



Lafarge Surma Cement Ltd.



Internship Report
on
Supply Chain Management
of
“Lafarge Surma cement Ltd.”

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Date of Submission: September 27, 2014



Acknowledgement

Without the support of some legends our life can't be so tranquil and our achievements will get slower. For accomplishing the internship of *Lafarge Surma Cement Ltd*, I have got support from many respectful people. From my university classes to end of the internship, in different phases different people assist me in various way.

At the beginning, I want express my gratitude to *Dr. Mohammed Tareque Aziz*, Associate Professor of BRAC Business School, who became my internship supervisor. From the beginning of my internship, Tareque Azisir guided me many times to write this report with best quality. Sir has shown me the way to learn theoretical aspects of Supply Chain Management and its practical implications. After completing the report, Sir has given his valuable time to check the draft of my report and provided me effective feedbacks.

In the head office of *Lafarge Surma Cement Ltd* some people continuously assisted to learn numerous aspects of Supply Chain. Among those people, I want to thank to *Mazharul Huda Lizan*, Executive Logistics; who was my organization supervisor. During last three months, he taught me every logistics work to the point and assigned me in different activities.

In addition with that, I am glad to *Md. Habibur Rahman*, Manager, Supply Chain Logistics and Planning; who enlightened me with diverse theories of Supply Chain and shared information of how Lafarge implement these theories.

I also want to thank *Nusrat Sharmin*, Executive of Supply Chain Planning, *Shakib Rahman*, Executive of HR Training and Development, *Nafeez Imtiaz Khan*, Executive of country Communication; these people supported me in my work and provided me various information to write this report.

Finally I am grateful to *Mohammad Rezaur Razzak*, Associate Professor of BRAC Business School; who initiated the interest of Supply Chain Management through his course MSC 301.

Yours Sincerely,

Khadija Islam Rifat

ID: 10104098

Executive Summary

Supply Chain Management means flow of goods from the manufacturing organization to end customer through different mediums. In this report various functions of Supply Chain Management are elaborately discussed. The major functions are: Transportation Management, Distribution Management, Inventory Management, Cost Management, Payment Management, Supplier Management, and Customer Service Management.

Along with the theoretical aspects of these functions, this report also provides an outline how “*Lafarge Surma Cement*” operates its Supply Chain of Cement. This organization has the only fully integrated cement plant in Chhatak, Sylhet; whereas its head office situated in Dhaka. LSC has six depots in different places of Bangladesh which support its distribution network.

In this report, the responsibilities of mine in various areas of LSC head office are described here. I have worked in three departments. Mostly I involved in Logistics department, and partly I worked in Human Resource Management and Corporate Social Responsibility.

Finally, from my experience of three months internship I have observed some lacking of LSC. I tried to provide suitable recommendations for the improvement of Lafarge Surma Cement Ltd.

Letter of Transmittal

27September 2014

Dr. Mohammed Tareque Aziz
Associate Professor
BRAC Business School
BRAC University

Subject: Submission of Internship Report on “Supply Chain Management” of “Lafarge Surma Cement Ltd”.

Dear Sir

With great pleasure, I want to inform you that I have completed three months internship in “Lafarge Surma Cement Ltd” which is required for my graduation certificate. Based on this three months experience I have written a report on “Supply Chain Management” of LSC. This report focuses on Logistics activities of LSC through which goods are delivered to its customers on time with quality.

During writing this report I have followed your guideline and tried to relate theory to practice along with my responsibilities in LSC. After that I am ready to express regret if any discrepancies found in this report.

I hope you will be satisfied with this report and provide me a suitable session for viva. I will be very glad to you if I can complete this Internship course with a good grade.

Thank you for your consistent support.

Regards,

Khadija Islam Rifat
ID: 10104098

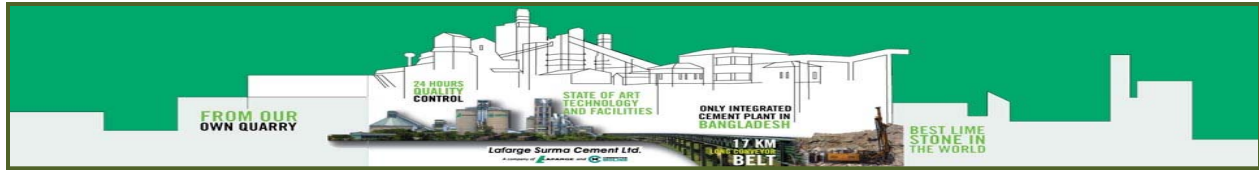
Abbreviations

- LSC- Lafarge Surma Cement Ltd.
- HR- Human Recourse
- LUMPL- Lafarge Umium Mining Pvt. Ltd.
- JDE- Specialized Software uses to automated business
- SCM- Supply Chain management
- TFM- transportation and Freight management
- TMS- Transportation and Management System
- TM- Transport Module
- EDI- Electronic Data Interchange
- KPI- Key Performance Indicator
- BIWTA- Bangladesh Inland Water Transport Authority
- DN- Delivery Note
- DOA- Diligence of Authority
- GRN- Goods Received Note
- S&OP- Sales and Operational Planning
- OP- Order Process

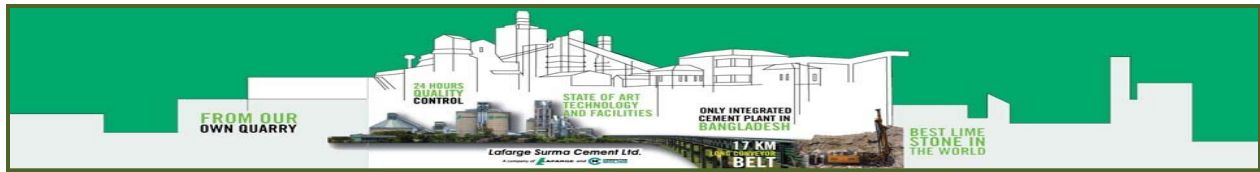


Table of Contents

1.	Introduction	4
1.1	Introduction	5
1.2	Objective of the report:	5
1.3	Methodology.....	6
1.4	Limitations.....	7
2.	Organization.....	8
2.1	History of Lafarge.....	9
2.2	Background of Lafarge Surma Cement Limited	10
2.2.1	Vision & Commitment of LSC.....	10
2.2.2	LSC Products.....	11
2.3	Head Office Management Team	13
2.3.1	Logistics Management Team	14
2.4	LSC Plant.....	14
2.4.1	Production Process	15
2.4.2	Packaging	16
2.4.3	Supply Chain and Logistics	16
3.	Supply Chain & Theory to Practice	17
3.1	Supply Chain Management	18
3.1.1	LSC Supply Chain and Logistics.....	19
3.2	Transportation and Freight Management	20
3.2.1	Transportation and Freight Management	22
3.2.2	My job	24
3.3	Distributer Network	24
3.3.1	LSC Distributer Network.....	25
3.3.2	My responsibility:.....	26
3.4	Inventory and Warehouse Management.....	26



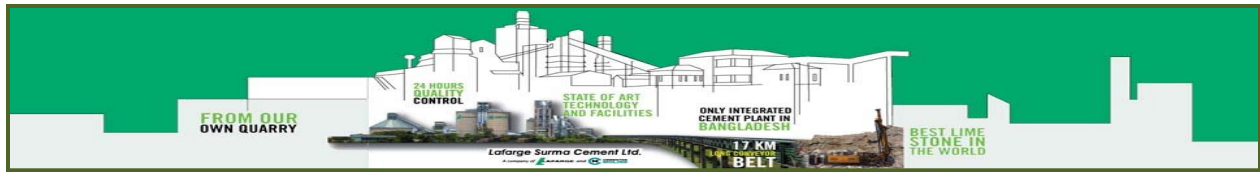
3.4.1	LSC Inventory Facility	26
3.4.2	My job:	27
3.5	Logistics Cost Management and Optimization	27
3.5.1	LSC Cost Management and Optimization	28
3.5.2	My responsibilities:	29
3.6	Roles of IT in Supply Chain: ERP	29
3.6.1	Lafarge Style:.....	30
3.6.2	My assistance in TM.....	37
3.7	Suppliers Relationship Management	37
3.7.1	LSC Logistics SRM Practice	37
3.8	Payment Management	39
3.8.1	My Contribution:.....	41
3.9	People and Organization of Supply Chain and Logistics	41
3.9.1	LSC People Management Strategy	41
3.9.2	Involvement in Supply Chain HRM:.....	43
3.10	Standard Process and Policies.....	43
3.10.1	LSC Shipment Process	44
3.10.2	My contributions:.....	45
3.11	Customer Service Management and Measurement.....	45
3.11.1	LSC Customer Management System	47
4.	Safety and CSR	48
4.1	Corporate Social Responsibilities	49
4.1.1	LSC Community Development Centre.....	50
4.1.2	Participation of mine in LSC Volunteering 2014	52
4.1.3	My Responsibilities:	52
4.2	Safety and Security	53
4.2.1	LSC Health and Safety	53
4.2.2	Health and Safety Month	55
4.2.3	My involvement with health and Safety	56
5.	Observation & Recommendation.....	57



5.1	Observation.....	58
5.2	Recommendation.....	59
	References	61

List of Figures

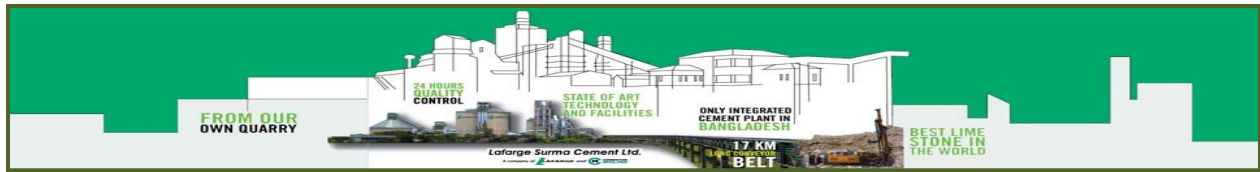
Figure 1:	LSC Ferry Ghat, Chhatak, Sylhet.....	4
Figure 2:	LSC 3-D Plant Model.....	8
Figure 3:	Barge Loading.....	17
Figure 4:	Plant Loading Section.....	17
Figure 5:	Functions of Supply Chain.....	19
Figure 6:	LSC Distribution network	25
Figure 7:	Payment System	40
Figure 8:	Plantation in Chhatak.....	48
Figure 9:	Safety Instruction	48
Figure 10:	Night View of Plant	57



1. Introduction



Figure 1: LSC Ferry Ghat, Chhatak, Sylhet



1.1 Introduction

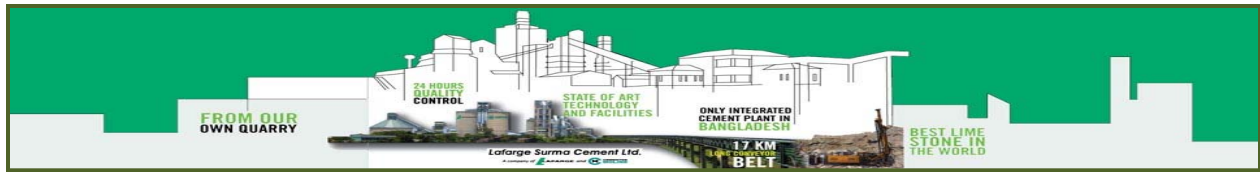
From the history it is assumed that cement is first produced in Mesopotamia, third millennium B.C and later in Egypt. It is a bulk product which can be hydraulic or non-hydraulic. Basic raw materials of Cement are lime (Calcium Hydroxide), Silicate, Belite, Alite, Celite, Brownmillerite. Hydraulic cement is also known as Portland cement, which is used worldwide. There are many other types of Cement as well. The main function of Cement is, it is a binder, and it can bind materials together. In the civilized world, Cement is very necessary product for construction works.

The Cement industry of Bangladesh is quiet large compare to the world and one of the biggest industries in Bangladesh.

1.2 Objective of the report:

As being a student of BRAC Business School I must have to attend the course BUS 400; Internship and I have to submit a report on my job responsibilities. I have started my internship in Lafarge Surma Cement Ltd from 22 June 2014 at the department of Supply Chain. For last three months I worked in different logistics activities of LSC. The core objectives of this report are:

- Relate theoretical approaches of business with the practical scenarios. In this report, I have aligned different Supply Chain theories with LSC strategies.
- Another objective of this report is to gain in depth knowledge about Supply Chain Management.
- Finally, to complete my graduation by presenting this report to my university supervisor.



1.3 Methodology

I have collected information for this report from three sources:

Primary Source:

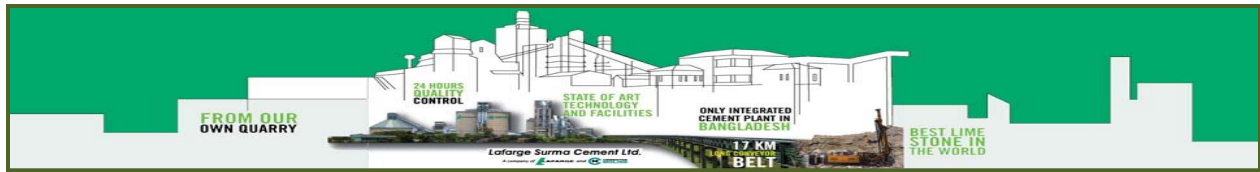
For writing this report I have taken interview of some people in Lafarge Surma Cement Ltd. These people are Habibur Rahman, Manager of Supply Chain and Planning; Md. Mazharul Huda Lizan, Executive of Logistics; Nusrat Sharmin, Executive of Supply Chain Planning, Shakib Rahman, Executive of HR-Training and Development, Nafeez Imtiaz Khan, Executive of country Communication. From these interviews, I have collected much information about how Lafarge run its business in Bangladesh.

Besides that, I have taken summary of the documents on which I worked on, like SOP, Payment Record, Cost analysis etc.

Secondary Source:

To write the theories of Supply Chain I have read different journal and collected information, I have provided references where required. In addition with that I have read many documents of LSC where the policies and procedures are written. These documents helped me a lot for writing this report.

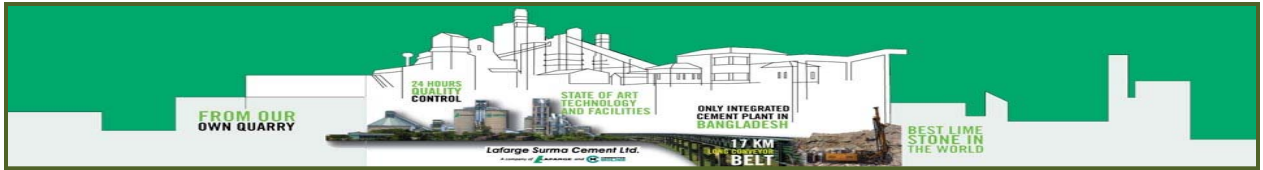
Personal Experiences: I have worked in Lafarge Surma Cement Ltd for three months. During this period I worked in many areas of Logistics and Supply Chain. I have worked in other departments (HR and Corporate Communication) as well for short time. I have learned diversified aspect of business world in these three months. The experience of these three months is the core source of this report.



1.4 Limitations

During writing this report I have to face some limitations. Those are enlisted here:

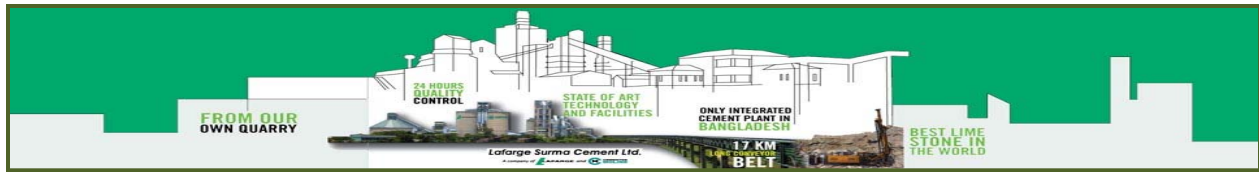
- My work location was LSC Head Office in Dhaka, but the major logistics works happen in plant and in different depots. From Head Office the works are only monitored. I got the opportunity to visit the plant for one day, but within that day it was not possible to observe in depth supply chain activities of LSC. In addition with that, I was unable to observe the warehouse management system directly as I didn't get the chance to visit the depots.
- As I was an Intern, the management didn't share complex business strategies with me. I could only know the overall process and theoretical aspects.
- LSC has strict regulations on its software and internal documents, where I didn't get excess to learn more. In accordance with that sharing information outside of the company is prohibited, so I couldn't write some internal issues.



2. Organization



Figure 2: LSC 3-D Plant Model



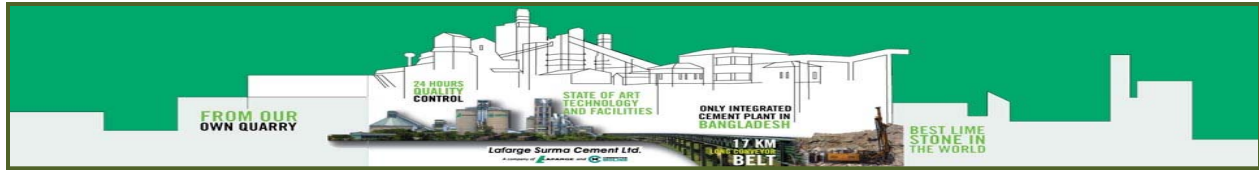
2.1 History of Lafarge

Joseph-Auguste Pavin de Lafarge founded the company Lafarge in 1833 in the city of Le Teil in France with the product of limestone. Gradually the company expanded and acquired its first cement plant in 1987. Now it is operating its business in 62 countries along with Bangladesh. Cement, construction aggregates, asphalt and concrete are main products of Lafarge. Country wise these products vary. *“Anticipate needs to drive advances in construction methods”* is the mission of Lafarge Group. *“Respect, Care and Rigor”* are the solid values of Lafarge. The employees of Lafarge throughout the world also believe in integrity, ethics, courage, empathy, openness, commitment, performance, value creation, respect for employees and local cultures, environmental protection, conservation of natural resources and energy. The Group portfolio of businesses is as follows:

- Cement: 63.5%,
- Aggregates and concrete: 35.9%,
- Other: 0.6%.

At present **Bruno Lafont** is the Chief Executive Officer of Lafarge group. From the record of 2013, Lafarge has 64000 employees throughout the globe. In 2013, its sales were 15.2 billion Euros. It has 1636 production sites in different countries. Lafarge head office is now in Paris, France.

Lafarge built the first research center for building materials where the employees are trying to develop their products without hampering the environment.



2.2 Background of Lafarge Surma Cement Limited

Lafarge Surma Cement Limited started its operation in 11th November 1997 as a private limited company according to Company Act 1994. Later on, it went to public on 20th November 2003. It is the joint venture of Lafarge and Cementos Molins, Spanish company with strong global presence in building materials. LSC has more than 24000 shareholders and listed in Dhaka and Chittagong Stock Exchange.

2.2.1 Vision & Commitment of LSC

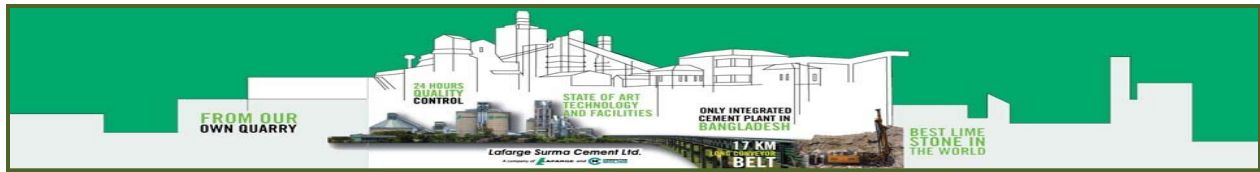
LSC Vision:

To be the undisputed leader in building materials in Bangladesh through

- Excellence in all areas of operations with world class standards
- Harnessing our strengths as the only cement producer in Bangladesh and
- Sustainable growth that respects the environment and the community

LSC Commitments:

- Offering highest quality of product and services that exceed our customers expectation
- Giving our people an enabling environment that nurtures their talents and opportunity to give the best for the organization
- Contribute to building a better world for our communities
- Delivering the value creation that our shareholders expect.



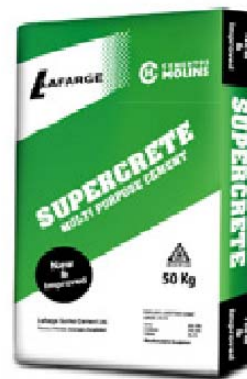
2.2.2 LSC Products

SUPERCRETE

Supercrete is a premium cement brand made for multi-purpose applications, namely - foundation, beam, column, slab masonry, plastering works, etc. This cement is purely limestone based, free of fly ash or slag, unlike other cements in the country.

Unique features of SUPERCRETE are:

- Consistent Quality
- Early Strengths and Setting
- Good Workability
- Superior Finish
- Light Color

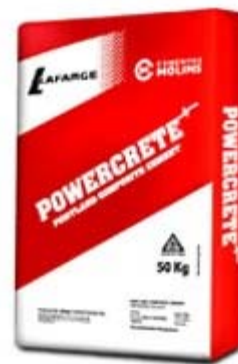


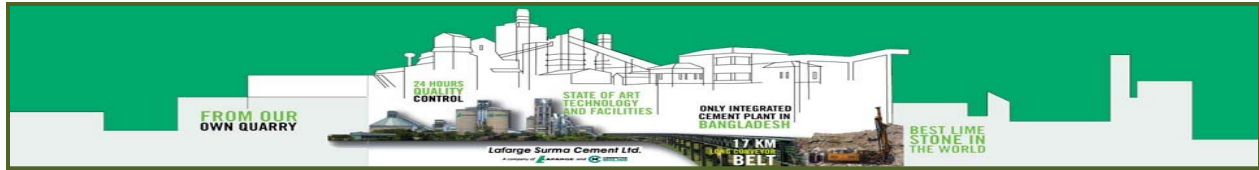
POWERCRETE

Innovative formulation from Lafarge Cement's unequalled technical resources has produced cement that is the effective solution to the productivity demands of large construction projects. Unique particles size and extra fitness reduces voids in concrete which protects the concrete from water contact. Powercrete is available in bulk quantity for big construction projects.

POWERCRETE has the characteristics of:

- Excellent strength performance at all ages
- Good early strength
- Superior workability
- Versatility





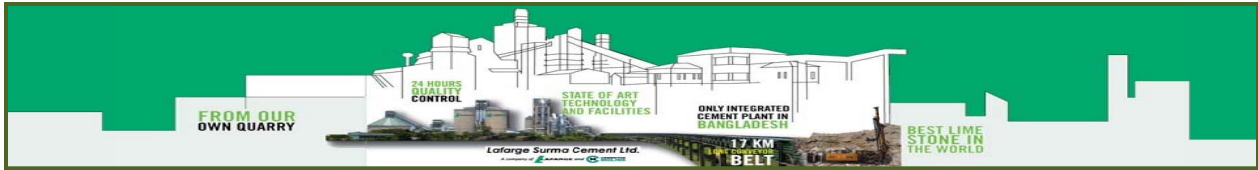
- Enhanced durability

Local Sponsors:

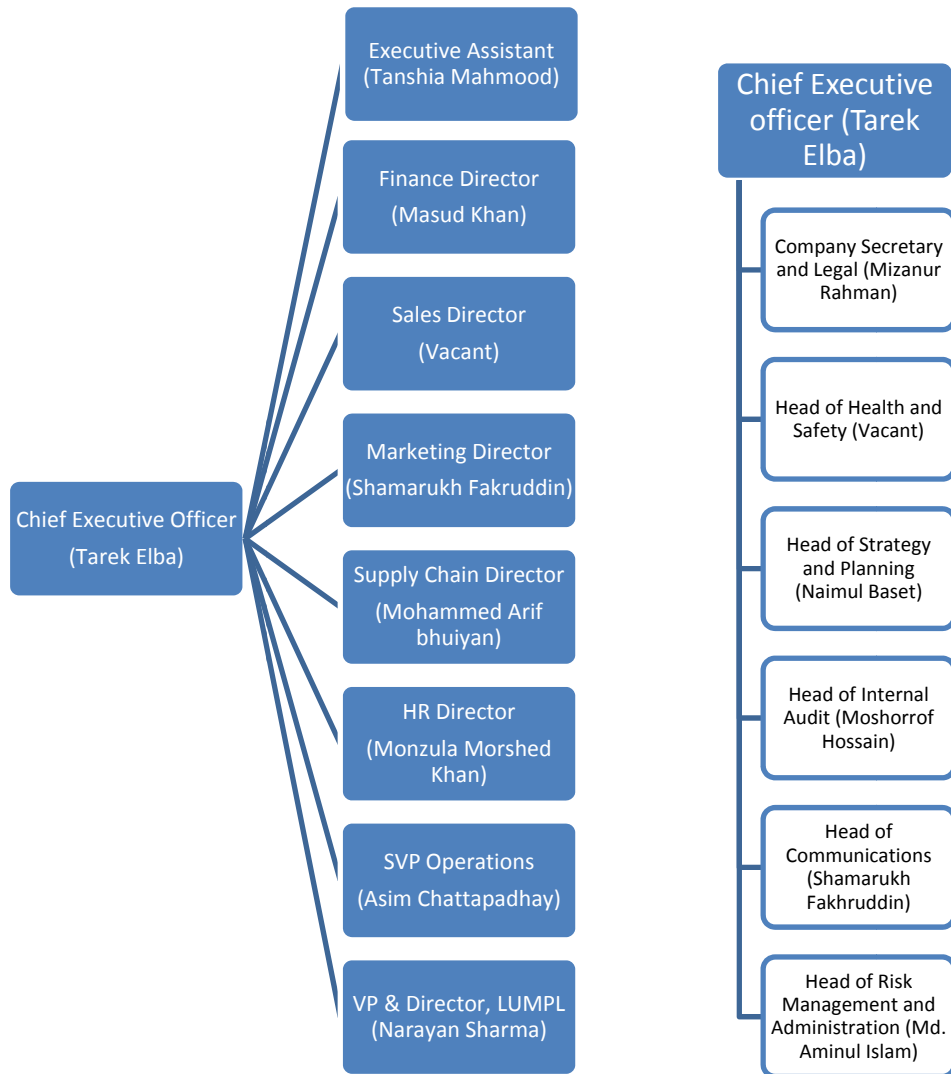
Islam Group and Sinha Group with shareholding of 2.8% and 3% respectively are the local sponsors. The equity partners of the project:

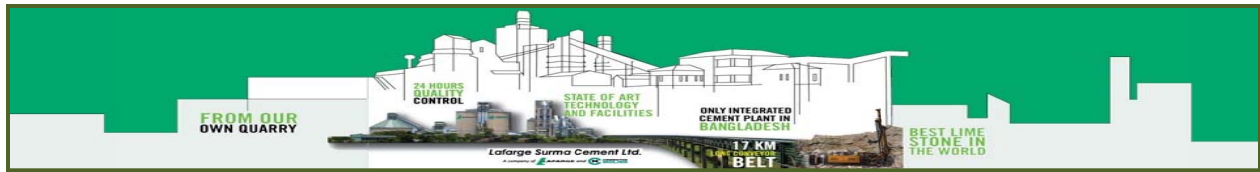
Table 1: LSC Shareholders

Name of the shareholders	Nationality incorporated in
Surma Holdings BV (Lafarge & Molins); 58.87%	The Netherlands
International Finance Corporation; 1.22%	U S A
Sinha Fashions Ltd.; 3.02%	Bangladesh
Islam Cement Limited;2.75%	Bangladesh
Othersshareholders-34.14%	Bangladeshi &NRB

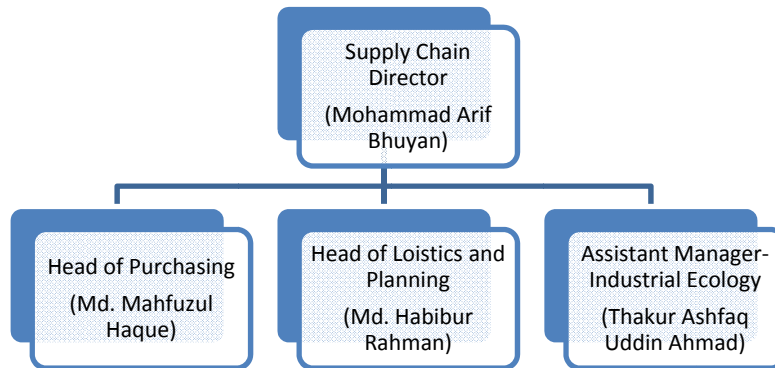


2.3 Head Office Management Team





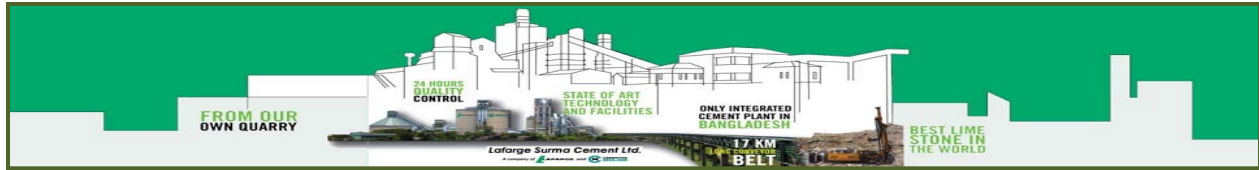
2.3.1 Logistics Management Team



2.4 LSC Plant

Lafarge Surma Cement plant is situated in Chhatak, Sylhet, near the border of India. It is the only integrated cement plant in Bangladesh with 17 km long conveyer belt by which limestone comes from Meghalaya LUMPL¹ quarry. 10km of this conveyer belt situated in Bangladesh and 7 km located in India. The LSC plant is a state-of-the-art and the only fully integrated dry process cement plant in Bangladesh where clinker and cement of high premium quality are produced. The international standard Quality Control and Monitoring Lab ensures that every bag that left the plant carries the same consistent premium quality all the way.

¹ Lafarge Umiam Mining Pvt.Ltd.

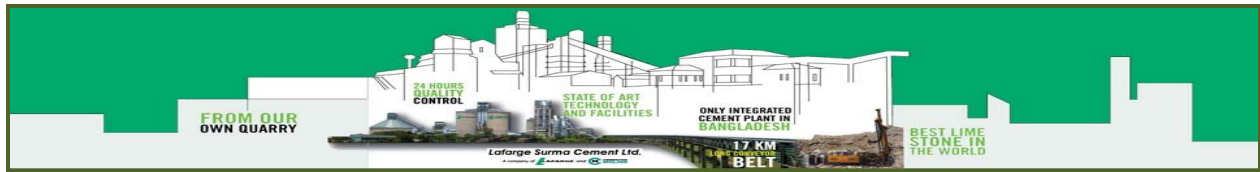


2.4.1 Production Process

The different stages of Cement production is described here:

Major raw materials: limestone, clay, iron & sand.

- In the LUMPL quarry the limestone is crashed into 3 stages and sent to Bangladesh plant through the conveyer belt. Clay, Iron and Sand are collected locally from different places.
- At the starting point of Lafarge plant in Bangladesh, the limestone crashed again and converted into fine particles.
- This fine limestone is mixed with processed iron, clay and sand, and then heated into kiln by 1400 to 1600 degree centigrade temperature. At this high temperature, calcium carbonate, silica, alumina, and iron ore chemically reacted and produce clinker which contains hydraulic calcium silicates, is the main component of cement.
- Initially clinker states in semi fine particles, and then they are placed in the cooler where these become harder and formed a bigger shape. Then these are shaped near equally in another machine.
- In the kiln the clinker is cooled and stored for producing cement, when necessary, these are sent to cement silo for final production. LSC sell clinker directly as well.
- For Producing SUPERCRETE, 65-79% Clinker, 21-35% Limestone and 0-5% Gypsum are mixed and grinded together.
- For producing POWERCRETE, 65-79% Clinker, Slag-Fly ash-Limestone 21-35% and 0-5% Gypsum are mixed and grinded together.
- In the Chhatak plant only SUPERCRETE is produced, POWERCRETE is produced in other cement factory's setup where management run by Lafarge.



2.4.2 Packaging

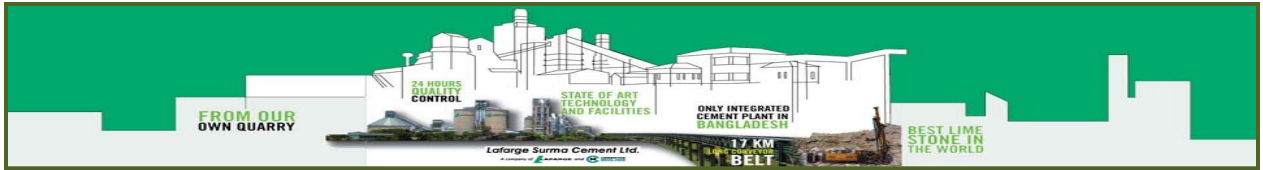
The packaging of LSC is also done in an automated way. LSC has contract with third parties who produce cement bags according to requirements. Each bag weights 50 kg and cement is filled automatically more than 50kg, so that after leakage the quantity does not reduce less than 50kg. Packaged and sealed cement bags are sent through conveyer belt to the barge and truck loader. There are 2 barge loaders and 1 truck loaders in the plant.

2.4.3 Supply Chain and Logistics

Strong logistics ensures on-time delivery and distribution everywhere. The logistics team in plant maintains coordination with Packing, Production and Head Office fleet team.

- When Sales Order placed in Head Office, fleet team manages barge, truck and transporters and send details of transporter to the Plant Logistics Team through JDE² system.
- The vehicle reached to the plant and it is given a card where all of its information (ID, transporter, destination, freight rate etc.) are inserted.
- Empty trucks weighted first and then cement bags are loaded with the help of automatic loader.
- Two labors stack those bags in the truck and do a manual counting for cross check.
- Barges are also loaded in an automatic way for cement and clinker.

² JDE- Software uses in business



3. Supply Chain

&

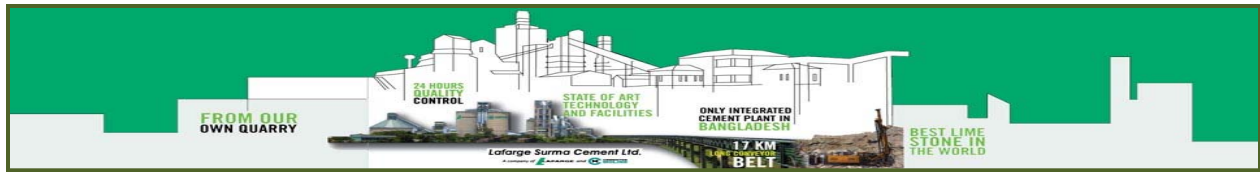
Theory to Practice



Figure 4: Plant Loading Section



Figure 3: Barge Loading

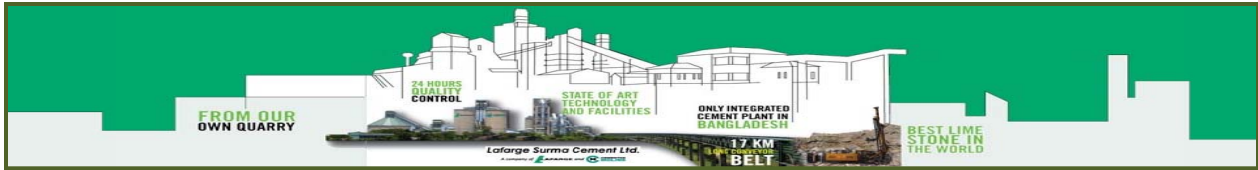


3.1 Supply Chain Management

In definition, Supply Chain management defines the flow of goods, movement and storage of raw materials, placing finished goods from production place to customers through interconnected and interlinked networks of channels and businesses. “Keith Oliver”, a consultant at Booz Allen Hamilton (Booz and Company) brought the word “Supply Chain Management” in business world through his interview for Financial Times in 1982. Gradually, the word spreads to different organizations and became popular in mid 1990s. Major areas of SCM are operation management, logistics, procurement, information technologies, product development, sourcing and production. According to Robert Handfield, Ph.D. (2011), “Supply chain activities cover everything from product development, sourcing, production, and logistics, as well as the information systems needed to coordinate these activities.

The general process of SCM follows, design planning, execution, control and monitoring to maximize customer value and achieve a sustainable competitive advantage. Through SCM organizations gain various objectives, like creating net value, building a competitive infrastructure, leveraging worldwide logistics synchronizing supply with demand, measuring performance globally, calculating supply chain transactions, managing supplier relationships, and controlling associated business processes.

A definition is given by Hines (2004:p76): "Supply chain strategies require a total systems view of the links in the chain that work together efficiently to create customer satisfaction at the end point of delivery to the consumer. As a consequence, costs must be lowered throughout the chain by driving out unnecessary expenses, movements, and handling. The main focus is turned to efficiency and added value, or the end-user's perception of value. Efficiency must be increased, and bottlenecks removed. The measurement of performance focuses on total system efficiency and the equitable monetary reward distribution to those within the supply chain. The supply chain system must be responsive to customer requirements."



Council of Supply Chain Management Professionals (former Council of Logistics Management) defines “Supply Chain Management is the systemic, strategic coordination of the traditional business functions and the tactics across business functions within a particular company and across businesses within the supply chain for the purposes of improving the long- term performance of the individual companies and a supply chain as a whole” (CSCMP 2005).

Organizations can provide a commitment to its customers through SCM to coordinate order generation, order taking and order fulfillment with appropriate quality and quantity at a right time.

3.1.1 LSC Supply Chain and Logistics

Lafarge Surma Cement, Supply Chain has three divisions and logistics team has two subdivisions:

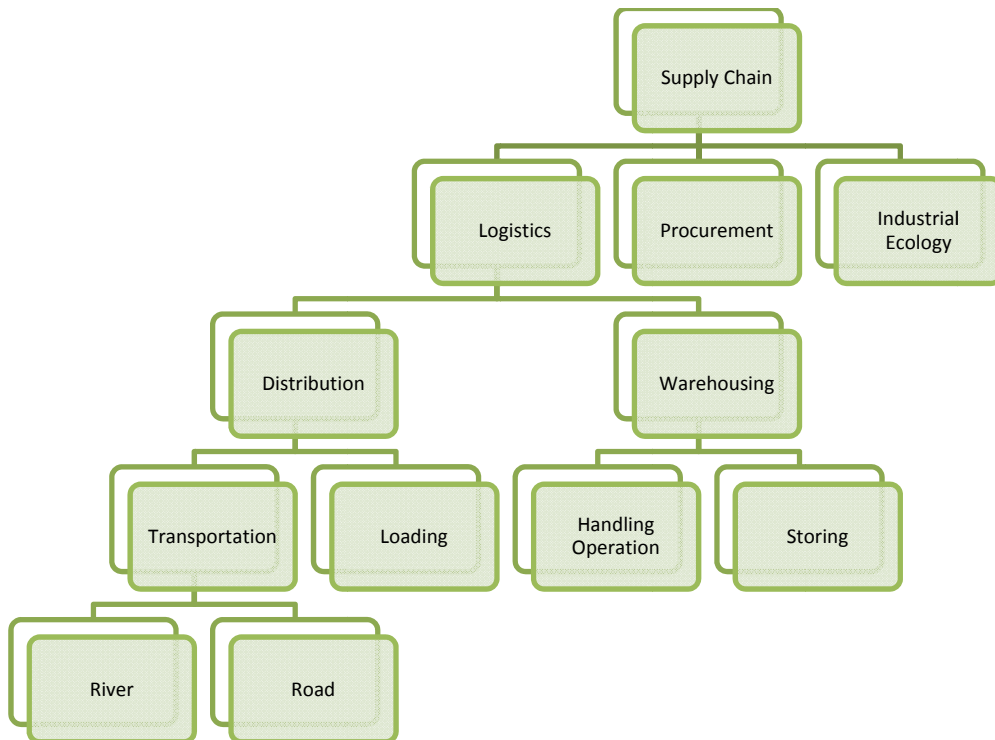
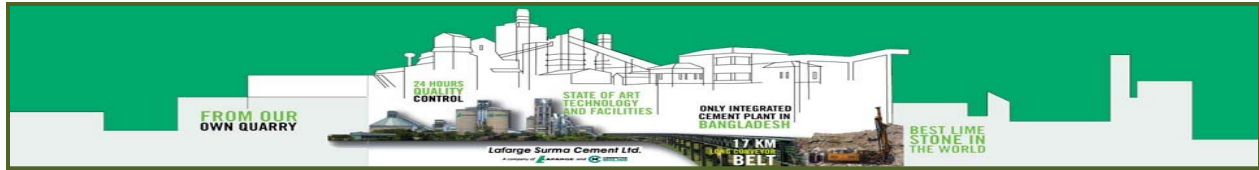


Figure 5: Hierarchy of Supply Chain



Principal functions of LSC Supply Chain Management are:

- Transportation Management
- Distribution Management
- Inventory Management
- Cost Management
- Payment Management
- Supplier Management
- Customer Service Management

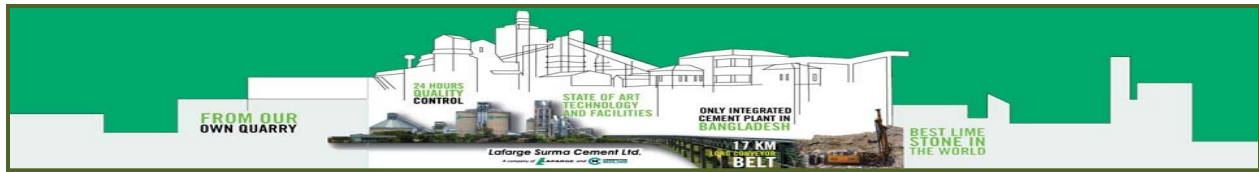
3.2 Transportation and Freight Management

Transportation is one of the core segments of SCM which concerns with freight management, shipment and transportation allocation with vehicle type, shipment size, frequency etc. TFM works for both inbound (procurement) and outbound (shipping) orders. Transportation and Freight Management mostly deals with flow of goods and information.

With the help of TFM people can find out the cost of transportation of goods, it maintains the quality of goods during transportation, can find out the best route and mode for the easiest transportation.

Transportation management systems manage *four key processes* of transportation management:

1. Planning and decision making – TMS will define the most efficient transport schemes according to given parameters, which have a lower or higher importance according to the user policy: transport cost, shorter lead-time, fewer stops possible to ensure quality, flows regrouping coefficient, etc.



2. Transportation Execution – TMS will allow for the execution of the transportation plan such as carrier rate acceptance, carrier dispatching, EDI etc.

3. Transport follow-up – TMS will allow following any physical or administrative operation regarding transportation: traceability of transport event by event (shipping from A, arrival at B, customs clearance, etc.), editing of reception, custom clearance, invoicing and booking documents, sending of transport alerts (delay, accident, non-forecast stops...)

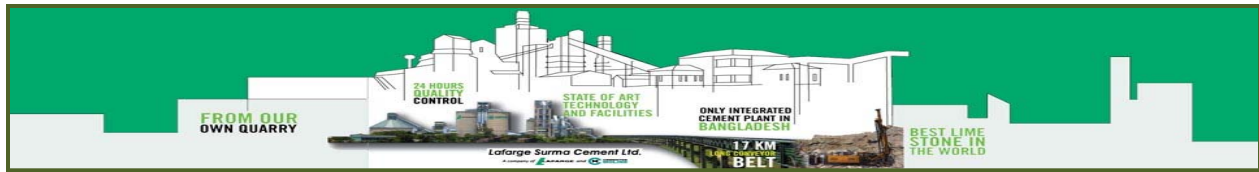
4. Measurement – TMS have or need to have a logistics key performance indicator (KPI) reporting function for transport.

(Vanek, 2014)

Transport and freight management helps organizations to improve the economic well-being, social interaction, quality of physical environment and quality of daily life. It remains the bridge between demand and supply by fulfilling the demand of people in new location where no local supplies are available. Some components of TFM are: transit time, reliability, accessibility, capability, Security (Coyle, 2011)

Requirements for perfect TFM

- For long distances water and rail modes are cost effective in terms of transportation. Organizations’ fix their transport mode based on distance. To compete in the business many organizations pursue the government to improve the infrastructure and services of rail and marine modes.
- Standard schedule should maintain for availability of vehicles and manpower to transfer goods. It can be done efficiently through increased computerization and coordination among distributors. For easy transportation regional delivery system should be followed. During distributing goods in urban areas human powered transport should be used.
- Freight can be reduced by reducing volume and unnecessary packaging

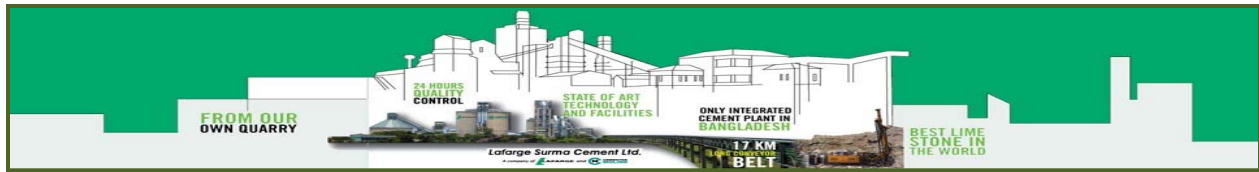


- Implement fleet management programs that reduce vehicle mileage, use optimal sized vehicles for each trip, and insure that fleet vehicles are maintained and operated in ways that reduce external costs (congestion, pollution, crash risk, etc.).
- Change freight delivery times to reduce congestion.
- Land use accessibility should increase by clustering common destinations together, which reduces the amount of travel required for goods distribution.
- Vehiclefuels have to maintain efficiently and reduce emissions through design improvements and new technologies. These include increased aerodynamics, weight reductions, reduced engine friction, improved engine and transmission designs, more efficient tires, and more efficient accessories.
- Training should improvise for vehicle operators to encourage more efficient driving.
- Improve passengers’ ability to carry luggage and other baggage on public transit (Goldman and Murray 2011).

Now a day’s organizations use ERP system for smoothen TFM. Some software providers are either acquired or merged with supply chain management consultancies and started offering shippers "blended"; managed and software services as an outsourced process. With new innovations and technologies the efficiency of freight and commercial transport is getting improved.

3.2.1 Transportation and Freight Management

LSC has a very structured transportation and Freight Management System. It follows two modes of transportation: Barge and Truck. From plant the majority transfer happens with barge and from depot majority transfer happens with trucks. LSC has contracts with some transporters who transfer LSC products regular basis. The freight is fixed for per bags in terms of cement. In terms of clinkers the freight is fixed by weight. GMS International Surveyor provides us the amount carried by any barge.



Transportation Types

Stocks Transfer from Plant to Depots:

As per LSC business model stocks are being transferred from plant to depots and terminals. This is called sales transfer/stocks transfer (ST). This is also called as internal transfer. For this type of shipment LSC fleet operation team arranges transports by road & river and enlisted suppliers provide required number of transports as per requirement of business which is governed by transports planning and execution process. This transfer incurs the cost of freight, handling, BIWTA charges; empty bags consumption, demurrage etc which is called as ***“ITC” (Internal Transfer Cost).***

Delivered Basis Sales:

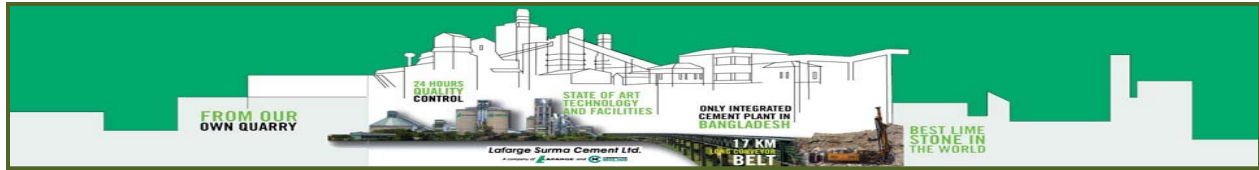
As Executive Logistics (Fleet Operations) arrange the transports (road/river) for delivering stocks at customer end upon request from sales team and availability of “SO” in systems. This is called “delivered basis” sales/shipment for which LSC is fully responsible for freight and other issues which will be covered by other part of shipment process. This shipment incurs cost of freight, handling, empty bags consumption, demurrage etc. which is called ***“FTC” (Freight to Customer)***

Customer Pick-up Carrying:

There is another type of transportation which is called ***“Customer Pick-up Carrying”***. In this context customer will arrange transports (trucks/barges/trawler) at his own responsibility and send the same with proper documentation (DN, authorization Paper). The vehicles/transports will also follow queue systems (serial) for loading at respective location.

Shortfall/ Damages

During delivery to customers there may be short fall in bags. Customer will inform sales team about shortfall. Thereafter sales team will inform HO Logistics team (fleet operation) and Customer Care Department. After that, Sales Operation & Customer Care will make a joint visit



to customer site for investigation of claim. Based on the investigation report, fleet team will take necessary action on the basis of transport agreement.

3.2.2 My job

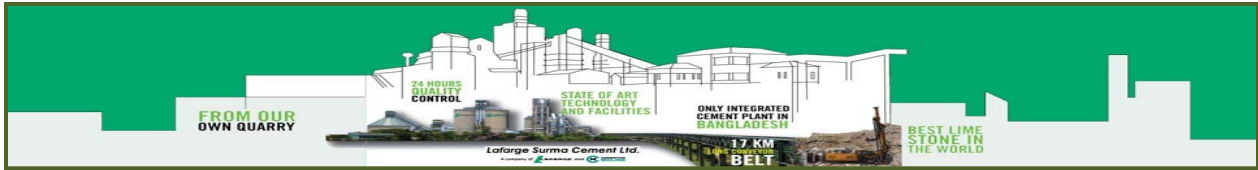
In this area, I used to compile monthly transfer costs (freight, handling, BIWTA charges; empty bags consumption, demurrage) for each transporters and kept record.

3.3 Distributer Network

Distribution network is another big segment of Supply Chain Management which is a system interrelate management of people, storage facility and transportation through which goods and services are transferred from manufacturer to consumers. It is one of the key drivers of profitability. With a structured distribution network a company can gain low cost and high responsiveness. The major importance of distribution network is to provide goods and services to customers when they want. Large as a multinational company, follows different distribution networks based on their customer's requirement. For instance, Walmart control their cost and maintain its competitive advantage with the help of thousands of associates, a privet fleet of drivers, numerous distribution centers and transportation offices and minimizing the number of miles its trucks travel empty.

There are three types of distributions in terms of manufacturing industry. They are:

1. **Primary Distribution:** when goods are distributed from plants to different warehouses or depots that is called primary distribution.
2. **Secondary Distribution:** when goods are distributed from warehouse to customers that is called secondary distribution
3. **Tertiary distribution:** when goods are distributed from warehouse to retailers that is called tertiary distribution.



3.3.1 LSC Distributer Network

For smooth distribution of products, LSC has six depots in Kutubpur, Kanchpur, Sylhet, Nowapara, Mirpur and Dipnagar. From plants cement is sent to these depots as stock, so that goods can be transferred to the customers as early as possible. Kutubpur depot is fully owned by LSC; others are handled by third party but monitored and controlled by LSC. At every point LSC has handling contractor to load and unload goods swiftly.

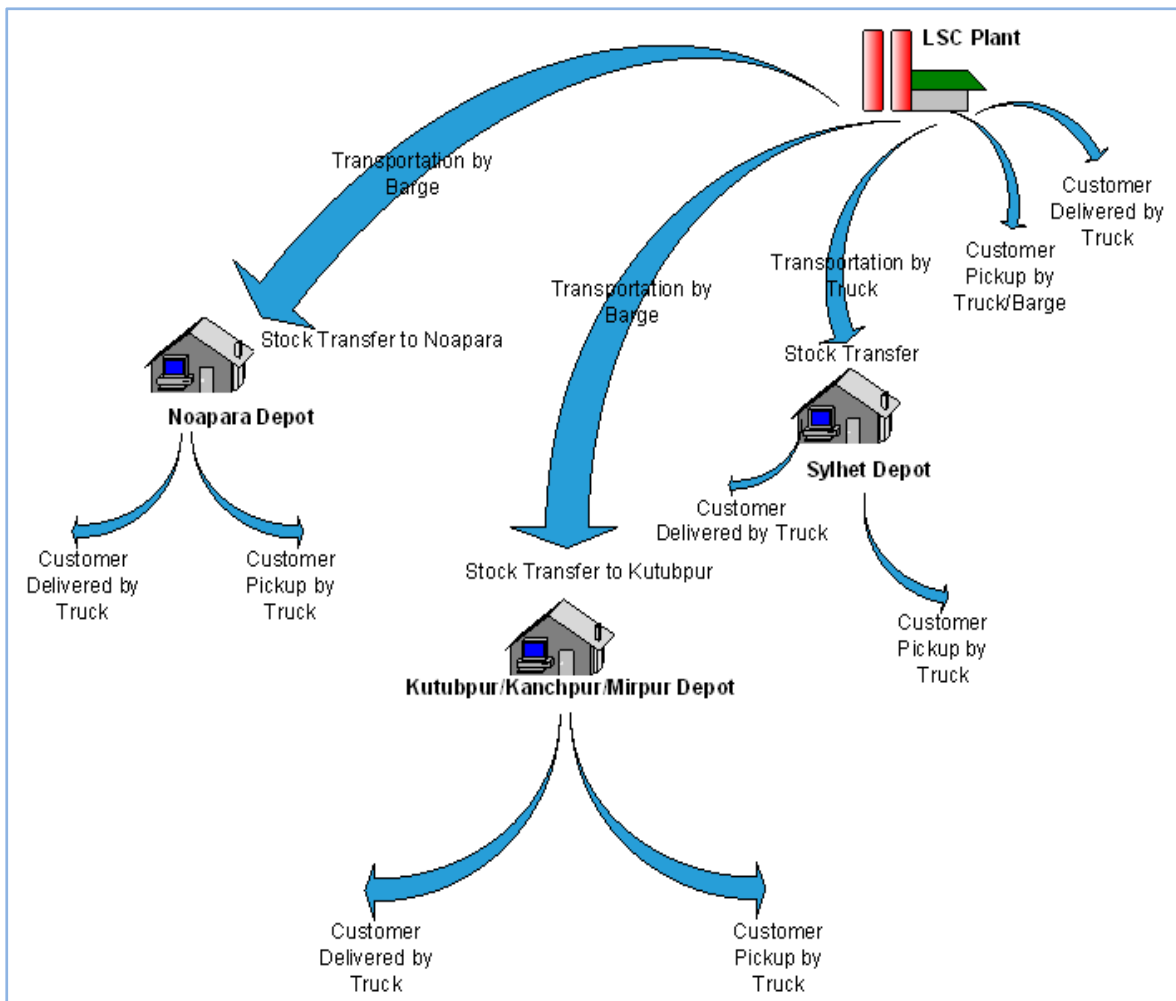
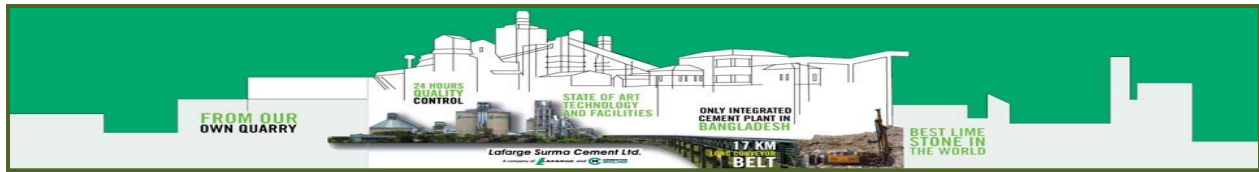


Figure 6 LSC Distribution network



3.3.2 My responsibility:

In this segment, my responsibility was to collect the handling bills, recheck them and after processing, send to Accounts Payable for payment. Besides that I analyzed those bills to find out whether we can minimize cost at any point.

3.4 Inventory and Warehouse Management

The performance of a supply chain (responsiveness and efficiency) is determined by decisions in the areas of inventory, transportation, facilities and information. Inventory is maintained in the supply chain because of mismatches between supply and demand. Supply Chain network design and modeling is a complex system and inventory make it more complex but it also provides profitability to the company. Inventory is very significant cost driver.

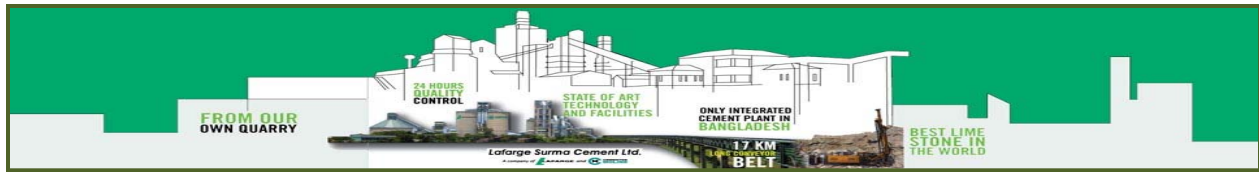
For different industry and products inventory is kept and managed in different ways. Increasing inventory gives higher responsiveness but results in higher inventory carrying cost.

A grocery store supply chain should use historical demand patterns for seasonal items to relieve stress on all members and provide customers with product during peak demand periods.

For automobiles the supply chain is designed in such a way, and assembly operations are located with proximity to markets, then the supply chain can be run cheaply without holding too much inventory in transit.

3.4.1 LSC Inventory Facility

For safety, smooth transportation, and customer satisfaction, LSC keep inventory in its six depots and plant. They keep the inventory in such a way so that easy transfer is possible. Right after production the goods are sent to depots according to free space in each depot. Depots size and location were established based on the demand of customer and easy transfer facility of that area. In cases of emergency cement kept in the storage house of plant. In the warehouses cement bags



are kept in stacks. Stacking is done in a systematic way so that cement bags can easily take out when necessary. From the warehouse, old cement bags are dispatched first and then new bags. Besides warehouses, there are dump areas where stocks are kept as well.

Stocks shortage or damage

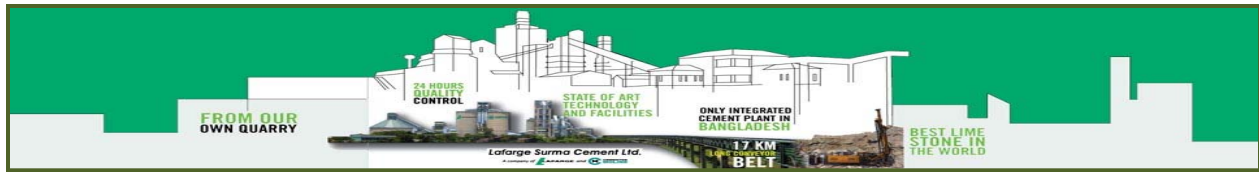
In the warehouses stock shortage or damage may take place during operations at those storage places. If stock shortage or damage is identified in 3rd party depots (warehouse / dump) during reconciliation, Depot In-charge will give official letter to warehouse / dump owner for joint reconciliation. After joint reconciliation, Depots logistics team will take up the issues with warehouse contractor on the basis of service agreement and stocks value will be deducted from contractor’s bill. If LSC is responsible for stocks shortage or damage for whatsoever reasons (like long storage & then sweeping) then stocks adjustment will take place as per DOA of the company. LSC & transport contractor will settle insurance claim where applicable as per the terms of the service agreement.

3.4.2 My job:

In this sector, I analyzed the data of depot size, capacity, volume and other aspects to find out the cost effective way of inventory management and handling from plant and depots.

3.5 Logistics Cost Management and Optimization

For ensuring long term sustainability in business, organizations should utilize the resources at best it can be with the lower cost. Evaluating all alternatives, the best strategy should be followed for cost optimization without compromising quality. Strategic sourcing, manufacturing in low-cost countries, and redesigning distribution networks are some ways to reduce cost. According to ATKEARNEY, “A total cost optimization strategy aims at minimizing total costs—in materials, conversion, distribution, taxes and incentives—through an optimal production and distribution plan for each planning period.”“Companies that employ a total optimization strategy can reduce their total delivered costs by 1 to 2 percent on an ongoing basis.”(Saurine Doshi) For better profitability organizations use technology and recruit highly experienced



people to find out best strategy for cost optimization. Now a day's organizations are trying to apply green supply chain to reduce cost and save the environment.

3.5.1 LSC Cost Management and Optimization

Lafarge, using the LCA (is a standardized method which allows the integral record, quantification and evaluation of the environmental damages connected with a product, a procedure, or a service in the context of a given question) method, has identified a number of levers which will reduce the cost of constructions throughout their lifecycle while maintaining or increasing their social and environmental performances:

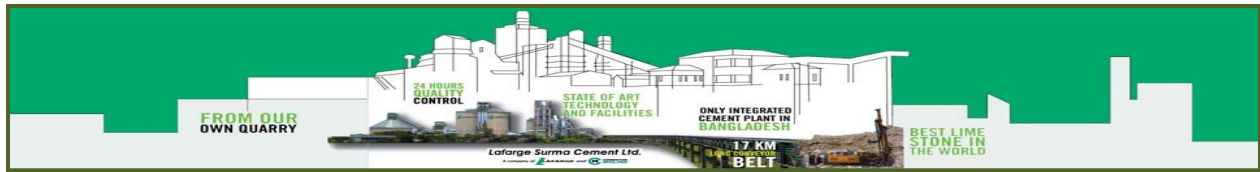
- Reduction in production costs;
- Savings in worksite time and resources;
- Design of buildings and constructions which are economic in their usage phase (energy consumed, maintenance, etc.);
- The durability, flexibility and recyclability of constructions and buildings over time, i.e. their ability to be rehabilitated

Logistics Cost Reduction

Transportation through river mood is 3 times less costly than transportation through road. That's why LSC transport its two third production of cement from plants with barge through river mood. Only cement required for Sylhet depot is transferred by truck. In terms of transferring from depots to customer it is very difficult to send through barge. When cement is send by company transport, in longer route cost increases but in shorter route cost reduces. So LSC reduce cost by selecting shorter route for company transfer and avoid longer route.

Another way to reduce logistics cost is negotiation with the transporters and handlers which mostly depends on amount and optimizing capacity utilization.

For inventory the cost sometimes fluctuates. LSC continuously monitor how cost can be reduced without reducing quality and service.



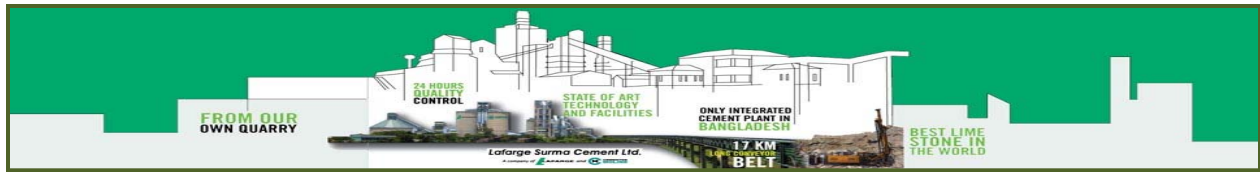
3.5.2 My responsibilities:

- In this section I helped my supervisor to analyze monthly cost. Every month I collected breakdown handling cost from all depots in charges and combined all those. Finally submitted the summary to my supervisor to take further decision.
- From the sales report of every month I made a summary of 2013 and YTD 2014, the cost incurred for transportation to each depot and from depot to customers.
- I made a presentation on how transferring depots placement will reduce overall cost.
- For logistics, every year a budget is given for variable cost. I collected actual variable costs YTD 2014 and made a comparison of balance.

3.6 Roles of IT in Supply Chain: ERP

With the development of software engineering, now a day's business is run with the help of different software. This software can be customized according to various business requirements. Enterprise Resources Management (ERP) is very well known enterprise management software which helps to computerize the business process. Using a common database business can run through different departments and different places. ERP system track business resources accurately.

Supports done by ERP: Product planning, cost and development, manufacturing or service delivery, marketing and sales, inventory management, shipping and payment, distribution process management, supply chain management, services knowledge base, configure, prices, improve accuracy of financial data, facilitate better project planning, automate employee life-cycle, standardize critical business procedures, reduce redundant tasks, assess business needs, accounting and financial applications, lower purchasing costs, manage human resources and payroll. ERP facilitates information flow between all business functions, and manages connections to outside stakeholders and error free transaction and production. Though early ERP systems focused on large enterprises, smaller enterprises increasingly use ERP systems.

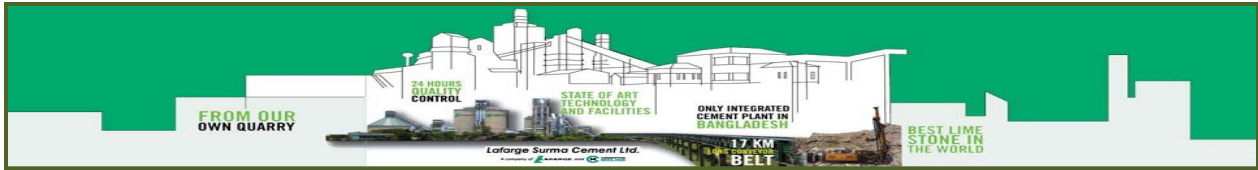


3.6.1 Lafarge Style:

LSC use the JD Edwards customized system for its business. The central server of LSC is situated in Singapore but it is controlled from Malaysia. Every department of head office and depots has different function in JDE.

Consequence of TM:

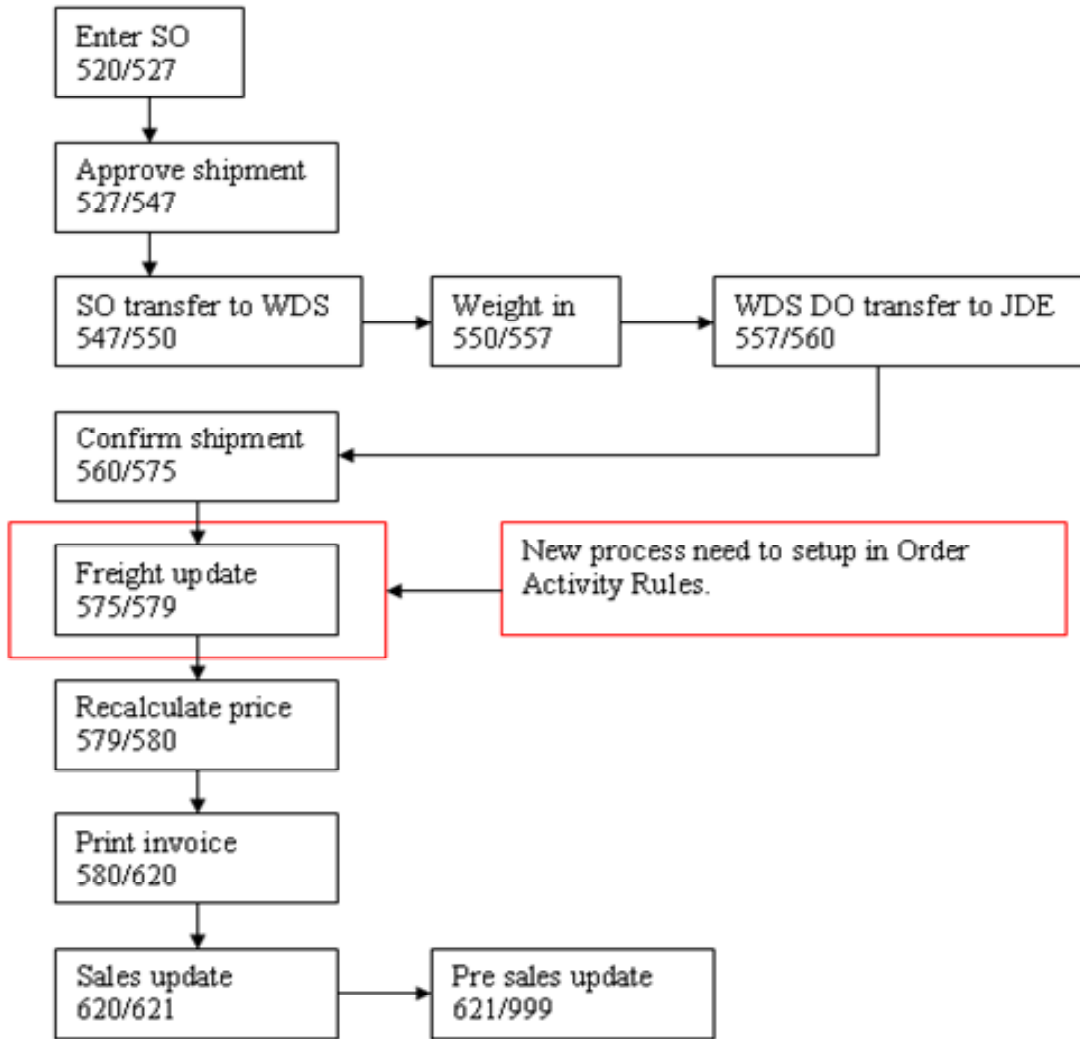
- Visibility of transportation cost.
- Eliminate a lot of manual jobs.
- Easy bill checking and smooth payment process.
- Route wise cost analysis and identify opportunity of gain.
- Transporter satisfaction for on time payment.
- Solid foundation for a freight database.
- Target achievement and overcome group audit observation
- Activates JDE Logistic part.

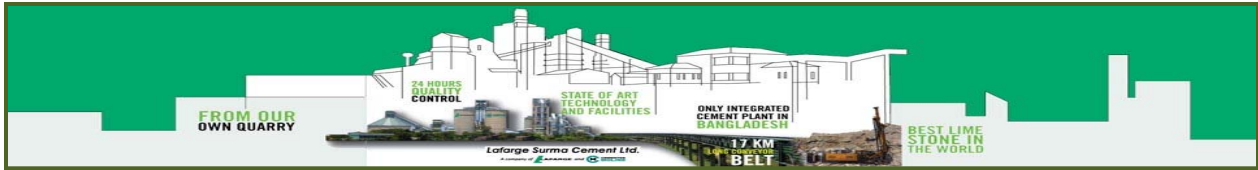


JDE Order Activity rules:

Transportation Setup

Orders Activity Rules – P40204

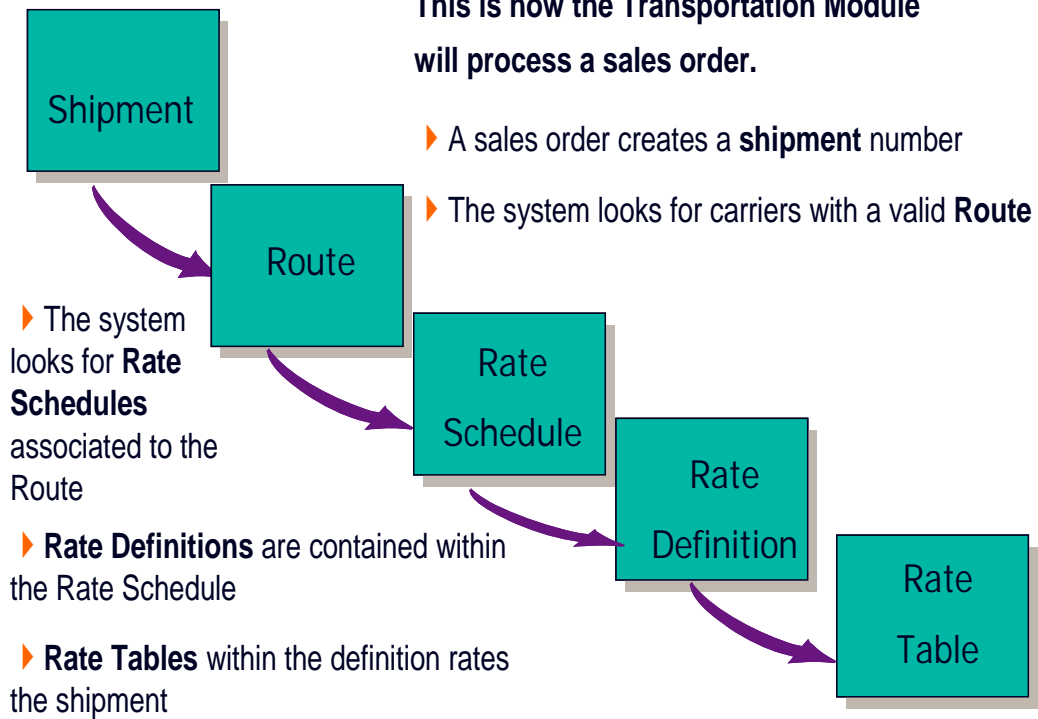


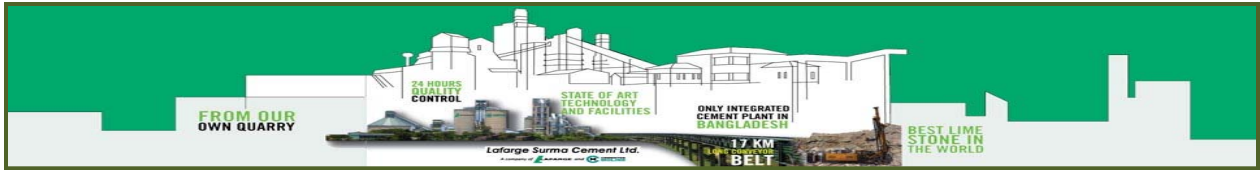


Routing option process:

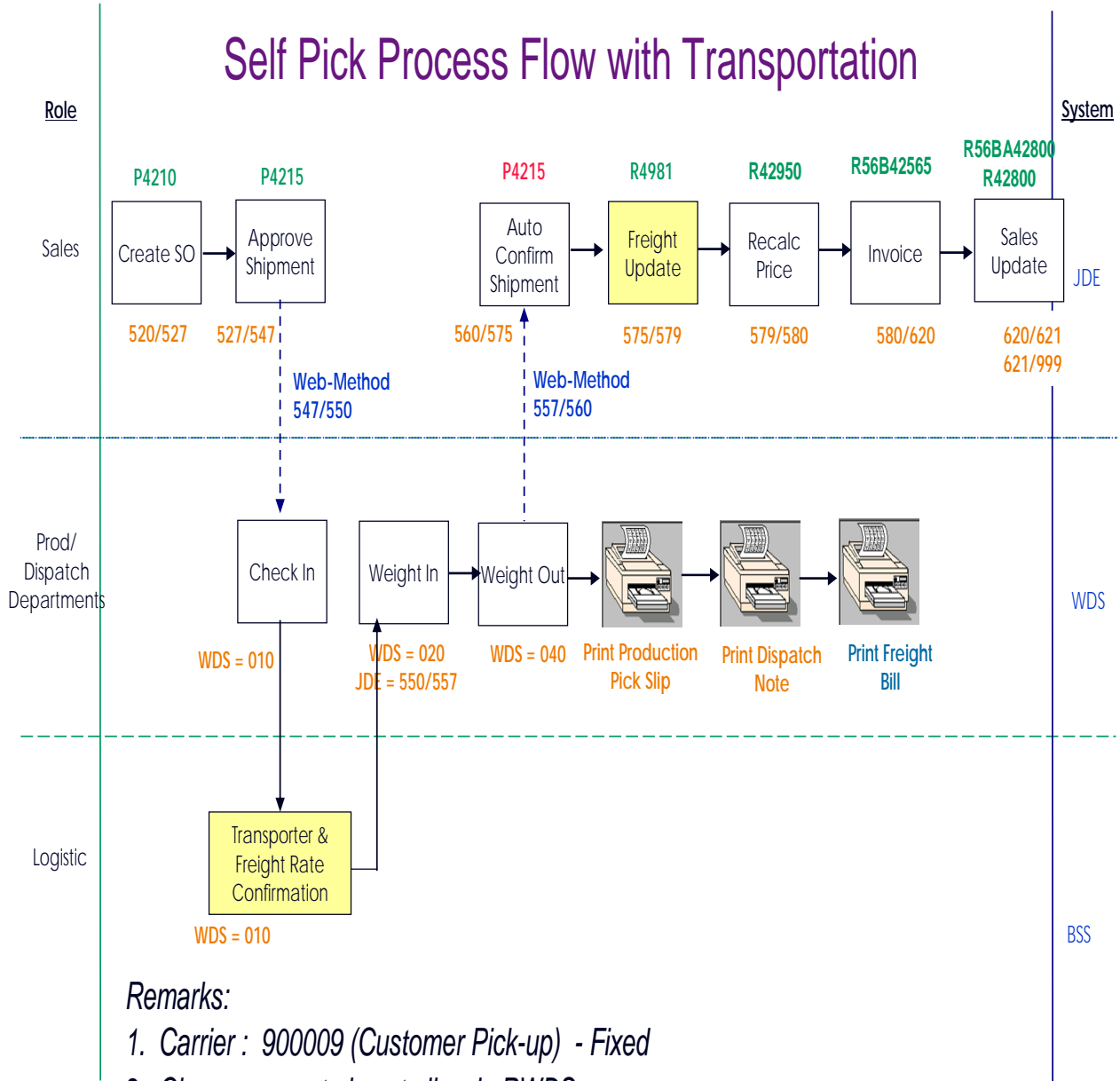
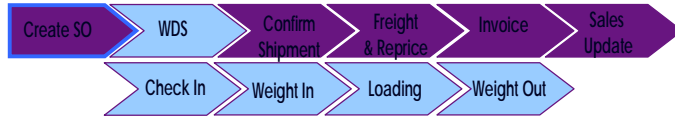
Transportation Setup
Routing Option – P4950

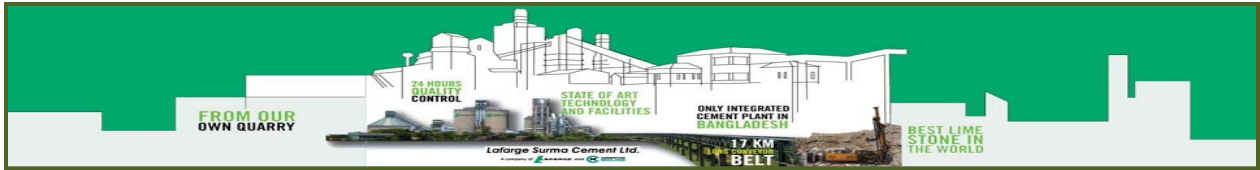
This is how the Transportation Module will process a sales order.



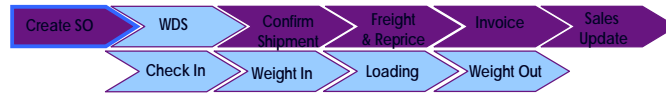


Shipment process flow for customer pick-up:

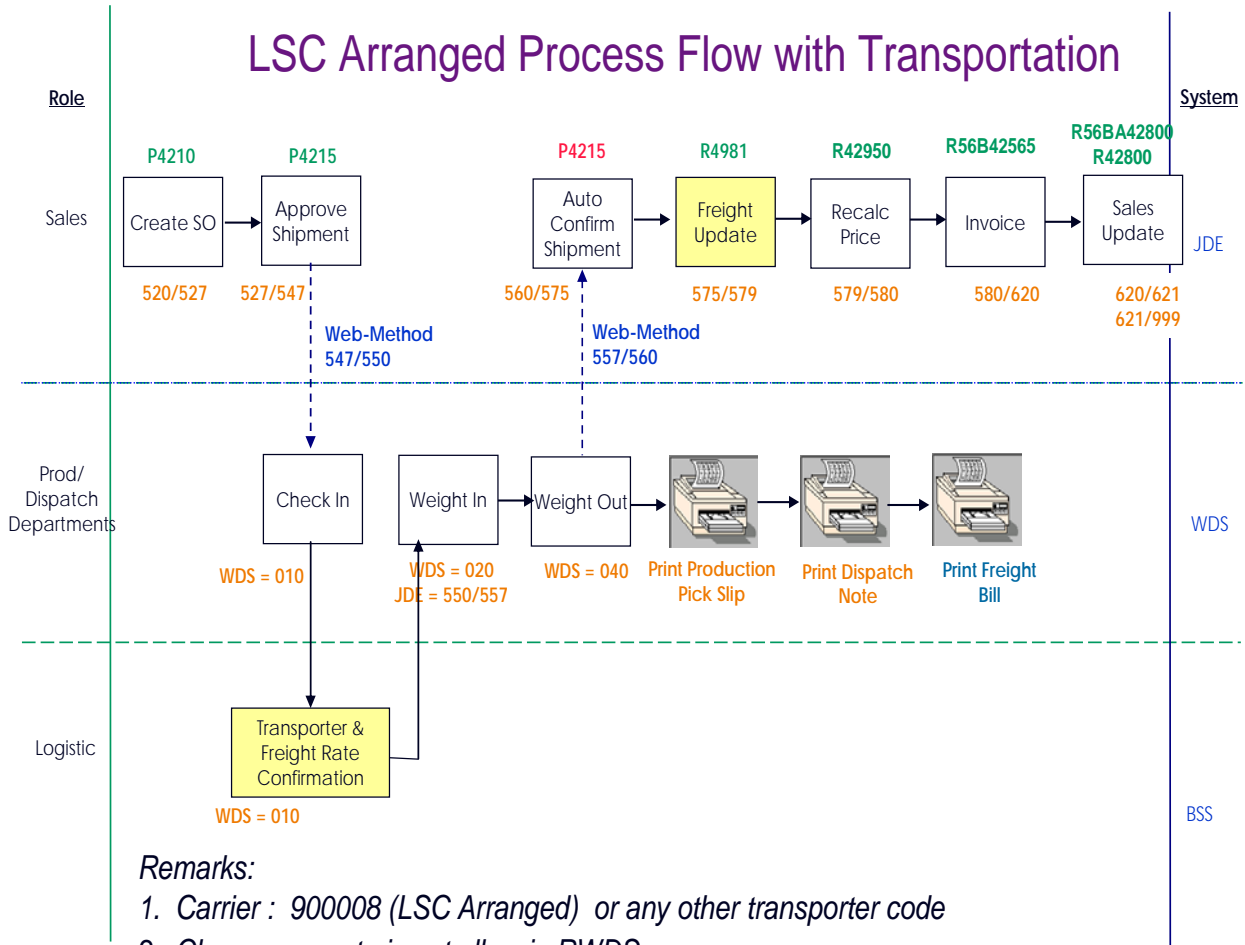




Shipment process flow for LSC arranged:

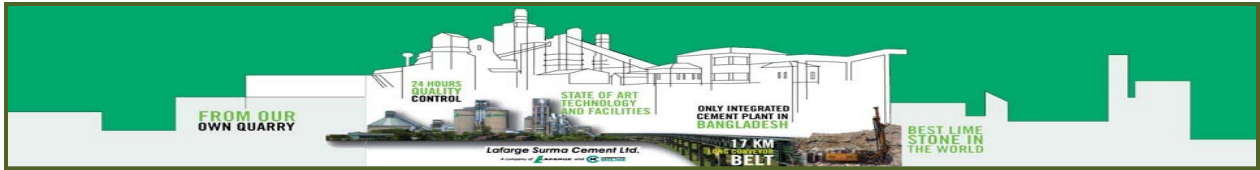


LSC Arranged Process Flow with Transportation

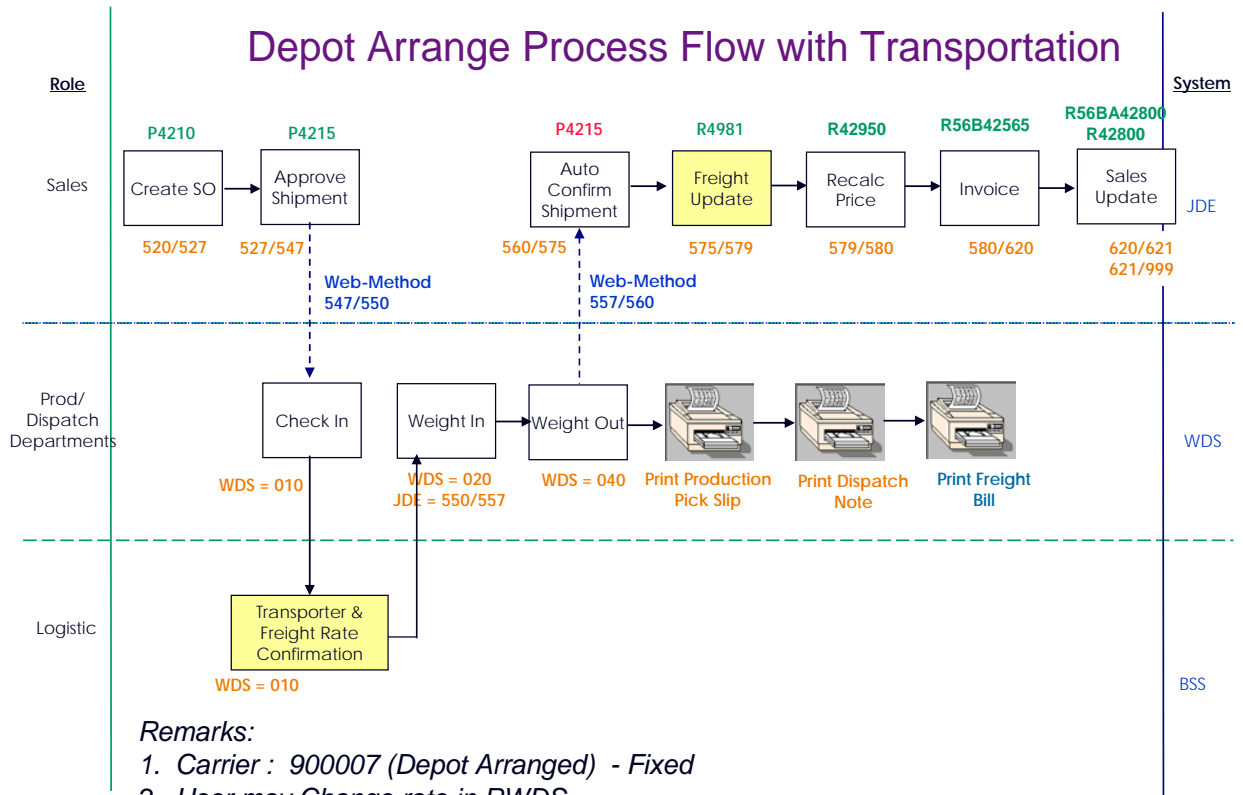
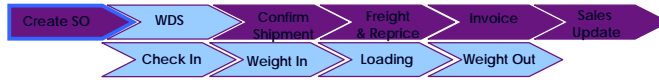


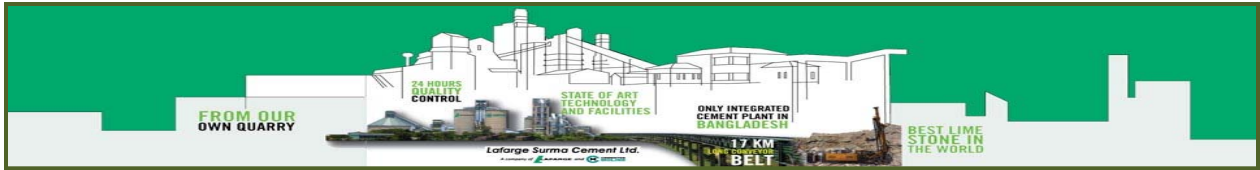
Remarks:

1. Carrier : 900008 (LSC Arranged) or any other transporter code
2. Changes on rate is not allow in RWDS

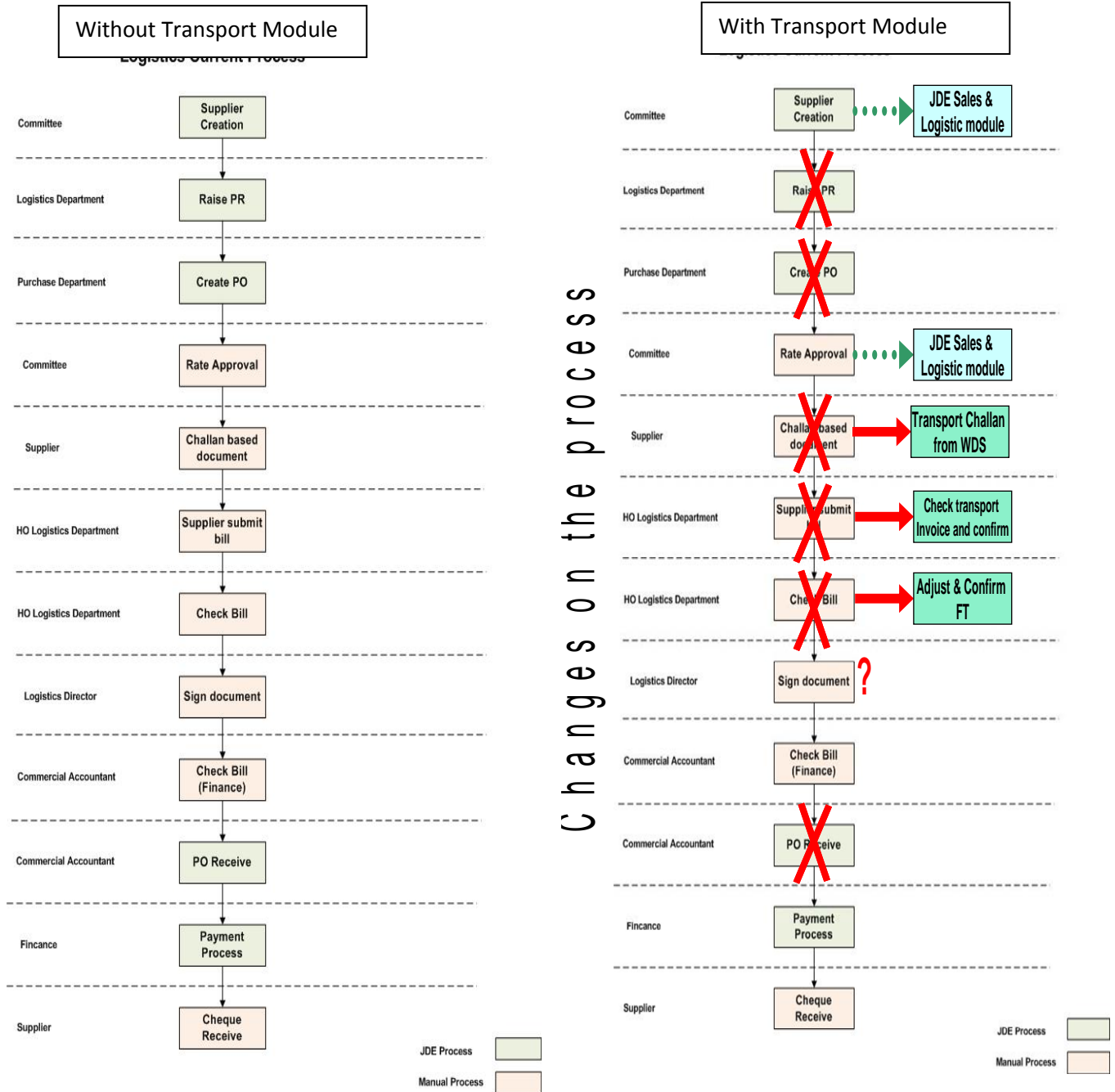


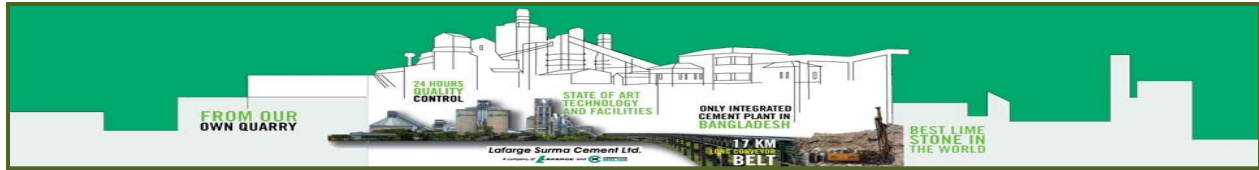
Shipment process flow for Depot arranged:





Comparison between Logistics Activities with and without Transport Module





3.6.2 My assistance in TM

- From plant when any truck or barge dispatches, logistics officers input transporters details and freight rate. System automatically calculates the total bill for each transporter. I downloaded the transporters' bill from JDE software and send those to the individual transporter for submitting bills.
- At the end of every month I used to put adjustments in the Transport Module of JDE software. These adjustments are related to transportation bill or any mistakes done regarding transporters.

3.7 Suppliers Relationship Management

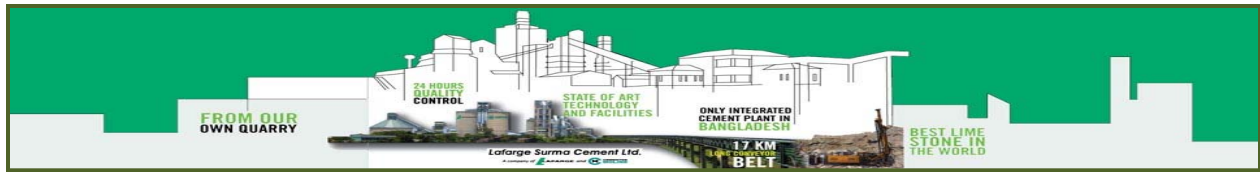
In business, suppliers are the people who supply the raw materials to the manufacturer for final production. They are very important person in business. The relationship with the suppliers has massive impact on the profitability. In the segment of Supplier Relationship Management detail planning of supplier management is done along with interactive third party for smooth supply of goods and services. Mostly it focuses on creating closer, more collaborative relationship with key suppliers. Supplier interactions with the organizations should be effective for efficient operation of business.

3.7.1 LSC Logistics SRM Practice

As being a people oriented organization, LSC maintain strong and loyal relationship with its suppliers. LSC Logistics department has three categories of suppliers.

Transporters- manage truck and barge for smooth transportation of goods from plant to different depots and from different depots to customer ends.

Handling Contractors - manage on time labor for loading and unloading of cement in different depots and customer end.



Depot Contractors- manage the warehouse for stocking and maintain the quality of goods. Except the Kutubpur Depot, all other depots of LSC are run by third parties. In most of the depots, the depot contractor manages the handling work.

LSC do long term contract with all its suppliers based on “Sales Level Agreement”. They have given target for every month; based on their achievement the next month target is provided. These monthly targets are set based on annual target and budget.

Training for suppliers:

LSC try to maintain a standard level in terms of quality and management in every layer of its business. So, they try to train up its suppliers how they can improve their management and work environment. By regular communication LSC find out the problems they face and try to solve those. They are given training on safety and proper ways of performing works in a short time.

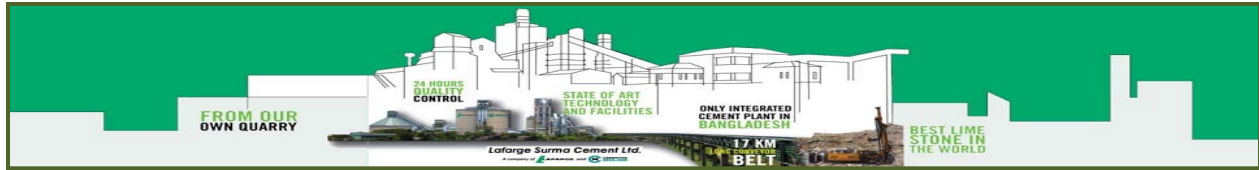
Measurement of performance:

The performance of the suppliers is measured by observing some issues:

- Safety
- Warehouse management
- Stock management
- Customer feedback
- Response time
- Labor availability (for Handling Contractors)

Cost Estimation:

There is a standard cost in the agreement on yearly basis which is subjective to change based on market, price of oil, political situation, natural disaster etc.



3.8 Payment Management

For Logistics operational purpose, LSC has contracts with different transporters and handling contractors as well as with some service providers. They submit their bills to the Head Office after service received from users with authentication. To provide their payments LSC need to process that bill for proper checking and documentation after compliance.

Types of Logistics Payment

- Transporters freight bills
- Handling bills
- Others (Petty cash, Fuel/Utility bill etc.)

Payment Process Owner

Logistics Executive is the process owner of SOP for freight bills.

Start Point

Receiving bills from suppliers and entry in ITS

End Point

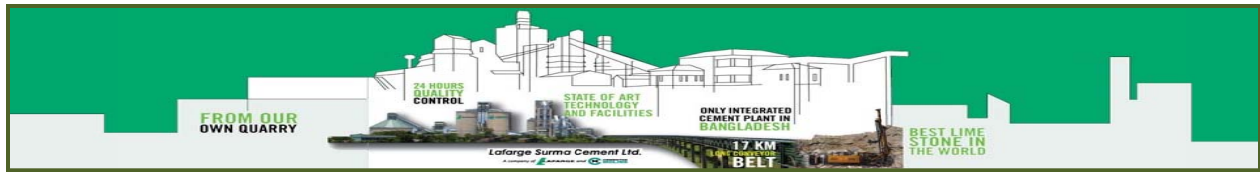
Providing checks to the suppliers through Finance

Invoice & Billing Process:

After receiving the service from the service providers and clearance from the users, they submit the bill with proper support documents which is received at front desk for ITS entry

(a) Contractor's Invoice:

After completing the service from the service providers as per their agreement, contractors submit their bill to head office logistics executive/officer after verifications from the Depot In-



charge. Logistics Executive/Officer shall raise a request to purchase department for releasing the service amount from OP (Bulk PR). After receiving the OP from purchase, GRN is done by Logistics Executive desk and completing the ITS entry. Invoice will be done from AP desk

Payment mode & Duration: Through PR & once in a month

(b) Transporters Invoice:

HO Logistics Executive/Officer shall certify the Transport contractor’s invoices & reconcile with Transport Module for payment (Carrying Contractor for carrying stocks between Plant and Depots), Logistics Executive/Officer will be responsible for preparing the invoice and collecting the signature as per DOA

For Depot: Logistics Executive/Officer shall be responsible for processing the Depot bills like petty cash, expenses report for smooth Depot operation in order to ensure the availability of funds.

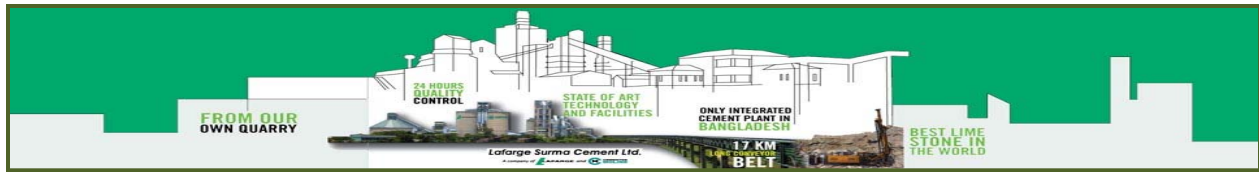
PR raising Process: After receiving the request from the users, head office Logistics Executive/Officer shall raise the PR and send the same to Purchasing department for preparing the OP upon approval from HOL.

Exception for PR raising process: Terminal Manager will be responsible for raising the PR for terminal works.

Process Flow Chart: (At a Glance)



Figure 7: Payment System



3.8.1 My Contribution:

I was responsible to check their bills with JDE³ transport module and keep documentation. Then I took approval from Logistics manager. After processing the bills I send them to Accounts payable department for check disbursement.

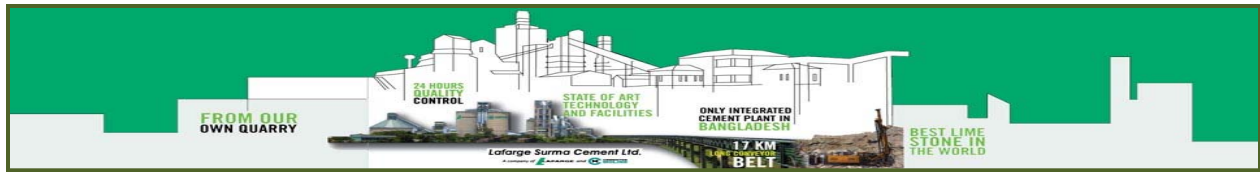
3.9 People and Organization of Supply Chain and Logistics

In the management of Supply Chain, managing the employees and their hierarchy is also vital factor, though many companies frequently neglect the issue of endow with value to human resource. In an organization the people who are working for Supply Chain and Logistics, they should be highly trained, they should have loyalty for the company, and they should have motivation to do better for the organization. All these issues should be ensured by the company. In collaboration with this, while hiring people, organization should concern on, whether they are interested on the work they will do, whether they have efficiency and relevant skills. For different layer of logistics people should have different level of education. Based on research, it is shown that successful management of human resource will assist successful supply chain. The benefits of fully incorporating HRM into SCM can lead to a business with a clearer definition of its overall strategy.(Vereecke, 2012)

3.9.1 LSC People Management Strategy

Based on department need, LSC recruits highly qualified employees. For recruitment they collect resumes, sort out those based on education and skills. Then call “sort out” candidates for aptitude test and interview. After that second phase of interview is taken by the directors and finally recruit the best employee for the company. After recruiting employees, LSC provide special training for each employee. Some general training is given to all employees:

³ In the JDE software the quantity of bags is input by the logistic in charge from plant or depot.



- Training on Company Policy
- Guidance on Behavioral Expectations
- Training on Health and Safety
- Training on VAT and TAX
- Communication Training

For Logistics Department Employees are given some special training:

- Overview on Supply Chain
- Training on Transportation Management
- Warehouse Management
- Financial Analysis
- Software management Training
- Leadership Training

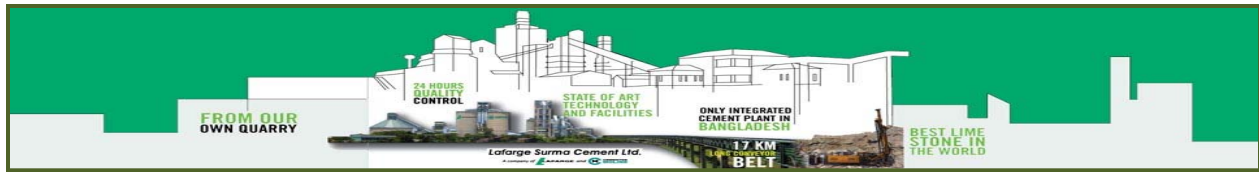
Evaluation of Employees

Every year the employees are evaluated by Key Performance Indicators (KPI). For individual employee KPI is given fixed at the starting of the year. The whole year, performance is evaluated in two ways:

Management and Leadership Skill: How good the employee is managing the work environment, how the employee is performing safety measures and how well in leading team members.

Functional Skill: How efficiently the employee is performing own job responsibilities

Based on these two skills final evaluation is done. If any employee has lacking on any area, special training is arranged for that employee.



3.9.2 Involvement in Supply Chain HRM:

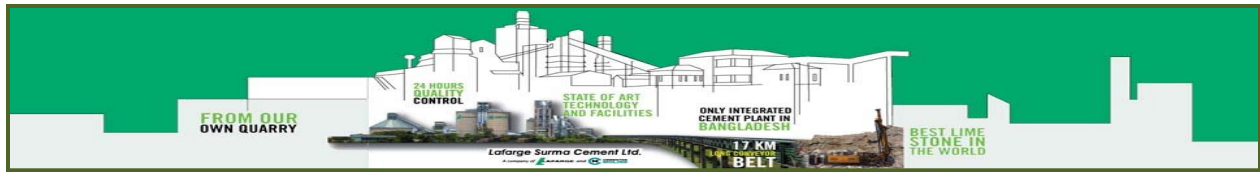
- Though I worked in Logistics, I also had to work in HRM for a short period where my work was to sort out resumes for “Central Planning and Depot Manger” position. With given instructions I sorted out the resumes and given to HR Executive for further assessment.
- LSC has treated me as an employee and given me training on various issues: Software management Training, Training on Transportation Management, Training on Health and Safety and guided for monitoring Volunteering Program.
- Finally at the end of my Internship my supervisor evaluated me based on the criteria given by “Career Service Office” of BRAC University.

3.10 Standard Process and Policies

Standard Process and Policies describes how a business runs and what are the rules and regulations it should follow. Having formalized process organizations can reduce time, money and effort. It also helps to set a standard the company should follow.

Effective business's processes, procedures and standards must be:

- Documented (e.g. it's a good idea to create a 'standard operating procedures' manual)
- Grounded in the vision and strategy of business
- Clear about general business procedures as well as role-specific procedures
- Part of staff training program, and made available in a user-friendly format afterwards (e.g. on paper or electronically as a PDF)
- Practiced by management, so other staffs will follow their lead
- Discussed regularly in meetings (including positive and negative feedback)
- Flexible and open to improvement
- Designed to empower and inform, rather than constrain staff



- Regularly reviewed and updated (especially due to legislative or compliance changes that affect your business).

(Business processes, 2014)

3.10.1 LSC Shipment Process

The objective of this process is to ensure evacuating stocks from plant and distributing the same goods to customer end via terminal & depots with effective transportation & warehousing systems along with maintaining standard process, compliance and safety.

This over all process is documented by Logistics department and approved by Supply Chain Director. All logistics employees follow this as unchangeable guideline. If any change required then the whole department have a meeting and fix the changes and then take approval from the SCD.

Standard Operating Procedures of Supply Chain

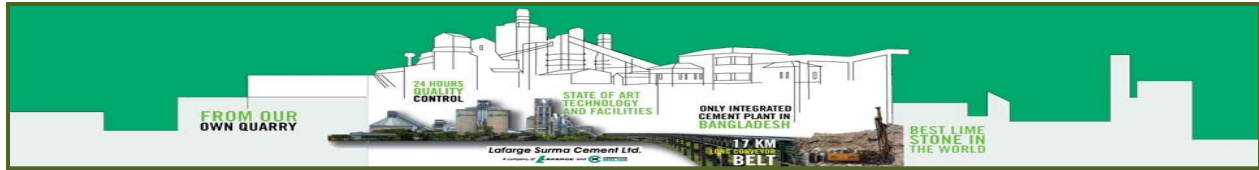
Under the whole shipment process, there are some documented procedures. For specific jobs these procedures are followed and these are also approved by SCD.

SOP Physical Stock Verification: According this SOP the remaining stocks in different depots are verified

SOP for ST Truck Unloading: This SOP provides the guideline for ST truck unloading with charge payment structure to ensure compliance.

SOP for Depot Opening and Closing: This procedure is required to open or close depot on the basis of customers' requirement with appropriate assessment and following required procedure.

SOP for Bill Processing: This process is to grant service providers their amounted bills in an accurate and smooth way with proper documentation.



3.10.2 My contributions:

After joining in the Logistics Department, I had to go through the whole Shipment Process to understand how logistics works are done by LSC. Following that process I had to do all the assigned jobs. Furthermore, I had prepared two SOP (SOP for ST Truck Unloading and SOP for Bill Processing) and coordinated in another SOP (SOP for Depot Opening and Closing).

3.11 Customer Service Management and Measurement

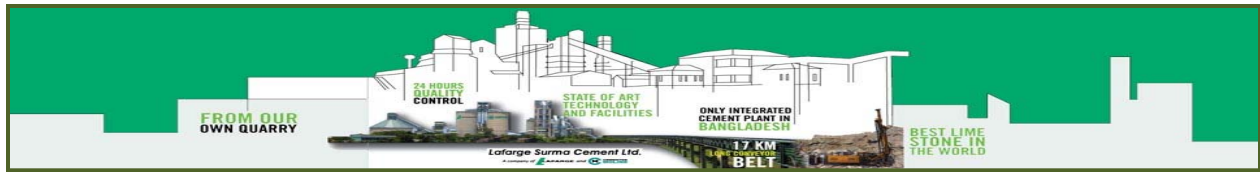
Knowing your customers better will enable you to serve them better and keep them loyal forever. This is the main theme of Customer Relationship Management (CRM). The main components of CRM are people, technology, and processes. CRM can be understood as a business philosophy, a business strategy, a business process, or a technological tool.

We can identify CRM for three levels:

- **Strategic**-deals with customer-centric business culture by which a better value over competitors is created through taking decisions of where the organization's resources can be invested in a better way.
- **Operational**- deals with automation and streamlining workflow at the front office which include collecting data, processing transactions, and controlling workflow at the sales, marketing, and services.
- **Analytical**- builds on operational CRM and analyze customer data to create information about the customer segmentation, customer behavior, and customer value to the organization using statistical analysis tools especially the data mining

We can differentiate three kinds of customer-oriented CRM processes;

- (i) CRM delivery processes,
- (ii) CRM support processes, and
- (iii) CRM analysis processes.(Khalid Rababah, April 2011)



Many companies do not focus on CRM as it is a growing concept on the changing world. Now in many studies it is shown that appropriate CRM practices can change profit margin, customer loyalty and establish a strong customer relationship. Large and quick moving companies are now shifting from product or brand-centric marketing toward a customer centric approach. Some customer Satisfaction Measurement Facts are given by “Kevin Cacioppo”:

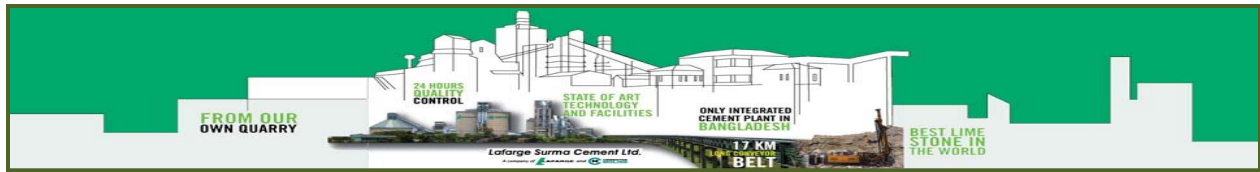
- A 5-percent increase in loyalty can increase profits by 25%-85%.
- A very satisfied customer is nearly six times more likely to be loyal and to repurchase recommend product than a customer who is just satisfied.
- Only 4 percent of disappointed customer will complain.
- The average customer with a problem eventually tells nine other people.
- Satisfied customers tell five other people about their good treatment.

(Cacioppo, 2000)

It takes continuous effort to maintain high customer satisfaction levels. Companies often do not know what good relationships should look like, how to form them, or how to measure them. Little wonder, then, that customer relationship management (CRM) initiatives often fail to deliver the desired returns on investment.

CRM can be improvised appropriately through:

- Direct customer feedback
- Comprehensive view of the customer
- Measure engagement levels
- Measure and track escalation
- Measure and track customer value (Baker, n.d.)



3.11.1 LSC Customer Management System

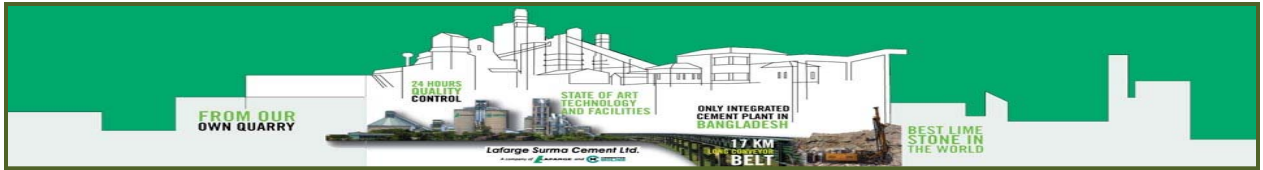
Lafarge treats its customers in an efficient way. It has two types of customers: Retailers and end consumers. Maximum sales are done to the retailers. The retailers are given many facilities based on their performance. Logistics department does not directly handle the customers but if any complain found from customers related logistics that is monitored and handled by the logistics team.

Customer Complaint & Return Goods Management

Customer Complaints: If there is any complaint regarding product quality, then customer informs the sales team. Sales team officially sends mail to customer care team for investigation. After investigation, customer care manager/executive informs logistics team for replacement of goods after approval from concerned authority.

Returned goods: If any complaint arising from the customer is justified and approved and validated by concerned team then necessary action is taken by respective logistics team for returned goods from customer site upon approval laid down in customer complaints handling policy.

Returned goods adjustment: After settlement of customer complaints and taking physical return of goods from customer, site depot in-charge/terminal manager communicate with HO sales admin team for adjustment in system & creation of new “SO”. After availability of “SO” in systems, Depot / Terminal Logistics team arrange replacement of goods.



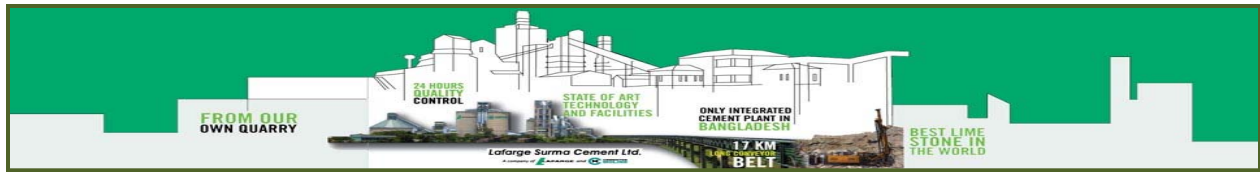
4. Safety and CSR



Figure 8: Plantation in Chhatak



Figure 9: Safety Instruction



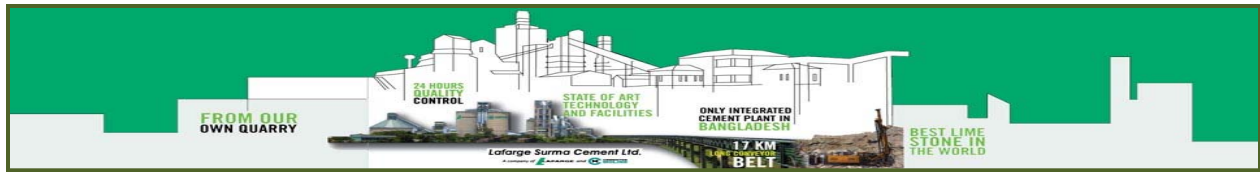
4.1 Corporate Social Responsibilities

As being a part of society we all have some responsibilities towards our surrounding society. Based on our ability we should fulfill this responsibility. Like individual human being a corporation or business has also some farm duties for the society, in general it is called corporate social responsibility. According to institutional theory, corporate social responsibility consisting of a series of propositions specifying the conditions under which corporations are likely to behave in socially responsible way. The initial objective of a business is making profit, but now the large multinationals and other businesses are focusing on Corporate Social Responsibility, which means they are trying to be ethically, legally and socially responsible towards the society. According to James Brusseau, three theoretical approaches had established for Corporate Social responsibility.

1. Corporate social responsibility (CSR)
2. The triple bottom line
3. Stakeholder theory

#under the point of corporate social responsibility Brusseau had composed four obligations:

- Economic responsibility**- that means a company must have generated money for the livelihood of its employees and for the overall economic development of the country.
- Legal Responsibility**-means obey and follow all rules and regulation a society creates for the well-being of its people.
- Ethical Responsibility**-indicates to do what's right even when not required by the letter or spirit of the law.
- Philanthropic responsibility**- to contribute society's development projects even when they're not related to a specific business.



the Tripple Bottom Line is incorporated the sustainability of business in three aspects:

Economic sustainability- orders that the businesses should be grown in a way so that they have long term volatility and short-term profit.

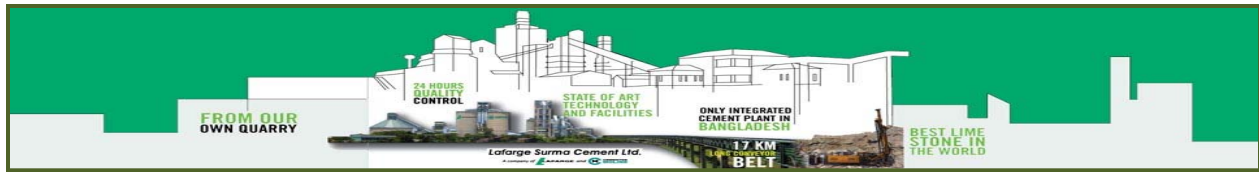
Social Sustainability- dictates the business should keep the balance of rich and poor in the society so that everyone has the ability to live life in a similar pattern.

Environmental Suitability- the natural resources in this world are limited, so the industries should be concern about the conservation of these resources (oil, coal, water, air etc.).

Edward Freeman derived the stakeholder’s theory which affirms that *those whose lives are touched by a corporation hold a right and obligation to participate in directing it.*

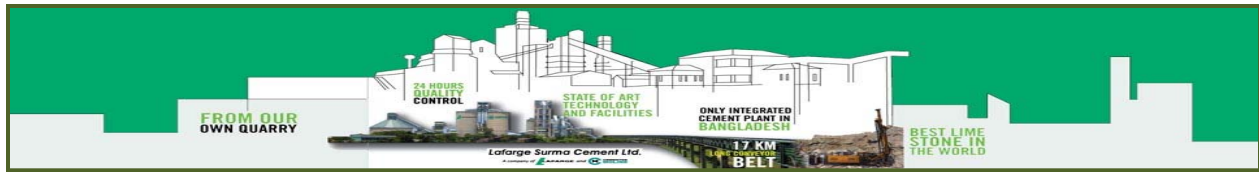
4.1.1 LSC Community Development Centre

“Business is a priority, but social welfare is a responsibility” with this value LSC do various CSR activities. Like the theoretical approach of CSR Lafarge also committed to ensure sustainable development of the economy, community and environment. For implementation of different corporate social responsibilities LSC has established a hub named Community Development Center (CDC) near its plant Chhatak. There are five sub-centers of this hub also situated in different locations. From CDC and sub-Centers LSC serve society with Health care service, education, employment and infrastructure development.



Core CSR Activities done till now:

	Health Care Service	Education	Empowering Communities	Infrastructure Development	Environment
From CDC	# 82,000 free health services and counseling sessions # 9,800 vaccinations provided to people	#“LSC Community Welfare School” for providing free education up to class five #established a library where students can read different types of books #1,618 students have benefitted till now	#provides Small Enterprise Development training in tailoring, embroidery, candle making and the necessary start-up capital to the women of the community #300 women have benefitted from this program	#regularly donates cement and provides technical assistance for developing local infrastructures #distributes blankets during winter, food items during Eid holidays, relief packages during floods, etc.	#developed waste co-processing facilities which contributes to the usage of alternate fuels by the Company #prohibits the use of materials that pose either health or environmental risks or would compromise on cement quality
From Sub-Center	#11,200 free health services and counseling sessions #1,460 vaccinations	#447 students also received free education #provided education to 110 adults to meet the needs of their daily lives #provides scholarships to 50 students every year for higher education	#introduced training on solar panel installation and mobile servicing along with the necessary startup capital for the youths of the local communities		



4.1.2 Participation of mine in LSC Volunteering 2014

“Change lives in 180 minutes” with this slogan LSC started its volunteering program 2014 from August 24 and it ended on 18 September. During these days, in every working day two teams of LSC Employees visited different construction sites of Dhaka City and organized a workshop on “Construction tips and safety”.

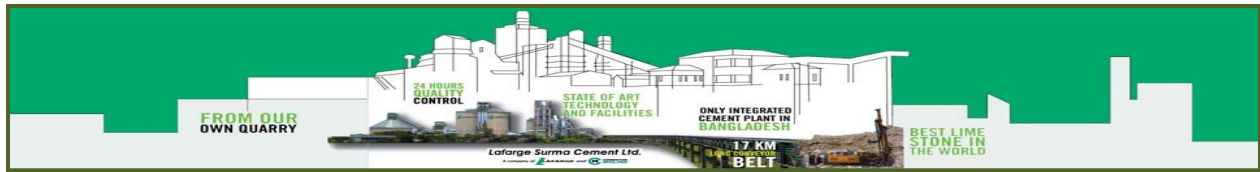
4.1.3 My Responsibilities:

- Cooperated in preparing the presentation on “Safety instructions”
- Monitored the personal protective equipment and timely handover those to each group.
- Collected feedback and kept participants record regularly from each team
- Finally prepared a report on outcome of the volunteering program.

Output of the event:

- Through this program LSC gave training around 1320 workers and engineers.
- All the employees who participated in this volunteering program appreciated the program as they felt very proud to be a part of this volunteering. They showed their interest to participate in more volunteering programs like this.
- The labors were happy to get involved in these types of workshop. They said they had learned many safety instructions from this workshop and they committed to practice these instructions.
- The developer companies provided positive feedback and accepted it as a great initiative. Some of them want to arrange similar bigger event with all of their workers.
- The engineers were instructed how they should train up their workers.

Finally, through this volunteering program, LSC contributed the society and tried to bring change in the life of its stakeholders.



4.2 Safety and Security

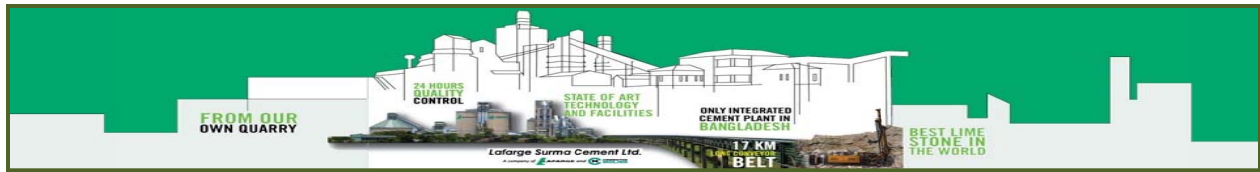
"Do unto others as you would have them do unto you", the known religious and philosophical thought with which we can relate "work as safely with others as you would have them work with you." These sayings are known from generation to generation but in reality practice is very less. In our regular life we rarely uphold the Safety issues, which cause major accidents in our personal and industrial life. From some major hazards in industries now the companies are trying to train up their employees and labor the core safety rules.

John Bernard Taylor wrote about safety culture theories indicate that different levels of an organizational hierarchy have different influences on the safety-culture. These levels need to be differentiated and is considered as having four levels:

- Executive and senior management
- Middle managers
- Supervisors
- The workforce teams (These can be plant designers, the plant operators, maintenance engineers, technicians and contractors, and so on, who are assumed to work under a supervisor. The employees, or the staff, are the aggregate of the workforce and management.

4.2.1 LSC Health and Safety

"Safety is priority" with this motto LSC serves its stakeholders. All employees of Lafarge must have to follow the safety rules. They are provided special training on safety so that each stakeholder's life can be secured. Lafarge goal on safety is -zero accidents, incidents or occupational illnesses. LSC has 11 rules on health and safety. They are:

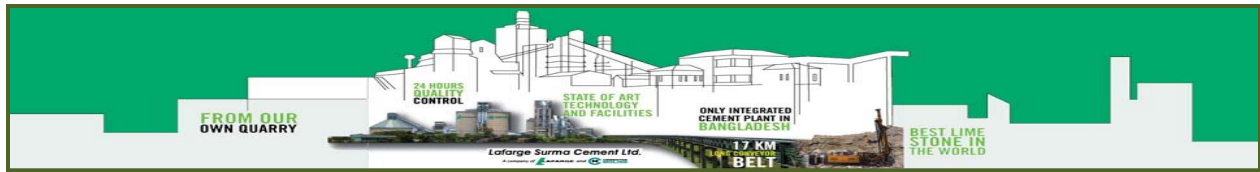


HEALTH & SAFETY RULES



- 1 RESPONSIBILITY:** Line management is responsible for Health & Safety implementation, communication and compliance.
- 2 TRAINING:** Employees, managers and contractors must be trained to work safely and manage Health & Safety in their area.
- 3 EVERYONE:** Everyone working for Lafarge, including Contractors, must respect Health & Safety rules.
- 4 IMPROVEMENT:** All units must have an annualized Health & Safety improvement plan as part of the Performance Plan.
- 5 ORGANIZATION:** All units must have a Health & Safety committee, composed of managers and relevant experts and partners.
- 6 COMPLIANCE:** All units must comply with the Group Health & Safety standards.
- 7 REPORTING:** All incidents and accidents must be reported at the appropriate level, investigated and learnings shared.
- 8 TRANSPARENCY:** Safety results must be visibly communicated to everyone.
- 9 MEASUREMENT:** All operations must be regularly audited against the Group policy, Health & Safety and Management Systems and Standards.
- 10 SUPPORT:** Health & Safety Organization must be resourced and trained to provide support to the line management.
- 11 CONDITION OF EMPLOYMENT:** Compliance with these rules is a condition of employment and a criteria for career development.





4.2.2 Health and Safety Month

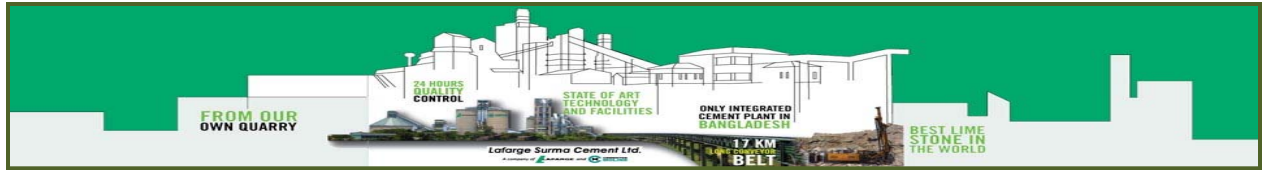
“*Awake the H&S Champion in you*” with this goal LSC arranged Health and Safety Month where sequence of workshop conducted by LSC employees. The execution of this campaign took place on Middle of 2014. The objective of the event was “Continue to make people progress in their H&S maturity”. From frontline workers to top manager, everyone was involved in the workshop.

Health and Safety Month gave the opportunity:

- Encourage people to demonstrate their H&S leadership at all levels
- Connecting Ownership and Discipline in Execution
- Creating ownership at all levels of the organisation
- Creating powerful recognition for good performers and excellent performance
- Generating relevance for every worker to do more
- Covering all elements of Health & Safety including Road and Health
- A theme that can run beyond Health & Safety Month
- Allowing countries to expand according to their own needs

During that month People were invited to challenge themselves around three qualities:

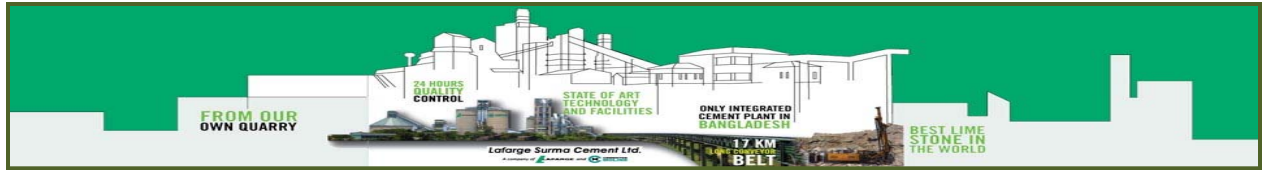
<p>#1 Committed</p> <p>-Personally engaged -Always aware -Intervene -Care for others</p>	<p>#2 Open</p> <p>-Give feedback -Receive feedback -Share & learn -Discuss & exchange</p>	<p>#3 Uncompromising</p> <p>-Follow-up -Close the loop -Feel responsible -Zero tolerance</p>
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4.2.3 My involvement with health and Safety

After joining LSC I had given a short training on health and safety rules which I followed during 3 months of internship. When I went to plant visit, I had to wear on all safety equipment: Helmet, safety glass, safety shoe, visibility vest, hand gloves and ear plug.

During the volunteering workshop, I was responsible to provide safety equipments to all volunteers and gave instruction about the instruments.



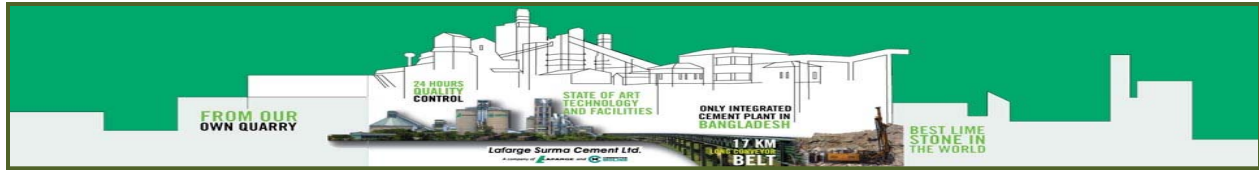
5. Observation

&

Recommendation



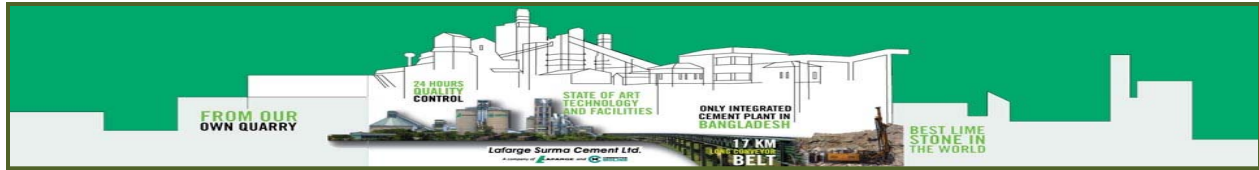
Figure 10: Night View of Plant



5.1 Observation

From my three months experience I have observed some issues where LSC has lack of efficiency. I am explaining those issues here:

1. In the transportation system, the transporters sometimes make delay in delivery of goods, because of traffic, sometimes they waste time in roads and sometimes they waste goods quality. This issue creates some loss like customer dissatisfaction, loss of goods etc.
2. Sometimes queue of orders happen because of sudden order from the customer in an odd time. Like, if any customer provide order at the end of the day it is not always possible to deliver product the next morning.
3. LSC do not load or unload during bad weather. So, during the rainy season the depots sometimes become out of stock and customers have to wait for a long time for the goods. For bad weather LSC has to count loss of many hours.
4. The warehouses are managed in a manual way, like; the quantity of stock in any warehouse is measured from the data of sales, which does not provide accurate information. There is no automatic counting system in the warehouses. For this lacking sometime the warehouses became out of stock or overstock.
5. LSC evaluate suppliers by only observing their services, but there is no standard format to measure the performance of suppliers.
6. LSC provides very good service to its customers, after that it does not maintain any measurement level for customer service. There is no “Service Level Agreement” with its customers.

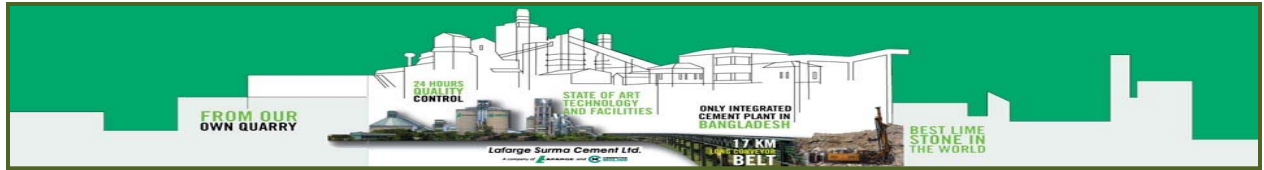


5.2 Recommendation

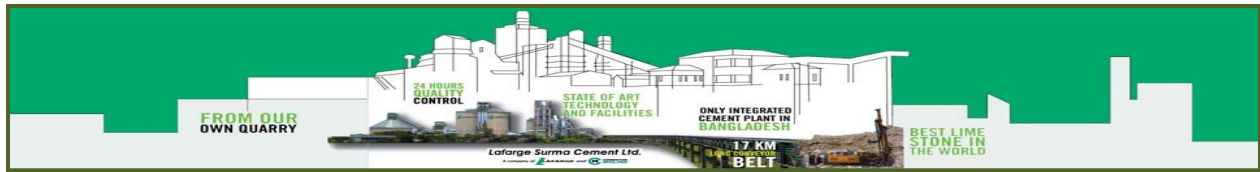
1. LSC can implement GPS system in the vehicle so that from the head office the vehicles can be monitored. With the help of GPS it can measure, which vehicle waste how much time in traffic and any other issues. It can also be monitored whether the transporters are involved with any fuel pilferage or any other crime.
2. Automation can be introduced in queue management to provide the goods to customer on time.
3. During rainy season, transportation mostly done through trucks. So, long distance should be avoided by truck. It will reduce the cost. Moreover, based on demand forecasting the depots should be filled before rainy season.
4. In each warehouse, automatic counting system should be set up, so that when the cement bags will stack in the warehouse system will keep record and during removing goods system will do same. From the both information, exact free space can be measured and based on the accurate amount of goods can be sent to that depot.
5. Standard supplier evaluation system should be introduced, like;

Criteria	Weight/Contribution	Score on (scale 5)	Weight*Score
Volume Carried	30%		
On Time Delivery	30%		
Quality of Delivery	20%		
Vehicle Condition	10%		
Safety	10%		
Total	100%		

This format can be followed for every supplier after a certain time and based on this evaluation the best suppliers should retain and others should be removed.



6. “Service Level Agreement” can be done with long term customers. After providing service to customers, feedback should be taken in a standard format, like; whether they have got the goods on time, with best quality, exact quantity without any shortage. Based on the feedback services can be improved in required areas.
7. The developed countries are now focusing on “Green Supply Chain” which is now a new concept. This concept means reducing fuel consumption of vehicles during transporting goods. As being a big multinational LSC should also focus on this issue.



References

- (n.d.). Retrieved from <http://www.lafarge-bd.com/about-us/company-profile/>
- Baker, P. (n.d.). *Measure The Right Metrics For The Fastest Payback*. Retrieved from The Best 5 CRM Analytics: <http://crmsearch.com/best-crm-analytics.php>
- Business processes, p. a. (2014, May). *Business and Industry Portal*. Retrieved from <http://www.business.qld.gov.au/business/starting/business-planning/processes-procedures-standards>
- Cacioppo, K. (2000, September 1). *Measuring and Managing Customer Satisfaction*. Retrieved from Quality Digest: <http://www.qualitydigest.com/magazine/2000/sep/article/measuring-and-managing-customer-satisfaction.html>
- Chopra, S. (n.d.). *Designing the Distribution Network in a Supply Chain*. Retrieved from http://www.transportation.northwestern.edu/docs/research/Chopra_DistributionSupplyChain.pdf
- Coyle, N. G. (2011). *Transportation: Critical Link in the Supply Chain*.
- Khalid Rababah, H. M. (April 2011). Customer Relationship Management (CRM) Processes . *International Journal of e-Education, e-Business, e-Management and e-Learning*, Vol. 1, No. 1.
- Marinko Jurčević, D. M. (n.d.). *THE ROLE OF HUMAN FACTORS IN SUPPLY CHAINS*. Faculty of Transport and Traffic Sciences .
- Saurine Doshi, H. K. (n.d.). *Reducing total delivered costs through improved* . A.T. Kearney.
- Transport Module*. (n.d.). Retrieved from Klevas: <http://www.klevas.net/en/index.php/moduliai/transporto>
- Vanek, F. (2014, April 1). *Increasing Commercial Vehicle Transport Efficiency*. Retrieved from <http://www.vtppi.org/tdm/tdm16.htm>
- Vereecke, D. A. (2012, July 18). Supply chain: HRM. *Business Excellence*.
- WERNER REINARTZ, M. K. (August 2004). The Customer Relationship Management. *Journal of Marketing Research*, 293–305.