



# INTERNSHIP REPORT ON SUPPLY CHAIN MANAGEMENT PROCESS OF ACI LIMITED



Inspiring Excellence

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## Letter of Transmittal

13th October, 2016

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**Subject: Submitting the Internship Report of Bachelor of Business Administration (BBA).**

Dear Mam,

I am submitting my internship report on “A Study on the Supply Chain of ACI Limited” with due gratefulness and admiration. I have tried to implement my academic experiences in the practical field with due sincerity and would like to thank you for your cooperation. Despite many limitations I have tried my level best to address the major and in depth issues in making this paper accurate and reliable. If you have any further enquiry concerning any additional information I would be very pleased to clarify that. As per partial accomplishment of the requirements for the BBA degree, I have completed the internship from ACI Limited.

I have collected as much information as possible from the Advanced Chemical Industries (ACI) about their supply chain activities. While working on the report, I have tried to follow each and every guideline that you had advised. It has been a very enlightening experience to work in this new venture and I have thoroughly enjoyed my internship period at ACI. The authority of ACI has also extended their cooperation whenever required. I, therefore, hope that you will be kind enough to accept this report as fulfillment of the requirement for the BBA degree.

Sincerely Yours,

---

Md. Neamat Ullah

ID: 11104083

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## **Acknowledgement**

At the beginning I would like to convey my cordial gratitude to almighty ALLAH for giving me the strength to terminate the assigned. I would like to reimburse my profound respect to my respected supervisor, Tanjina Shahjahan, Lecturer, BRAC Business School, BRAC University for her generous and gracious guidance.

At the same time I also pay my heartily gratitude to the commercial department of ACI ;Who had extended their helping hands by showing the right and effected path to me as well as given me a prospect to do an internship in the organization. Furthermore I wish to thank all staffs and personnel's due to their all friendly supports for me. I gratefully acknowledge those helpful persons, without them I cannot prepare this report effectively.

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## Executive Summary

In today's global marketplace, effective supply chain management is seen as a significant competitive advantage for a business. The enterprise that conducts robust supply chain planning activities, delivers increased efficiencies. Supply chain managers plan, schedule, and control that flow of goods to help the company stay competitive and control costs. They build the bridges between suppliers, companies, and consumers. ACI-one of the leading domestic organization in Bangladesh has been contributing to the economy by providing quality consumer product in a comparatively reasonable price. If the winning factor for ACI has been investigated, the result would be its outstanding supply chain procedure. The report tries to highlight how the supply chain activities of ACI help the company to be more efficient and competitive in the market. The supply chain of ACI has been described in this paper with the light of this concept.

Increasingly, supply chain management is being recognized as the management of key business processes that comprise the supply chain. Optimized supply chain management can decrease total system cost, inventory and cycle times while significantly increasing stock availability and inventory turns. If these issues can be solved then, it will provide greater profits, improved customer service and competitive advantage to the company. ACI has been continually being benefitted by its outstanding supply chain management. It offers invincible professionalism and expertise in the entire commercial activities of ACI as well as gaining comparative advantage over its competition and gaining more customer trust and share.

## CHAPTER ONE - INTRODUCTION

As a result of Globalization; the idea that firms are linked in a networked supply chain is more and more established and accordingly appreciated. This strategic viewpoint has created the challenge of coordinating the entire supply chain more effectively and efficiently, from upstream to downstream activities. While supply chains have existed ever since businesses have been organized to bring products and services to customers, the notion of supply chain management (SCM), is a relatively recent branch of management.

### 1.1 Objectives of the study:

- I. The Primary objective of the research is to understand a comparatively new term “supply chain management” in the business world along with its impacts and benefits. The research has a definite focus on the company ACI. This research will have a reflection on the supply chain activities of the mentioned company.
- II. The core objectives of the study has been to understand what activities of ACI has been entitled to supply chain activities and how this activities has been performed by ACI. In detail, the objective of the study are
  - First one To know the procedure of the Forecasting demand of the raw materials that will be needed within One year
  - Second one – To know the company supplier sourcing, procurement and manage inventory
  - Third one –To know the company Transportation, logistics and Distribution

## CHAPTER TWO- METHODOLOGY

### 2.1 Data collection:

As this research was exploratory in nature, the report has been written based on both the primary as well as the secondary form of information. The details of these sources are highlighted below:

**Primary Sources:** Primary data were the collected data directly from the officials. I have discussed the aspect of the relative supply chain activities to the related executive official and used their responses as primary data. Also I am having an internship in that organization for three long period of time in the commercial department. This department control all the supply chain activities. My working experience I also a source of my primary data in this report.

**Secondary Sources:** The secondary data were, company's yearly business review report, marketing report, annual budget, in-house training material, company manual, internal meeting minute, text book and information from internet etc.

### 2.2 Research design and Philosophy

The research is designed in such a way that the reader of this can easily get an idea of the entire message of the report very easily. Here the data that are used to complete the research are collected from the both primary and secondary source. There only qualitative data is used to climb the stair of the decision because of the nature of the subject itself. The research philosophy followed here is pragmatism philosophy. Pragmatism is a rejection of the idea that the function of thought is to describe, represent, or mirror reality.

Instead, pragmatists develop their philosophy around the idea that the function of thought is as an instrument or tool for prediction, action, and problem solving. Pragmatists contend that most philosophical topics. Such as the nature of knowledge, language, concepts, meaning, belief, and science, are all best viewed in terms of their practical uses and successes rather than in terms of representative accuracy. (Baert, P. 2004)

### 2.3 Limitation

It is important to stress several limitations of the research method used for this research:

- Since the research is limited in time and resources, it was impossible to perform an in-depth research into all the aspects for all supply chain activities of all the consumer goods business companies of Bangladesh. Rather, I had to be contended with focusing on the supply chain activities of the ACI.
- Lack of sufficient sources prevented verification of information.
- Some aspects of the report may be considered confidential by the organization.
- Due to lack of experience, there may have been faults in the report though maximum labors have been given to avoid any kind of slip-up.



## CHAPTER THREE- COMPANY OVERVIEW

### 3.1 Historical background of ACI

ACI was established as the subsidiary of Imperial Chemical Industries (ICI) in the then East Pakistan in 1968. After independence the company has been incorporated in Bangladesh on the 24th of January 1973 as ICI Bangladesh Manufacturers Limited and also as Public Limited Company. This Company also obtained listing with Dhaka Stock Exchange on 28 December, 1976 and its first trading of shares took place on 9 March, 1994. Later on 5 May, 1992, ICI divested 70% of its shareholding to local management. Subsequently the company was registered in the name of Advanced Chemical Industries Limited. Listing with Chittagong Stock Exchange was made on 22 October 1995.

ACI's mission is to achieve business excellence through quality by understanding, accepting, meeting and exceeding customer expectations. ACI follows International Standards on Quality Management System to ensure consistent quality of products and services to achieve customer satisfaction. ACI also meets all national regulatory requirements relating to its current businesses and ensures that current Good Manufacturing Practices (CGMP) as recommended by World Health Organization is followed properly. ACI has been accepted as a Founding Member of the Community of Global Growth Companies by the World Economic Forum which is the most prestigious business networking organization.

Advanced Chemical Industries (ACI) Limited is one of the leading conglomerates in Bangladesh, with a multinational heritage. The company has diversified into four major Strategic Business Units.

### 3.2 Product/Service offered by ACI

Name of the Product	Consumer Brand
Household Insecticides	<ul style="list-style-type: none"> <li>• ACI Aerosol and ACI cockroach Spray</li> <li>• ACI Mosquito Coil</li> </ul>
Antiseptic & Personal Care	<ul style="list-style-type: none"> <li>• Savlon Antiseptic Cream</li> <li>• Savlon Liquid Antiseptics</li> <li>• First Aid Kit</li> <li>• Savlon Antiseptic Soap</li> <li>• Savlon Antiseptic Hand Wash</li> <li>• Savlon Shower Gel</li> </ul>
Home Care	<ul style="list-style-type: none"> <li>• Angelic Fresh Air Freshener</li> <li>• Angelic Auto Dispenser Air Freshener</li> <li>• Angelic Aqua Fresh</li> <li>• Vanish Toilet Cleaner</li> <li>• CleanIT ROBO Car Wash</li> <li>• CleanIT Shinex Floor Cleaner</li> <li>• CleanIT Shinex Glass Cleaner</li> </ul>
Female Hygiene	<ul style="list-style-type: none"> <li>• Savlon Freedom Sanitary Napkin</li> </ul>
ACI Consumer Electronics	<ul style="list-style-type: none"> <li>• Panasonic television</li> <li>• Panasonic camera</li> <li>• Panasonic home theatre</li> <li>• Panasonic refrigerator</li> </ul>
Commodity Foods	<ul style="list-style-type: none"> <li>• ACI Pure Salt</li> <li>• ACI Pure Sugar</li> </ul>
ACI Electrical Division	<ul style="list-style-type: none"> <li>• Sparkle LED light</li> </ul>
Mobile & Electronics	<ul style="list-style-type: none"> <li>• STYLUS Mobile Handset</li> </ul>

Table: ACI Consumer Brands

## CHAPTER FOUR

### 4.1 Strategic Business Unit

**1. ACI Formulations Limited:** ACI formulation Limited (AFL) is a subsidiary of ACI limited, located at Gazipur. AFL manufactures majority of the products of ACI Strategic Business Limited except for the Pharmaceutical Division. The factory is equipped with the state of the art facilities for product formulations and process innovation. These include modern computerized equipment. The product range manufactured at AFL include Crop Protection Chemicals like Insecticides, herbicides and fungicides in granular, powder and liquid, mosquito pesticides in the forms of aerosols, vaporizers and coils house hold chemicals like toilet cleaners and hand wash.

**2. ACI Logistics Limited:** ACI Logistics Limited was formed in 2008 with a vision to setup nationwide retail outlets, named “Shwapno”, to utilize ACI’s strong presence in Bangladesh through implementation of world-class supply chain mechanism.

**3. ACI Pure Flour Limited:** ACI Pure Flour Ltd is the largest flour producing company in Bangladesh delivering cleanest, healthiest and most hygienic flour by adopting state of the art technology. Coupled with double digit growth and continuously producing pure product make 'Pure' brand a huge success & make it a household product overnight. In a very short time 'Pure' is able to become consumers' morning bell and snatched prestigious second position overtaking all other players in the market. 'Pure' flour is able to communicate to its consumers that ACI Pure is synonymous to Purity. The plant stands by the bank of Sitalaksha River with most advanced European technology coupling with a well-equipped laboratory keeping in mind to provide the best quality flour to the consumers.

**4. ACI Foods Ltd:** The necessity of pure food in the minds of Bangladesh consumers especially in the commodity food business has pushed ACI to fill up the market demand by producing food products such as spice, edible oil, snacks, confectionary etc. ACI is engaged in manufacturing, marketing, and distribution of various branded food products and condiment. Now the customers of Bangladesh are ensured with 100% pure food products under the brand name of 'Pure'. Within the very short period of its entrance this brand has been enjoying second leading position in the market. Fun Candy and Fun Chanachur produced from high quality imported raw materials with state of the art technology have attained enormous popularity among the consumers. ACI Foods Ltd. is focusing on improving the food habit of Bangladeshi Consumers through providing more ready to cook products and ready to eat as well.

**5. ACI Salt Limited:** ACI Salt was launched in 2005. Within the very short period it has been enjoying the pride of the Brand Leader. The best in its kind, ACI Salt is vacuum evaporated, free flowing and properly iodized. It is also very porous and free flowing. Iodine is coated in every single grain which makes it an essential product for the children; the absence of right quantity of iodine in their food may cause mental disability to them. ACI Salt has won the "BEST BRAND OF BANGLADESH AWARD 2008" for unparalleled customer loyalty beating all the brands in Foods & Beverages category.

**6. ACI Motors Limited:** ACI Agribusinesses has launched a new subsidiary business, ACI Motors, from 6th November 2007 with an objective to market high quality farm machineries and light commercial vehicles. ACI Agribusinesses now ensures complete solution to the farmers with the introduction of the agrimachineries. ACI Motors are now marketing the various models of Sonalika tractor which is 3rd leading position in India as well as the fastest growing brand. It also has introduced high quality Bull Power brand power tiller and mini combine harvester, Hardy Sprayer from China. It has own sales and service center at Bogra, Comilla, Jessore, and Dinajpur by which ensure highest quality after sales service, repairs and spare parts. It also provides flexible credit facilities for farmers for better customer satisfaction and service.

ACI Motors are planning to introduce light commercial vehicles like pickups and mini trucks to support farmers to carrying agricultural goods. Also, high quality diesel engines and pumps for irrigation purpose will be offered in the near future. This business shows considerable promise in contributing to the agricultural productivity of Bangladesh.

**7. Creative Communication Limited:** Creative Communication Ltd. is an integrated communication firm founded in 2000, staffed by dedicated and pragmatic specialists working as one team. As a forward-thinking marketing and advertising firm, Creative Communication Ltd. is a solid partner at both strategic and tactical levels and has developed several partnerships with the most state-of-the-art players in numerous fields. The core competency of Creative Communication Ltd. is to provide result - oriented advertisement, public relation and complete corporate communication solutions. Creative Communication Ltd. has special expertise in Photography, TVC, Conceptualization and Designing of Corporate Manual, Annual Report, Corporate Brochure, Calendar Dairy, Press Advertisement etc. Besides these Creative Communication Ltd. has long experience in handling Outdoors, Events and Project Management.

**8. Premiaflex Plastics Limited:** Premiaflex Plastics Limited is a private Limited company incorporated in 2007 with the register of Joint Stock Companies, Dhaka, Bangladesh under Companies Act 1994 having 80% shares by ACI Limited. The principle activities of the company are manufacturing and marketing of plastic products, flexible printing and other ancillary business associated with plastic and flexible printing. The factory of the Company is located at Sreepur, Gazipur.

**A. Foods:**

1. Candy, Chutney, Chanachur, Biscuits, Saline & Salt Wrapper & Packets.
2. Tea, Milk Powder, Spices Wrapper Packets.
3. Ice-cream.
4. Export quality zipper Bag (frozen foods, Shrimps, fish, vegetable).

**B. Shrink/ Pearl label:**

1. PVC Shrink for mineral water, Drinks, Juice etc.

**C. Agro & pesticides:**

1. PVC Shrink for mineral water, Drinks, Juice etc.

**D. Cosmetics/Toiletries:**

1. Soap, Detergent & Shampoo Wrapper /Sachet.

**E. Pharmaceuticals:**

1. Blister Foil for Pharmaceuticals.

**F. Oil Pack:**

1. Soya & Mustard oil Pouch Pack.
2. PVC Shrink for mineral water/Oil Pack

**9. Pharmaceuticals:** ACI carries the legacy of ICI- world renowned British Multinational in providing the people of Bangladesh with quality medicines and healthcare products. Its state-of-the art pharmaceutical plant represents Bangladesh's quest for a truly world class manufacturing facility. The comprehensive product range of ACI pharmaceuticals include products from all major therapeutic classes and in various dosage forms like tablet, capsule, dry powder, liquid, cream, gel, ointment, ophthalmic and injectable. ACI Pharma also has state of the art plant on Novel Drug Delivery System (NDDS). It produces world class Modified Release drug and medicine to cater the requirement of pharmaceutical manufacturer of domestic and international market exports high quality pharmaceuticals to a good number of countries of Asia, Africa

&South America. ACI also markets world-renowned branded pharmaceutical products like Arimidex, Casodex, Zoladex, Atarax etc. from world-class multinational companies like ASTRAZENECA, UK and UCB, BELGIUM in Bangladesh. ACI is actively engaged in introducing newer molecules and Novel Drug Delivery Systems (NDDS) to meet the needs of the future. ACI introduced the concept of quality management system by being the first company in Bangladesh to achieve ISO 9001 certification in 1995 and follows the policy of continuous improvement in all its operations. Aligned with the concept that a pharmaceutical must ensure effective management of environment, ACI complies with standard environment management policy, thus adorned with EMS 14001 in 2000. A highly skilled team is dedicated in producing products with consistent quality under clearly defined Standard Operating Procedures (SOP) in compliance with the procedures and instructions of ISO 9001 quality system.

**10. ACI Agrochemicals Limited:** ACI Agrochemicals Limited was incorporated in July 2006 with the Registrar of Joint Stock Companies, Dhaka, Bangladesh under Companies Act 1994. ACI Agrochemicals Limited's 80% shares are held by ACI Limited. The principal business of the company is manufacturing, formulating and packing of pesticides, fertilizers, plant nutrients and animal foods as well as other nutrient products.

**11. Apex Leather Crafts Limited:** Apex Leather Craft Limited is a private limited company incorporated in 2007 with the registrar of Joint Stock Companies, Dhaka Bangladesh Under companies Act 1994 having 100 %shares by ACI limited.

**12. ACI Healthcare Limited:** ACI Health Care Limited, a public limited company, is a subsidiary of Advanced Chemical Industries (ACI) Limited was incorporated in 18 February 2013 under the Companies Act 1994. The principal activities of the Company are to be manufacturing and marketing of pharmaceutical products for regulated markets, especially for USA. With this aim, the company has planned to establish a state-of-the-art pharmaceutical factory in Sonargaon, Narayanganj, Bangladesh. The Company has already acquired 1,241.71 decimal land valued at BDT 434,600,000 located at mouza- Tripurdi, Sonargaon, Narayanganj.

## 4.2 Joint Ventures:

ACI Godrej Agro vet Private Limited: ACI Godrej Agro vet Private Limited is a joint venture company formed by a 50:50 stake of ACI Limited, Bangladesh and Godrej Agro vet Limited, India. The company started its business in Bangladesh at the end of the year 2004 with Poultry Feed. It started Hatchery and Breeding Farm Operations in February 2007. The Company launched and started selling Fish Feed at the same time. In July 2008, it diversified its product portfolio and introduced Shrimp Feed and Cattle Feed. ACI Godrej Agro vet Private Limited is into the business of providing integrated solution to the market by manufacturing and marketing quality Poultry, Aqua, Cattle Feed and Day Old Chicks, not only for business purpose but also for the improvement of socio economic condition of the farm owners of Bangladesh.

At present a huge amount of Investment is going on for various required projects, like: The technical knowhow of this business is being given by the Godrej Agro vet Limited, India which has a leadership position in India. ACI Ltd has Joint Venture with one of the leading companies of India, Dabur India as Asian Consumer Care Ltd. Dabur has a long range of food items which is distributed through the channels of ACI Consumer Brands. These products are very popular in Bangladesh Market. The food items are- Dabur Honey and Dabur Chawanprush.

**2. Asian Consumer Care (Pvt) Limited:** Asian Consumer Care (Pvt.) Ltd. also markets the personal care products of Dabur. The personal care products of Dabur are:

- Dabur Amla Hair Oil.
- Dabur Vatika Hair Oil.
- Vatika Shampoo.
- Dabur Vatika Face pack.

All these products of Dabur are already known to the customers through various satellite channels and bringing good name for both Dabur and ACI.

**3. ACI Consumer electronics:** World renowned electronics company Panasonic and ACI Limited has joined together to bring the Panasonic Audio Visual products to Bangladeshi consumers. Under this arrangement with Panasonic regional office in Singapore, ACI Consumer Electronics, a newly formed division in ACI Consumer Brands SBU will market the Panasonic AV products in Bangladesh. Panasonic has a rich range of AV products comprising of High Definition LCD and Plasma Television, Home Theatre system, DVD and Blue-ray DVD player, Digital Still Camera & Camcorder. For the easy-availability of these products to the customers, ACI Consumer Electronics has already appointed 11 dealers inside Dhaka and 5 dealers outside, who will carry the Panasonic products for display and sales purpose.

### 4.3 Operational Network Organogram:

#### Management Committee:

Dr. ArifDowla	Managing Director
Dr. F H Ansarey	Executive Director, Agribusinesses
Mr. Syed Alamgir	Executive Director, Consumer Brands
Mr. M. MohibuzZaman	Chief Operating Officer, Pharmaceuticals
Mr. PradipKarChowdhury	Executive Director, Finance and Planning
Mr. SabbirHasanNasir	Executive Director, Logistics
Mr. PriyatoshDatta	Director, Quality Assurance, Pharma
Mr. AbdusSadeque	Director, Marketing & Sales, Pharma
Ms. SheemaAbedRahman	Director, Corporate Affairs
Mr. Md. MonirHossain Khan	Financial Controller
Mr. Imam Ahmed Istiak	Director, Operations, Pharma

#### Board of Directors:

Mr. M. AnisUdDowla	Chairman
Dr. ArifDowla	Managing Director
Mr. WaliurRahmanBhuiyan,OBE	Director
Mr. GolamMainuddin	Director
Mr. Md. Fayekuzzaman	Director
Mrs. NajmaDowla	Director
Ms. ShusmitaAnis	Director
Mr. Abdul-MuyeedChowdhury	Director
Mr. Juned Ahmed Choudhury	Director
Ms. SheemaAbedRahman	Director



#### 4.4 Company Mission and Vision for the future:

**ACI Mission:** ACI's Mission is to enrich the quality of life of the people through responsible application of knowledge, technology and skills. ACI is committed to the pursuit of excellence through world-class products, innovative processes and empowered employees, to provide the highest level of satisfaction to their customers.

**ACI Vision:** To realize the mission ACI will:

- Provide products and services of high and consistent quality, ensuring value for money to their customers.
- Endeavour to attain a position of leadership in each category of their businesses.
- Develop their employees by encouraging empowerment and rewarding innovation.
- Promote an environment for learning and personal growth.
- Attain a high level of productivity in all their operations through effective utilization of resources and adoption of appropriate technology.
- Promote inclusive growth by encouraging and assisting their distributors and suppliers in improving efficiency.

Ensure superior return on investment through judicious use of resources and efficient operations, utilizing their core competencies.

## CHAPTER FIVE: JOB PERFORMED

### 5.1 Job Description:

#### a) Product Costing

In case of Finished Good and repacking item procurement, Commercial calculate landed cost in prescribed format (attached) considering all duties, VAT and others at current dollar rate. Commercial then share landed cost with marketing department along with comparative statement to decide on import decision. All duties, VAT and others need to be identified from valid MFN Tariff schedule, First schedule and SRO's. In case of new item to procure, HS code needs to be validated from all concern as per prescribed format.

#### b) Collecting Indent

After price, quantity and name of manufacturer are being approved, commercial collects Pro Forma Invoice or indent to Open L/C or to issue purchase order.

#### c) Opening L/C

Before sending Pro Forma Invoice or indent to open L/C, purchaser checks all particulars of PFI/indent. Upon receipt of PFI or indent, operation team open L/C. Operation team open L/C as per Standard Operation Procedure of L/C opening.

#### d) Shipment Follow Up and Documents Collection

Purchaser continuously follows up the shipment status of material for which L/C has been opened. In case of any delay in shipment, purchaser will immediately inform his/her Supervisor to take next course of action. Once shipment is done, purchaser collects the required documents to take the delivery at site (as per IRC). Operation team is responsible for clearing and taking delivery up to factory or site as mentioned.

#### e) Goods Receive Note

GRN are registered in Mat Plan and in registry books immediately after receiving the goods from transport agent in the factory. GRN are ensured after collecting proper documents. In case of absence of any documents, Commercial should be informed immediately. Upon Confirmation from Commercial, such goods can be received.

#### **f) Claim for Problem Found In ACI**

Any anomaly found in received imported goods should be raised immediately to the responsible purchaser and responsible person from Operation team without making any GRN. The responsible transporter should not be allowed to leave factory premises before Commercial response. Based on feedback from Commercial, Warehouse will issue GRN. Based on the anomaly, the operation team will immediately inform to the responsible purchaser to communicate with the importer to resolve the issue if problem seems to have occurred at importer's end. In case, such anomaly occurred at AC's end, operation team will take appropriate action against the transporter or CNF agent. If required, operation team will raise insurance claim.

#### **g) Claim for problem found in supplier**

In case of any problem found due to supplier fault, a claim should be registered against the supplier or the local indenter. The claim amount should be justified considering real loss occurred due to such anomaly. The claim amount should include PFI price, duty, insurance fee, carrying cost and other related cost. This claim amount should be refunded by the following way:

- **First preferred Option:** Cash refund from the local indenter
- **Second Preferred Option:** Cash transfer from importer through bankingchannel.
- **Third preferred Option:** Amount to be adjusted through L/C.
- **Fourth preferred Option:** Amount to be adjusted with other item of samemanufacture or other manufacturer with same indenter.

Purchase should update such claim on each month. In case, purchaser failed to receive the claim amount, purchaser should immediately inform Materials Controller. In case, supplier or local indenter or manufacturer is disagreed to pay said amount though it is proven the anomaly occurred due to the supplier or local indenter or manufacturer's negligence, the said supplier or local indenter or manufacturer should be black listed. If necessary, Legal Department can also be involved for recovering claim money. After receiving the full amount of claim, claim file will be closed. Claim file can be closed after receiving approval from Materials Controller.

## 5.2 Specific Responsibilities of the Job:

1. Requesting Banks through Letter for Opening and Closing of LC (Letter of Credit)
2. Inputting forwarded Data of Opened LC by banks in Office Software to Track the Record
3. Preparing Requesting Letter to send it to Banks
4. Keeping good Communication with other Departments (Finance & MIS) to Execute Import related Works
5. Inputting Data such as HS Code, Assemble Value, Bill Number and Appraisal Date etc.
6. Operating “Materials Planning and LC Controlling Software”
7. Responsible for commercial aspects such as Bill of Entry, Commercial Invoice and Customs Assessment.
8. Responsible for sending Bill of Exchange, Commercial Invoice, Certificate of Analysis, Detailed Packing list, Certificate of Origin etc. to Chittagong Customs office to release the goods from ship.
9. Dealing with Banks to send and receive LC Documents.
10. Faxing Essential Documents to the Respective Banks with Necessary Details.

## 5.3 Aspect of Job Performance

**Push Strategy Of ACI:** Today’s supply chains are undergoing significant pressures to become more “demand-driven”. Retailers, distributors and manufacturers are forced to choose the approach they hope will make them the most profit. ACI use the forecast approach which is called “Push system”.

A push–pull system in supply chain management describes the movement of a product or information between two subjects. With a push-based supply chain, products are pushed through the channel, from the production side up to the retailer. The manufacturer sets production at a level in accord with historical ordering patterns from retailers. It takes longer for a push-based supply chain to respond to changes in demand, which can result in overstocking or bottlenecks and delays (the bullwhip effect), unacceptable service levels and product obsolescence.

In a pull-based supply chain, procurement, production and distribution are demand-driven rather than to forecast. Push production is based on forecast demand and pull production is based on actual or consumed demand. A supply chain is almost always a combination of both push and pull, where the interface between the push-based stages and the pull-based stages is sometimes known as the push–pull boundary.

Depending on the medium used, the communication between the buyer and seller can be either interactive or non-interactive. For example, as ACI makes the promotional activities by television or radio, it's not possible for the buyer to interact. On the other hand, if the communication is made by phone or internet, the buyer has possibilities to interact with the seller. In the first case information is just "pushed" toward the buyer, while in the second case it is possible for the buyer to demand the needed information according to their requirements.

So, for ACI, the consumer cannot interact or communicate with the ACI, thus ACI use the push strategy. Push based supply chain strategy, usually suggested for products with small demand uncertainty, as the forecast will provide a good direction on what to produce and keep in inventory, and also for products with high importance of economies of scale in reducing costs. Push strategy is used in ACI for the following reasons-

1. Market demand uncertainty is relatively small
2. Production and distribution decisions are based on long term forecasts and past orders received from retailer's warehouse.
3. To Maximize utilization of resources, raw materials or infrastructure at least cost.
4. Inability to meet changing demand patterns for time and cost issue.
5. Large and variable production batches.
6. Unacceptable service levels.
7. Established Supplier relationships, as well as collaborative relationships with customers to minimize forecasting error.
8. Excessive inventories due to the need for large safety stocks.
9. Less expenditure on advertising than pull strategy.

## 5.4 Critical Findings:

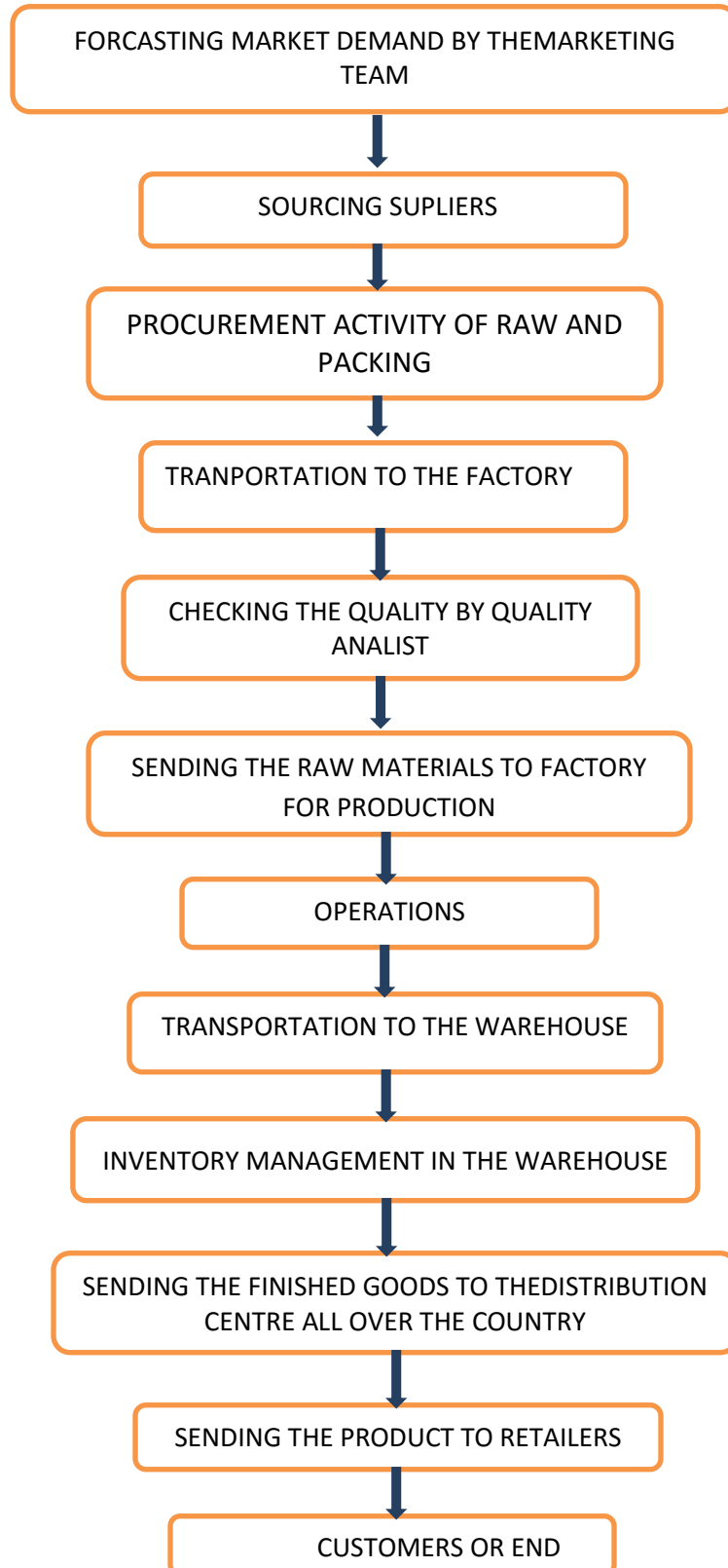
1. This is the overall question for the employers we can see that 40% employees at commercial department are not satisfied working on ACI Limited. There are some
2. A large number of LC amendment is happened which is related with the cost
3. A problem arise for selecting the product HS code which is related with the customs duty
4. The shortage of IT knowledge among the employees at the commercial department that reduce the smoothness of the work performance
5. There is no central database of the suppliers. So the information's about the employers is not available
6. Cargo for carrying the goods is not available and most of the goods are transported by local hired cargo that is not secure

## CHAPTER SIX: SUPPLY CHAIN PROCEDURE OF ACI

Supply chain management has a very important role to play within the organization because it involves with the responsibility for predicting and satisfying end customers' demand back through to the supplier and creates opportunities for the procurement professional to contribute to the organization's success. The objective of supply chain management is to create the most value for the entire supply chain network, including the end-customer. Successful supply chain management involves the coordination of activities within the firm and between members of the supply chain.

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. Supply Chain Managers have a vital role to play in managing cost, as they are in a position to monitor and influence the whole cost base across the business and the supply chain .

Commercial Department of ACI is one of the most vital functional departments of the Company which deals with the supply chain activities of ACI. In order to keep all the businesses running flawlessly, the dedicated and hardworking employees of this department maintain a good liaison with the customers, both national and international. The Commercial Department is consistently achieving the best prices for the products that they purchase, ensuring enormous amount of cost savings for the company. It offers invincible professionalism and expertise in the entire commercial activities of ACI.





**Figure:** Steps of supply chain functions of ACI

**6.1 Forecasting Demand:** Push production is based on forecast demand and pulls production is based on actual or consumed demand. In general, ACI uses Push production through Statistical forecasting techniques to forecast future demand. Statistical forecasting techniques provide an insight into historical and seasonal trends, and help to evaluate the impact of promotional activities. But ACI recognized that statistical forecast can act only as a guideline and the best forecast is one that is arrived at through Collaboration of all concerned parties. The demand planning solution provides a base statistical forecast and a framework for collaboration and monitoring with the retailers. Mat Plan is the in house software to run the supply chain activity of ACI smoothly.

**ROFO Circulation:** A six month rolling forecast (ROFO) is circulated in each month. Such ROFO needs to be approved by concerned business head. Responsibility of preparing it is on Marketing Manager/ Product Manager/ Executive/ any other concern from the respective Business. It is prepared in excel format and approved hard copy in prescribed format. ROFO is ensured in “MatPlan”. The prepared ROFO is distributed through Commercial, Finance, Production, Warehouse, Quality Assurance and Other related departments. The Time frame is 10 days ahead of preceding months. For example, ROFO for February to July (6 months) is to be provided within 20th of January. This ROFO for first three months will be freeze. No change will be allowed in these three months. ROFO can be changed in fourth months.

**Production Plan:** Production Manager or concerned production personnel provides six months production plan 1-5 days ahead of the starting of production as per said plan. Commercial or Production ensures production plan entry in “MatPlan”. Commercial checks production plan with ROFO to find any inconsistency if there is any. If there is any significant difference found in production plan with respect to ROFO; production clarify for such

inconsistency.

**6.2 Sourcing Supplier:** As ACI finds itself in a highly globalized and digitally connected business environment, it increasingly relies on third-party suppliers for raw materials; manufacturing of components or even complete products; assembly; logistics and distribution; and more. The importance of suppliers increases the need for collaborative supplier relationships. Developing a collaborative relationship requires time and effort.

**Approved Vendor List:** Commercial Department maintains a vendor list of Raw Material and Packing Materials according to prescribed format of international Standard Organization. Such vendor list needs to be approved by Quality Analyst. Commercial also maintains a vendor list for Finished Goods and repacking items. Such vendor list needs to be approved by Business unit or quality analyst.

**Vendor Enlistment:** To work with ACI, each local vendor needs to be enlisted beforehand. Vendors submit all necessary papers along with forwarding letter to Materials Controller in prescribed format. Commercial then investigate about his competency as a supplier and visits his site if required. After satisfactory result, supplier is issued a letter for his qualification as a vendor to work with ACI.

**Preferred Supplier:** The items which required special design or process to follow, Commercial can consider preferred supplier concept of selecting and authorizing a supplier based on the cost, reputation, reliability and timeliness. For considering a supplier as preferred supplier, detail item wise cost analysis with regular review is done. After that an agreement is done with such supplier.

**Vendor Evaluation:** Vendor needs to be evaluated in each year. Such vendor evaluation needs to be done in prescribed format. Vendor is informed regarding the evaluation and they are asked to improve where required.

**Vendor Profile:** Commercial department prepares vendor profile containing the following

information:

1. Details address of Vendor
2. Name of contact person with detail address
3. List of product
4. Financial strength
5. List of other companies they supply
6. Address of factory
7. Purchase history of ACI from this supplier
8. Non Compliance Report, Problem notification and other Quality Analysis report regarding this supplier
9. Claim status.

**Sample Management:** Commercial department collects required sample from supplier with all supportive documents. The required quantity and the required documents are determined by Quality Analyst. They follow ISO procedure and instruction for sample approval process. They forwards all sample with supportive documents to Quality Analyst for approval as per ISO prescribed process and format. Quality Analyst tests the sample of Commercial department then starts procurement process after Quality Analyst approval. They maintain a register in Excel and “MatPlan” for the sample sent to Quality Analyst. In each month, they update sample status with them. After sample is being approved, supplier are listed in approved vendor list.

**Alternative Source Development:** Commercial department gives best effort to increase supplier base to get competitive price and other supply chain benefit. It searches for supplier as per specification provided by Quality Analyst or Business. Commercial can source new supplier by following initiatives:

- Sourcing through local indenter
- Sourcing through supplier
- Sourcing directly

**6.3 Procurement:** Procurement is the business management function that ensures identification, sourcing, access and management of the external resources that an organization

needs or may need to fulfill its strategic objectives. Novak and Simco identified procurement as “...the act of buying... all those activities necessary to acquire goods and services consistent with user requirements”. Other authors use similar definitions. According to CIPS Australia, Procurement is the business management function that ensures identification, sourcing, access and management of the external resources that an organization needs or may need to fulfill its strategic objectives. Procurement exists to explore supply market opportunities and to implement resourcing strategies that deliver the best possible supply outcome to the organization, its stakeholders and customers.

As a practicing SCM organization, ACI has changed the system of procurement from bid and buy system to an involvement of key suppliers in the product development phase. This action reduces product-cycle time. Therefore strategic alliances between buyer and supplier have to be built on a global basis. The steps taken by the procurement Department are discussed below:

**Material Requirement Planning:** The desired purchase requisitions are generated along with production plans. Material requirements generated therefore are synchronous with the distribution and production requirements generated downstream. By regenerating material plans at the same frequency as production plans, ACI is able to maintain low raw material inventory. But the supplier needs to be equally flexible and also part of the material planning process to ensure success.

Commercial department prepares a MRP based on ROFO/ production plan in the very first week of the month. Based on lead time, uses of corresponding Finished Good, Considering Finished Good coverage, material stock and lead time, a purchase requisition (PR) is generated for opening L/C in the month. A unique number is given to each PR and each PR is generated in “MatPlan”. While preparing MRP, the following consideration should be made:

- information from MRP file
- Current stock
- Next 5 months requirement
- Month wise requirement Production requirement
- Lead time
- Sales trend
- Last 5 months consumption
- Any expired items which can be used after retest
- FG coverage
- Price and MOQ
- Possibility of any shortage in future
- Any RM, PM and other crisis worldwide that will hamper production in future

- Any urgent requirement by business and production

**MRP File:** Commercial prepares a MRP file based on the followings:

- item wise lead time
- Number of corresponding Finished good item wise
- Local vs. Import
- Exclusive vs. non exclusive
- Safety stock
- Source origin
- Drug vs. Non Drug
- HS code
- Shipment by sea vs. Air
- Number of available supplier
- NOC or other certification required

**Requisition:** Commercial can also purchase based on requisition raised by business. Marketing department provides requisition as per prescribed format providing ROFO, Current Stock, other necessary documents with approval from head of business. Commercial department issues a Purchase Requisition number for each requisition.

**Quotation Collection and Negotiation:** Commercial collects quotations from all approved manufactures/suppliers referring to Purchase Requisition number. Commercial then negotiate with all manufacturers or suppliers to bring down the price to the best possible.

**Comparative Statement:** With referring to Purchase Requisition number, a comparative statement is prepared for each import or purchase. Considering MOQ and delivery, commercial order is given to lowest bidder unless there is other compelling reason to go for a supplier other than the lowest bidder. Commercial also tries to incorporate industry price in comparative Statement. This comparative statement needs to be approved by Materials Controller and Head of business. In case of failure to provide indent at the time agreed, next bidder will asked to provide indent. Any change in comparative statement is also need to be approved by Materials Controller and Head of business. The following information is furnished in comparative statement:

- Code Number
- Name of material

- Name of supplier
- Quantity to be procured
- Current stock
- Name of manufacturer
- Price of each manufacturer
- Last price
- Reason for price increase or anything whatsoever
- Industry price if available

**Quality Analysis Report:** It is to be expected that, QA will test the material within 15 days from the GRN date. Any major anomaly found by QR should be addressed to Commercial immediately. Based on anomaly found, commercial will raise and resolve claim following previous two procedures. QA should notify commercial and Finance in case of any anomaly immediately for any insurance claim.

**NCR and Test Report:** Purchaser will try to supply all the documents required as per Quality Analyst Standard Operation Procedure for test purpose. In case of problem notification for missing parameter in Certificate of Analysis, purchaser should immediately communicate with the supplier to update Certificate of Analysis as per problem notification. In case of NCR (Non Compliance Report), supplier should be informed to take necessary corrective and preventive measure (CAPA). And claim should be raised and resolved in case of NCR, if required.

**Expiry Items:** Based on expiry report from QA, Commercial should raise re-evaluation request as per Quality Analysis Standard Operation Procedure. Business and production should be requested to use material before expiry. Business will check whether ROFO can be changed to use said material and production will check whether production can be done in advance as per ROFO. In the meantime, purchaser should also request supplier to provide necessary document conduct the test of material after expiry. In case, material is rejected and unusable, purchaser will check MRP for any future requirement.

**Block List Approval:** Purchaser will regularly communicate with concerned person responsible for Block list approval. Any requirement for Block List amendment and New Block List should be raised by concerned purchaser immediately. Purchaser will check the availability of prior approval on a Block list before opening any new L/C. No L/C is allowed to open in case of unavailability of Block List approval from Drug Administration Authority. Purchaser will also check the availability of recipe approval for such item.

**Procurement of Vaccine:** Business will be responsible for the arrangement of PFI from the supplier CEVA as the supplier is considered to be exclusive and ACI is the sole distributor. Commercial will only on L/C based on Performa invoice as supplied by CEVA. Before opening L/C, PFI needs to be approved by Drug Authority. Commercial will co-ordinate with supplier for resolving any issue related to opening L/C and delivery.

**Procurement from Exclusive Supplier:** Before making any supplier exclusive, Business/Commercial needs to justify the reason for making such supplier exclusive. An agreement needs to be done with such supplier. Such agreement needs to be validated by Business, Commercial, Finance and Legal. Business UNIT Or Quality Analyst will validate the quality of product. Commercial will negotiate the price with such exclusive supplier before any agreement takes place. There should not be any price agreement. Commercial department will negotiate price before each purchase and make comparison with other suppliers. Based on the agreement, Business will raise requisition or ROFO to Commercial to negotiate price and open L/C after checking inventory status. Commercial will check NOC and other necessary requirements as per SRO or import policy. Business will be responsible to collect such NOC.

**Procurement with Exception:** Commercial may need to procure product immediately in case of any sudden demand due to outbreak of disease countrywide. In such case, Business department raise requisition or ROFO with sales plan justifying such procurement. Commercial will negotiate price and delivery. Before procurement, Commercial will confirm delivery date to business. Quality of such product will be verified and approved by Business.

**Requirement of Certification for Import:** As per import policy order 2012-2015, Commercial will check the availability of documents and certificate before opening L/C to fish feed, poultry

feed, animal feed and others mentioned in import policy and other SROs. The above certification requirement is subject to validity of import policy and SROs. Any change in import policy and SRO, the requirement will also be changed.

### **Weekly Check List of Concern Purchaser:**

- **Sunday:** Purchase plan against MRP, Tenders, Requisition, campaign and any export orders.
- **Monday:** QA related issues, Alternative source development, and Claim status.
- **Tuesday:** Stock status, Sales trend analysis, Vendor profile, product profile, Vendor list.
- **Wednesday:** Negotiation, savings, budget, production follow up.
- **Thursday:** Software development, Block list, other approval, BL amendment, learning and training

Other than above, Purchaser also performs regular activities as per his job description and responsibilities.

**New Product Development:** Product development is critical to the continuing success of the firm. Developing new products quickly and getting them to the marketplace in an efficient manner is a major component of corporate success. The exact Time to market the new product is a critical objective of this process. As product life cycles shorten, the right products must be developed and successfully launched in ever-shorter timeframes in order to remain competitive. Business will propose for new product or recipe to Product Development team in prescribed format of ISO instruction. While proposing a new product or line extension of existing products, detail market study, cost estimation, CAPEX requirement along with financial projection is done with Finances' assistance. Upon proposal from Business, Product Development or Quality Analyst requests commercial to arrange sample for QA and PD test. Commercial arranges required sample quantity and all documentation as per specification provided by quality analyst. They test sample and send the remaining quantity to PD if sample is found satisfactory. PD will initiate stability test as required by ISO.

After satisfactory result, PD will raise the requirement of RM and PM for next six months as per ROFO provided by Business. Commercial will then procure RM and PM from approved source



as per requirement of PD/Business. In case of finished product, Business will propose new product mentioning suppliers name to Commercial. Business will also provide ROFO with the proposal. Commercial will also search for alternative supplier. Commercial will collect product sample, Certificate of Analysis, product brochure, Method of Analysis and other documents from the mentioned supplier.

Commercial will send sample to QA for test. If sample is found satisfactory, commercial will start procurement process. If QA is unable to test material due to improper lab facility, Commercial will send sample to third party lab for testing. If no such facility is unavailable within the country, Business will decide about the future of product. Still business want to import such material, Business will approve sample and COA and other documents to Import with providing reference of such product in the industry. Commercial will also collect pre-shipment sample if required.

**Procurement of Local PM:** Commercial department generates short material quantity for each SKU against production plan using “MatPlan” 15 days ahead of production. Commercial will then issue purchase order as per approved price. Before issuing purchase order; commercial will revalidate stock status, production requirement, and ROFO and FG stock. Any deviation found should be informed to immediate supervisor for further action. In every six months interval, commercial will collect quotation for Cartoon, label, leaflet and other PM from approved vendor. After collecting quotation, commercial will prepare comparative statement and negotiate price. Lowest bidder will be awarded for next six months in normal situation. If there are more vendors with same lowest price, then all vendors with lowest price will be awarded for order. More vendors can be selected though their offered prices are not same, in case a single vendor cannot fulfill the whole requirement. In such case, approval needs to be taken with special consideration.

After obtaining price approval in CS, commercial will issue PO as per serial number 2e (a) and 2e (b). Vendor will deliver material as per time and place agreed. Vendor will deliver material as per office time of factory/delivery place. Vendor will return material if WH denied to take delivery due to arrival after office hours and due to arrival in holidays. Vendor should take confirmation from commercial/WH, if he wants to deliver material after office hours or to deliver in holidays.

Vendor will provide Challan, PO, certificate of analysis, VAT Challan and other related documents during delivery. Warehouse will issue GRN after successful completion of QA test. If whole consignment is rejected, vendor will return the rejected material issuing credit Note. Vendor will replace the whole quantity immediately. If consignment is partially rejected, vendor will return those partially rejected material issuing credit note. If vendor need to sort out rejected quantity on the spot, permission needs to be taken from Factory head for sorting out at factory premises. If Vendor is unable to delivery as per PO or if vendor is refuse to replace, second vendor will be asked to deliver as per approved rate. If no vendor is found to deliver as per approve rate, then new quotation will be asked to submit for negotiation and rate approval.

If vendor is unable to deliver material three times, such vendor will be black listed. Vendor will submit bill, PO and other related papers for payment. Billing personal will forward bill to Finance as per billing SOP to settle the bill. As a part of contingency planning, Commercial will keep at least three supplier for each major items in almost readiness stage. In major local items, overseas supplier can also be selected in case local suppliers fail to supply on time or fulfill other requirements.

### **Development of Packing Material:**

Business department is responsible for the development of new PM. After collecting design, sample, dimension, Artwork or specification from business, commercial asks for quotation from enlisted vendor. Business will raise CEP (Capital Expenditure Proposal) for MD's approval to purchase cylinder. Commercial will prepare a comparative statement with the quotations collected. Commercial will also prepare a cost sheet for Carton, leaflet and outer to compare with price bid.

After rate approval from business in CS and delivery confirmation in due date, Business will handover approved design/sample/dimension/Artwork/specification to approved vendor. Vendor will submit his produced sample to QA for approval.

Business will coordinate with vendor and QA for any requirement of change in such sample. After QA approval, Business will initiate change control process to QA for final approval. Commercial will issue PO for delivery after final approval from QA. Any change required in

approved specification needs to be initiated by Business. Commercial will only purchase based on approval from QA.

**6.4 Manufacturing:** After the procured raw and packing material reaches into the factory premises, the quality of them are checked and ensured by the quality analyst of the factory. If the materials are not satisfactory, these materials are again sent to the suppliers to return. If the materials are of good quality as expected then they are permitted to go to the factory and start production.

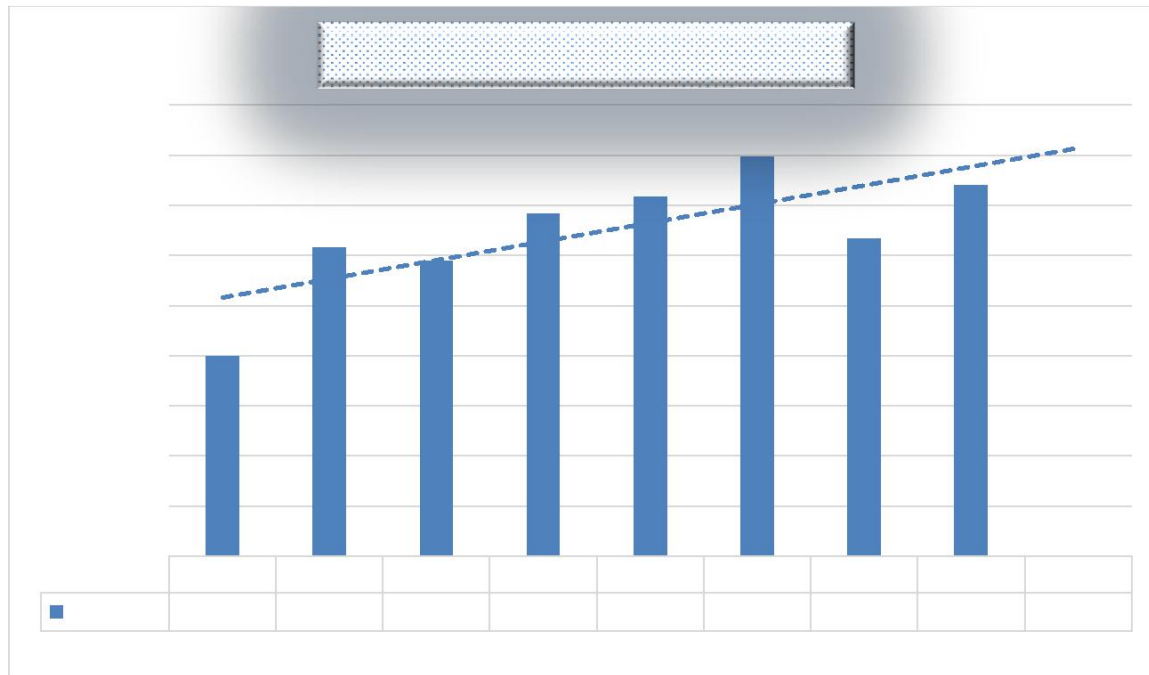
ACI has three separate manufacturing plants in the outskirts of Dhaka. The Pharmaceuticals plant is located at Narayanganj; ACI Formulations has been setup at Gazipur and the Tetley factory has been built at Kona Bari. ACI Limited is the first company in Bangladesh to have attained the ISO 9001 certification for Quality Management System and ISO 14001 for Environmental Management System.

The Trading subsidiary has also received ISO 9002 certificate. At the manufacturing facilities, they follow CGMP (current Good Manufacturing Practices) guidelines and standards recommended by World Health Organization (WHO) for pharmaceutical formulations. ACI also meets all national regulatory requirements relating to its current businesses.

The ACI group has consistently demonstrated its commitment towards its workers, employees and the environment over the years. It has been recognized as the practitioner and promoter of socially responsible business behavior. To take this commitment even further, ACI has endorsed the Principles of Global Compact on August 18, 2003. ACI is committed to maintain the harmonious balance of our eco-system and therefore constantly seeks ways to manufacture and produce products in an eco-friendly manner so that the balance of nature remains undisturbed and the environment remains sustainable. In pursuit of this goal, ACI constantly tries their best to

- Comply fully with all local and national environmental regulations.
- Conserve natural resources like water and energy for sustainable development, and adopt environmentally safe processes.
- Ensure appropriate treatment of all effluents prior to discharge, to prevent pollution or degradation of environment.
- Ensure appropriate communication and cooperate with internal and external interested parties on environmental issues.
- Create awareness on environmental issues among our employees and suppliers.
- Adopt modern waste management technology.

**6.5 Inventory:** To reduce a company's cost and expenses, warehousing management is concerned with storage, reducing manpower cost, dispatching authority with on time delivery, loading & unloading facilities with proper area, stock management system etc. Increased communication between members of the purchasing and warehouse departments helps in optimizing the levels of inventory.



**6.6 Transportation and Logistics:** Logistics is the management of the flow of things between the point of origin and the point of consumption in order to meet requirements of customers or corporations. According to the Council of Supply Chain Management Professionals (previously the Council of Logistics Management, logistics is the process of planning, implementing and controlling procedures for the efficient and effective transportation and storage of goods including services and related information from the point of origin to the point of consumption for the purpose of conforming to customer requirements and includes inbound, outbound, internal and external movements.

By maintaining low transport costs through optimization of the transportation model, ACI makes significant savings. This optimization is combined with inbound, internal and outbound

movements to deliver maximum value. This is achieved by collaborating with suppliers and retailers, along with third party logistics providers.

1. **Inbound logistics:** Inbound logistics is an integral element of business operations for a manufacturing firm, involving the processes of receiving, storing and distributing raw materials for use in production. Inbound logistics is one of the primary processes of logistics, concentrating on purchasing and arranging the inbound movement of materials, parts, and/or finished inventory from suppliers to manufacturing or assembly plants, warehouses, or retail stores.
2. **Outbound logistics:** The number of customer locations (retail shops) to be serviced in a day, coupled with the customer's demands for delivery timings makes optimizing the transportation routes a unique challenge. Outbound logistics is the process related to the storage and movement of the final product and the related information flows from the end of the production line to the end user.

**Modes of Transportation:** Generally ACI uses three modes of transportation.

1. **Ground transportation:** Ground transportation or land transportation is transporting commodities and merchandise goods and cargo, via vehicles or infrastructure, such as roads or railways. Ground transport is typically more affordable than air, but more expensive than sea especially in developing countries like Bangladesh, where inland infrastructure is not efficient.
2. **Air transportation:** Cargo was transported by air in specialized cargo aircraft and in the luggage compartments of passenger aircraft. Air freight is typically the fastest mode for long distance freight transport, but also the most expensive. Cargo airlines are airlines dedicated to the transport of cargo by air. Some cargo airlines are divisions or subsidiaries of larger passenger airlines.
3. **Ocean transportation:** An individual nation's fleet and the people that crew it are

referred to as its merchant navy or merchant marine. Merchant shipping is the lifeblood of the world economy, carrying 90% of international trade with 102,194 commercial ships worldwide. On rivers and canals, barges are often used to carry bulk cargo. Sea transport has been the largest carrier of freight throughout recorded history of Bangladesh as well as for ACI.

**6.7 Distribution:** Distribution system of ACI is a very complex affair because the supply is not to meet an immediate demand – it is to replenish stock at the immediate customer location, which in turn will be used to fulfill demand. But the complexity of the distribution network presents itself in the form of an opportunity – because the perfectly effective and efficient distribution system can be a strong comparative advantage.

The products of ACI are not served directly to the customers; but via retailers. From the local warehouses of ACI, products go to the various retail shops. ACI has employed salespersons who convince the retailers to put ACI products on display or sell to the retail shops. From the retail shops the ACI products finally go to the end user consumers. The company maintains strategically located sales centers in twenty four different locations across the country. It has developed an advanced distribution system through its more than 300 skilled and trained manpower and a large fleet over eighty vehicles and through its 18 strategically located depots. The maximum saleable quantity depends on the capability and efficiency of depots. Each depot is assigned to sell minimum 70,000 quantities of products to distributors' within two months.

The distribution system is capable of handling continuing volume of diverse range of products from the various businesses. The company's distribution centers are highly streamlined, computerized and automated. We are capable of maintaining a cold chain for some specialized range of products such as vaccines and insulin. The combination of this advanced function and multidimensional capabilities made it possible to handle hundreds of products efficiently.



Flowchart: Distribution Process of ACI

## CHAPTER SEVEN- RECOMMENDATION AND CONCLUSION

### Recommendations:

1. Reduction raw material price compared to competitors in the national and international market.
2. Automation of material requirement planning and production requirement.
3. Comprehensive database of all suppliers so that the buyer can easily get the information about the supplier.
4. Online billing and access to real time update automation.
5. Ensure all documents and accuracy as per LC terms and conditions.
6. Online duty payment based on bill of entry have to be arranged by the organization
7. Implementation of customer feedback form half yearly.
8. Settlement of product HS code according to the national board of revenue.
9. Maintaining port rent and demurrage charge at minimum percent for cost saving.
10. Training on supply chain management, IT, communication and leadership.
11. Training on customs acts, import policy and VAT should be increased.

**Conclusions:** A company's supply chain stretches from the factory where its products are made to the point the products are in customer hands. A typical supply chain has five different steps. Products start out as raw materials. In the second step, the manufacturer takes raw materials and turns them into products. The third step occurs when the finished products get shipped to the distribution facility. In step four, the distribution facility uses the products to stock a retail store. In the final step, the products get delivered to the hands of the consumer. The supply chain of ACI has been described in this paper with the light of this concept

Increasingly, supply chain management is being recognized as the management of key business processes that comprise the supply chain. Optimized supply chain management can decrease total system cost, inventory and cycle times while significantly increasing stock availability and inventory turns. If these results can be achieved, it can provide companies with greater profits, improved customer service and competitive advantage. It has been continuously benefitted by its outstanding supply chain management Department. It offers invincible professionalism and expertise in the entire commercial activities of ACI as well as gaining comparative advantage over its competition and gaining more customer trust and share.

## **Abbreviations:**

Sop- standard operation procedure sbu-

sub business unit

Mrp- material requirement planning

Rofo- rolling forecast

Po- purchase order

Rm- raw material

Pm- packing material

Fg- finished good

Noc- non objection certificate

Pr- purchase requisition

Moq- minimum order quantity cs-

Comparative statement

sro- standard regulatory ordinance pfi-

proforma invoice

irc- input registration certificate qa-

quality assurance



grn- good receive note ncr- -  
noncompliance report qc-  
quality controller  
sku- tock keeping unit.

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