# Supply Chain Management Process:
# A Case study on Pran-RFL Group

**Submitted by:**

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Program: MSCM
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**Submitted to:**

Department of Business Administration
Sonargaon University (SU)
Submitted for the partial fulfillment of the degree of
Executive Master of Business Administration




Sonargaon University (SU),
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Date of Submission: November 28, 2022

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# Letter of Transmittal

November 28, 2022
Farjana Yeasmin Chowdhury
Assistant Professor
Department of Business Administration
Sonargaon University

**Subject: Submission of Thesis paper.**

Dear Madam,
I am hereby submitting my Thesis paper entitled **"Supply Chain Management Process: A Case study on Pran-RFL Group."** which was assigned to me as a requirement for the completion of the MSCM Program. I have discovered this paper very interesting, beneficial, and insightful.

The entire report is based on my practical experience. I expect this paper to be informative as well as comprehensive. This thesis paper will help me a lot in my future career life.

Thank You very much for your guidance and cooperation during the course without which this thesis paper cannot be completed.

Moreover, if you have any further inquiries concerning any additional information, I would be very pleased to clarify that.

Yours Sincerely

**Motahar Hossain Khondoker**
MSCM2102023007
Program: MSCM
Major: MSCM
Semester: Fall-2022
Sonargaon University (SU)

# Certificate of Supervisor

This is to certify that the Thesis report **"Supply Chain Management Process: A Case study on Pran-RFL Group."** has been prepared as a part of completion of the MSCM program from Department of Business Administration, Sonargaon University (SU), carried out by Motahar Hossain Khondoker, bearing ID: MSCM2102023007 under my supervision. The report or the information will not be used for any other purposes.

Farjana Yeasmin Chowdhury
Assistant Professor
Department of Business Administration
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# Declaration of student

This is to notify you that, the Thesis paper on **"Supply Chain Management Process: A Case study on Pran-RFL Group."** has been prepared as a part of my dissertation formalities. It is an obligatory part of my MSCM program to submit a Thesis paper.

Moreover, I was inspired and instructed by my supervisor Farjana Yeasmin Chowdhury, Assistant Professor, Faculty of Business, Sonargaon University.

I am further declaring that I did not submit this report anywhere for awarding any degree or certificate.

Yours Sincerely

**Motahar Hossain Khondoker**
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# Letter of Authorization

Certified that this Thesis paper titled **"Supply Chain Management Process: A Case study on Pran-RFL Group."** is the work of Motahar Hossain Khondoker, bearing ID: MSCM2102023007 under my supervision. Certified further that in the best of my knowledge the work reported here in dose not from part of any other Thesis Paper or dissertation on the basis of which degree or award was conferred on an earlier occasion on this or any other candidate.

Farjana Yeasmin Chowdhury
Assistant Professor
Department of Business Administration
Sonargaon University (SU)

# Acknowledgment

I would like to express my gratitude to all the people that were involved both directly and indirectly in the preparation of this report. I apologize to the people whose names I haven't mentioned, and their contribution is highly appreciated by me.

First, I would like to thank Almighty Allah who made us able to finish this thesis at the Perfect time.

I would like to thank our academic supervisor Farjana Yeasmin Chowdhury, Assistant Professor, Department of Business Administration, Sonargaon University (SU)– for guiding me and for giving me the opportunity to initiate this thesis. I am also grateful to those people without whom it was quite impossible to prepare the thesis. I am also grateful to some of the officials of Sonargaon University who help me to make this thesis by collecting data. They help me a lot for prepare this thesis and gave me much important information that is needed for preparing the thesis. Also more thanks to my friend Mr. Rajib Shahani, Project Manager, Akij Group for helping to make this report

Finally, my sincere gratitude goes to my family and friends for supporting me and sharing their thoughts and giving me moral support during the preparation of this thesis.

# Executive Summary

At the end of the day, supply chain management is about relationship management. A supply chain managed, link by link, relationship by relationship, and the organizations that managed those relationships best will win. Pran-RFL SCM tools and techniques are presented in this corelation. SCM requires a good understanding of production management, planning, design, and construction, and business drivers. Like other disciplines within an organization, such as structural, or process engineering, accounting, and materials management, SCM have a champion that can drive the ideas across disciplines within the organization as well as across organizational boundaries.

In spite of supply chain management today more complexity is a cancer that you have to fight, and process management is the weapon. We developed a robust model of supply chain management processes and properly define them so that they can be managed whole process of Pran-RFL group. It has enabled our organization to understand that supply chain management is too important to be just a function. It is everybody's job. The chain of command have dynamic, detailed, and results-centric team leader with demonstrated record of maximizing productivity while minimizing expenses in both domestic and global supply chain operations. Pran-RFL Supply chain manager are innovative, analytical, and big-picture thinker, reputable for designing and implementing strategies and blueprints of the business line that drive process efficiency improvements.

As third parts of logistics management of supply chain mechanism to effort by delivery one place to another. Especially supply chain management is most using this logistics of Pran-RFL when import or export the materials or finish goods at the destination point. But three ways are available for bringing or sending, such as-air, sea and road. After making plan which way better for bringing, firstly think the goods need how urgent or emergence, or at a lead time then decided the best way. Here, air freight is quicker but very expensive; sea freight is lowest cost but need a lead time for destination point, Road freight is another way for communicated with neighbor country. SCM made a yearly or half yearly planning for materials or

others and then taken decision very easily which way lowest cost and will reach at right lead time. After overall description we find out that's supply chain manager make a planning that sea freight is best way for bringing the goods in any country at lowest cost and proper method for achieved company ultimate goal.

Reduce cost for earning more profit is not Pran-RFL company target. Our company target reduce cost that's we provide final product to our ultimate customer at lowest price. Not only reduce logistics cost but also taken every operational step to decrease the cost. As a result, we can success to achieve ultimate target.

# List of Acronyms

SCM: Supply chain management
MRR: Material Receiving Report PR: Purchase Requisition
PO: Purchase Order
COO: Chief Operating officer
SCLD: Supply chain logistics design
MILP: Mixed Integer logistics Programming
DHLx: Dalsey, Hillblom and Lynn Express
DPEx: Distributed Processing Executive Program worldwide
ABEx: Air Based Expressed
PRGs: Pearl River Glass Studio
MT: Metric Ton
COGS: Cost of Goods
TMS: Time Management system
L/C: Letter of credit
PI & CI: Proforma invoice & Commercial invoice
BL: Bill of leading
CR: Certificate of Origin
C & F: Clearing and Forwarding
Logistics: DHL, DPEX, ABPX, PRG, Bkrocks, Euroasia, Zhanjing cargo, KE-11, ARAMEX
Sipping way: Air, Sea, Road
Logistic price comparison: Excel sheet, pie chart, column etc.

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# Chapter-1
# INTRODUCTION

## 1.1 Introduction to SCM:

A supply chain is a dynamic management system where involves the constant flow of information, products and funds between different stages. In this stages not only included the manufacturer and suppliers, but also included transporters, warehouses and retailers who are directly or indirectly related in fulfilling the customer requirement. The objective of every supply chain is to maximize the overall value of all stages. Basically supply chain performance is evaluated on the basis of qualitative measure (such as customer satisfaction and product quality) and quantitative measures (such as order-to-delivery lead time, supply chain response time, flexibility, resource utilization, delivery performance etc.).The quantitative performance is directly related with supply chain network. Effective supply chain network is viewed as the driver of reductions in lead times and costs, and improvements in product quality and responsiveness. Despite its benefits structuring supply chain network is a complex decision-making process. The typical inputs to such a process consists of a set of customer zones to serve, products to be manufactured and distributed, demand projections for the different customer zones, information about future. Supply chain management is a network of mechanism at organizations that are involved, through upstream and downstream linkages in the different working processes and activities that process value in the form of products and services in the hand of the ultimate consumer. Actually maintain a chain of command to be a successful supply chains can significantly benefit the competitiveness of the firms. Thus, the supply chain management (SCM) is a crucial problem in the process industry. This thesis aims to identify some major key problems in the processing industry SCM by developing optimization-based models, approaches and solution procedures using analytical or mathematical programming techniques for better future of SCM at any organization handle easily and earn expected gain in the company.

Supply chain management may contain all activities that transform raw materials to final products and deliver them to the customers. A number of stages are involved in a supply chain,

typically including suppliers, manufacturers, warehouses, distribution centers, retailers, and customers.

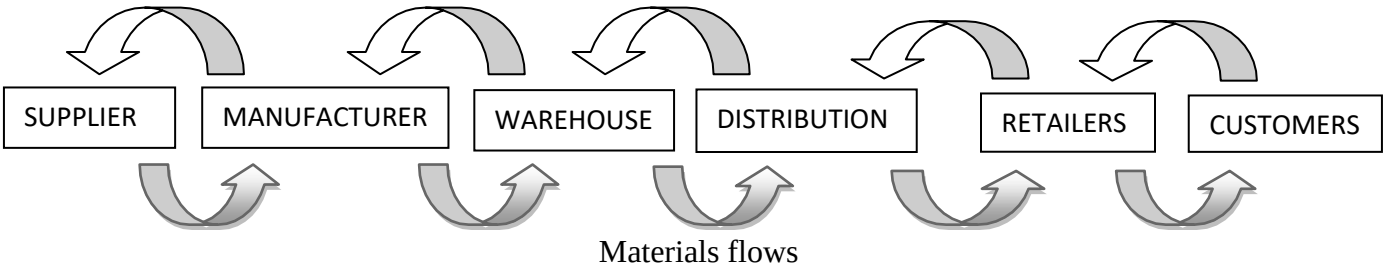



Figure 1.1: Structure of Supply Chain Management.

**1.2 Importance of the study:**

Supply Chain Management is consists of all parties (Including Manufacturer, Marketer, Suppliers, transporters, Warehouses, Retailers and even customers) directly or indirectly involved for produced and distributed. For that-

- In the right quantities
- To the right locations
- At the right time

The main objectives of Supply chain management are to improve the overall organization performance and customer satisfaction by improving product or service delivery to consumer. In order to-

- Greater efficiency by lower costs
- Must have enhance flexibility and agility
- Optimize the value chain
- Face global competition
- Improve customer service standardization

## 1.3 Objectives of the study:

### Broad Objective

- Process at supply chain management of Pran-RFL (Rangpur Foundry Limited) group in Bangladesh.

### Specific Objective

- Logistics, Purchase process, supply chain, distribution, marketing and contingency theory apply in supply chain management (SCM).
- Basic operation process and performance for treatment and perceive information disclosure as a loss of power.
- Companies is not seek to achieve cost reductions or profit improvement at the expense of their supply chain partners.
- Chain level-supplier's supplier, customer's customer.
- Effective supply chain integration requires effective implementation.
- Time and space variables making complexity of SCM.
- If willingness collaborate each other instead of isn't possible good chain.

## 1.4 Sources of Information:

**Primary information:** Primary information is directly collect from senior manager (Mr. Shiplu) of SCM, Chief Operating officer (Mr. Kamrul) of Tel department, Assistant manager (Abdus Samad) of Operation department, Assistant manager (Mr. Abu Huraira) of Recycle purchase department, Assistant production manager (Mr. Mokarram), Assistant manager (Mr, Bayazid) of Account Department, company training, directly supplier visiting information and my cooperative colleague of supply chain department.

**Secondary information**: Secondary data are collected from website of Pran-RFL, catalogs provided by Pran-RFL, different reports on Pran-RFL, and others internet, newspaper, magazine etc.

## 1.5 Scope of the study:

The study is concerned with the description of supply chain management as a responsible strategic for industrial company. Each industrial company must have supply chain manager for operates overall that at its headquarters. Specifically the researcher will collect data to establish why supply chain manager is a key for industrial company, how supply chain manager handle the all activities of their company, the challenges faced a supply chain manager as well as the others department concern manager. The data sources mainly primary from questionnaires and secondary from company annual reports and internet. The researcher may face problem from the respondents who may not be willing to reveal information may be due to lack of trust and assumed lack of confidentiality. The respondents may feel they are going against the organizations rules and ethics. But they will be reassured that the information is needed for research purpose only. The researcher may experience constraints of time to carry out the research.

## 1.6 Limitation:

Time constraints of the semester require making a research but less time, than may be ideal for an ethnographic study. Data collected from different sorts of sources. So there may be some type of errors.

# Chapter-2
# Literature Review

The configuration of the supply chain network has a strong influence on the overall performance of the supply chain. A well planning supply chain logistics provides a proper way for efficient and effective supply chain management. The supply chain network should be designed in the way that could meet the logistics needs with an efficient cost and within the lead time. This paper studies the multi-stage supply chain logistics design (SCLD) model in which all freight demand is satisfied within the lead time as well as responsive supply chain is followed. Mixed Integer freight Programming (MIFP) approach is applied to this logistics to realize the cost effectively. In this study new facilitates is to be selected at a proper logistics and correspondingly of its mode of transportation based on logistics cost for maximizing the profit. We show the problem formulation, solution statistics and discuss computational results.

Supply Chain management (SCM) is the chain of command of a mechanism from supplier to manufacturer to wholesaler to retailer to consumer. Within the organization, the supply chain refers to a wide range of functional areas. These include Supply Chain Management related activities such as inbound and outbound transportation, warehousing, and inventory control. Sourcing, procurement, and supply management fall under the supply chain umbrella, too. Forecasting, production planning and scheduling, order processing, and customer service all are part of the process as well. Importantly, it also embodies the information systems so necessary to monitor all of these activities. Robert Handfield, Ph.D., Professor of SCM, Bank of America University, (Published: Jan, 11, 2011). 'A firm's SCM efforts start whole mechanism and execution of a long-term supply chain strategy. This strategy should':

- Identify what supply chains manager task and responsibility area of the firm.
- Help reporting boss understand how the firm will provide value to the supply chain.
- Chain of command at supply chain partners, including suppliers, subcontractors, transportation & logistics providers, and distributors and ultimate customer.

As firms struggle to higher development by supply chains they compete in, it is valuable to practical and physical flows other than virtual supply chains. Firms can begin to understand how

they add value, and what information is needed to make the supply chain work in the most effective and efficient way possible.

'(Christopher, 1992; Hines, 1994 ;) Supply chain management and other similar terms, such as network sourcing, supply pipeline management, value chain management, and value stream management have become subjects of increasing interest in recent years, to academics, consultants and business management'. (Macbeth & Ferguson, 1994; Cox, 1997) "It is recognized in some parts of the literature that the supply chain should be seen as the central unit of competitive analysis. Companies will not seek to achieve cost reductions or profit improvement at the expense of their supply chain partners, but rather seek to make the supply chain as a whole more competitive". In short, 'the contention in that it is supply chains, and not single firms, that compete is a central tenet in the field of supply chain management. (Christopher, 1992; Macbeth & Ferguson, 1994)'. Supply chain management has received attention since the early 1980s, yet conceptually the management of supply chains is not particularly well-understood, and many authors have highlighted the necessity of clear definitional constructs and conceptual frameworks on supply chain management (Saunders, 1998; Cooper, Lambert & Pagh, 1997 ;)

Dr Abhijeet Ghadge, Director of the Chartered Institute of Logistics & Transport (UK) (CILT) et al (2007) 'Logistics is the term widely used in business for the range of activities associated with the movement, storage and handling of materials. The management of logistics has been revolutionized over the past years and has come to be regarded as a key determinant of business competitiveness. Companies have substantially improved their performance not only by overhauling their internal logistics, but also by managing more effectively their external links with suppliers. This has become known as supply chain management. These developments have created a healthy demand for well-qualified logistics and supply chain managers in most sectors of the economy (Grooge Alex-2011).'

Our company view logistics support is bottoming point for import section each and every aspect. Especially when the materials or machine purchase form the Europe, America, Africa, Asia or others. Mr. Karmul AGM of import department suggests that supply chain management must evolve all time when the ship are carry any forwarder for perfectly done the work at lead

time. Leading company increasingly view sources of cost reduction but appropriate logistics that are lowest the rate of transit the goods at proper time. But both air and sea freight is not good for same time, both are depending on the crisis of goods or how emergence the goods and when the goods need. Must be compare cost, shipping time, etc. Sea freight always lowest cost but lead time too more to reach the port of destination. Otherwise the air freight always high the cost but lead time very short to reach the air of destination. Lummus, Krumwiede and Vokurka et al (2001) made a clear distinction "The logistics involves planning, implementing and controlling efficient, effective flow and storage of goods and services from the beginning point of external origin to the company and from the company to the point of consumption for the purpose of conforming to customer requirements. Logistics is generally viewed as within one company, although it manages flow between company and its suppliers and customers."

Every mother company in the world is following their forwarder policy for lowest cost and lead time to reach the goods at the proper destination. Pran-RFL no forwarder, they use three way logistics forwarder by supplier providing shipping the port (CFR means clearing & forwarding report) of Chittagong port, airway logistics forwarder by Dhaka, and Benapole road freight at Jessore. Sea and road are measurable cost of fare and lead time but the air way is very high cost and each and every month Pran-RFL Company give demurrage for their inability to release the goods for clearing and forwarding (C&F) form Dhaka air customs. Here we tell insufficient planning of materials. Freight Inbound Freight Logistics Supply Chain // Adam Robinson // August 7, 2013 //"The bottom line is that when a supplier fails to adhere to the shipping request freight expenses, as well as the costs resulting from delays in receiving purchased items, supply chain disruptions, and a lack of visibility into the shipment. Costs that usually cannot be tracked back to the product level for accurate Cost of Goods (COGS) calculations". (Technological Inelegancy-Ti, p-314) 'Transportation management systems (TMS) are best known for their routing, scheduling, routing, carrier selection, load tendering, and shipment consolidation capabilities. And while these solutions have been around for a while, a recent survey of Logistics Management readers shows that just 35 percent of shippers are using these systems as part of their overall supply chain management strategies. On other hand, same survey also found that 39 percent of companies planned to either purchase or upgrade their TMS during the coming year a signal that could result in higher adoption rates in the future. Chris Cunnane & Dox (1993), senior analyst with ARC Advisory Group in Boston, says "that his

findings point to TMS adoption rates heading up to above 50 percent over the coming years, although there are still a large number of businesses that are not reaping the benefits of TMS".

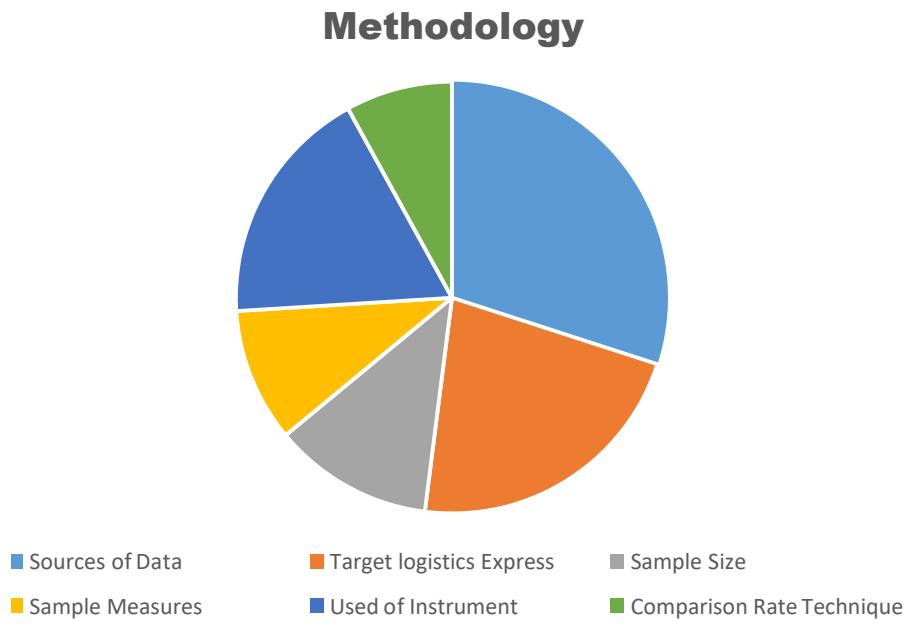
'Logistics management is a flow-oriented concept with the objective of integrating resources across a pipeline which extends from suppliers to final customers, it is desirable to have a means whereby costs and performance of that pipeline flow can be assessed. Logistics and distribution management has proved for difficult for many companies are the lack of appropriate cost information. Without an adequate logistic oriented cost accounting system it is extremely difficult to identify the extent to which a particular trade of is cost beneficial' LSCH_C03.QXD 12/11/04 Page 95 & 96.Alan Kelsky, Friday, August 22, 2014 recently, "the most attention that the supply chain got was for product management centered on the new introduction of products or on the outbound shipping part, where volume shipping is part of the product life cycle. But, according to Supply Chain Quarterly, around 20 percent of everything sold in the United States finds its way back to the company that manufactured the goods for return or recycling. The cost to industry is more expensive than most people know costing companies about $100 billion per year". Expenses associated with returned goods are in the neighborhood of 9 to 15 percent of a company's top line. Actually, for some the cost of processing the returned item often is two or three times that of the cost of shipping the product outbound.

Supply chain management has come to the forefront of every company's business agenda. Responding to the demands of today's highly competitive global environment, traditional linear supply chains with their sequential processes are evolving into complex, global ecosystems that are highly responsive to customer needs. Today company aggressively look to expand their ability to reach their customer profitability and efficiently beyond their existing ecosystem. Better utilizing raw materials and parts as well as finish goods must move from point to point with a supply chain logistics services provides and business partners.

# Chapter-3
# METHODOLOG

## 3.1 Methodology

**Research Framework:** The research was described logistics process on the based on direct market survey and review more related article at research purpose. The sources of these primary data were my practically work in the company and directly market or internet based market survey. Though the logistics was most work the done by known, the study is both comparable and quantitative supported by survey reports & quantitative data necessary. The methodology of this report is totally different from conventional reports. Therefore, I was emphasized on mostly practical working and direct market survey and depth discussion with the senior.



### 3.2 Sources of Data

1. **Primary Data:**
   - Now Practical working.
   - Direct market base survey.
   - Directly discuss with concern senior person about the issue.
2. **Secondary Data:**
   - Visited internet based market survey at logistics related
   - Read various company articles at related issue.
   - Read book, Writers dialogue, newspaper, magazine, training etc.

**Target logistics Express:** DHLx, DPEx, ABEx, PRG and B-krocks, Euroasia, Zhanjing H/K cargo, KE-11, ARAMEX express etc.

**Sample Size:** Sample size is randomly selected form 10 logistics express including local and international. Those were some of known and some of internet inquiry connection. The survey papers have been distributed on 10 logistics to give their email response. Email was taken from express my company forwarder needed to carry the goods from all over the world.

**Sample Measures**: This sample measured by statistical comparison of various logistics.

**Used of Instrument:** For this analysis I utilized environment, country wise lead time, email, logistics express, data table etc.

**Comparison Rate Technique:** I utilized the email to know the freight rate from various country logistics rate to carry the goods. Used below table for comparison technique:

| Price Comparison table | | | | | |
|---|---|---|---|---|---|
| **Serial** | **Country** | **Gross weight** | **Rate** | **Transit mode** | **Transit time** |
| 1 | USA/Africa | 1MT | 41% | Air/ Sea | 2-5/50-60 |
| 2 | China/India | 1MT | 21% | Air/ Sea | 2-4/22-25 |
| 3 | Vietnam/Saudi | 1MT | 33% | Air/ Sea | 3-5/32-35 |
| 4 | Korea/Italy | 1MT | 36% | Air/ Sea | 3-6/35-40 |
| 5 | Singapore | 1MT | 25% | Air/ Sea | 2-4/18-21 |

Primary sources 2021-11-27, Forwarder vol-04

**Table-Price Comparison**

**3.3 Data Analysis Technique:** Excel price comparison is measured to analyze the collected data. Show overall cost and profit in final goods from collected data by excel chart. At last show Pie chart, column chart and chaked cylinder was created to shown that how to effect freight rate at company profit. Data used to analyze the logistic rate of Pran-RFL various business unit.

# CHAPTER-4

# ORGANIZATION PROFILE

## 4.1 History

PRAN (Programme for Rural Advancement Nationally) was established in 1981 by retired Major General Amjad Khan Chowdhury and has become one of the largest food and beverage brands in Bangladesh. PRAN pioneered agribusiness in Bangladesh by providing farmers with guaranteed prices. PRAN Foods, a subsidiary of the PRAN-RFL Group, produces a number of agricultural products under the PRAN banner. PRAN established a subsidiary company in UAE in 2003.

In 2008, the company announced plans to open a production facility in Tripura, India, after the Indian government lifted the ban on direct investment from Bangladesh in 2007. The PRAN group's exports had reached 10 billion taka by 2016, with the biggest markets for the company in India, Saudi Arabia, the UAE, Malaysia, and Oman. The same year the revenue for PRAN exceeded US$500 million. PRAN started exporting potatoes in March 2016.

In April 2016, PRAN started to export cassava and the first shipment, worth US$3 million, was sent to New Zealand. PRAN has 80 thousand direct employees and 200 thousand indirect employees. PRAN exports to over 118 countries.

PRAN started exporting through river route to India from Bangladesh in March 2021.

## 4.2 Corporate Values

We take pride in our hard work and continuous efforts that made us become PRAN— a name, a face, an organization of marvelous performance, leaving positive marks on the native, as well as on global grounds in the course.
PRAN is a corporation that firmly believes in providing equal opportunity for everyone, and our talent management has ensured the perfect atmosphere for the workforce, enabling them to work together as a team. Besides, we take every complaint and suggestion with the utmost sincerity to improve the workplace for all. Professional integrity is highly maintained and is, in fact, the core of our work policy.
Above all, as a company, PRAN truly believes in dedicating itself for the benefit of its stakeholders and society at large. We practice the values we uphold and therefore, through our actions, we help the economic progress, and with its growth, the people living inside the economy also advance.

## 4.3 Mission & Vision

Mission
Poverty & hunger are curses. Our aim is to generate employment and earn dignity & self-respect for our compatriots through profitable enterprises.

Vision
Improving Livelihood

### 4.4 Businesses

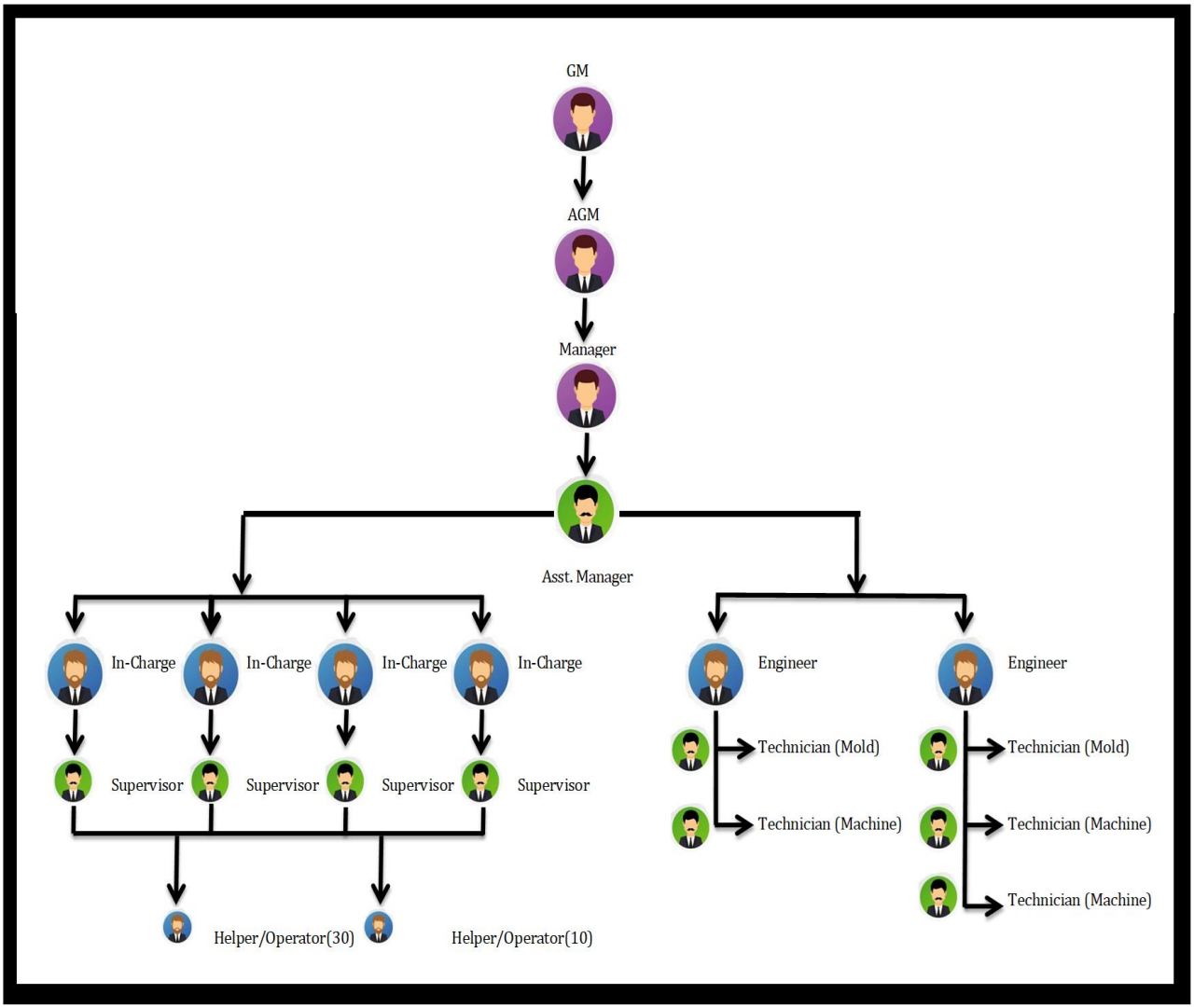
PRAN-RFL Group contains two Groups, called PRAN-Group & RFL-Group. Businesses operating under these groups contains several registered companies/businesses. Below are some of them...

| Registered Business & Sister Concerns of PRAN-RFL Group | | |
|---|---|---|
| **PRAN Grpup** | **RFL Group** | **Other sister concerns** |
| Agricultural Marketing Co. Ltd | Rangpur Foundry Limited | Property Development Limited |
| Mymensingh Agro Limited | Gonga Foundry Limited | AKC (Pvt.) Limited |
| Banga Bakers Limited | RFL Plastics Limited | AKC Management Limited |
| Natore Agro Limited | Durable Plastic Limited | Logi-Care Overseas Limited |
| Natore Dairy Limited | Banga Plastic International Limited | Career Builders Limited |
| PRAN Agro Limited | Rangpur Metal Industries Limited | Banga Trading House Limited |
| PRAN Agro Farm Business Limited | Banga Building Materials Limited | Tasty Treat |
| PRAN Beverage Limited | Trade Environment Limited | |
| PRAN Confectionery Limited | Allplast Bangladesh Limited | |
| PRAN Dairy Limited | RFL Electronics Limited | |
| PRAN Foods Limited | Getwell Limited[17] | |
| Banga Miller Limited | Bangladesh Lift Industries Limited | |
| Banga Agro Processing Limited | RFL Construction Limited | |
| Advance Personal Care Limited | Multi -Line Industries Limited | |
| Chorka Fashions Limited | Accessories World Limited | |
| Chorka Textile Limited | Habiganj Ceramics Limited | |
| Habiganj Agro Limited | Habiganj Glassware Limited | |
| Habiganj Textile Limited | Habiganj Metal Industries Limited | |
| Packmat Industries Limited | RFL Exports Limited | |
| | Vision Electronics | |
| Sylvan Agriculture Limited | Winner Household | |
| Sun Basic Chemicals Limited | RFL eshop e-commerce | |
| Sylvan Technologies Limited | Sera Water Tank | |
| Sylvan Poultry Limited | Shine Tiles | |
| PRAN Exports Limited | CLICK Light | |
| | Duranta Bicycle | |
| | Bizli Cables | |
| | Rainbow Paints | |
| | Saudi Lubricants | |
| | | |

### 4.5 Factories:

Habiganj Industrial Park, Sayestaganj, Habiganj, Sylhet
PRAN Industrial Park, Palash, Narshingdi
RFL Industrial Park, Mulgaon, Kaliganj, Gazipur
Danga Industrial Park, Kazirchar, Danga, Palash, Narshingdi
Rupganj RFL Factory, Rupganj, Dhaka
Rangpur Foundry Ltd., BSCIC, Kallabong, Rangpur
Pran Agro Ltd, Natore

## 4.6 Departmental Organogram:



# Chapter-5

# Process of Supply chain management at Pran-RFL

## Project profile of supply chain management at Pran-RFL:

Co-ordination relationship between buildups to more people connected for doing the work surely and accurately in any industry. The system one kind of service oriented work in various department to done each work smoothly and planning way for gain the mission. Sourcing, procurement, information analysis, decision and finally goes to the production of goods. A chain of command is a good mechanism for supply chain management. To linkage up to lower level or lower to up level for any information or decision or setup goal for better industry.

### 5.1 Process of Supply Chain Management:

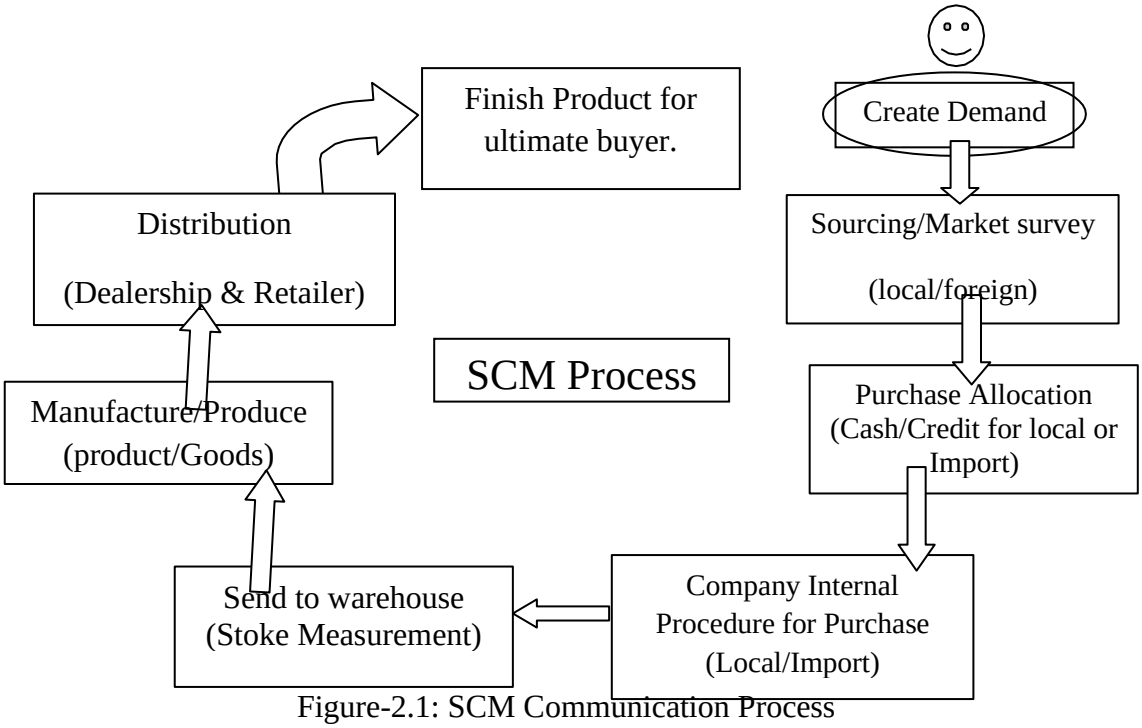



Figure-2.1: SCM Communication Process

### 5.2 Sourcing or Market Survey (Local/foreign)

**(A) Sourcing or Market Survey (Local):** When create or generate demand then need to source or Survey the market for fulfill the demand. Visiting suppliers whose supply the materials or

machine for buying and fulfillment the demand. If found locally then go to QC or Engineer test that it's ok or not for use the production. If it's ok then purchase from local market on raw material or machine. Pran-RFL verify more supplier for quality, Price negotiation etc. must be making a visiting report after visiting supplier demand which will be better for our company at a minimum price.

| Market Survey (local)<br>Date: 19/11/2021<br>Item: MRP Sticker | | | | | |
|---|---|---|---|---|---|
| Supplier | Mareen Printer | | Mollah Traders | | Suvroto Printers |
| Phone no | +8801833-435411 | | +8801646-894356 | | +8801947-786543 |
| Quantity | 50,000 | | 50,000 | | 50,000 |
| Price (tk) | **0.15** | | 0.17 | | 0.21 |
| Prepared by | | | SM-SCM-TEL | | COO-TEL |

Sources: local survey-2021-11-07-req (store-02)

Table-2.1: Local Market survey

**(B) Sourcing or Market Survey (Foreign):** When local market are not found the materials then goes to foreign market for sourcing raw material or machine by ultimate supplier who are ready to supply the product. We cannot easily handle foreign market which is very challenging for buying the material or others. Foreign market focus on well communication, trust, price quotation and negotiation, good feedback everything is a sooth way for buying the goods. Meanwhile Pran-RFL focuses: China, Japan, Korea, Taiwan, Thailand, India, Singapore and USA market for purchase the materials or Machine. We collect from foreign supplier material sample, quotation and machine video trial and quotation for compare each supplier.

Market Survey (Foreign)

Item: LDPE 51MFI

Date: 12/11/2021

Price Comparison

| Supplier | RELIENCE | | SABIC | | BOROGUS |
|---|---|---|---|---|---|
| Email ID | gautam02@reliance.net | | maruf@sbaic.com | | sium.rah@borogus.com |
| Phone no | +90016238679 | | +4901289878920 | | +604567891309 |
| Country | India | | Saudia Arabia | | Malyasia |
| Quantity | 100MT | | 100MT | | 100MT |
| Price (USD) | 2300/MT | | 1300/MT | | 1800/MT |
| Prepared by | SM-SCM-TEL | | AGM-IMPORT | | COO-TEL |

Sources: Import permission-2021-12-03-vol (19-7) Table-2.2: International market survey

### 5.3 Company Internal Procedure of Purchase (Local/Import):

**(A) Company Internal Procedure of Purchase (Local):** Each and Every company has an internal format before purchase the materials or machine from supplier. Such as Pran-RPL maintains their internal rules and regulation when purchase the supplier. When production and operation generate demand for production on material or machine then locally follow below system:

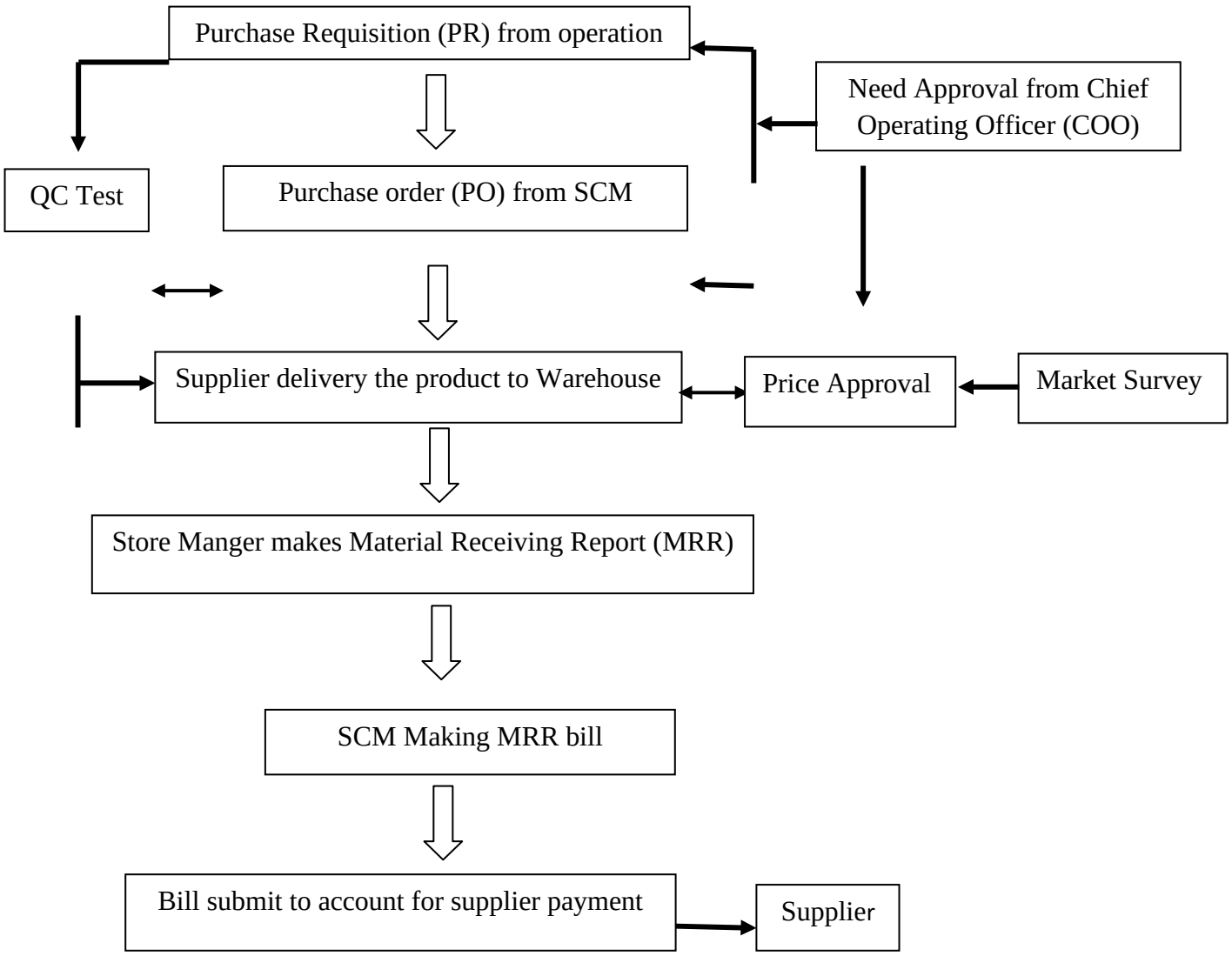
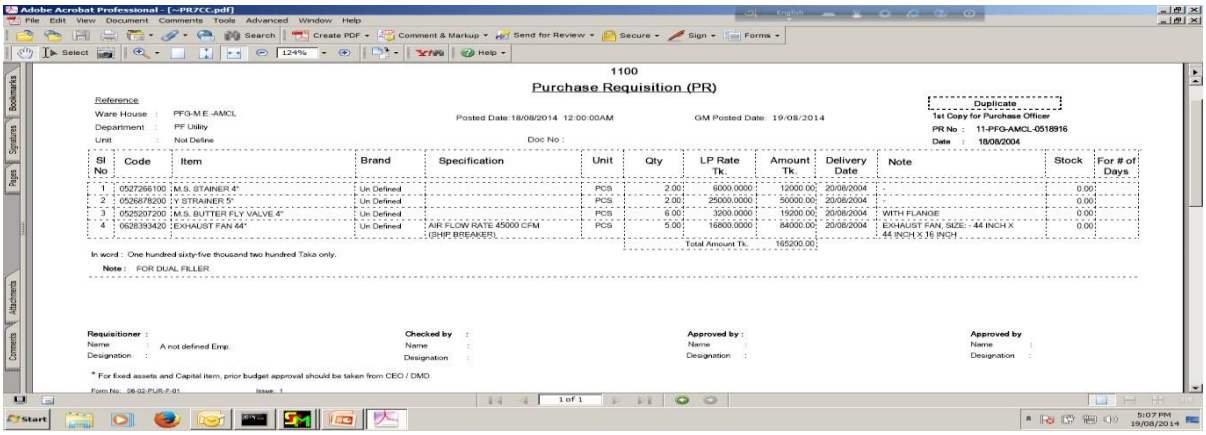



Figure-2.2: Local materials Purchase Process

**i. Purchase Requisition (PR) from operation:**

Operation manager create demand for production then rise to purchase requisition (PR) of the demanded materials then send to COO Sir for permission to purchase by supply chain manager in the local market. After the permission operation department send PR to supply chain manager for collect and send to warehouse for producing the product. Pran-RFL always follows the

production process that can't stop in any moment for any purpose. Those material shortage or machine damage we create KAIJAN for quickly solution and run the production.



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Purchase Requisition (PR)

Reference

Ware House : PFG-M.E.-AMCL
Department : PF Utility
Unit : Not Define

Posted Date:18/08/2014 12:00:00AM
GM Posted Date: 19/08/2014
Doc No :

Duplicate
1st Copy for Purchase Officer
PR No : 11-PFG-AMCL-0518916
Date : 18/08/2004

| Sl No | Code | Item | Brand | Specification | Unit | Qty | LP Rate Tk. | Amount Tk. | Delivery Date | Note | Stock | For # of Days |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0527266100 | M.S. STAINER 4" | Un Defined | | PCS | 2.00 | 6000.0000 | 12000.00 | 20/08/2004 | | 0.00 | |
| 2 | 0526878200 | Y STRAINER 5" | Un Defined | | PCS | 2.00 | 25000.0000 | 50000.00 | 20/08/2004 | | 0.00 | |
| 3 | 0525207200 | M.S. BUTTER FLY VALVE 4" | Un Defined | | PCS | 6.00 | 3200.0000 | 19200.00 | 20/08/2004 | WITH FLANGE | 0.00 | |
| 4 | 0628393420 | EXHAUST FAN 44" | Un Defined | AIR FLOW RATE 45000 CFM (SHIP BREAKER) | PCS | 5.00 | 16800.0000 | 84000.00 | 20/08/2004 | EXHAUST FAN, SIZE: - 44 INCH X 44 INCH X 16 INCH | 0.00 | |
| | | | | | | | Total Amount Tk. | 165200.00 | | | | |

In word : One hundred sixty-five thousand two hundred Taka only.

Note : FOR DUAL FILLER

Requisitioner :
Name : A not defined Emp.
Designation :

Checked by :
Name :
Designation :

Approved by :
Name :
Designation :

Approved by
Name :
Designation :

* For fixed assets and Capital item, prior budget approval should be taken from CEO / DMD.

Sources: SCM software-2021-12-03- on PR No-341

Figure-2.3: Purchase Requisition (PR)

### ii. Purchase order (PO) from SCM:

After the permission of requisition form chief operating officer then supply chain manager making purchase order (PO) form SCM software and visiting local market. To visit at least THREE suppliers for good quality and reasonable price offer to purchase from supplier. Searching the better supplier then making PO forwarding local supplier for supply the materials into the warehouse. During purchase we follow the following techniques to negotiate price and to ensure timely supply the goods in good condition:

- Selection of vendors:

I. First Choice – Manufacturer
II. Second Choice – Direct importer
III. Third Choice – Trader

- We keep good relation with the vendors
- We want to do business with the suppliers keeping long term vision in mind.
- We treat them as partner of Pran-RFL.

### iii. Supplier delivery the product to Warehouse:

Supplier getting PO then arranges the material or product delivery at a specific time. At a time supply chain manager and supplier both are always connecting each other for arrange and delivery purpose, if supplier face any problem then inform to the supply chain manager. Then supply chain manager discuss about the problematic issue about the operation manager for discover a solution. Hopefully suppliers will success to deliver the product or materials into the warehouse. Supply chain arranges transport to carry goods from suppliers ware house to factory:

- By arranging truck/ pickup through our company transport.
- By the suppliers negotiating price as including carrying.
- SCM himself arrange truck by taking consent from company transport.
- Small quantity items which are purchased in a day are stored there for sending to factory ware houses.
- 2(Two) store assistants are engaged to deliver goods to the factory. They do shifting duty.
- This arrangement has been done to supply small quantity of purchased goods at the earliest possible time to factory.

### iv. Store Manger makes Material Receiving Report (MRR):

After finishing arrangement the material or product supplier send to the company warehouse for producing the product. Company Store manager receiving the material to make a material receiving report (MRR). That each purchase requisition material appropriately supply or not, if found any missing or incorrect material. Store manager must inform supply chain manager that your supplier missing the supply on the material, so inform you supplier why missing? That's why MRR is must for each product when receive.

### v. SCM Making MRR bill:

Supply chain manager when making supplier bill that time must follow store manager MRR. How much bill? Depend on MRR, without MRR don't make any bill because when making MRR that time Store manager follow supplier challan quantity amount of goods. Local supplier are very small so quickly done payment by the supplier for making good relation in future better

service. That's supply chain manager and supplier buildup trusty relationship. Without trust impossible to do any business.

**vi. Bill submit to account for supplier payment:**

It's major term in any business to right time payment for according to the pay terms. Our local supplier supply more products at each week if the supply amount aren't more than their cash in hand for business is not more for long time underpayment. When supply chain manager finishing the local bill works for pay supplier that time account department must pay at 3 or 4 days for payment.

**N: B:**

**Market survey:** Market survey must for every local supplier, a supply chain manager major work it is, before order the product supply. We must have a supplier for quality product but reasonable price. Without market survey or sourcing impossible to create a good market in any supplier for supply the product.

**Price Approval:** When survey many supplier everyone given a price offer for buying the goods from her. Our chief operating officer verifies the price and does the approval one from many prices. Without price approval supply chain manager can't buy any material form supplier

**5.4 Process of Purchase (Import):**

Supply chain management performance is desired to fulfill the import procedure criteria by foreign companies. Each and every process by importing Machinery or Raw materials through letter of credit (L/C) way when we purchase from outside the country such as RMG follow this way. An importer to supplier chain of connection depends on how or which way understanding each other at their communication process.

**Import Process:** Before import must follow government import Registration process:

5.4.1 Trade license

5.4.2 Member form chamber of commerce or any other trade Association.

5.4.3 Tax identification number

5.4.4 Vat registration number

5.4.5 Partnership deed

On being satisfied, the CCI & E issue IRC obtaining original copy of treasury challan for payment of registration fee.

**Step for opening L/C:**

1. **Applicant to be bank's A/C holder**: Bank will open the L/C on behalf of a person who has an account with the bank.
2. **Permissible item**: The item to be imported must be permissible and not banned item. If the item is from conditional list, the condition must be fulfilled to import the same.
3. **Sufficient Security or margin**: Price of some items fluctuates frequently. In case of those items Bank will be more careful to take sufficient cash margin or other security. Bank will also follow Bangladesh Bank's Instructions from time to time.
4. **Business Establishment**: Bank should not open an L/C on behalf of a floating business man. The importer must have business establishment, particularly he must have business net work for marketing the item to be imported.
5. **Restricted Country**: Goods not to be imported from Israel.
6. **Credit report of the beneficiary**: If the amount of L/C in one item exceeds Tk. 5.00 lac against pro-forma invoice and Tk. 10.00. lac against indent, supplier's credit report (is mandatory. The report will remain valid for one year.
7. **Application of the client to open the L/C**: The client will approach to open the L/C in Bank's prescribed form, duly stamped & signed, along with the following papers & documents:
   I. Indent/proforma invoice
   II. Insurance cover note with money receipt
   III. LCAF duly filled in & signed.
   IV. Membership certificate from chamber of commerce/Trade Association
   V. Tax payment certificate/declaration.
   VI. IMP & TM form signed by the importer
   VII. Charge documents.

VIII. IRC, Pass book, Trade license, Membership certificate & VAT registration certificate in case of new client

IX. Export L/C in case of Back to Back L/C.

8. **Permission from Ministry of Commerce**: If the goods to then permission from ministry of commerce to be obtained
9. **Creditability of the Client**: In consideration of all the above points, if Bank becomes satisfied regarding the client then L/C may be opened on behalf of the client. Before opening the L/C Bank will issue & authenticate a set of LCAF in the name of the importer.
10. **Authentication/Registration of LCA form**: When the importer submits LCAF (letter of credit Authorization form) with other paper to the Bank and approach to open an L/C, Bank will authenticate the LCAF. Confirming the following:
    1. IRC renewal fees paid by the importer
    2. Item to be imported is eligible as per import policy/pass book of the importer
    3. LCAF is duly filled in and Signed by the importer.

### 5.5 Distribution of LCAF Original:

This is Exchange monitoring copy to be sent to Bangladesh Bank, while reporting payment of the import or to be preserved at the branch for Bangladesh Bank auditing. Duplicate: This is the custom purpose copy, to be used for clearance of the consignment. The Ads should take care on the following points:

1. L/C Number: Ads will put a number for each L/C, which is the serial number of the L/C for a particular year. The number to be of 12 Digits. 1st 4 Digits for AD's Code, 2nd 2 Digits for the respective year, 3rd 2 Digits for Nature of the LC and last 4 Digits for Serial Number of the L/C. First Foreign Cash L/C of Islami Bank Bangladesh Ltd., Paltan Branch, in 2008 may be numbered like "0885 08 01 0001.

2. Place & Date of Issue: L/C must indicate the place and date of issue.

3. Date & Place of Expiry: L/C must have an expiry date. This is the last date of presentation of document under the L/C. Place of presentation is the place of Bank with which the credit is available in addition to the place of issuing Bank

4. Shipment date: There should be a last shipment date after which shipment is not allowed. Bank may also fix-up a first shipment date before which shipment will not be allowed.

5. Presentation period: Issuing Bank will allow a period within which exporter must present the export documents to the negotiating Bank or to any other nominated Bank. Presentation must not be made later than 21 days from the date of Shipment and not later than the expiry date.

6. Applicant: Name of the applicant with business address to be put in the L/C.

7. Beneficiary: Name of the beneficiary with address also to the indicated in the L/C.

8. Advising Bank: Name of the advising Bank with address to be mentioned in the L/C.

9. Amount: Every L/C must show the amount of the L/C. The word "About" may be used with amount, which means 10% more or less of the said amount.

10. Part-shipment & Transshipment: Issuing Bank also clearly indicate in the L/C, whether part-shipment & Transshipment is allowed or not.

11. Availability: L/C must indicate whether the credit is available by sight payment, deferred payment, acceptance or negotiation.

12. Port of shipment & port of destination: L/C will also indicate from where shipment to be made & where goods to be delivered.

13. Tenure of the Draft: Whether the draft to drawn at sight or usance, also to be cleared in the L/C.

14. Documents required: Bank will give the list of required documents & data content there in. Each & every term must be supported by documents. Because any term without asking document is valueless

15. Payment: When & where, by whom payment to be made, also to be indicated in the L/C.

16. UCP: Bank will incorporate the reference of UCP 600 in the L/C, for its application in all the operation of the L/C.

17. Bill of lading: B/L must be issued or endorsed to the order of the Issuing Bank. It should be ‘clean’ and “freight prepaid” if L/C is on CFR basis. Short form & charter party B/L to be avoided. All these terms to be incorporated in the B/L clause of the L/C.

18. Bill of exchange: bill of exchange to be drawn on the issuing Bank.

Issuance/ Transmission of L/C:

Authorized dealer will scrutinize the LC application with all related papers. If it becomes satisfied, it will put a number for the L/C and will entry the L/C in the L/C opening register with particulars of the L/C. Non AD branch will forward and open the L/C through an AD branch.

# CHAPTER-6

# FINDING & ANALYSIS

## 6.1 Finding

 Communication with the supplier: A bottom point of Supply chain management is smooth communication with suppliers at always times.

 Network channel: A goods channel with suppliers makes benefits others in the future of others' products into the market.

 Supply chain network at Pran-RFL: At the beginning to finish product how to supply of manufacturer to the ultimate customer at the below point:

 Supplier: A person who responded to supply raw materials, machinery, or others.

 Manufacturer: Getting materials and then starting to make the final product.

 Warehouse: A stock house of the factory that to the measurement of the present stock of materials or final goods.

 Distribution: Circle of the channel to distribute all things at ultimate purpose.

 Retailer: A nominee person who sells the final product to the consumer for making a profit.

 Customer: Ultimate customer who buys our company product for consumption.

 Cost measurement: If we make a final product, then include all costs such as materials, Shipping, Process, etc.

## 6.2 Analysis

 Effect of logistics costs on profit at Pran-RFL: Every cost is affect profit some are the lowest, and some are more. Here logistics is a turning factor of cost below:

 Air freight cost: An emergency or smooth of liquid materials then use airway otherwise it's a high-cost effect on making the final product.

 Sea freight cost: As import section supply chain management must decide to ship at sea freight in any country because the sea is always a measurable lowest cost for carried.

 Road/Land freight cost: when we import any materials from at neighboring country then we try to ship by road because it’s given the lowest cost.

 Import follow-up system: A supply chain manager must follow up when materials or machines are shipped if a delay in releasing the goods then give the demurrage to customs.
 Sourcing new suppliers at Pran-RFL: Supply chain manager must source new suppliers local or international for reducing the materials purchase cost
 Delivery chain network: A chain of networks to deliver the product from the manufacturer to the customer.
 Price negotiation: when we purchase materials or machines from suppliers then must smoothly negotiate for a price reduction.

# Chapter-7

# Recommendation and Conclusion

## 7.1 Recommendation

**SCM training for internal personnel:** Training is a way to expert a supply chain manager for smoothly working with supplier and internal purpose of the company, each employee before joining must need training and after joining need monthly training. An expert SCM always working quickly and going right decision. So I think training to be mandatory for all SCM.

**Build a proactive plan and roadmap:** Without a proper plan and appropriate roadmap impossible to handling all work for supply chain manager, starting work before need to make a plan for working, how and which way do the work with supplier, manufacturer, operation manager and how to reach ultimate target.

**Materials Planning:** An operation manager must making a perfect materials planning for a period of time to time. Supply chain manager follow the materials planning and doing the next step. When need the materials and which way cost effect for shipment. As a result we reduce the cost for logistics and supply the materials at right time.

**Cost planning and Justification Math:** To make a cost planning with account department for justify the effective cost for us. Compare the previous price and present price for making new cost of the materials. After making the cost to decide which is perfect or not?

**Integrate logistical processes with suppliers:** No matter the size of a business, it remains important to integrate logistical processes with the suppliers for that organization. This is totally dependent on software systems, certain enterprise resources planning application. If a supplier is able to access the rate at which a business runs through its inventory, they are better able to meet any changes in demand, improving operation efficiency for both organizations.

**Logistics mechanism comparison:** Before shipping one must compare both shipment which is better for us or not. Without comparison can’t expect perfect shipping way. The logistics system such as air, sea, road etc each important but depend on kinds of materials or agency for production of goods. So if the company earn minimum profit must need comparison each.

## 7.2 Conclusion

Supply chain management is an exciting and important area of study. Specialist companies like Excel are able to save the world's leading businesses large amounts of money, time and effort by creating an effective supply chain. Just-in-time methods and premium supply chain management. Supply chain management division has a good contribution for overall chain management of Pran-RFL. Pran-RFL as a private sector of plastic industries, which has started its manufacturing plastic goods activities in 2003 is trying to serve the various valued customers through different types of plastic goods and products. It is now holding the position of leader. In addition to this, supply chain manager given a great support to this position, where whole mechanism is connected by the systematical way. To build up communicate with various person for better chain management. Despite the supply chain's role as a significant contributor to attaining strategic business goals, the logistics industry is experiencing a shortage of capable and well rounded supply chain managers prepared to step into key management positions. This can be overcome by developing programs for talent management the vigorous, systematic process of connecting a clear, well defined business strategy to the recruitment, retention and development of talent. Many shippers are troubled by the current state of talent management within their organizations, with promotion and rotation practices and identifying and developing leaders the top concerns.

As supply chains grow more complex and intrinsic to a company's ability to attain its business goals, they require leaders who are more diverse and multi faceted. A significant number of shippers feel their current leaders don't have what it takes to address future business challenges. Here logistics support more important for challenging global market competition where both type of shipping vary the making final product for ultimate customer at a measurable price.

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