Internship Report On

Supply Chain Management Practices in Pharmaceuticals Industry

A study on Eskayef Pharmaceuticals Limited

Submitted By Amin Hasan Khan ID: 19164009

An internship report submitted to BRAC Graduate School of Management in partial fulfillment of the requirements for the degree of

Masters of Business Administration (MBA)

Graduate School of Management BRAC University October 2021

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Declaration

It is hereby declared that

- The internship report submitted is my/our own original work while completing degree at BRAC University.
- The report does not contain material previously published or written by a third party, except
- where this is appropriately cited through full and accurate referencing.
- The report does not contain material which has been accepted, or submitted, for any other degree or diploma at a university or other institution.
- I/We have acknowledged all main sources of help

Student's Full Name & Signature:

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Letter of Transmittal

SM Parvej Islam Adjunct Lecturer Graduate School of Management BRAC University 66 Mohakhali, Dhaka-1212

Subject: <u>Supply Chain Management Practices in Pharmaceuticals Industry (A study on Eskayef</u> <u>Pharmaceuticals Limited)</u>

Dear Sir,

It is my delight to present the report on "Supply Chain Management Practices in Pharmaceuticals Industry (A study on Eskayef Pharmaceuticals Limited)" a topic that I had selected with your support. I am currently working at this esteemed organization as a Senior Commercial Executive in Department of Commercial & HR. This report is the consequence of the knowledge acquired throughout all my MBA courses and the working experience that I have gathered while performing my organizational duties.

I have attempted my best to finish the report with the essential data and recommendation in a significant compact and comprehensive manner as possible.

I trust that the report will meet the desires.

Sincerely yours, Amin Hasan Khan ID: 19164009 Graduate School of Management BRAC University Date: October 03, 2021

Non-Disclosure Agreement

This agreement is made and entered into by and between Eskayef Pharmaceuticals Limited and the undersigned student Mr. Amin Hasan Khan at BRAC University.

As you are currently employed at the organization, you have access to the company information that are confidential. You agree that you will keep all the information strictly confidential and will not share with anyone outside of the organization.

Amin Hasan Khan ID: 19164009 Graduate School of Management BRAC University

Acknowledgement

First of all, I would like to express my deepest sense of gratitude to almighty Allah.

Secondly I want to show my gratitude to my internship program supervisor SM Parvej Islam for giving the opportunity to have his contiguity and allowing me to submit my internship report on "Supply Chain Management Practices in Pharmaceuticals Industry (A study on Eskayef Pharmaceuticals Limited)".

I would like to thank Mr. Md. Mohsin Reza, General Manager Supply Chain for being my on-site supervisor and mentor, and providing me enormous support from time to time, his supervision, training, suggestion, information along with guidance to work with this internship report.

I would also like to express my appreciation to my beloved colleagues of Eskayef Pharmaceuticals Limited who helped me and gave their valuable time by providing relevant and fruitful information on the basis of which I have prepared this report. I am thankful to all of them for helping and guiding through and through.

Finally, I would like to show my gratitude to Eskayef Pharmaceuticals Limited to give me the opportunity to be a part of this esteemed organization.

Executive Summary

This report is prepared as per the requirement of internship phases of MBA program of BRAC University. The study is based on the Supply Chain Management Practices in Pharmaceuticals Industry (A study on Eskayef Pharmaceuticals Limited)" as the title suggests.

The report consists of the Supply Chain Practices in the Pharmaceutical industry of Bangladesh and the study has conducted on Eskayef Pharmaceuticals.

Firstly, the report features the organizational overview of Eskayef Pharmaceuticals Limited and the employee information.

Secondly, this report provides an in-depth theatrical aspects of Supply chain management and how it is interlinked with the pharmaceutical industry is analyzed which establishes the recommendations for overcoming the problems and challenges.

Lastly, the pharmaceutical market of Bangladesh is evaluated, some tools are used for that and the supply chain management practices of Eskayef Pharmaceutical is studies with the help of six drivers of Supply chain management.

During the course of my research an honest and authentic depiction of the prospects and challenges faced by the organization has been provided.

Keywords: Supply chain management; Drug Manufacturing Organization; MBA internship

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List of Acronyms

API	Active Pharmaceutical Ingredient
BME	Batchmaster Enterprise
BOE	Bill of Entry
CAD	Cash against Documents
CME	Continuing Medical Education
CNF	Clearing and Forwarding
DGDA	Directorate General of Drug Administration
ED	Executive Director
ERP	Enterprise Resource Planning
EU GMP	European Union Good Manufacturing Practice
EXW	Ex-Works
F&A	Finance & Accounts
FOB	Free on Board
GM	General Manager
GMP	Good Manufacturing Practices
HR	Human Resources
HVAC	Heating, ventilation, and air conditioning
LC	Letter of Credit
MKT	Marketing
MRP	Material Requirement Plan
PI	Proforma Invoice
PO	Purchase Order
QA	Quality Assurance
QC	Quality Control
R&D	Research and Development
SK+F	Eskayef Pharmaceuticals Limited
WHO	World Health Organization

Chapter 1

OVERVIEW OF THE INTERNSHIP

1.1 Student Information

am Amin Hasan Khan, a student of Graduate School of Management, BRAC University, under the Masters of Business Administration (MBA) Program. My student ID is 19164009, and my major area of specialization is Operations Management.

1.2 Internship Information

I am currently working as a Senior Executive, doing a full-time role starting from August 16, 2018, at Eskayef Pharmaceuticals Limited (SK+F). I work for the Commercial team, which operates from the Operational Headquarters, Plot No. 82, Road No. 14, Block-B, Banani, Dhaka-1213, Bangladesh; Website: www.skfbd.com; Email: amin.khan@skf.transcombd.com Tel: +880 9610998086; Ext:3227; Mobile: +8801700706796.

1.2.1 Organizational Supervisor's Information

I currently report and work under the supervision of Mr. Muhammad Mohsin Reza, GM Supply Chain of Eskayef Pharmaceuticals Limited (SK+F).



1.2.2 Job Responsibilities

I work with the Import team and the customs clearance team in the commercial department. My day to day job responsibilities are written below –

- Sourcing for import purchase of RM, PM and Machinery
- Prepare comparative bid summary
- Issue purchase orders in favor of selected sources for raising PI/Indent
- Open Letter of Credit in favor of the selected sources
- Keeping liaison with banks in order to open LC's
- Keeping liaison with CNF agents for the customs clearance
- Closely work with F&A team for keeping records of bill of entries (BOE)
- Bring in new ideas to reduce unnecessary works in commercial operations

1.2.3 Contribution to the Organization

I am doing my job over the last three years and I believe that I am giving my all the positive efforts to perform all the job responsibilities in a well manner. During my job life I try to focus on some new innovative ideas besides my day to day routine work. My dream is to transform a paperless organization where all the data will be stored in the cloud storage. I believe so far in my job I have contributed below listed things –

- Sourced several cost-effective raw materials sources for production
- Did multiple annual procurement contracts with supplier thus reduced the purchase price
- Increased the volume of FOB & EXW shipments which safes the shipment cost
- Handled the purchase of an entire HVAC facility of a new project
- Successfully reduce the customs duty by studying and investigating the nature of the goods
- Crated a smooth communication with the supplier, thus getting better support than previous
- Using Kaizen and 5S philosophy in my day to day work to become more productive

1.2.4 Outcomes

This job position allows me to understand the pharmaceuticals industry of Bangladesh and how the business is being operated, and what will be the future of this industry. As I'm working in the commercial department, which is a part of the Supply chain, it helped me learn the supply chain operations for the pharmaceuticals industry. I came across the import law and policy of Bangladesh and the importing practice. I believe that it is one of the most extraordinary things I have learned from my job. Besides all of this, I groomed to form a corporate culture and improved my technical and interpersonal skills.

1.2.5 Difficulties

In the beginning, I found difficulties in performing every task assigned to me as this corporate environment was very new to me. I had to go through six months' probation period. With time have overcome this. Many difficulties come in our day-to-day job life, and we try to resolve that as early as possible. Here I want to share one of my most challenging tasks in job life. In the HVAC project, I had a handle fifteen consignments for a single letter of credit. This machinery was very new to me, so I had to study and field visits multiple times. During each shipment minimum of three containers were shipped. The consignments are too risky to look after as we have to satisfy the bank and the customs authority with proper documents; on the other hand, we have to keep in mind our port demurrage issue. The procurement process took almost one and a half years, and I am delighted to have completed it successfully.

Chapter 2

INTRODUCTION

2.1 Introduction

Supply chain management focuses on the supply and demand management of an organization. In simple words, supply chain management determines the management process that delivers the products to the end customers by following a chain of operations. Supply chain management refers to the direction of the business process, starting from the source to the customer end (Park, 2005). A process supply chain management incorporates the strategy, planning and operational actives by encompassing all cross-functional and logistics drivers.

In The Financial Times, supply chain management was first instanced of the term in the early 1980s. Industrial management and operational research both have their root in logistics. Supply chain management encompasses the industrial and operational drivers through cross-functional activities with logistics functions. Fredrick Taylor first introduced the concept of Scientific Management in 1911. He focused on researches on how to improve conventional industrial management and handling process. In the 1940s, during World war II, operational research was first successfully demonstrated with scientific analysis to overcome military logistics issues. Besides, in the 1960s, studies on inventory management and in the 1970s on material requirement planning were introduced. But before the 1990s, industrial management and operations activities had separate identities in the mid-1990s, that the concept of supply chain management grew mainstream recognition.

In this report, the supply chain management practices of Eskayef Pharmaceuticals will be studied. The information will focus on the study o of supply chain management drives, different tools and techniques of supply chain management and its implementation through the on hand job experiences in this company. Eskayef Pharmaceuticals Limited (SK+F) is one of the leading pharmaceutical companies in Bangladesh. The company manufactures and distributes a various range of pharmaceutical products and therapeutic drugs. It also has a manufacturing facility in the production of veterinary medicines and animal nutrition products. Eskayef is determined to ensure the supply of international standard medicines to the local and international markets. The main

strength of this pharmaceutical industry is the customers' trust as they never compromise with the quality.

2.1.1 Objective

The core objective of the study is to understand the supply chain management practices in Pharmaceuticals Industries through studying Eskayef Pharmaceutical Limited. The other objectives are –

- To study the basic concept of Supply Chain Management
- To analyze the pharmaceuticals industry of Bangladesh
- To identify the industrial and operational activities of Eshayef Pharmaceuticals Limited
- To develop a list of recommendations on the basis of the study

2.1.2 Methodology

As this exploratory report, the information has been collected from both the primary and the secondary resources. The primary data were collected from the officials through discussion with the coworkers about the relative supply chain. Besides, my working experience was also a source of primary data for this report. The secondary data were collected from the company website and company's yearly review reports and the internal meeting minute.

- The report was prepared by the below methodology –
- The information was collected from the primary and secondary resources.
- The marketing, financial and commercial, production and transportation data of Eskayef were thoroughly studied and noted down.
- The overall pharmaceuticals industry was observed and tried to make a competitive analysis of Eskayef's supply chain practices with the other companies.

2.1.3 Scope

The scope of this report will be to develop individual knowledge by knowing the business pattern and the Supply Chain practices of Eskayef Pharmaceuticals Limited both in the local market and in the international market at the same time.

2.1.4 Limitations

The limitations of this report is the inadequate timeframe of a few months. This timeframe is not enough to shed light on an organization like Eskayef Pharmaceuticals Limited. Besides, some information is considered as confidential by the organization so it was a limitation too.

2.2 Organization Overview

Eskayef Pharmaceuticals Ltd is one of the largest and fastest expanding pharmaceutical companies in Bangladesh. In the 1979s, SK+F started their business in Bangladesh under SmithKline & French (SK&F), the USA, one of the world-renowned multinational pharmaceutical companies. SmithKline & French's Bangladesh was acquired by Transcom Group. During the merger of SmithKline & French, USA and Beecham, UK in the 1990s Transcom Group initiated the acquisition. This acquisition was a historic moment for Bangladesh as it was the first example of taking over any multinational pharmaceutical company by a Bangladeshi entity. SK&F started their operation under Transcom Group, and the company was renamed Eskayef Bangladesh Limited (SK+F).



Figure 1: Tongi Manufacturing Facility, Eskayef Pharmaceuticals Limited

SK+F operates with five world-class manufacturing sites at Tongi, Rupganj, Mirpur, Salna, Nowjur and its operational headquarters at Dhaka. The operational and production facilities are always at the fore line to cater to the ever-evolving demands of world-class pharmaceutical products. Drawing inspiration from the vision and values of one of the leading businessmen of Bangladesh and the founder chairman Mr Latifur Rahman, the SK+F team works passionately to support the ailing people with the world-class ramp of Eskayef.



Figure 2: Rupganj Manufacturing Facility, Eskayef Pharmaceuticals Limited

SK+F plays an essential role in the Bangladesh pharmaceutical market by unlocking new advancements with world-class technologies for effective, safe and sustainable healthcare. SK+F is always at the front line to ensure ever-demanding pharmaceutical products in Bangladesh and across the world. The manufacturing facilities are equipped with world-renowned machinery and utilities to ensure the indignity of the products. The production and operation facilities comply with international standards.



Figure 3: Operational Headquarters, Eskayef Pharmaceuticals Limited

SK+F is one of the treasured names in the pharmaceuticals sector of Bangladesh. As a continuous development, SK+F is working to become a renowned pharmaceutical company in the international arena. The standard of quality of SK+F products is recognized by the EU GMP (European Union Good Manufacturing Practice), UK MHRA (Medicines and Healthcare Products Regulatory Agency of UK), TGA Australia (Therapeutic Goods Administration of Australia), UAE GMP (the United Arab Emirates Good Manufacturing Practice) and VMD UK (Veterinary Medicines Directorate of UK). This recognition identifies that in the new future, SK+F will lead the global pharmaceutical industry. SK+F is also planning to enter the USA market with the approval of USFDA (United States Food and Drug Administration). Currently, SK+F is exporting medicines across four continents. In the 2001s, SF+F introduced its Animal Health Division (AHD). AHD is playing an important role in the Poultry, livestock & Aquaculture sectors. Some other information of Eskayef Pharmaceuticals Limited is mention in the below table -

Tabl	e 1:	0	verview	of	Est	kayej	^{c}P	harmaceutical	s Limited
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Company name	Eskayef Pharmaceuticals Limited
Logo	SK+F
Slogan	Excellence through quality
Type	Private Limited Company
Acquisition from	SmithKline & French, USA
Company	1990; 31 years ago
Ownership	Transcom Group
Founder chairman	Mr Latifur Rahman
Chairman	Ms. Shahnaz Rahman
MD & CEO	Ms. Simeen Hossain
Employees	4000+
OHQ	Plot: 82, Road 14, Block B, Banani, Dhaka-1213, Bangladesh
Factories	Mirpur: 2/C North East Darus Salam Road, Mirpur-1, Dhaka,
	Tongi: 400, Tongi I/A, Squibb Road, Gazipur, Bangladesh
	Rupganj: Fokirer Dorga Rs-126, Murapara, Narayanganj, Bangladesh
	Salna: Teknagpara, South Shalna, Gazipur, Bangladesh
	Nowjur: Kotta Bazar, Gazipur, Sadar, Bangladesh
Business	Pharmaceutical Finished Products, Bulk Pellets, AHD
Distribution	Transcom Distribution Company Limited (TDCL)
Web address	www.skfbd.com

web address www.skfbd.com

2.2.1 Mission

To manufacture and supply products with quality and excellency & to contribute to improve the population's health and well-being

2.2.3 Vision

To lead the national pharmaceutical market, to be recognized as a multinational conglomerate from Bangladesh and stand out as a model of efficiency & trust to our collaborators, consumers, health care professionals & society

2.2.4 Organization Hierarchy

The organizational hierarchy of Eskayef Pharmaceutics Limited as follows;

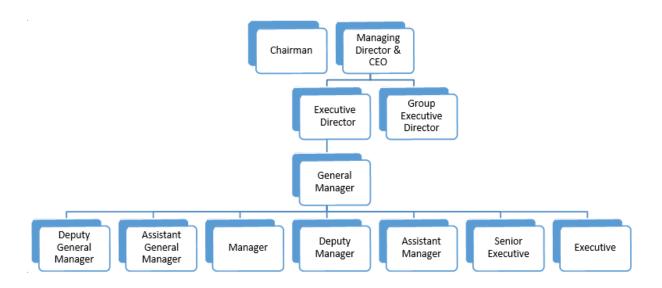


Figure 4: Organization Hierarchy of Eskayef Pharmaceuticals Limited

2.2.5 Employees

The driving force of Eskayef Pharmaceuticals Limited coordinates with dynamic teams of experts. Currently, over 4000 employees are working in SK+F. The company incorporates many highly qualified and trained professionals from different backgrounds.

- Pharmacists
- Microbiologists
- Chemists
- Physicians
- Veterinary Doctors
- Financial Experts
- IT Specialists
- Engineers
- Business experts
- Skilled operators

2.2.6 Management practice

The management practice of Eskayef Pharmaceutics Limited as follows;



Figure 5: management practice of Eskayef Pharmaceutics Limited

The mission & vision statements are reflected by the management practices of Eskayef Pharmaceuticals Limited. SK+F aims to supply and ensure quality products to the consumers for the well-being of the healthcare sector of Bangladesh. Along with the local market, the company is continuously working to introduce SK+F in the international arena. SK+F's endless to march with the vision and values of their beloved founder chairmen, Mr. Latifur Rahman's is moving towards consistent long-term success, manufacturing products with international standard quality, and unwavering commitment to ethical business practices.

2.2.7 Departments

The functional departments of Eskayef Pharmaceutical Limited are written bellow,

- Commercial
- Human Resource and Training
- Marketing and Formulation
- International Business
- Sales
- Finance and Accounts
- Quality Assurance and Control
- Product Development
- Analytical Development
- Production
- Production Planning & Inventory Control (PPIC)
- Administration
- Warehouse

2.2.8 Products

Eskayef Pharmaceuticals Limited is engaged in manufacturing and marketing a wide range product. Around 1000+ therapeutic drugs, bulk pellets, and animal health and nutrition SK+F products in the market. From Antacid, Anti-Gas, Anti-Asthma to Oncology, SK+F has a wide range of products in its portfolio. Losectil®, Esoral®, NeoSaline®, Ostocal D®, Tufnil®, Tamen

Turbo®, Alben DS®, Lumona®, Norium® are some of the most consumed and available medicines of Eskayef Pharmaceuticals Limited.

SK+F has a dedicated Research and Development (R & R&D) team that is working hard to bring in new molecules and new technologies and launch a new generic drug as a first-timer in Bangladesh.

2.2.9 The Business process of Eskayef Pharmaceuticals Limited

A business process is the chain of activities that adds value to satisfy the customer demand in different stages of supply chain management. Eskayef Pharmaceutical is mainly the finish drug manufacturer and 80 percent of the raw material, packaging material, or machinery come from import. Some urgent requirements and regular items are collected from local sources. Every employee of SK+F works hard to satisfy the market demand starting from the forecasting to the final supply of the finished goods. The business process of Eskayef can be listed in seven parts. The description of each function are described below –

2.2.9.1 Demand forecasting:

The production demand is forecasted based on the market demand, assumption of upcoming needs, or seasonal demand. The marking department gives that plan. After getting the forecast from the marketing, the production team structured the production schedule. The production team updates the production data on the SAP and from the SAP software, the planning team of the commercial department designed the MRP for the next consecutive months. And finally, the commercial department raises the material requirement plan and determines whether the material is import or purchase locallyby the first week of each month.

2.2.9.2 Sourcing

Upon getting the material requirement plan, the executives from the commercial departments contact the prospective supplier. If this is an existing material, then the martial must have some approved suppliers, but if it is a new molecule, then sourcing of the suppliers occurs.

2.2.9.3 Quotation and selection

The suppliers are approached to share the quotation mentioning the price, material specification, supplier name and address, supplier Bank details, payment terms, currency, HS code, country of origin, port of loading, port of discharge, tentative shipment time after receiving the order confirmation. The supplier is selected for a particular material considering the price and all other required services.

2.2.9.4 LC and Placing the Purchase order

After the supplier selection LC on behalf of the company is opened for the import purchase and Purchase orders are shared for the local purchases. SK+F strictly follows the importing and purchase rules and regulations of Bangladesh government. The issued LC or the purchase order is considered the receipt of the order confirmation.

2.2.9.5 Shipment

Once the LC or purchase orders are placed, the suppliers are requested for the delivery. For import orders, CPT delivery terms are mentioned from the Air shipments, and for the sea shipment, CFR is mentioned. According to these incoterms, the supplier shipped the goods up to the Dhaka Airport or Chattagram Seaport. For the local purchase, the goods the directly shipped to our pre instructed factory addresses by the supplier.

2.2.9.6 Custom clearance

Upon the consignments are shipped, the shipping documents are collected from the supplier, and the clearance team of SK+F initiates the clearance of the goods from the customs. SK+F has six designated clearing agents to work for SK+F in the customs. The customs authority check rules and regulations. SK+F pays the imposed import duty taxes and the C&F agent arranges the clearance and delivery of the goods to the factories.

2.2.9.7 QC check and Production

Newly purchased materials are received and stores in the warehouse. The QC team checks the materials and confirms whether the martial is as per SK+F's specification or not. If the material is okay, QC gives the pass; otherwise, the material is rejected and the supplier is charged for the compensation. QC passed materials are ready for production. The production department starts the production as per their preliminary schedule and completes the packaging within the time frame.

2.2.9.7 Distribution

The production department makes the ready stock of the finished goods and allows them to supply all over Bangladesh and export to foreign countries. Transcom Distribution Company Limited (TDCL) is a sister concern of Transcom group and one of the leading distribution companies in Bangladesh that transport the products to the local market. For the export order, there are some designated freight forwarder companies that handle the export shipment.

Chapter 03

Theoretical Framework of Supply Chain

The term Supply Chain Management can be defined by the processes and activities to provide a product and service to the final customer. To fulfill the customer requests all the stages are directly or indirectly involved, including manufacturers, suppliers, transporters, warehouses, retailers and customers (Lewis 1957; Croom et al., 2000). In which customers are the most integral part of supply chain. Besides all the functional departments, including marketing, operations, distributions, finance, customer services work together to fulfill the customer request. The concept of supply chain was introduced by a group of consultants in the 1980's. They illuminated that, Supply chain integrates the key business processes from supplier to end user (Oliver and Webber, 198). Supply chain can be well-defined as the network of organizations and functional departments that are interconnected through both upstream and downstream linkages to accomplish different processes and activities that will generate value in the form of products and services by satisfying demands of the end consumer (Christopher, 2011).

The supply chain management represents the confluence of at least three main streams of knowledge and practical experiences. The fusion of these streams into one powerful movement, supply chain management. These streams include

- Sourcing, procurement and supply management
- Material management
- Logistics and distribution

According to the Council of Supply Chain Management Professionals (CSCMP), supply chain management incorporates the planning and management of all the activities performed in sourcing and procurement, supply and all logistics or distribution management activities. Besides the channel partners, like the suppliers, intermediaries, third party service providers are the and finally the customers are also including. A supply chain management has two-way flows which make it dynamic and involves the constant exchange of information, product, and funds in between different stages. The key purpose of a company is the being to satisfy customer needs by implementing a successful supply chain management in practice and at the same time generating

profit for itself. A successful supply chain management is accomplished through a variety of stages, including the following:

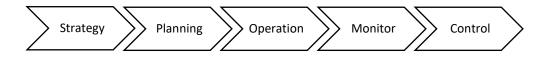
- Customers
- Retailers
- Wholesalers/distributors
- Manufacturers
- Component/raw material suppliers

3.1 Decision Phase in a supply Chain

Successful supply chain management involves decisions in different parts of the chain—decisions related to the flows, the decisions regarding the drivers, and other factors. Suppose a supply chain management of an organization is deeply examined. In that case, it can be identified that the decisions related to supply chain management fall into three categories or segments, considering the frequency of each decision and the impact of the findings on overall supply chain management.

3.1.1 Supply chain strategy or design

The primary step of supply chain management is to structure the supply chain for the next several years. It decides the allocation of resources and the different steps that need to be performed for a successful supply chain practice.



In the strategy phase future planning, market factors, capacity and technological changes are studied and identified. During the planning cycle demand, inventory and supply of the material are scheduled. In the operational stage, the planning is executed. Then the operational activities are monitored and controlling activities are performed if required.

3.1.2 Supply Chain Planning

In the planning phase of the supply chain management, it needs to decide the quarterly plan for the organization. In the strategic decision-making phase, the organization determines the plant for the next several years. In the planning phase, the strategy is divided into parts or quarters to track the process.

3.1.3 Supply chain operation

In the operational decision-making phase, the organization needs to identify the daily or weekly work schedules and work with individual customer orders. A supply chain management follows fixed plans in this phase and the long term success largely depends on the accomplishments at the operational stage.

3.2 Supply Chain Management - Process Flow

Supply chain management can be defined as a systematic flow of products, information and funds among suppliers, companies, retailers, and consumers. Each stage in a supply chain is connected through the flows and There are three main flows of supply chain management

3.2.1 The product flow

Product flow includes a smooth flow of an item from the producer to the consumer through various channels. The products also can be moved from the consumer to the producer for any kind of repairs or exchange through the same channels. Besides, there is product flow inside the departments of the production factory.

3.2.2 The information flow

Information flow includes the monthly requirements, purchase order, required delivery schedules, engineering change requests, quality complaints purchase orders and feedback on supplier performance moves from the customer side to the supplier. From the supplier's side, the information flow contains the offer, new product details, action taken on deviation, dispatch

schedules, invoices, etc. Besides the information between different departments flow in regular intervals.

3.2.3 The finances/fund flow

Money or fund is the flow that flows from customers to the supplier. Against the issued invoice raised by the supplier, the customer places the purchase order. Once the product is delivered and the customer found the claims are correct, money flows from the clients to the respective supplier.

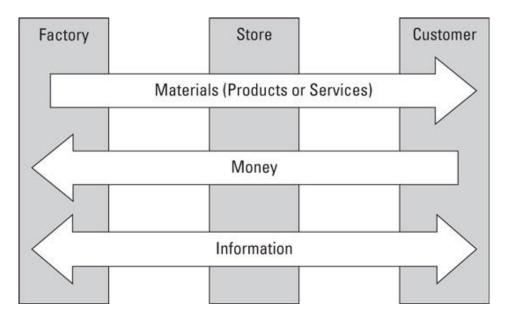


Figure 6: Supply Chain Management - Process Flow

The flows can be in both directions of supply chain management. As an example, Eskayef Pharmaceuticals Limited provides the product, as well as pricing and availability information, news of product development to the customer. The customer transfers funds to Ekayef via local seller or sometimes directly to Eskayef in the case or corporate or institution sells. Eskayef shares point-of-sales or requirement data and places replenishment orders to the warehouse and the raw material suppliers, who available the stock and send the products to the local sellers again via distribution channels. Similarly, information, material, and fund flow take place across the entire supply chain.

3.3 Functions of Supply Chain Management

The term supply chain management is considered as a chain of products or supplies moving from suppliers to manufacturers to distributors to retailers to customers along a chain. Besides these tangible parts, it is also important to visualize information, funds, and product flows along with both directions of this chain. Thus the supply chain can be described or imagined as a supply network to understand the structure of supply chains.

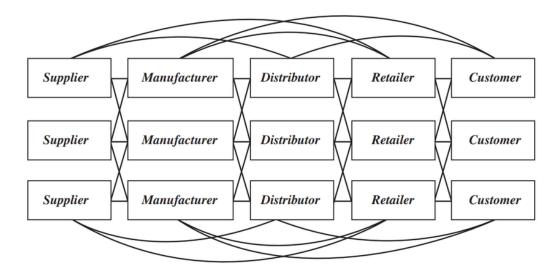


Figure 7: Network structure of Supply Chain Management

Supply chain management represents the core of a business's operations, including acquiring raw material and process it to the final product for delivery. How supply chain management works and the practices for a successful supply chain management, can be described by five major factions of Supply chain management. The five functions of supply chain management are performed through different stages are written as follows:

3.3.1 Acquiring or Purchasing

A supply chain management starts with procurement. For the manufacturing process, the raw materials are required and processed to final goods and products. The main challenge in the acquisition process is to buy the right product at the right time and for this, supplies management plays a vital role. Perfect management and scheduling allow the product department to avail of the

product within the timeframe. So the collaboration with delivery firms and suppliers is an important part to prevent any delays. Besides, perching price is another issue in the acquisition part the procumbent team needs to ensure the raw materials are at a competitive price considering the market situation and the existing players in the market.

3.3.2 Operations

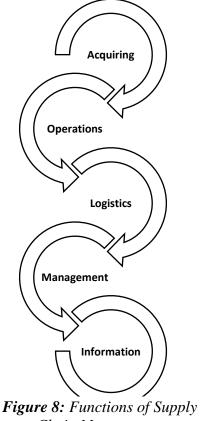
The operation function of supply chain management includes the demand planning forecasting and production scheduling. These three operational processes to be determined before going for procurement. The material is purchased according to how the forecast plans are designed and the shipments are taken according to the production plans. This function is important in supply chain management as organizations must accurately forecast demand to avoid having too much or too little inventory that will lead to losses in revenue. Therefore, demand planning and forecasting must be tied in with inventory management, production, and shipping to avoid such mistakes.

3.3.3 Logistics

Supply chain management itself has different parts and logistics is the only sector where all aspects of a supply chain management like planning, purchasing, production, warehousing, and transportation are coordinates. The main lifeline of any logistics process is to have an adequate communication between multiple channels so that the raw material can be acquired with in the time scuds and the finish products can be shipped to customers conveniently.

3.3.4 Resource Management

In supply chain management final product consumes raw materials, technology, time, and workforce. Resource management needs to ensure the right resources are allocated according to the production schedule and effectively. A successful production schedule and forecasting allow



maximizing the efficiency of the operations. For calculating the operational resource capabilities of each resource.

3.3.5 Information Workflow

Information is one of the intangible functions of supply chain management that keeps all other supply chain management functions on track. A poor information workflow may cause a break apart of the entire chain. Besides, commotions will arise in supply chains due to a lack of information. Information makes the supply chain management transparent and increases the visibility and network through the process. The better direction of information flow ensures that everyone is working with the same data set and aware of their goals and ultimate visions.

3.4 The drivers of supply chain management

Supply chain management (SCM) denotes the managerial operation triangle that includes procurement, production and distribution to the end consumer. A successful supply chain achieves the balance between responsiveness and efficiency. The logistical and cross-functional drivers need to be examined to understand the functions of the supply chain and the basic steps that a company should follow to improve supply chain performance in terms of responsiveness and efficiency. The six drivers of logistical and cross-functional drivers of supply chain performance are facilities, inventory, transportation, information, sourcing, and pricing.

The purpose of supply chain strategy is to ensure the combinational balance of responsiveness and efficiency. An organization's performance is determined in terms supply chain performance drivers, which examines the balance in responsiveness and efficiency of its performance. There are six drivers in supply chain management consist of three logistical and three cross functional drivers The drivers are Facilities, Inventory, Transportation, Information, Sourcing and Pricing (Fig. 1). Information is one of the key drivers that can affect all five other drivers and helps an organization to achieve better supply chain performance.

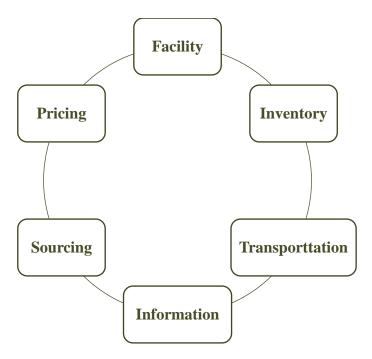


Figure 9: The drivers of supply chain management

- **Facility:** Facilities indicates the physical locations in the supply chain network where the product is stored, assembled, or produced.
- **Inventory:** Inventory of an organization incorporates all the required raw materials, work in process items, and finished goods within a supply chain management.
- **Transportation**: Transportation involves the point to point movement in the supply chain
- **Information**: Information consists of data analysis of other five drives.
- Sourcing: Sourcing can be classified who will perform the particular supply chain activities
- Pricing: Pricing determines the rate of chare that a firm should be impost for any good or services

Chapter 4

Supply Chain Management practices in Eskayef Pharmaceuticals Ltd.

Eskayef Pharmaceuticals Limited (SK+F) is one of the foremost pharmaceuticals companies in Bangladesh. SK+F manufactures and distributes various pharmaceutical products and veterinary medicines by ensuring the supply of international standards to the local and international markets. In this report, the pharmaceuticals market of Bangladesh will be analyzed, and the Supply Chain Management practices in Eskayef Pharmaceuticals Limited will be enlightened.

4.1 Industry and Competitive Analysis

The Pharmaceutical Industry of Bangladesh is one of the most promising sectors in Bangladesh. This industry serves the nation with around 97% of the total annual requirement. With meeting the local market demand, many pharmaceutical sectors are also exporting medicines to foreign countries. In terms of export volume, Bangladesh stands in the 71st position out of 143 countries. Currently, there are around 257 fully operating pharmaceutical companies in Bangladesh. The pharmaceuticals market of Bangladesh will be analyzed through Porter's Five Forces and the competitive standing of Eskayef Pharmaceuticals Limited in the pharma market will be determined through SWOT.

4.1.1 Porter's Five Forces Analysis

Porter's Five Forces is a model that classifies and investigates five competitive forces that helps to analyze an industry and to identify the competitiveness. It is useful an important tool to understand the forces in a particular business environment which can affect the business profitability and helps to adjust the business strategy accordingly. In this report Porter's five forces tool is used to determine the current pharmaceutical sectors in Bangladesh.



Figure 10: Porter's Five Forces Framework

4.1.1.1 Rivalry among Existing Competitors

Competitive rivalry is the central aspect that defines the level of competitiveness in an industry or profitability in an industry. It highlights the number of competitors and the strength of comparison in a particular industry. The pharmaceutical market in Bangladesh is highly concentrated. The total market share is divided in between around the top 20 pharmaceuticals companies. The product variation is low as every company has the same medicines under different brand names. The companies are in an aggressive battle to grab the top portion of the market share. So as the product portfolio is more or less the same for almost all the companies, the rivalry among existing competitors is very intense. As the rivalry is high the competitors are actively engaged to in advertising and pricing of the products.

4.1.1.2 Threat of New Entrants:

The new entrance in an industry may bring new capacity and the desired to gain the current market share. The entrance can put pressure on prices, costs, and the rate of investments of the existing players. There must have some barriers for a newcomer in every industry. A company that wishes to enter the pharmaceuticals industry requires huge capital and regulatory permission from multiple authorities. Besides, the pharmaceutical industry is established on the customers' trust, so customer's preference over some brands from renowned companies, access to the distribution channel creates a further barrier. So the threat of new entrants is low.

4.1.1.3 Threat of Substitute Products

The substitute products can perform the same or similar purpose in an industry product and they can satisfy the customer's needs in the same way as the existing player. Due to the variations and substitutions of drugs, retail consumers can switch from one brand to another. There are many substitute brands of a single drug. Consumers can quickly jump from one brand to another if the preferred brand is not available in the market. Thus, the threat of substitute products is high.

4.1.1.4 Bargaining Power of Suppliers

The bargaining power of the supplier analyzes how powerful the suppliers are over the buyers. The supplier's power is determined by the supplier's ability to raise its price or reduce the quality of the supplier's goods. The majority of the pharmaceutical companies import around 90% of their raw materials from countries like India and China. Import of Active Pharmaceutical Ingredients (API) can also be done from European suppliers, but the cost is high. European sources cost up to 3 times from Chinese or Indian sources. The concentration of supplier and high switching cost creates high bargaining power of the supplier. The government has taken the initiative to reduce the import of raw materials. As Bangladesh pharma sector raw material is mainly import-based, so the bargaining power of suppliers is high.

4.1.1.5 Bargaining Power of Buyers:

The bargaining power of buyers mainly depends on the size of the market and the number of consumers available in the industry. The government strictly maintains the retail price of life-saving drugs. Pharma companies are free to set up the prices of other medicines. The culture in Bangladesh is that the patient mostly depends on the prescribed medications by physicians. They do not have the luxury of taking alternative drugs. The buyers are not concentrated and thus have very low bargaining power.

4.1.2 SWOT analysis

The competitive study of Eskayef Pharmaceuticals is performed through the SWOT analysis. SWOT is a strategic management technique that will identify the strengths, weaknesses, opportunities and threats related to the business of SK+F. The functional areas of SK+F are examined by considering both the internal and external factors. Below, the SWOT analysis of SK+F is frame worked.

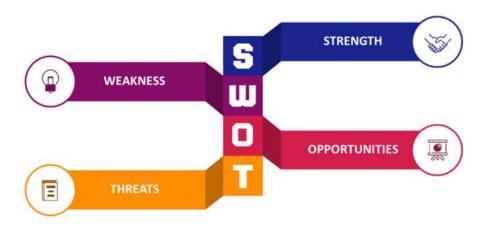


Figure 11: SWOT Analysis

4.1.2.1 Strengths:

The main strength of SK+F is the ethical business practice with a core value among all of its employees. SK+F have the composition of a technically sound workforce who are well trained and nurtured. Besides, world-class technologies are equipped for an effective, safe and sustainable healthcare industry. SK+F have a healthy management culture from top to bottom of the industry, makes the company work-friendly and motivates the employees to do better in their jobs.

4.1.2.2 Weaknesses

To maintain this high standard, purchasing the rate materials at higher rates, some companies take the material from cheaper or local sources. As a result, the final price seems higher to the consumers, and SK+F fails to capitalize on the potential market where overall company sales might be higher than existing.

4.1.2.3 Opportunities

The pharmaceutical sector is one of the most promising sectors of Bangladesh. SK+F never compromise with the quality so it is a big opportunity for them highlight their product in the international market. During the Covid-19 outbreak, Eskayef pharmaceuticals came with different medicines which proves that it product devilment will shine in the near future. Besides, SK+F is working with some new projects with the collaboration of some multinational companies and once the projects are in the operational stage SK+F will one of the market leader.

4.1.2.4 Threats

Eskayef Pharmaceuticals Limited has a threat from its industry participants. Currently, the pharmaceutical market is very competitive, and at the same time, it is much saturated. Some pharmaceutical companies are doing aggressive marketing, which is a continuous threat of losing the market share. Besides, it is necessary to ensure that the goods are supplied with a timeframe, especially during this pandemic.

4.2 Supply Chain Management practices

Supply chain management (SCM) denotes the managerial operation triangle that includes procurement, production and distribution to the end consumer. A successful supply chain achieves the balance between responsiveness and efficiency. The logistical and cross-functional drivers need to be examined to understand the functions of the supply chain and the basic steps that a company should follow to improve supply chain performance in terms of responsiveness and efficiency. The six drivers of logistical and cross-functional drivers of supply chain performance are facilities, inventory, transportation, information, sourcing, and pricing.

The purpose of supply chain strategy is to ensure the combinational balance of responsiveness and efficiency. An organization's performance is determined in terms supply chain performance drivers, which examines the balance in responsiveness and efficiency of its performance. There are six drivers in supply chain management consist of three logistical and three cross functional drivers The drivers are Facilities, Inventory, Transportation, Information, Sourcing and Pricing (Fig. 1). Information is one of the key drivers that can affect all five other drivers and helps an organization to achieve better supply chain performance.

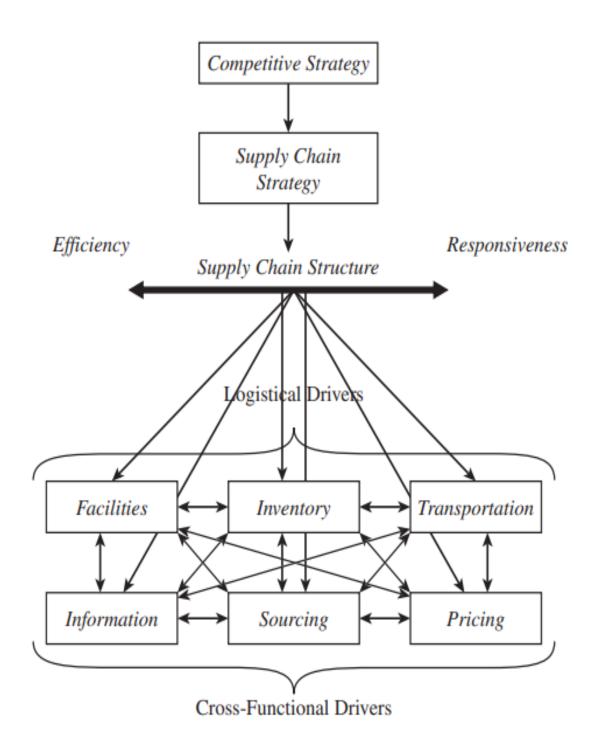


Figure 12: Cross-functional drivers of Supply chain management

4.2.1 Facilities

Facilities indicate the actual physical locations in the supply chain network where the product is stored, assembled, or produced. There are two major types of facilities in a supply chain, production facility and warehousing facility. The role of each facility, the location, capacity of a

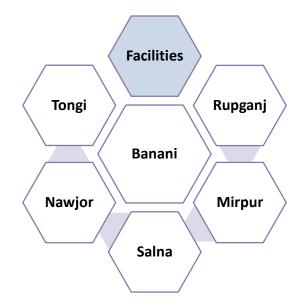


Figure 13: Production and operational Facilities of SK+F

facility, and moth importantly, the flexibility of facilities has a significant impact on the supply chain's performance. Decisions regarding this largely depend on the performance of an organizations performance. A production facility of an organization has to be developed in a very productive manner to ensure both responsiveness and efficiency. The production facility needs to be integrated with the logistics facility. Besides, the warehousing facilities need to be settled up close to customers to improve their responsiveness.

The operational headquarters and manufacturing plants of Eskayef Pharmaceuticals Limited are situated in different places in Dhaka. The facilities are strategically located and well-equipped to perform all the necessary jobs. The transportation system of the employees and the purchased materials are also considered during settled up the facility locations.

The facilities are designed to maintain an ideal environment to ensure the best quality and safety for both the employees and the products. The architectural design of the facilities reflects the wonderful balance between natural light and greenery, which rejuvenates energy. All the operational departments stating from commercial, finance, human resource, sales and marketing, are located at the Eskayef Operational Headquarters. The production facilities are divided into five different plants, and each of them has different operational activities. The facilities are equipped with AHU (Air Handling Units), and all other modern facilities as per WHO GMP (Good Manufacturing Practices).

4.2.2 Inventory

An organization's inventory incorporates all the required raw materials, work in process items, and finished goods within a supply chain management. Inventory is such a driver that can dramatically alter the supply chain's efficiency and responsiveness of a supply chain simultaneously. If an inventory stocks many items, it may ensure responsiveness by satisfying the customer demand from the stock even during the fluctuating demand. At the same time, the high inventory level reduces the efficiency of a supply chain process as the inventory products hold their value for a long time and occupy the space also which directly hit the financial data and workforce. So the main challenge is to identify that magical inventory level to ensure both responsiveness and efficiency simultaneously.

All the raw materials, packing materials work in process items and the finished goods within a supply chain are considered inventory. The warehousing handling system of SK+F is fully automated and temperature controlled. For pharmaceutical item storage, the condition is a significant factor, so the warehouse operation of SK+F is very precisely maintained. The products are stored according to their nature, and for ease of handling, they are kept in alphabetic order in the well-equipped racking systems. All five production facilities have the inventory with all modern facilities. The storage areas of each inventory are –

- Receiving station
- Quarantine zone
- Controlled Room Temperature (CRT) zones
- Dispatch zone
- Rejection zone

Eskayef Pharmaceuticals Limited tries to maintain the optimum inventory level to avoid overstock and the shortage of the material subsequently. The targeted inventory level is 90 days. The inventory level over the last three quarters is shown below –

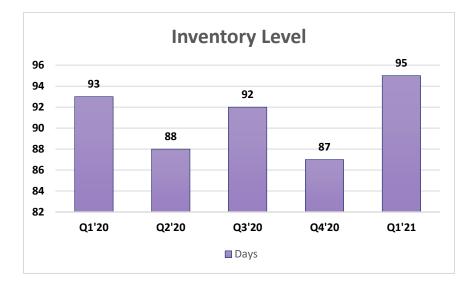


Figure 14: Inventory Level of SK+F

The quality Assurance (QA) team check the inventory management on a routine basis, and they ensure that the inventory is maintaining world calls standards. The finished products are also dispatched and distributed from the warehouses.

4.2.3 Transportation

Transportation involves the movement of inventory from the supplier to the production facility with raw materials or the direction of the finished goods from the warehouse to the end customers in the supply chain. Single or multiple combinations of modes and routes can be designed for a supply chain depending on the necessary characteristics. An organization can follow by Air, sea, train, road, or other transportation modes. The decision-making of choosing transportation has a significant impact on supply chain responsiveness and efficiency. For example, we can ship raw material to our warehouse using air shipments to ensure more responsive supply chains. On the other hand, it is associated with high freight costs, which will make it less efficient. In the transportation driver, outbound transportation costs of shipping to the customer are mainly considered selling and administrative expenses, while inbound transportation costs are the cost of goods sold.

The selection of the transportation mode is one of the most important aspects of supply chain management. The transportation driver of SK+F can be classified into two different sections. One is to transport the raw material to the factories, and another is to deliver the finished products to the market, also called distribution. The distribution part of Eskayef is fully outsourced by Transcom Distribution Company Limited (TDCL), so the only factor related to the SK+F's supply chain is the shipment of the purchase goods and delivery up to the plants.

Eskayef Pharmaceuticals Limited uses sea, Air, and road as a mode of transportation for all the importing commodities. The mode of transport depends on the nature and volume of the raw materials or the urgency of the goods. The materials purchased in bulk and stored at a normal temperature are generally preferred sea shipments. Besides, when the material urgently is low, but SK+F needs to book the material to avoid a future crisis, sea shipments are taken. Also, some other factors like for common sea routes, sea shipments are preferred as it requires lower freight. Sometimes the materials have urgent requirements, or the purchased quantity is low, then the material is shipped by Air. By Air, shipments arrive at Dhaka airport, and our designated C&F agents arrange the delivery up to our plant after clearance. The freight cost for air shipments is competitively higher than the sea shipments but much faster. Besides air and sea shipment SK+F also take the by-road shipment from India. Mainly the states near Kolkata are shipped by reading. This mode is also very cost-effective and requires less time for clearance. A statistical calculation of the mode of transportation used for the shipments by Eskayef Pharmaceuticals Limited over the last year is shown below –

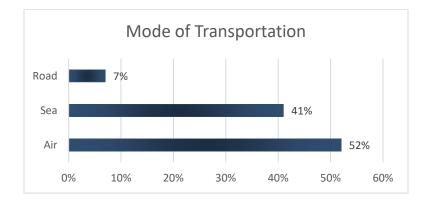


Figure 15: Mode of transportation used for the shipments of SK+F

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4.2.4 Information

Information consists of the supply chain management's previous and updated data, standard working procedures, analysis of other drivers like facilities, inventory, transportation, sourcing, and prices. Al the market demand and customer choices are also stored in the information driver. Information is theoretically the most interacting driver of supply chain management. It directly affects each of the other drivers. A proper flow of information allows the administration to make supply chains more responsive and more efficient at the same time. Information expenses are considered as operating. If an organization has good market demand information, it can easily forecast the required products and incidents.

The information management system of Eskayef Pharmaceuticals Limited is very well organized. A dedicated team works hard to ensure the flow and the preservation of the information in the right way. SK+F uses the BatchMaster Enterprise as an Enterprise Resource Planning solution (ERP). The BatchMaster Enterprise is shortly known as BME. The BME is the key information hub for SK+F. All the purchase, cost, buy-sell information as well as employee data are stored in BME. Besides BME, SK+F uses some other in-house developed software. Some commonly used software are Database, Export-Import purchase database, LC register, Insurance claim register, online tendering register. The good thing is, the software is interconnected, and it allows to control all the data from a central data station.

Eskayef Pharmaceuticals Limited is planning to go digital documentation. All the documents will be preserved in the online servers. This task will reduce time, operational costs and help to become a peerless organization. It also gives a transparent flow of information.

4.2.5 Sourcing

Sourcing can be classified into two different parts. One is the sourcing of the supplier who will serve the incidents, and the second is the choice of workforce who will perform the supply chain activities. The supply chain activities such as production, storage, transportation, or information management are included in the sourcing drive. The sourcing strategy determines which part of the supply chain will be outsourced and which functions can be fulfilled with a housing facility. Like the other drivers sourcing decisions also control both the responsiveness and efficiency of a

supply chain. Suppose the production cost of any particular product is high in the own facility. In that case, an organization can outsource the facility which will be more efficient. Still, at the same time, the location of the outsourcing industry needs to be considered so that it does not disturb the responsiveness.

Eskayef Pharmaceuticals Limited used around 5900 raw materials & packing materials and 5500 other items like stationary literature and machinery. SK+F follows a good details SOP to source the material. All the items are sourced from various suppliers. The RM & PM are 90%, and the machinery items are 95% import based. The things that are considered during sourcing are price, specification and documentation. After sourcing any material, the material has to go through multiple QC procedures and then the retail orders are placed. A source can be enlisted in the supplier list only after ensuring three consecutive

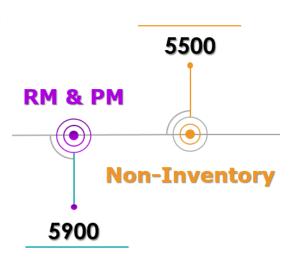


Figure 17: Number of materials of SK+F

successful batches. For machinery, the requirements are described in the quotation, and after negotiation and some successful demonstrations by the suppliers, the product is perched.

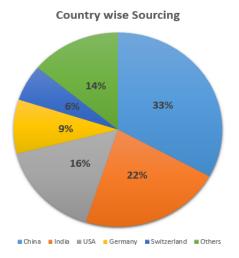


Figure 16: Country wise sourcing

Table 2: Sourcing data

Country	Percentage
China	33
India	22
USA	16
Germany	9
Switzerland	6
Others	14

A theoretical hierarchy of sourcing procedure of Eskayef Pharmaceuticals is shown below

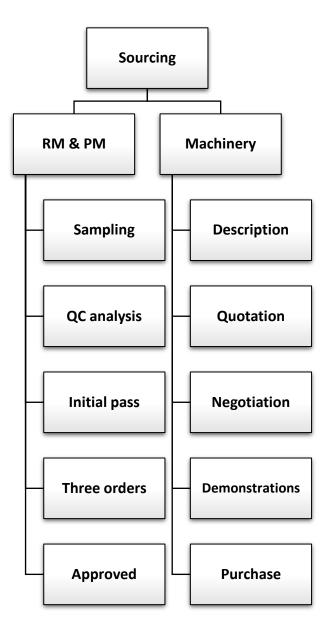


Figure 18: sourcing procedure of SK+F

4.2.6 Pricing

Pricing is the very last driver of supply chain management. It determines how much an organization will charge for the goods and services to the customers. The buying capacity and buying behavior mostly depends on the pricing of the good or service. The price of any goods or

services may vary with the change of the material supply, inventory cost, management cost or transportation cost. A basic theory of reasonable or competitive pricing is to introduce differential pricing. It provides responsiveness to customers, and they can buy as per their buying capacity.

The pricing of Eskayef Pharmaceutical mainly dependents on the operational cost expenditure. The price of the finish goods depends on multiple factors such as,

- Raw material cost
- Packaging material cost
- Components for manufacturing the product
- Certain overhead cost
- Administrative cost
- Marketing cost
- Retailer commission

As discussed earlier about RM & PM are 90%, and the machinery items are 95% import based. Besides some packing materials and spare parts are purchased from the local suppliers. Local Commercial Team is mainly responsible for procurement of secondary packaging materials, printing materials, gift items, low cost materials from local sources. So the procurement process mainly depends on foreign purchasing. A typical flow of martial purchase is shown below –

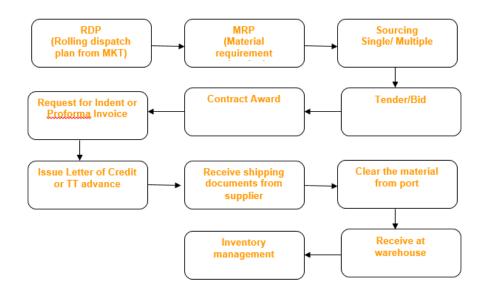


Figure 19: Procurement Process OF SK+F

For purchase payment as transaction tools for import raw and packing materials. For local materials purchase or promotional items purchase, purchase order or cheque is more preferable.

Category-wise sourcing approach and transaction tools used

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Item Category	Sourcing	Transaction Tools
Raw Materials	Multiple sourcing	Letter of Credit/TT advance
Packing Materials	Multiple sourcing	Letter of Credit/CAD
Machineries	Multiple sourcing	Letter of Credit
Gift Items & Literatures	Local sourcing	Purchase order/Cheque

 Table 3: Category-wise sourcing approach

Chapter 5

Findings, Recommendation, Conclusion and References

5.1 Findings

During the study for this report on Eskayef Pharmaceuticals Limited the following vital information has been found –

- In literature, it has been mentioned that supply chain management is an integral part of the organization. But the study found that the employees of Eskayef Pharmaceuticals Limited don't identify supply chain management operations due to lack of interlinks of the department.
- The employees of SK+F came from different study background and it is helping the organization to have multidimensional viewings
 Some other appreciate able things, like paperless transaction, digital data archiving reducing bottlenecks are some good sides of SK+F
- A well and systematic procedure for source approval which is at the same time transparent and time saver
- SK+F is equipped with world recognized machinery products having the accreditation from regulatory authorities

The major findings after the analysis and interpretation of the six performance drivers are stated below:

Facilities	Eskayef Pharmaceuticals Limited has five manufacturing facilities with the	
	operational headquarters in Dhaka the production and operational facility is	
	well organized in different plants and operational headquarters	
Inventory	Eskayef Pharmaceuticals Limited has well equipped five warehouses to	
	store RM & PM and finished products	

 Table 4: All the SCM drivers for SK+F at a glance
 SCM drivers for SK+F at a glance

Transportation	The modes of transportation are preferred for importing RM & PM from by
	sea, air and road. The mode of transportation mode is selected based on the
	nature and volume of the imported items
Information	Eskayef Pharmaceuticals Limited uses the BatchMaster Enterprise as an
	Enterprise Resource Planning solution (ERP) which is the key information
	hub for SK+F. Besides some in house software are used
Sourcing	Eskayef Pharmaceuticals Limited used around 5900 raw materials &
	packing materials and 5500 other items like stationary literature and
	machinery items in which 90% of the RM & PM, and 95% of the machinery
	items are import based
Pricing	The pricing of Eskayef Pharmaceutical product dependents on the
	operational cost expenditure like, Raw material cost, Packaging material
	cost, Components for manufacturing the product, Certain overhead cost,
	Administrative cost, Marketing cost, Retailer commission

5.2 Recommendations

This report describes the Supply Cain practices of Eskayef Pharmaceuticals Limited. During the report some complications were observed and a list of recommendations is prepared to as follows

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- The employees of all the department must have the proper knowledge of the Supply Chain practice throughout the company
- Reporting point for the employees should be single as multiple reporting makes the process lengthy and sometimes reduces
- The flow of information needs to be more transparent and some new modules (like SAP, Cloud data storage and sharing) can be introduced to do so
- The managerial hierarchy can be more segregated so that the contribution of employees towards the organization from different levels can easily be addressed
- Some recreation activities, training and seminars can be arranged for the employees to develop their interpersonal ability

5.3 Conclusion

Eskayef Pharmaceuticals Limited is one the leading pharmaceuticals companies in Bangladesh. It is solely focused on ethical business operation and quality based product manufacturing. It has a skilled set of employees which can help the company to grow more and become the leader in the pharmaceuticals market.

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