



Inspiring Excellence

Internship Report on
Supply Chain Management of
Abul Khair Steel Products Ltd. (Flat Steel)

Submitted To:

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This is to certify that Chowdhury Md. Tarek Bin Islam, ID no-14264040, student of Brac University of MBA program has completed internship report titled **“Internship report on supply chain management of Abul Khair Steel Products LTD. (Flat Steel)”**.

I wish him every success in life.

Dr. Mamun Habib
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Letter of Submission

Date: 23 August 2017

Dr. Mamun Habib
Associate Professor
BRAC Business School (BBS)
Brac University

Subject: Internship report on “**Supply Chain Management of Abul Khair Steel Products Ltd.**”

Dear Sir,

This is to inform you that I have completed my internship program at **Abul Khair Steel Products Ltd.** The internship report titled “**Supply Chain Management of Abul Khair Steel Products Ltd.**” has been prepared after the completion of my internship under your supervision.

In writing this paper, I have tried my best to apply the concepts learnt in my program along with the actual experience learned while working for this project in AKG. I have reflected in this report what I have done as per the requirement of the company and the decisions taken and the reasons behind these decisions. However, I will be glad to clarify any discrepancy that may arise on this report. I hope this report will entice your kind appreciation.

Sincerely

(Chowdhury Md. Tarek Bin Islam)
ID: 14264040
MBA Program (Supply Chain Management)

Acknowledgements

First of all I desire to express my deepest sense of gratitude to almighty Allah.

As a part of my MBA program, I did my internship program at Abul Khair Steel Products Ltd, a sister concern of Abul Khair Group in Bangladesh. This company mainly produces CI sheet (Corrugated Iron) and distributes its products in whole Bangladesh and some other countries in the world as well.

With profound regard I gratefully acknowledge to my respected supervisor Dr. mamun Habib, Associate Professor, BRAC Business School, BRAC University for his generous help and day to day suggestion and direction during preparation of the report.

I am also thankful to some other people of Abul Khair Steel Products Ltd with whom I worked for three months. Among them first I have to be thankful to Mr. Ariful Alam, Assistant Manager (Electrical Maintenance) and my supervisor in AKG. I am so thankful to Mr. Syed Adnan Ibna Hafiz, Head of Central Store (Accounts) and also all people of Abul Khair Steel Products Ltd who helped and assisted me to work there with a friendly environment.

I like to give thanks especially to my colleagues and others in AKG for their enthusiastic encouragements and helps during the preparation of this report by sharing ideas and practices they do in AKG. They allowed me raising thousands of questions regarding their practices and answered with huge patience.

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Executive Summary

The report is prepared on the basis of practical experience at Abul Khair Steel Products LTD. The internship program helped me a lot to learn about the practical situation of a factory. This program helped me to implement my theoretical knowledge into practical and realistic work environment.

The study intends to experience the relationship of in context of on marketing strategy and organizational support, supervisory support, work climate and employee service quality, problem solving environment in the context of Abul Khair Steel Products LTD. Perceived organization support (POS) – the extent to which employees believe that their employer is concerned about and aware of their being and contribution – can help employees self esteem and therefore performance. POS is more likely to increase the employees expectation towards meeting organizational goals will be rewarded and consequently these expectancies may increase their efforts in service works to meet the organizational goals. Support from supervisors is also an importance to employee performance but the employees may take it for granted, considering it to be part of the supervisor's job, and it might, therefore, not have the degree of positive know about the market and its difficulties. I want to know about the activities of Abul Khair Steel Products LTD, how a steel company works.

Abul Khair Steel Products LTD is a first of a steel company catering to a steel demand of the country and abroad for almost a decade now. They understand that the “steel Industry” is central to the economies of modern societies and is an indispensable motor of growth. A world class steel industry like Abul Khair Steel is essential to a developing country like Bangladesh, to widen its development base and meet its growing needs. In order to strengthen the steel industry of our country, Abul Khair Steel has established the largest multi-diversified steel manufacturing unit of our country. During the internship period I was attached to different people like Sr. GM, Assistant Manager, Sr. Officer, Asst. Engineer/Officer, Technician, Casual etc. I learn maximum knowledge about Supply Chain. I did my work in field and offices both places are very effective.

So, According to my opinion AKSPL is very productive as well as effective production oriented organization.

Chapter-1

Introduction

- 1.1 Introduction
- 1.2 Objectives of the study
- 1.3 Scope of the Study
- 1.4 Research Methodology
- 1.5 Limitations of the Study

1.1. Introduction

Steel industry is an established and growing industry in Bangladesh. Predominantly based in the port city of Chittagong, the industry has emerged as a major contributor to the national economy. Among hundreds of steel companies Abul Khair Group operates its steel business with the brand name “AKS” as an industrial conglomerate in Bangladesh. Starting from its journey in 1953 AKG has expanded its business in steel industry in 1993 as a part of intending to be a multinational company. During its initial stage AKS started manufacturing corrugated iron (CI Sheet) manually with a brand named “COW Brand”. Now they are operating six (7) automated galvanizing lines at their factories in Dhaka and Chittagong to satisfy the customer demand. Now they export their CI sheets in about 25 countries of the world.

Being such a big company in steel industry it has to maintain its long and complicated chain of supply starting from the sourcing of raw materials to customer satisfaction and feedback. Now AKS has expanded its business in many other countries in the world. So its supply chain is linking more and more stakeholders day by day and becoming complicated in nature.

My aim behind this report is to study the supply chain activities of AKS and to identify the positive and negative attributes of the chain activities.

1.2. Objective of the Study

Broad Objective

The main objective of the report is getting an overall idea about the Supply Chain Management of AKS or how its Supply chain management involves coordinating and integrating these flows both within and among companies or stakeholders.

Specific objectives

There are some specific objectives of this report and these are,

- 1.** Knowing the inflow and outflow procedure of materials and finished goods.
- 2.** Having an overall idea about the Supply Chain department and its wings and activities of them.

3. Knowing the strength and weakness of Supply chain of AKS.
4. Recommendations

1.3. Scope of the Study

Abul Khair Steel has been running its business since 1993 in steel industry. Then they started producing only corrugated iron. It had only one manual galvanizing line and which was oxy-dental furnace. That time it could produce only one ton of finished product in a month in their factory situated in Chittagong. But now they are running 7 numbers of galvanizing line in their two factories in Dhaka and Chittagong. And all of them are with NOF (Non Oxide Furnace) technology. And they are now thinking about their 8th and 9th production line. They are also producing color sheet. On their way to rapid growth they are now producing more than 10,00,000 (one million) tons of corrugated iron every year. And they are successfully distributing their products in almost 25 countries in the world. They are hoping to reach in the market of Europe also. To satisfy their big market they need to maintain a huge and complicated supply chain. And they are doing that with a great success in a rapid speed.

So the Supply Chain activities of AKS are a great scope of work for me as a subject matter of my study. I tried my best to know them and compare their practices with my subject that I studied in my MBA program in University of Chittagong.

1.4. Research Methodology

Type of Study

In this report I tried to find out the supply chain management of AKS. It gives a description about the company. So I used Descriptive Research because it describes the characteristics of AKS. For this study I collected data from both Primary and secondary sources.

Sources of Data

For primary data I interviewed some employees of AKS. There was a structured questionnaire survey, Observational trials and participant/non participant

observations. So my primary information is based on these experiments. My experiences on working at AKS also helped me to prepare the report. For secondary sources of information I used ERP software of AKS and also took some assistance from textbooks and internet journals.

1.5. Limitations of the Study

Every report has some limitations. This report has also some. There were several limitations in preparing this report. **The main limitations were:**

I found it very difficult to ask question to and getting answer from some of the members of AKS and outside stake holders. In some cases they were reluctant to talk freely regarding the systems which are followed by Supply Chain Management of AKS.

I found difficult to get some data as they were confidential and the authority intended to keep them hidden from me which is very logical from their point of view.

Very few secondary data can be collected from Internet as there are few journals about AKS.

Chapter-2

Introductory Idea on AKS Flat Steel

- 2.1. Company Profile
- 2.2. Vision
- 2.3. Mission
- 2.4. Departments
- 2.5. Manpower list.

2.1. Company Profile

Abul Khair Steel is a sister concern of AKG (Abul Khair Group.). It started its Steel business in 1993. Among hundreds of steel companies Abul Khair Group operates its steel business with the brand name “AKS” as an industrial conglomerate in Bangladesh. Starting from its journey in 1953 AKG has expanded its business in steel industry in 1993 as a part of intending to be a multinational company. During its initial stage AKS started manufacturing corrugated iron (CI Sheet) manually with a brand named “COW Brand”. Now they are operating five (5) automated galvanizing lines, one color coated line & one galvalume line at their factories in Dhaka and Chittagong to satisfy the customer demand. All of them are with NOF technology. They are also producing Color coated Corrugated iron for roofing and fencing residential and industrial structures. Now they export their CI sheets in about 25 countries of the world and hoping to expand their market in Europe. To meet the market demand they are now thinking about their 8th and 9th galvanizing line. They are also thinking about backward linkage of their main raw material (HR sheet).

2.2. Vision of AKS

AKS make sure the quality, service and value they offer are the best available today and tomorrow. They intends to stay competitive, means innovating, analyzing, taking risks, responding to change and using it whether in markets, variation in products, internal cost effective programs or technology adoption. They dream to be a multinational company someday.

AKS believes that committed people are the key to achieving this. AKS believes in keeping the organization systematic in arranging their commanding hierarchy. They have skilled and dedicated manpower in key points.

2.3. Mission of AKS

There are some specific missions that AKS is running behind. Those are as follows:

1. Setting up new 2 galvanizing lines
2. Sourcing own power supply
3. Minimizing cost in any position of supply chain.

4. Producing main raw material HR Coil (Backward Linkage)
5. Establishing a Multinational image.
6. More contribution in GDP.

2.4. Departments in AKS

There is a structured departmental segregation in AKS. The departments that exist in AKS are as follows:

1. Human Resource
2. Administration
3. Accounts
4. Production
5. Mechanical Maintenance
6. Electrical maintenance
7. Transport Division
8. Quality Control
9. Supply Chain
10. Finishing
11. Power Plant
12. Project
13. Procurement
14. Store
15. Marketing Dept. etc

No.	Departments	Senior GM	GM	DGM	AGM	Sr. Manager	Manager	Deputy Manager	Asst Manager	Sr Officer/ Engineer	Officer/ Engineer	Asst Officer/ Engineer	Trainee Officer/ Engineer	Casual Worker	Total	
1	Human Resource							1		5	5	11	3	28	53	
2	Administration								1	3	6	7	7	15	39	
3	Accounts					1	1		1	3	5	9	1		21	
4	Production	1	1	3	1	5	8	1	14	6	25	35	13	350	463	
5	Mechanical Maintenance		2		1	3	1		6	5	35	89	7	100	249	
6	Electrical Maintenance		1			4	2	1	5	6	14	15	4	35	87	
7	Transport Division									1	7	4		4	16	
8	Quality Control				1				3	5	8	1	2	8	28	
9	Supply Chain								1	8	9	12	6	19	55	
10	Finishing								1	4	15	4	3	120	147	
11	Power Plant				1		2	1	2	4	5	25	7	9	56	
12	Project	1	1			3		3	1	3	13	4	5	20	54	
13	Procurement							1			3	2	1		7	
14	Store									1	14	4	3	16	38	
15	Marketing Dept				1		1	1		5	70	100	17		195	
															Total	1508

Chapter-3

Production and Operations of AKS Flat Steel

- 3.1 Product list
- 3.2 Product variation
- 3.3 General Functions in manufacturing CI sheet
- 3.4 Process Diagram of AKS flat Steel
- 3.5 Facilities in production line

3.1 Products of AKS

Abul Khair Steel Products (flat) has diversified product lines. AKS has their aim to be an integrated company in steel industry. For that they intends to extend their business by backward and forward linkage. So the always try to extend their product line and bring new kind of products variation in the market. Their current products are as follows.

The major items of Abul Khair steel (Flat) are as follows



Color Coater Corrugated Sheet



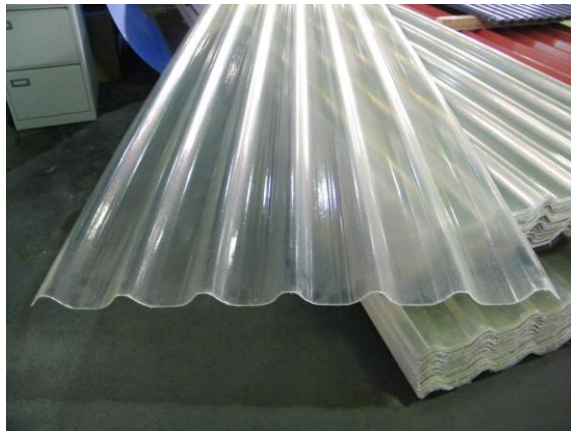
Galvanized Coated Sheet



Industrial Profile



Ridging



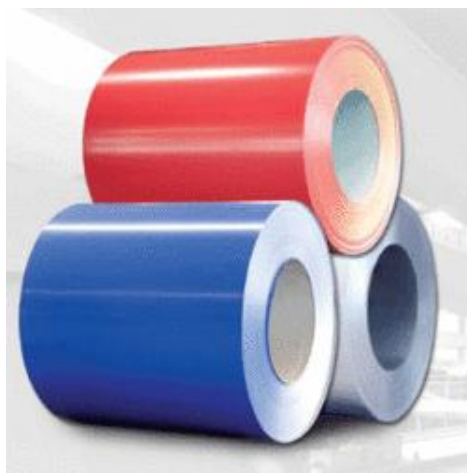
Transparent Corrugated Plastic Sheet



Galvanized Coil



Galvalume Coil



Color Coated Coil

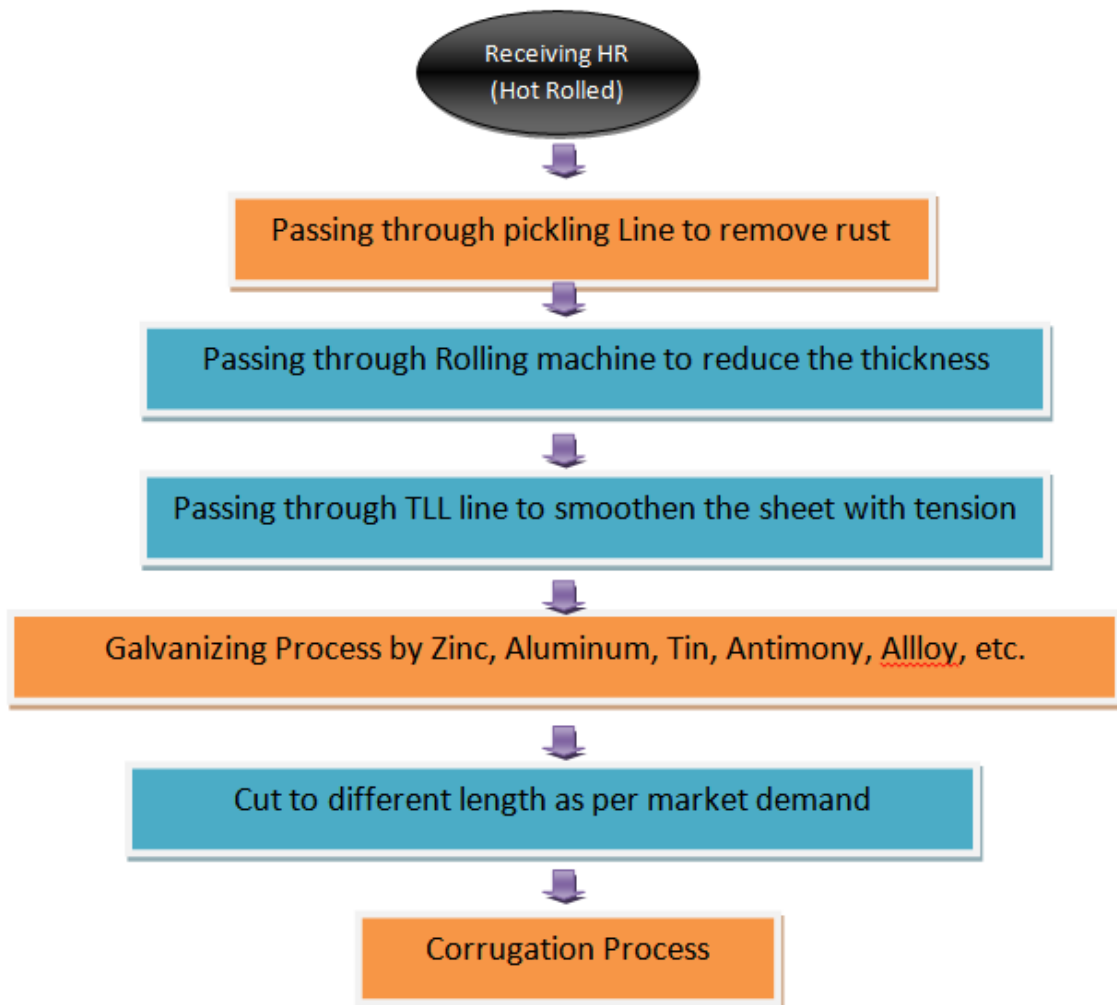
3.2 Product variations

GP Thickness (mm)	GP Bundle (72ft) Weight in Kg	CCP Thickness (mm)	CCP Bundle (72ft) Weight in Kg	No. of Pcs Per Sales Ton
0.14	19.25	0.18	19.93	6' = 282 7' = 241 8' = 211 9' = 188 10' = 169
0.15	21.16	0.19	21.84	
0.16	22.86	0.20	23.54	
0.18	27.67	0.22	28.35	
0.20	32.46	0.24	33.14	
0.22	37.20	0.26	37.88	
0.24	39.74	0.28	40.42	
0.26	42.01	0.30	42.69	
0.28	44.96	0.32	45.64	6' = 224 9' = 149 7' = 192 10' = 134
0.32	48.21	0.36	48.89	8' = 168
0.36	56.95	0.40	57.63	6' = 175 7' = 150 8' = 131 9' = 117 10' = 105
0.38	60.10	0.42	60.78	
0.42	63.95	0.46	64.63	
0.46	69.07	0.50	69.76	

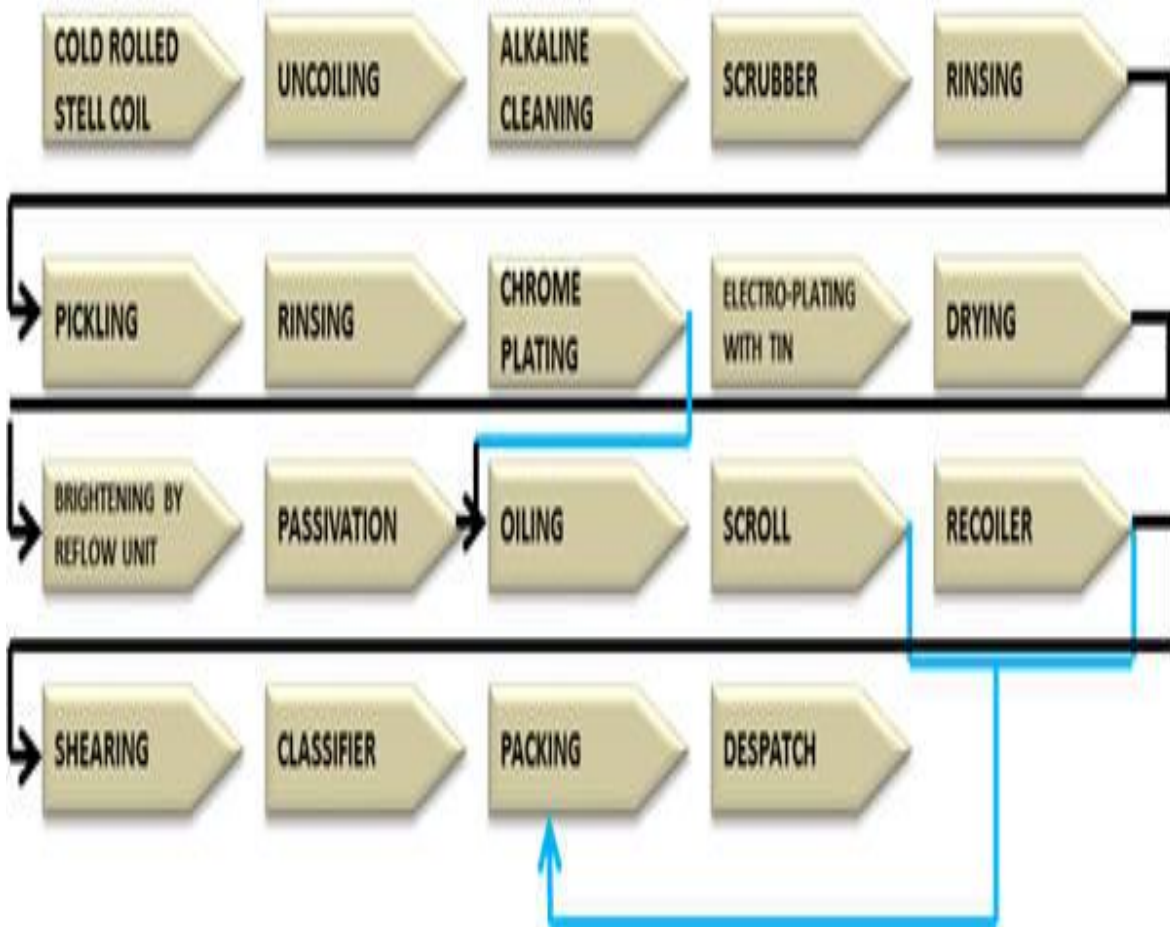
Source : http://abulkhairsteel.com/products_range_cow_brand.php

Functions

3.3 General Functions in manufacturing CI sheet are as follows.



3.4 Process Diagram of AKS



3.5 Facilities in production line

Production Line	Pickling Line	Rolling Line	TLL Line	Galvanizing line	CCL Line	CTL Line	Corrugation line
Number Of Machine	2	5	6	6	1	15	12
Capacity in MTN	650000	650000	600000	450000	200000	700000	600000
Average Output/MTN	641804	654439	598723	550310	100000	520852	501689

Chapter-4

Supply Chain of AKS Flat Steel

- 4.1 Six drivers of Supply chain in AKS
 - 4.1.1 Facility
 - 4.1.2 Inventory
 - 4.1.3 Transportation
 - 4.1.4 Pricing
 - 4.1.5 Information
- 4.2 Sourcing inbound material flow diagram
- 4.3 Outbound material flow diagram

4.1 SIX Drivers of Supply chain in AKS

We know that supply chain has its six drivers in operation. Here are those drivers and availability of those in AKS flat steel.

Facility: Factory, wear-house, other structures, their location

Inventory: Number of Wear-houses, their capacity

Transportation: Available vehicle, types of transportation,

Pricing: Cost of goods sold.

Information: Information is the key to success in any business

Sourcing: Sourcing of raw materials and other spare parts.

4.1.1 Facility: AKS flat steel has a huge facility in and out their factory. They have two factories in Dhaka and Chittagong. Chittagong factory gives the facility to carry the raw materials easily from the port. And the Dhaka factory gives the privilege of forwarding the finished products all over the country easily with less transportation cost. Both of the factories have huge land properties of more than 200 accords each. They have 10 wear-houses for finished products in al over the country with a properly calculated location.

4.1.2 Inventory: AKS flat steel has 10 wear-houses for finished products in the country. All these wear-houses can store more then 2 lakh tons of finished products at a time. And it has also more than 10 other wear-houses for storing raw materials and spare parts. It maintains a stock of spare parts of more than 70 core and 150 cores of raw materials. Among the raw materials there are

1. Hot Rolled coil
2. CR Coil
3. GP Coil
4. Zinc
5. Tin
6. Antimony
7. Color
8. Thinner
9. Aluminum

They use perpetual inventory counting system. And all the calculations are done automatically in ERP software Oracle. The arrangement of materials is also in a scientific manner, maximum inventory are maintained following the FIFO inventory system. The material tracking and issue system is also very good. ABC counting is followed there on regular basis. And Cycle counting is a continuous process where internal and external audit teams are involved regularly. So monitoring and reconciliation is very concrete.

4.1.3 Transportation: AKS flat steel has a big transportation system. It uses own logistics and the 3rd party as well. It has different types of own vehicles like truck, lorry, Dump-truck, Fork lifter, pick-up, Hydraulic crane, mechanical crane etc. And there are more than 10 out-side permanent suppliers who give transport facility to the company.

Own vehicle list are as follows:

1. Trucks: 15
2. Dump Trucks : 5
3. Forklift : 6
4. Pick Up: 10
5. Lorry: 20
6. Hydraulic crane: 3
7. Mechanical crane: 3
8. Pay Loader: 2

4.1.4 Pricing: AKS flat steel has sophisticated ERP software named Oracle. By this software the company set the prices of its products with a great skill. And they have also numbers of Professional Charter Accountant do the work of pricing flawless. Sometimes AKS do aggressive marketing for that they fix their price at a minimum level. And sometime they minimize the cost according to the requirement of the buyer. But it is an established truth that AKS tries to offer the least price in the market maintaining their quality. They are price sensitive company we can say.

4.1.5 Information: To maintain a flawless information system it has a huge networking of its own with regular Video conferencing, data transfer, direct verbal talking etc are done with a swift speed. AKS has its own radio link and own domain

name in internet to operate websites and other online activities. And its ERP software also helps in its information system. And the IT team also supports the information system a lot. AKS has a strong IT teams comprising a numbers of Engineers from BUET and other prominent engineering colleges from the country and abroad. IT has some foreign IT experts also.

4.1.6 Sourcing: Sourcing is another driver of supply chain. In AKS it also plays a huge role. It has a skilled team of procurement who sources the raw materials and spare parts in mini.um price and shortest possible lead time. For sourcing the materials AKS has many agents and offices in abroad.

They have offices in Singapore, India, Malaysia, Africa, and Korea.

Common Sources of Raw materials and spare parts of AKS are as follows:

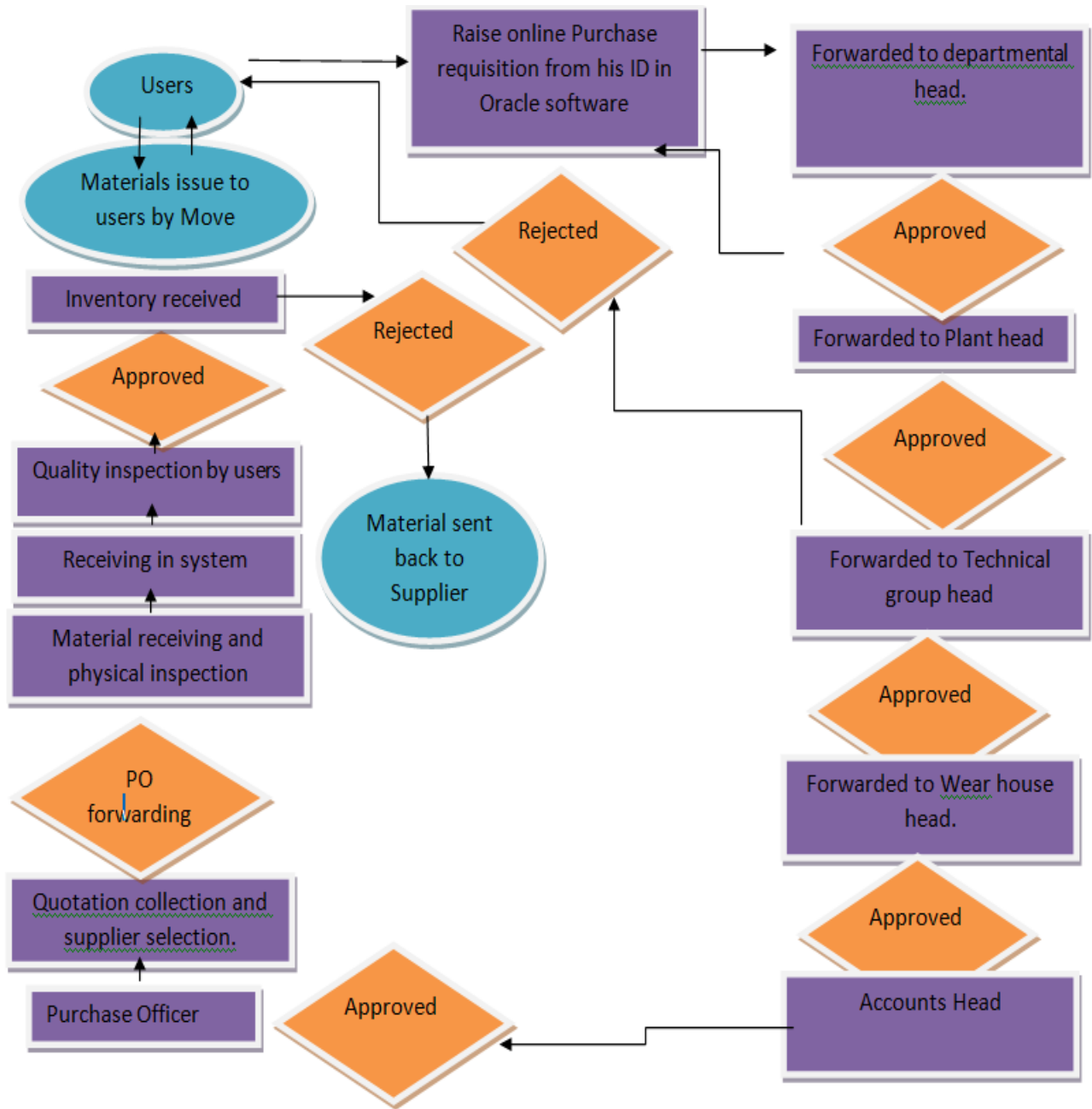
1. China : 40 %
2. India : 25 %
3. Korea : 5%
4. Australia : 3%
5. Japan : 2%
6. Germany :4%
7. Kazakhstan: 5%

4.2 Inbound and Outbound Material Flow:

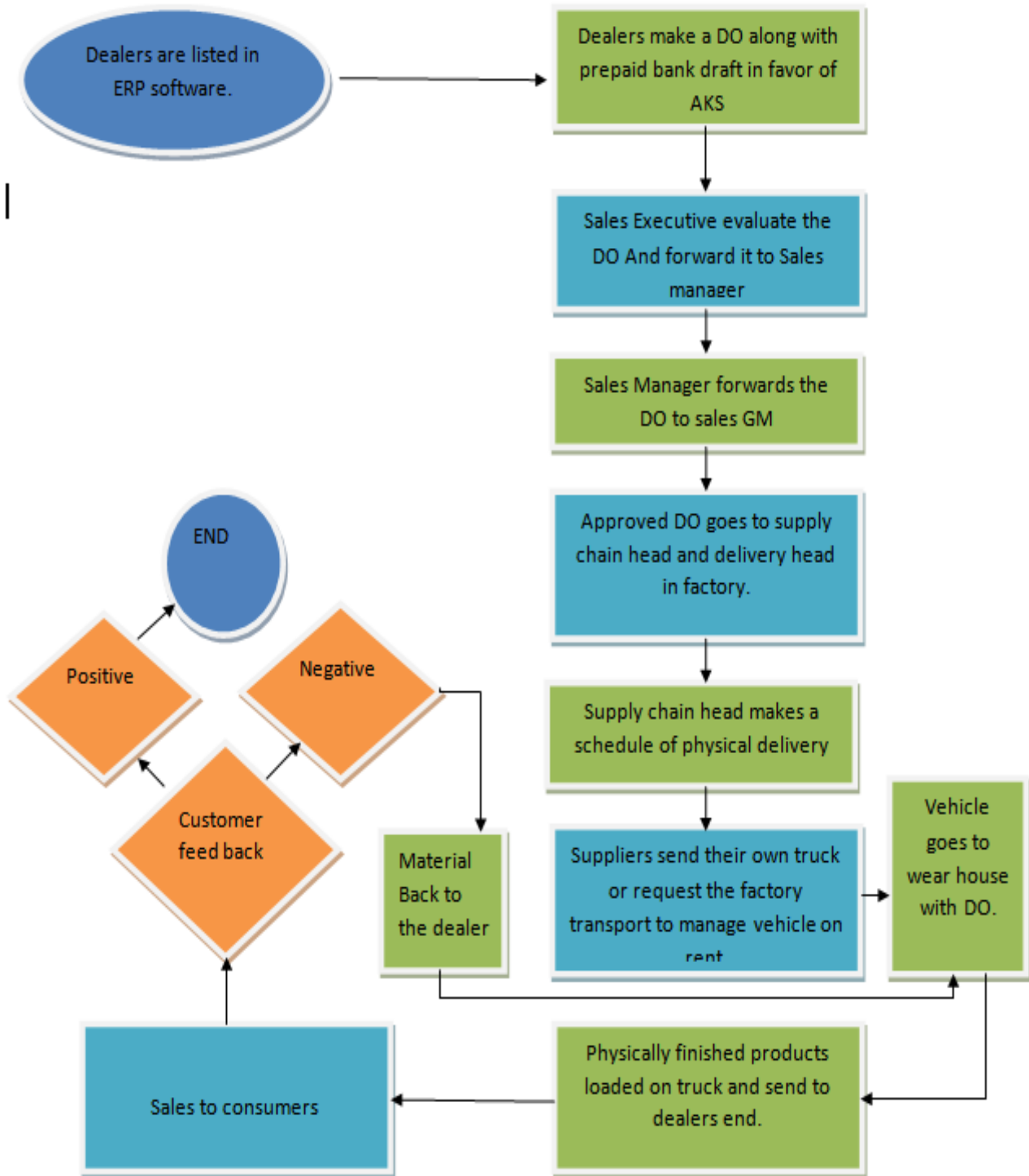
AKS follows a particular series of steps in procuring any material and selling the finished products. Inbound and outbound materials and finished products flow diagram shows how AKS handles its material flow in and out of the factory.

Production Line	Pickling Line	Rolling Line	TLL Line	Galvanizing line	CCL Line	CTL Line	Corrugation line
Number Of Machine	2	5	6	6	1	15	12
Capacity in MTN	650000	650000	600000	450000	200000	700000	600000
Average Output/MTN	641804	654439	598723	550310	100000	520852	501689

4.2 Inbound Material procurement diagram



4.3 Out Bound Material flow (Sales Process Diagram)



Chapter-5

Analysis on AKS Supply chain

- 5.1 Sub Sections of Supply Chain Department:
- 5.2 Manpower Analysis of Supply Chain in AKS Flat Steel
- 5.3 Strengths or Positives of AKS Supply Chain
- 5.4 Weaknesses or Bottleneck of AKS Supply Chain

5.1 Sub Sections of Supply Chain Department:

1. Planning Section
2. Demand Forecasting (Raw materials)
3. Production Planning
4. Sourcing and Procurement Section
5. Inventory Management Team
6. Operations Section.
7. Delivery Team

Planning section: Planning section under supply chain management is involved in forecasting of demand and planning of production. There are two sub sections in planning department. One of them is involved in Raw materials forecasting and another is in production planning.

Demand Forecasting Team: The forecasting team collects the historical data and the demand from the market. Then they calculate a future demand of raw materials. They don't follow any specific formula to forecast the future raw material demand rather they use sophisticated ERP software named "Oracle". In doing that all they do just input some data in the software and run the forecasting process, the result comes automatically. The required data for a perfect forecasting that the software demand are as follows:

1. Production quantity (Demand, item wise).
2. Chemical composition ratio.
3. Metal composition ratio.
4. Shut down schedule.
5. Other constraints (if Any)

#Production Planning Team: Production planning team is involved in synchronizing the market demand with production activities. They work to plan how the products will be produced using the existing operation facilities. They allot the product details to the work centers which must be followed by the operations. The major works they do are as follows:

1. Collecting current demand from the marketing team.
2. Evaluating the current ready stock
3. Evaluating the machine capacity
4. Considering the current constraints
5. Finally calculating the production planning for each machine
6. Forwarding that planning to the operations team.

Sourcing and Procurement Team: Sourcing and procurement team is involved in choosing and selecting the suitable supplier for raw materials and spare parts. The works they do are as follows.

1. Knocking the potential suppliers.
2. Collecting quotation from them
3. Discussion with the suppliers about the terms and condition.
4. Choosing the best suppliers.
5. Giving PO
6. Opening LC
7. Managing the shipment of the materials.
8. Confirming Payment.
9. Closing the LC.
10. Solving the purchase complexities like warranty, malfunction etc.

Inventory Management Team: Inventory management team has a huge job in AKS. They are involved in receiving the materials both physically and in system. They also preserve the materials arrange them in right order, issue them when needed. They also monitor and control the materials' movement and consumption frequency and quantity. They keep the historical data of consumption, movement history and finally help the planning team and the budget team as well for future demand forecasting and budgeting of raw materials and spare parts. Only correctly booked cost by the inventory team from the inventory module in ERP can help calculating the correct COGS (Cost Of Goods Sold) for pricing the products. Main Jobs that are done by the inventory team are as follows:

1. Receiving the materials (Raw Materials and Spare parts)
2. Making system input for those.

3. Arranging them in right order so that FIFO can be followed.
4. Arranging and counting them on the basis of ABC counting.
5. Cycle counting of the materials.
6. Issuing the materials to the users.
7. Monitoring the consumption allowance ratio by the budget and planning team.
8. Monitoring the material movement ratio.
9. Confirming the cost booked for COGS from inventory module.
10. Keeping the historic data of receiving and consumption.
11. Finally helping the planning and budgeting team by providing data.

Operations Section: This section mainly works at the factory level. They try to establishing the planning in operation activities. They monitor the production operations and help them understanding the planning that are served by the planning team. They work as a bridge between the supply chain planning team and the Production operations team. They monitor whether the production team is working as per the plan form the supply chain planning team.

Delivery Team: Delivery team works the final activities in the formal supply chain department in AKS flat steel. They deliver the finished products to the dealers and in the wear-houses in different sections of the country. The additional work they do is the keeping inventory of finished products. They do very important job in the cycle of supply in AKS. Because correct and on time delivery causes the customer satisfaction. So they are playing a vital role in AKS flat steel supply chain activities. The works they do are as follows:

1. Arrangement of Finished products in a suitable order
2. Receiving DO from the dealer's representative.
3. Arranging the required products.
4. Loading them in the vehicle.
5. Dispatching them on time.
6. Giving update of delivery to the higher management regularly.

5.2 Manpower Analysis of Supply Chain in AKS Flat Steel:

Manpower list:

Manpower of Abul Khair Steel Products LTD. are showing as follows (Designation wise)-

Senior GM	GM	DGM	AGM	Sr. Manager	Manager	Deputy Manager	Asst Manager	Sr Officer/ Engineer	Officer/ Engineer	Asst Officer/ Engineer	Trainee Officer/ Engineer	Casual Worker	Total
2	5	4	4	16	15	9	35	59	234	322	79	724	1508

5.3 Strengths or Positives of AKS Supply Chain

There are many positive things that exist in AKS supply chain which I found as the strength of them. The positive things that causing them handling a huge supply chain system uninterrupted are as follows.

1. They have a huge source of money from the banks, domestic and international as well.
2. Huge clean image to the suppliers. That was created by MR Wazed ALI (Former GM Supply Chain in AKS.)
3. They do some aggressive marketing by providing the products on credit to the dealers.
4. Proportionately established ware houses in all over the country.
5. High profile CEO with international fame (MR. V.R. Sharma)

5.4 Weaknesses or Bottleneck of AKS Supply Chain

Despite of the strengths Abul Khair Steel has some weakness. Those are as follows:

1. Production lines at different process are not synchronized in a single line, so time consumption to carry WIP from one process to next process is high. And it also causes extra carrying cost.

2. There is no AGM to monitor or make liaison among the senior managers who are holding different sections. If three senior managers can't come to an agreement in a single issue then who will bring them together?

3. Capacity of some processes is very low. If we see at the starting point (pickling line) capacity is 650000 MTN but at the last process (corrugation) capacity is only 500000 MTN. So corrugation process is not capable to support the output of Pickling line. Similar bottlenecks are also present in the other processes. Bellow table will help to understand the bottlenecks.

4. Employees are not that motivated with the current HR policy so productions are hampered.

Chapter-6

Recommendation

There are several recommendations against the weaknesses and the bottlenecks found in the supply chain of AKS Flat Steel. Those are as follows.

- **Synchronizing the individual processes in one line:** All the production lines or process should be on a single continuous line. If it is done so it will improve the process and company benefits by providing bellow facilities.
 1. Reduce the handling time from one process to another process
 2. Minimize the cost of handling
 3. Minimize the manpower involvement
 4. Increase the output rate.
 5. More machine efficiency

- **Manpower enrichment:** We saw that there no common boss of three senior boss like AGM. This hampers the coordination among the top three sections of Supply chain. So my recommendation is to hire an AGM as the top of Supply chain so that coordination among the section heads will be more easy and fruitful.

- **Increase the machine capacity:** There in the production process there are four bottle necks. Those are as follows:
 1. TLL capacity is insufficient to support the 1st process pickling line.
 2. Galvanizing line is insufficient to support the 1st process pickling line.
 3. CTL line is insufficient to support the 1st process pickling line.
 4. Corrugation line is insufficient to support the 1st process pickling line

So my recommendation is to increase the capacity of these four processes at a level so that these can support the pickling production capacity of 650000 MTN.

- **HR Policy development:** Hr policy of AKS is to improve so that employees can be satisfied and feel secured in doing job in the company. Job security, Satisfaction, Motivations increase the productivity and lessen the accidental loss.
- **Marketing Strategy Change:** They should do more market analysis by changing their marketing plan. They should upgrade themselves with new trends. The number of Retail stores should increase so that they should hire more qualified persons. They should know what international companies are doing. They should do more marketing to let people know about them. They can train more workers in this regard.
- **IT Division Establish:** They should do more market analysis by changing their marketing. So that they should develop a good IT division which will support them in all fields. They should open online store as well as increasing physical store in Dhaka and outside Dhaka.