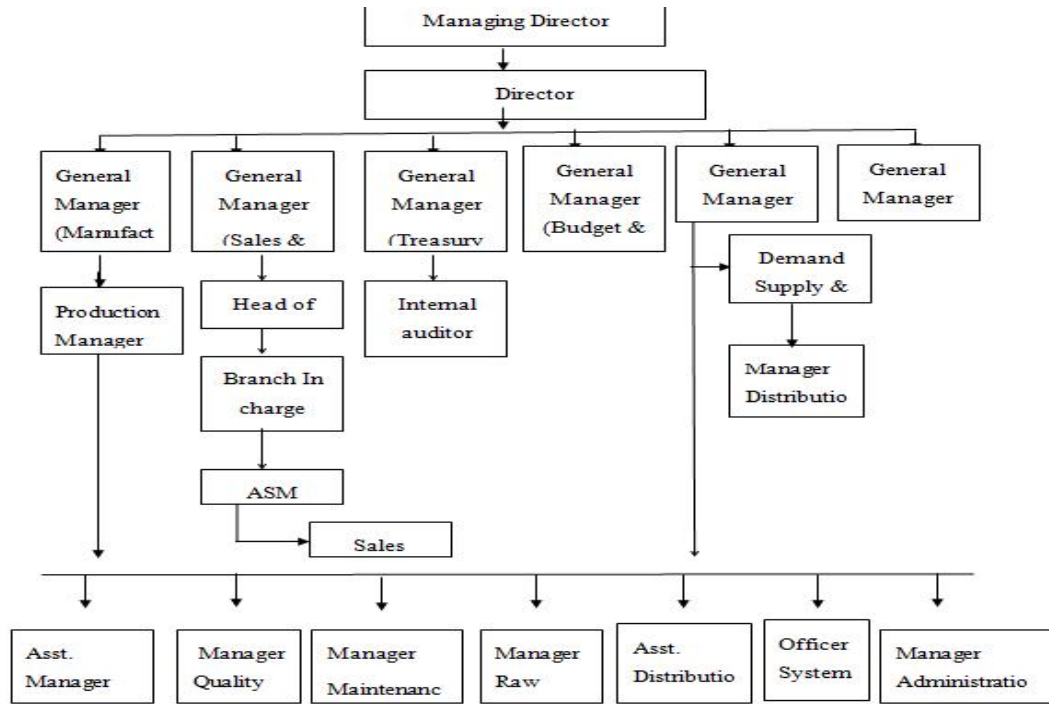
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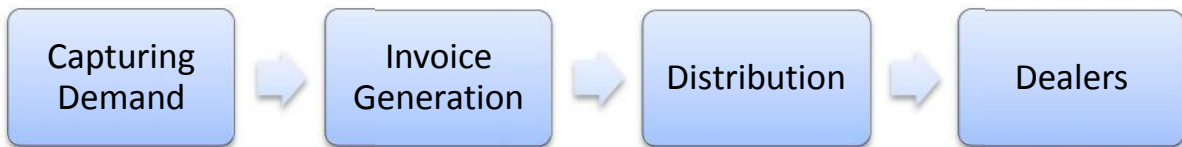
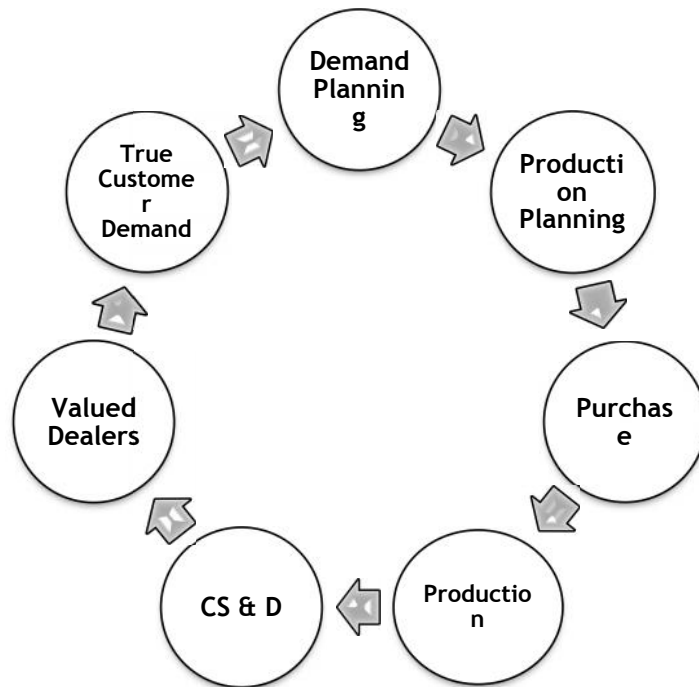
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<http://www.investopedia.com>

SOP Book (Standard operational Procedure)

8. Appendix:





$$Accuracy (\%) = \left(1 - \frac{\sum ABS(Demand Plan - Actual Demand)}{\sum Demand Plan} \right) \times 100\%$$

$$Bias (\%) = \left(\frac{\sum (Demand Plan - Actual Demand)}{\sum Demand Plan} \right) \times 100\%$$

