

Supply Chain Management in Pharmaceutical Industries: Supply Chain of Incepta Pharmaceuticals Ltd.

A Dissertation submitted to BRAC Institute of Governance and Development
(BIGD) in Partial Fulfillment of the Requirements for the Degree of
Masters in Procurement and Supply Management

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BRAC Institute of Governance and Development
BRAC University
December 05, 2018

DEDICATED

to

My Father Mohammed Naushad Yunus, My Mother Rashida Begum and My Wife

Nahil Parisa Mannan

Who Share the Adventures of My Life.

Supervisor's Certificate

I have the pleasure to certify that the dissertation entitled “**Supply Chain Management in Pharmaceutical Industries: Supply Chain of Incepta Pharmaceuticals Ltd.**” submitted by Mohammad Yasir Naushad for the award of the Degree of Masters in Procurement and Supply Management is his original work. So far I know, this is the candidate's own achievement and is not a conjoint work. He has completed this thesis under my direct guidance and supervision.

I also certify that I have gone through the draft and final version of the dissertation and found it satisfactory for submission to the BRAC Institute of Governance and Development (BIGD) BRAC University in partial fulfillment of the requirements for the Degree of Masters in Procurement and Supply Management.

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Declaration

I do hereby declare that the dissertation entitled “**Supply Chain Management in Pharmaceutical Industries: Supply Chain of Incepta Pharmaceuticals Ltd.**” submitted to BRAC Institute of Governance and Development (BIGD), BRAC University in partial fulfillment of the requirements for the Degree of Masters in Procurement and Supply Management is exclusively my own and original work. No part of it in any form, had been submitted to any other University or Institute for any degree, diploma or for other similar purposes.

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Date: 05 December, 2018

(Mohammad Yasir Naushad)

Abstract

Supply chain management (SCM) is the transform about planning, implementing, also regulating the operations of the supply chain with the motivation with fulfill client prerequisites similarly as effectively concerning illustration time permits. Those sub-areas including a supply chain include: Forecasting/Planning, Purchasing/Procurement, Logistics, Operations, stock Management, Transport, Warehousing, Distribution, client administration and so forth. However, it is troublesome to find a standard model for supply chain administration working in the business group. Some business will refer to and manage their supply chains in a coordinated and all encompassing fashion, including the entire sub areas defined above.

To achieve effective supply chain management particularly in pharmaceutical industries around globe, this study is devoted assess the supply chain management of a leading pharmaceutical company in Bangladesh namely Incepta Pharmaceuticals Ltd. SCM is also important for achieving competitive advantages over the business rivals through a stronger relationship, closer and collaborative cooperation as well supplier development.

List of Abbreviations

BAPI	: Bangladesh Association of Pharmaceutical Industries
BB	: Bangladesh Bank
BBS	: Bangladesh Bureau of Statistics
BDT	: Bangladeshi Taka
CRM	: Customer Relationship Management
CSM	: Customer Service Management
C&F	: Clearing and Forwarding
CPI	: Consumer Price Index
CSR	: Corporate Social Responsibility
EDI	: Electronic Data Interchange
EPB	: Export Promotion Bureau
GDP	: Gross Domestic Product
GOB	: Government of Bangladesh
GSP	: Generalized System of Preferences
L/C	: Letter of Credit
LDCs	: Least Developed Countries
MRP	: Material Requirements Planning
MA	: Market Access
POC.	: Point-of-Consumption
POO	: Point-of-Origin
PI	: Proforma Invoice
QA	: Quality Assurance
QC	: Quality Control
RM	: Raw Materials
SRM	: Supplier Relationship Development
WTO	: World Trade Organization

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Chapter One: Introduction

1.0 Prelude

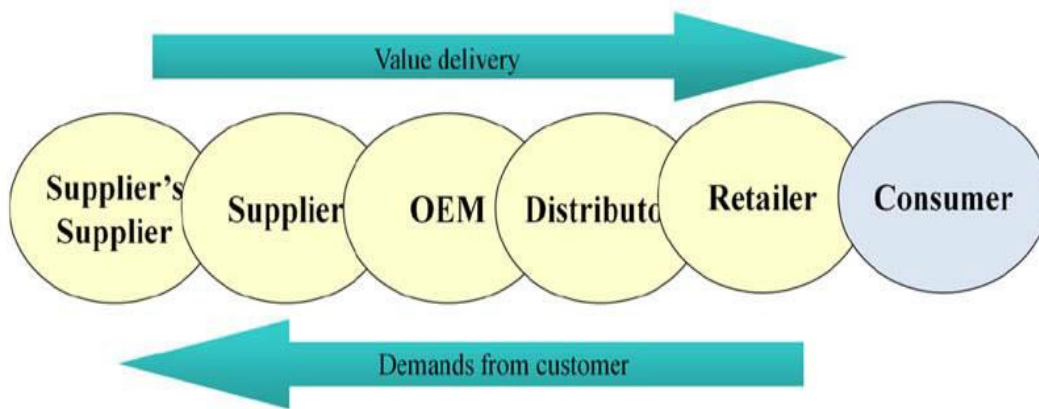
Supply Chain Management (SCM) is the method of planning, implementing and controlling the operations of the supply chain within the aim to satisfy customer necessities as efficiently as potential. Supply chain management spans all movement and storage of raw materials, work-in-process inventory and finished goods from point-of-origin (POO) to point-of-consumption (POC). SCM is acutely aware and deliberate management, integration, and control of the business functions. SCM contributes and affects that supply flow through the market for the purpose of developing performance, costs, flexibility etc, which bring the ultimate benefits of the customers or end users. The supply chain function includes many sub-areas such as: forecasting and planning, purchasing and procurement, logistics, operations, inventory management, transportation, warehousing, distribution, customer service etc. However, it is hard to find a standard model of Supply Chain Management operating in the business community particularly in the pharmaceutical sector.

Supply chain management (SCM) is the oversight of materials, information and finances as they move in a process from supplier to manufacturer to wholesaler to retailer to customer or consumer. Supply chain management involves coordinating and integrating these flows both within and among firms. SCM is both a horizontal business function (i.e. managing the supply chain in a business) and a vertical business sector (i.e. businesses involved in managing supply chains on behalf of their clients). An organization may operate as a supply chain services provider within the vertical supply chain industry sector. But each of the customer serviced by a company will employ supply chain staff within their business operating on a horizontal basis across their organizations.

All business needs to forecast and plan. To look forward and predict what will be needed in terms of resources and materials in order to deliver their goods or services to their customers in a timely manner. In this area we find SCM activities such as demand planning, inventory planning, capacity planning etc. The commercial part of the supply chain is purchasing or procurement. This is where a business identifies suppliers to provide the products and services that it needs to

acquire in order to build and deliver its own service or product. Costs and terms of business are negotiated and agreed and contracts are formed. Thereafter the suppliers' performance and future contractual arrangements will be managed in this sector. This sector of the business is sometimes referred to as purchasing, sometimes, procurement, buying, sourcing, etc. In its strictest definition purchasing is limited to the actual commercial transaction and no more, whilst procurement includes the wider elements of the acquisition, including logistics and performance management.

Figure 1.1: Basic Model of Pharmaceutical SCM



Source: www.slideshare.net/pharma-chain/ accessed on 02-02-2018.

In its strictest definition logistics refers to the movement of products or materials, whether inbound, through or outbound. In some manufacturing businesses forecasting and planning will be found within a logistics department, in alternative businesses logistics will be exclusively managing the movement and transportation of goods and materials. Operations are a general management sort of activity ensuring that a business uses its resources effectively to satisfy its customer commitments. Inventory Management typically takes responsibility for both the replenishment of physical stock, the levels of physical stock, and of course storage and issue of physical stock. Stock may be materials and goods sourced from suppliers, work in progress, or finished goods awaiting sale/dispatch. Transport management can involve the control of a company owned fleet of vehicles, collecting, moving, or delivering materials and goods, or managing transport services sourced from a third party transport provider. Warehousing can

involve the control of company warehouse space, or managing warehouse space sourced from third party providers. Distribution involves the physical distribution of the company's products to the sub-distributor or directly to the customer base.

Most people do not acknowledge customer service as part of supply chain management, but it is to be considered as an important element. Because the ultimate component is to check that the customer's expectations were achieved, and manage any actions necessary to meet customer obligations and commitments. It is simply understandable that the success of a organization depends a lot on their

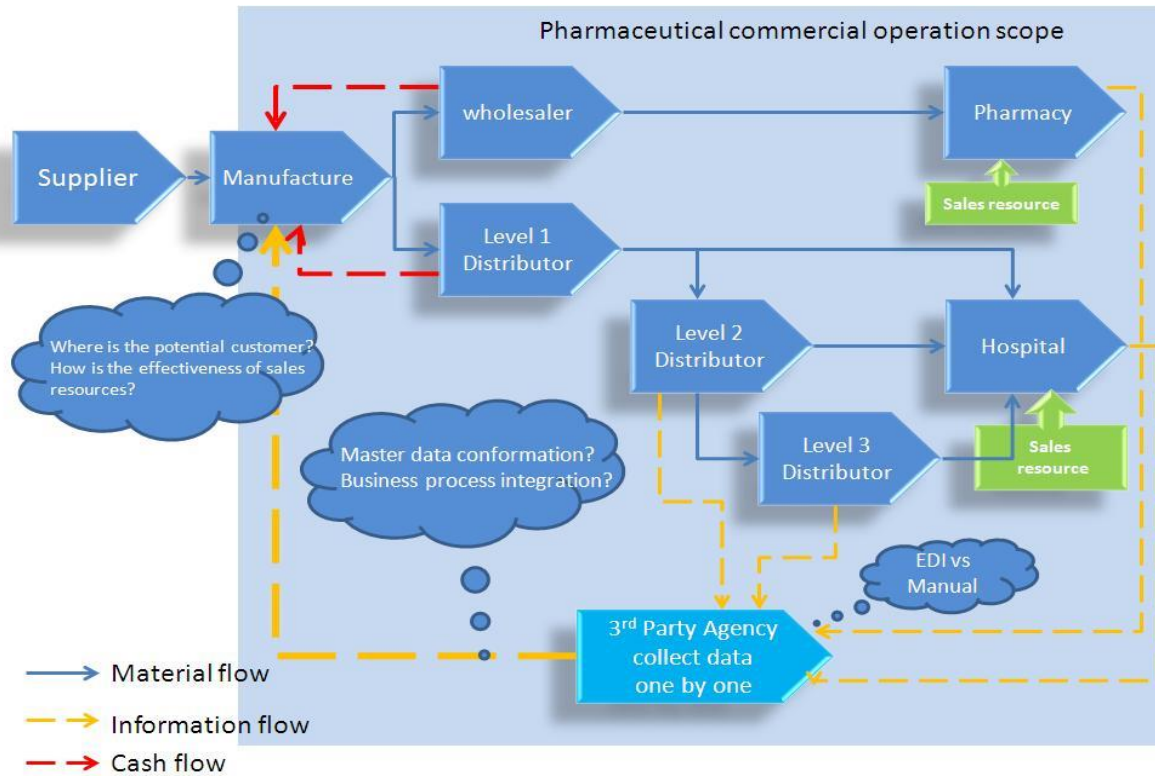
supply chain management system. The present success of many firms is the result of their successful supply chain management system. With the help of well organized SCM system a company takes the satisfaction from their suppliers and also from the consumers. Through SCM a company can transmit properly what they are looking from the suppliers and marketers. The supply chain



management of pharmaceutical products deserves high priority as it is related to the life and death of men and animals around the world. The present study is an attempt to analyze the supply chain management of a renowned pharmaceutical company in Bangladesh namely Incepta Pharmaceuticals Limited.

1.1 A General View of Pharmaceutical Supply Chain

Figure 1.2: Pharmaceutical Supply Chain



Source: www.slideshare.net/pharma-chain/ accessed on 02-02-2018.

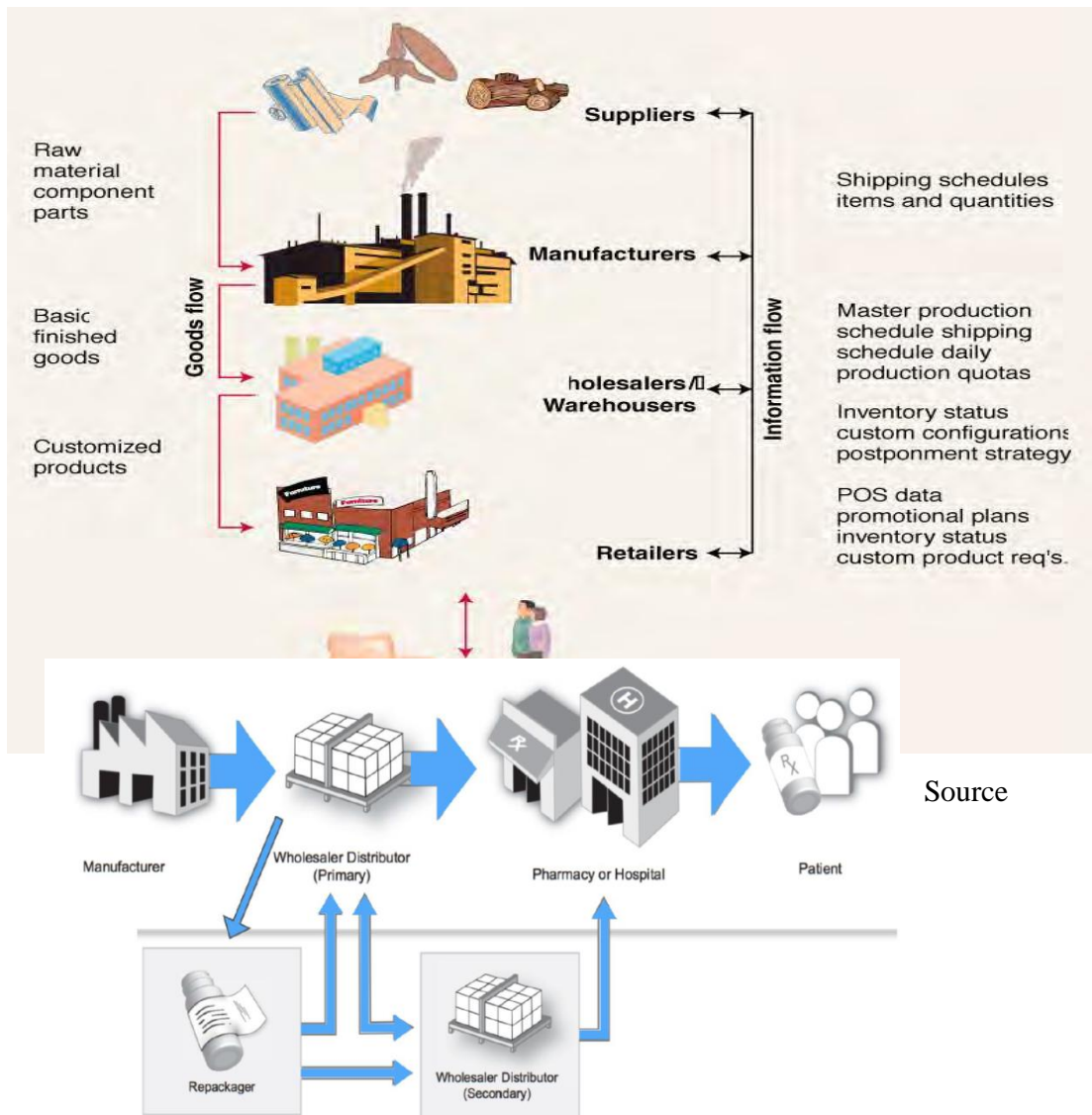
Figure 1.3: Operations of Pharmaceutical Supply Chain

Source: <https://kavinxi.files.wordpress.com/2011/08/2/>.

Figure 1.4: Typical Supply Chain Management

Source: <https://medium.com/@philippsandner/blockchain-technology-in-the-pharmaceutical-industry-3a3229251afd>

Figure 1.5: Flow of Goods and Information in SCM Processes

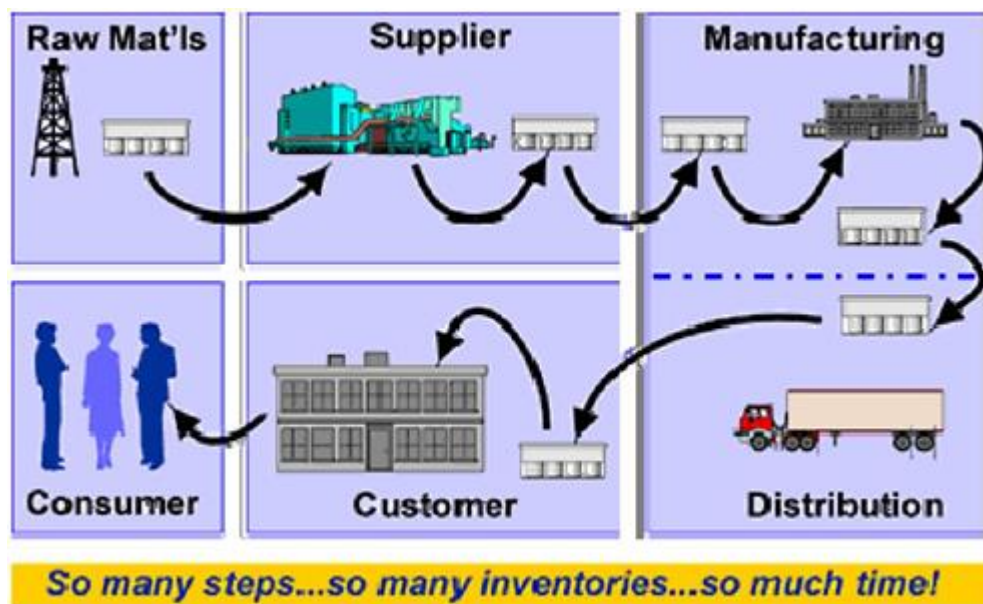


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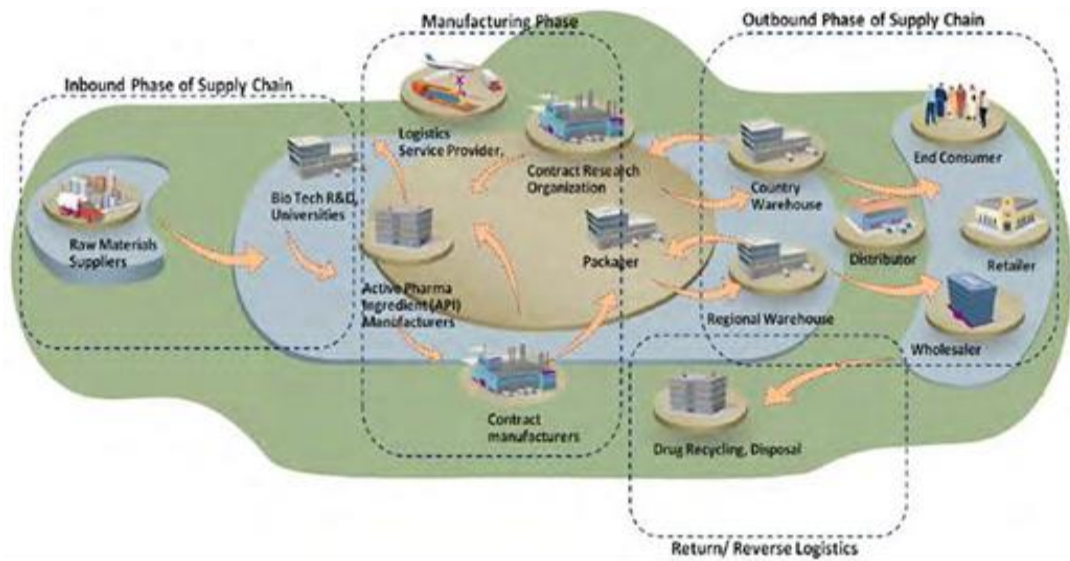
Source www.slideshare.net/pharma-chain/ accessed on 02-02-2018.

Figure 1.6: Supply Chain Management: Raw Materials to Consumers



Source: www.slideshare.net/pharma-chain/ accessed on 02-02-2018.

Figure 1.7: Extended Pharmaceutical Supply Chain Management



Source: www.slideshare.net/pharma-chain/ accessed on 02-02-2018.

According to Whewell (2009), the pharmaceutical supply chain covers drug research, development, manufacture, distribution and application through a range of healthcare services and ancillary businesses that help effective functioning of these different stages. The pharmaceutical and healthcare industry is hugely complex because it involves so many markets, products, processes and intermediaries. It is also globally heavily regulated and used by everyone in life. Ricci (2006) identified the importance of pharmaceutical companies taking control of the own distribution to maximize the potential of the different channels and to protect patients from errors or defects occurred during repackaging or relabeling.

1.2 Statement of Problem:

Incepta is a growing company in the pharmaceuticals industry in Bangladesh market. They are now in second position in this competitive market. To sustain in this challenging position it requires upholding the overall performance in the supply chain area through maintaining sustainable cost performance for near future.

1.3 Objectives of the Study:

In view of the context and research questions, the broad objective of this study is to analyze the supply chain of Incepta Pharmaceuticals Ltd. The specific objectives are as follows:

- To find the performance of supply chain management of Incepta pharmaceuticals;
- To evaluate the supply chain sustainability.
- To identify the barriers and challenges of the supply chain of Incepta

1.4 Literature Review:

It is widely accepted that the review of literature provides an understanding of the issues closely related to the research topic. It also helps to justify the research under study and to find out the knowledge gap in the respective field. A number of books, articles, reports, web-sites on supply chain management have been studied for this research work. It has been found that literature with specific focus on this sector in Bangladesh is not sufficient. However, a brief review of literature has been carried out.

As the pharmaceutical marketplace confronts intimidating challenges with numerous stakeholders demanding the pharmaceutical goods to be reasonable, strategic planning would be of the essence (Holdford, 2005; Birdwell, 1994). For the pharmaceutical sector, it assumes special significance as medical commodities would need to be delivered through the supply chain timely and within the reach and means of the consumers to meet their needs and satisfaction (Enyinda, 2009). Supply chain is a set of players, processes, information, and resources which transfers raw materials, and components to finished products or services and delivers them to the customers. It includes suppliers, intermediaries, third-party service providers and customers. It conjointly includes all of the logistics activities, manufacturing operations and activities with and across promoting, sales, product design, finance and information technology.

A Supply Chain is that network of organizations which are involved through upstream and

downstream linkages in the different processes and activities that produce value in the form of products and services in the hands of the ultimate customer or consumer (Lysons and Farrington, 2010). This definition highlights the key features of supply chain such as networks, linkages-upstream and downstream, processes, value and ultimate customers. Supply Chain Management is defined as the network of organizations that are involved, through upstream and downstream linkages, in the different process and activities that produce value in the form of products and services delivered to the ultimate consumer (Dubey and Kumar, 2007). Supply chain management is the management of a network of retailers, distributors, transporters, storage facilities and suppliers that participate in the sale, delivery and production of a particular product (Chopra and Miendel, 2005). Handfield and Nichols (1999) outlined pharmaceutical supply chain as “the integration of all activities related to the flow of and transformation of raw materials through to the end-user, as well as associated data flows, through improved supply chain relationships to achieve a sustainable competitive advantage”.

SCM can be viewed as a set of activities to implement a management philosophy (Mentzer, J.T. et. al., 2001). They identified seven activities in this regard such as integrated behavior, mutually shared information, mutually shared risks and rewards, cooperation, the same goal and same focus on serving customers, integration of process, partners to build and maintain long-term relationship. Dubey and Kumar (2007) mentioned that effective supply chain management can impact and improve upon virtually all business processes, such as data accuracy, operational complexity reduction, supplier selection, purchasing, warehousing and distribution. The benefits of SCM are included as quicker customer response and fulfillment rates, shorter lead time, greater productivity and lower costs, reduced inventory supply throughout the chain, improved forecasting precision, fewer suppliers and shorter planning cycles. The pharmaceutical industry is a more than \$500 billion global business that requires a tight, safe, and efficient supply chain. Modern pharmaceutical products rely on ingredients and materials from across the globe (Kaye, 2010).

The line between a company’s internal operations and its external environment, in the opinion of Graves (2009), are becoming increasingly blurred. He stated that no area exemplifies this better than the supply chain where pharmaceutical manufacturers have to coordinate their own activities with those of partner organizations, healthcare providers and patients. He conjointly

noted that without a clear understanding of the context surrounding the process of delivering a drug to market, the chain can become a tangled web. Commenting on the challenges of supply chain management, Hand field and Dhina garavel (2005) stated that, multiple events occurring on a daily basis are shaping the competitive and regulatory environment in which channel members operate their business. They distinguished that, regulators are demanding that wholesalers and manufacturers reveal pricing and are challenging the cost of pharmaceutical distribution. Market channels purchase order, direct shipping and website pharmacies are also important competitive channels to consider. Another major driver of change, according to Handfield and Dhina garavel (2005), is the increasing share of generics that are coming into the market, as some largest branded drugs go off patent. They ascertained that although the method of producing and distributing branded and generic medicine is sort of similar, the design of the distribution channel might be substantially different. They also noted that many generic companies are exploring relationships with Indian and Chinese manufacturers to market their goods. Given these changes, it is little wonder manufacturers, wholesalers, pharmacies, hospitals, and other participants are bewildered with the array of different competitive challenges that face them. They indicated that the unfortunate result is, poor perception has been created at different points in the supply and distribution chain; and channel participants have failed to communicate and work along to resolve the issues caused by this poor perception.

The goals of the pharmaceutical supply chain, as indicated by Chopra and Miendel (2005), obviously emphasize regulatory compliance and safety of products, but also include leveraging information to be more responsive to the needs of consumers. They noted that, the distinctive nature of the supply chain for pharmaceuticals makes managing complicated data for supply chain effectiveness challenging, but clearly the rewards for doing so are significant. They also indicated that, corporations that stand out in supply chain operations perform higher in almost each monetary measure of success. Supply chain excellence that improves demand-predict accuracy leads to 5% higher profit margins, 15% less inventory, up to 17% stronger “perfect order” ratings, and 35% shorter cash-to-cash cycle times (VeriSign Inc., 20 06). According to Chopra and Miendel (2005), many of these findings come from the Consumer Products (CP) Industry, where supply chain excellence means tightly aligning operations with consumer

demand to become “demand driven”.

Dubey and Kumar (2007) discovered that, the shift to a demand-driven focus has been happening inside the CP industry for years. While perhaps leading the way is n implementing demand-driven processes, the CP industry is not alone in this interest or intent. They noted that leading pharmaceutical manufacturers also recognize the value of adopting demand-driven supply chain practices and are benchmarking their organizations against CP manufacturers, and finding that their industry is generally behind the pace. They conjointly indicated that the pharmaceutical market is hindered by silos of information and a general lack of timely and reliable data as a result of historical business models and trading practices.

Lambert *et. al.* (1998) identified eight SCM processes such as Customer Relationship Management (CRM), Customer Service Management(CSM), Demand Management, Order fulfillment, Manufacturing Flow Management, Supplier Relationship Management, Product Development and Commercialization, Returns Management. In the perception of Chopra and Miendel (2005), to robustly and reliably enhance patient safety and to become more demand driven, the pharmaceutical supply chain needs a ubiquitous technology framework that includes: Item-level data management; Standards for available data and how it will be accessed and maintained; Data sharing infrastructure to accommodate cost efficient management and retrieval of data; Reliable trust environment to determine who can access information, if information provided can be certified as authentic, and what can be done with information provided or accessed.

Most enterprises in the pharmaceutical supply chain have the ability to manage integrated business information at a transactional level (orders, shipments, payments, etc), which provides visibility into operational and financial events (Dubey and Kumar, 2005). They noted that, item-level data can extend this visibility to provide rich insight into the physical movement of particular products involved in these transactions and also enhance visibility of end-user demand, contract compliance, and reverse logistics. Achieving this level of visibility, as indicated by Dubey and Kumar (2005), requires unique identifiers in product labels or packaging. They additional declared that, technologies like barcodes change packages to hold a unique identifier, and when coupled with an infrastructure of readers, can generate data

regarding the events related to products. Commonly, this information would be kept in an event repository; either a single central item event repository or a network of local event repositories across geographies or business units within an enterprise.

The Need for Standards In the opinion of Chopra and Miendel (2005), while item-level data management related to events within the enterprise may provide some incremental value, the potential for revolutionary worth comes from the ability to link item-level information to events and observations outside the enterprise. In order to leverage item-level information across enterprises, standards are needed to ensure interoperability.

According to Dubey and Kumar (2007), what is clear from early initiatives in item-level data sharing is that new types of data will be generated at unprecedented scale and will need to be exchanged in order to achieve measurable benefits across the supply chain. Conventional systems for business-to-business communications, as observed by Dubey and Kumar (2005), were not designed to manage this volume of data, and therefore will need to be augmented for item-level data management.

The research work carried by Privett and Gonsalvez (2014) identified the top ten challenges of global pharmaceutical supply chain such as Lack of coordination, Inventory management, Absent demand information, Human resource dependency, Order management, Shortage avoidance, Expiration, Warehouse management, Temperature control, Shipment visibility. There are many examples now in the news about counterfeit medicine circulating in black market channels and the places in which it is the largest recurring drawback is in the developing world wherever, in Africa and parts of Asia and Latin America, the proportion of counterfeit medicines has been estimated to be as high as 30%. Pharma corporations have to manage unbelievably complicated supply chains and manage the operational challenges of working and interacting with vast numbers of suppliers contributing ingredients and components to drug production and currently they have to meet track and trace directives and fits new serialization laws that require inventory to be auditable because it moves through the supply chain. The article states that lack of coordination in the pharmaceutical supply chain is a root cause issue since it aggravates every other issue either directly or indirectly. The authors also highlight the opportunities for pharmaceutical companies that should drive future actions, policies and research and point out

that measures should be taken to improve pharmaceutical delivery in regions that need it. This will make the global health challenge easier to take on and will help save lives.

It is evident from different literatures that ten steps are required to improve efficiencies in the pharmaceutical supply chain. In order to improve efficiencies and to cut cost in the pharmaceutical supply chain the following ten steps can contribute significantly:

1. Cut out the middle man (wholesaler.) This will do three things:

- Speed up the distribution process as the company will be delivering directly to the customer.
- Cut costs by cutting out the middle man.
- Sell more product: with better prices the companies will be more competitive and outsell competitors.

2. Improvements in tracking product, which will cut down counterfeits and competitors copying product. This will help the pharmaceutical corporations to remain ahead of the competition and be more efficient.

3. Improve technology in the manufacturing process. This will help:

- The products to be created quickly and efficiently.
- Better technology will help product cost to be reduced and sold at a more competitive price. This will ensure dominance over competitors.
- Upgrade manufacturing equipment and processes to make manufacturing product more efficient.

4. Shift manufacturing outsourcing to new markets like India and China. This will cut costs as labor is cheaper here and products can be made more cost effectively. When this is done it will permit pharmaceutical companies to be a lot of competitive and cut expenditures in the manufacturing of their products.

5. Quality control will be increased. This will ensure better quality products. Sales will increase with improved quality. There will be less wastage from substandard product that cannot be sold. When proper analysis of the quality of a product is done it can save disastrous recalls that hurt

the company and can cost a substantial amount of money. With the pharmaceutical industry there is little room for mistakes and substandard product as peoples' lives can be at risk. Additionally, the industry is highly competitive and sub-quality product can mean that contracts will move to competitors.

6. Analyzing how money is being spent and where it is going is a factor. In order to cut costs an initial financial analysis must be done. It will then be possible to know where to cut costs and how to make budgeting better.

7. Cutting costs in areas where there is wastage and money is not being used efficiently. There are always areas in any company that are not working as efficiently as they could. Too much money can be squandered in places where less investment would be equally effective.

8. Supply chain analytics should be done. What do we mean by this term? It is when a company scrutinizes the supply chain process. They can assess which areas need to be improved and made more efficient. The supply chain is complex. Management deals with several suppliers and works on a global basis. This makes supply chain analytics challenging. Questions need to be asked in order to analyze the supply chain correctly:

- Examine which suppliers are the best and most efficient: some suppliers are better than others. The more efficient the suppliers are the higher the supply chain can work.
- Different factors can affect the supply chain. The impact of various components like weather or the increase and fall of fuel prices on the delivery system will affect expenditure of supply.
- How much inventory to keep for certain products. This involves accurate analysis of supply and demand. Overstocking can cause wastage and force companies to lower prices to get rid of old stock in order to prevent heavy losses. Under stocking can incur losses as the company will need to back order and sometimes need to compensate the customer for waiting. Worse scenario is that customers can go to competitors to get their order done on time, rather than wait for the back order.

9. Once supply chain analytics have been conducted the pharmaceutical company can then apply the necessary changes needed to increase efficiency and cut costs in the supply chain.

10. Examining the purchasing team in the company. The company must ensure that they are getting product of high quality but at the same time not spending too much on product from the

suppliers. This may mean that they need to change suppliers to get better prices but still maintain quality. It is important to get detailed data from the purchasing section of the company to make the process more efficient and cost-effective.

The pharmaceutical industry in Bangladesh is one of the quickest growing sectors, which is on the brink of attaining self-sufficiency in meeting the country's domestic demand. Dominated primarily by the local manufacturers with their market share of around 87% and the rest by the multinational companies, the export earnings by the drug manufacturing firms now stand at approximately \$27.54 million to more than 90 countries globally (Muktadir, 2011). This has been partly helped by the fact that Bangladesh, as a least developed country, currently enjoys some benefits in drug manufacturing as it is exempted by the Doha declaration from yielding with patent protection until 2016 (Chowdhury, 2010). As this flexibility under the TRIPS (trade-related aspects of intellectual property rights) agreement will expire in a couple of years, this is likely to put the pharmaceutical industry in stiff challenges from its regional counterparts. As this industry in Bangladesh is playing such an important role in country's economy through employment generation and accelerating foreign exchange reserve, it is of utmost significance that the factors influencing the various dimensions of supply chain management (SCM) practices are looked into. The research questions set for this study are, therefore, two-fold: first, what are the influencing factors of SCM practices as being currently observed? Second, however do these factors impact on one aspect of companies outcome, i.e., such as customer satisfaction (CS) of the drug manufacturers in the pharmaceutical industry of Bangladesh? The objective of the study is to deal with two questions. This is very pertinent as there is a significant lack of studies performed in this regard, particularly from the perspective of a developing country.

Figure 1.5: Supply Chain Management- Key Issues

SUPPLY CHAIN MANAGEMENT – KEY ISSUES

ISSUE	CONSIDERATIONS
Network Planning	<ul style="list-style-type: none">• Warehouse locations and capacities• Plant locations and production levels• Transportation flows between facilities to minimize cost and time
Inventory Control	<ul style="list-style-type: none">• How should inventory be managed?• Why does inventory fluctuate and what strategies minimize this?
Supply Contracts	<ul style="list-style-type: none">• Impact of Revenue sharing• Pricing strategies
Strategic Partnering	<ul style="list-style-type: none">• What information and processes can be shared?• What partnerships should be implemented and in which situations?
Outsourcing & Procurement Strategies	<ul style="list-style-type: none">• What are our core supply chain capabilities and which are not?• Does our product design mandate different outsourcing approaches?• Risk management
Product Design	<ul style="list-style-type: none">• How are inventory holding and transportation costs affected by product design?• How does product design enable mass customization?

25

Source: www.slideshare.net/sreenathhacko/international-supply-chain-management

1.6 Significance of the Study

Given the increased attention of achieving effective supply chain management particularly in pharmaceutical industries around globe, this study will seek to assess the supply chain management of a leading pharmaceutical company in Bangladesh namely Incepta Pharmaceuticals Ltd. Supply Chain Management addresses supply chain strategy, supply chain planning, procurement, logistics, asset management and product lifecycle management. Supply chain management is crucial tool for economy, efficiency and effectiveness in sourcing, manufacturing, processing, inventory management, logistic, transport, distribution and customer satisfaction. SCM is also playing vital role for achieving competitive benefits over the business rivals through a stronger relationship, closer and collaborative cooperation as well supplier development. SCM also contributes in reducing cost of production and distribution through elimination of waste, compliance with standards and quality, promoting ethical sourcing, curbing unethical practices and diversity and equality in the workplace throughout the supply chain. The study will seek to assess the supply chain management in pharmaceutical industries. No comprehensive study has so far been wiped out in this regard. The proposed analysis will attempt to refill this gap.

1.7 Scope of the Study

The study will focus on the overall supply chain management of a fast growing pharmaceutical company in Bangladesh. The study will highlight the theoretical aspects of SCM and its potential advantages for a manufacturing company where there is intense competitive rivalry within the industry. Relevant models and theories will be adequately analyzed in this study. Information gathered through secondary sources and survey questionnaire will lend support to the research on what the extent of SCM is effective and contributing to achievement of corporate strategy of the organization under the study.

1.8 Limitations

The study has encountered a number of limitations which also discount the authenticity and reliability of the findings of the study. Some of the limitations are as follows:

- (a) Time constraint is the main limitation of the study. It was prescribed to submit the dissertation within one month. There should have sufficient time to conduct a study through a standard research protocol.
- (b) Budget constraint is also a vital lacking of this study. Sufficient budget allocation is required for collection of data and information from the primary sources. It is very crucial when the field study covers different cities.
- (c) Due to the two constraints mentioned above. The sample size of this study had been limited. Pharmaceutical supply chain has wider network both at home and abroad. The study is barely restricted to chose downstream partners. Only 60 respondents from retailers had been purposely selected from four major cities viz. Dhaka, Chittagong, Khulna and Rajshahi. But only 30 consumers had randomly selected from Dhaka city and 30 executives from the pharmaceutical company and distribution company under study had been selected.
- (d) Each and every respondent of this study was not well concerned about the whole supply chain system of the pharmaceutical supply chain.
- (e) The supply chain of Incepta Pharmaceuticals limited is not well documented. Therefore the researcher faced numerous difficulties to collect secondary data in relation with the supply chain system of Shrimp. No exclusive study had been found relating to pharmaceutical supply chain in Bangladesh.

1.9 Time Frame

September-December 2018

- Preparation of proposal
- Completion of data collection and processing of data.
- Completion of draft dissertation writing. • Editing and upgrading the draft.
- Submission of the final dissertation.

1.10 Thesis Plan (Breakdown of Chapters)

The paper is structured as follows: following this introduction, a literature review is provided first, on the theories adopted during study, and so on the scale of supply chain management practices and their impact on customer satisfaction demonstrating the theoretical framework of the study. Next, within the methodology section, instrumentation of the measurement items regarding the SCM practices and client satisfaction is provided by mentioning the articles that have been reviewed for this purpose. Besides, however data were collected and analyzed is also stated. In the findings section, first, the responsibility measures of the pertinent variables are presented. Factor analysis for the dimensions representing the SCM practices is then highlighted.

The outline of chapters or organization of the dissertation is as follows:

Chapter 1 : Introduction

Chapter 2 : Methodology of the Study

Chapter 3 : Overview of Pharma Sector and Company Profile

Chapter 4 : Scope of Improvements

Chapter 5 : Recommendations and Conclusion

References

Chapter Two: Methodology of the Study

2.0 Prelude

Methodology is an important part of any research work because without choosing and adopting an appropriate method a systematic investigation is not possible. Research methodology refers to the science of studying how research is conducted scientifically or how research problem is systematically solved (Kotahari, 1990). Method is originated from two Greek words such as ‘Meta’ and ‘Hodos’ meaning a way of conducting a work systematically. Research method is a process which consists of various techniques or steps of gathering data or information, processing and presenting of collected data and analyzing data (Aberdin, 2005). The method of research is a process of establishing a general proposition of gathering and weighing evidence (Hans Raj , 1987).

The broad objective of this study is to evaluate the supply chain management of Incepta. The study follows cross section data analysis techniques and tools for identified different aspects of SCM of Incepta. The survey method of field investigation is utilized and standard tools are applied to achieve the objectives of this study.

2.1 Nature and Method of Study

This dissertation has investigated the issues and challenges of the supply chain management of a leading pharmaceutical firm in Bangladesh. This study is not only an exploratory but also an evaluative research. The Exploratory, Evaluative and Content or Documentary Analysis methods are applied to achieve the objectives of the study.

2.2 Data Sources and Methods of Data Collection

Primary Source

The data from the primary sources have been gathered through field survey from the relevant respondents. Total number of respondents is 15. The respondents are retailers, executives, consumers and medical services officer. This method is employed to assess the stakeholders’

opinions towards the process, benefits, views, knowledge, risks of the supply chain management of Incepta Pharmaceuticals Ltd. The suggestion for achieving an effective supply chain are also taken from the respondents.

Secondary Sources

Secondary sources include published official statistics, reports, documents, laws, ordinances, books, articles, periodicals of different domestic and international agencies etc. Annual reports of Incepta, different reports and statistics on the pharmaceutical sector in Bangladesh has been used.

Chapter 3: Overview of Pharma Sector and Company Profile

3.0 Overview of Pharma Sector in Bangladesh

In Bangladesh Pharmaceutical sector is one of the most developed hi tech sector which is contributing in the country's economy. After the promulgation of Drug Control Ordinance - 1982, the development of this sector was accelerated. The expert knowledge, musings furthermore inventive plans of the pharmacists attempting in this segment are the magic elements to this developments. Because of later advancement from claiming this division we are trading drugs to worldwide advertise including European business sector. This segment will be likewise giving 95% of the aggregate prescription prerequisite of the neighborhood market. Heading pharmaceutical organizations are growing their benefits of the business with those point to extend fare advertise. As of late couple of new commercial enterprises have been created for such experts which will improve the quality from claiming this segment. Those pharmaceutical commercial enterprises on Bangladesh are skilled for unparalleled possibility will develop in the times ahead Likewise they revel in a number of aggressive advantages, industry insiders said.

The \$700 million segment for more than 230 Producers will be ceaselessly growing for new items should new global destinations. Around every last one of 50 LDC nations Bangladesh is those main nation Hosting nature pharmaceutical manufacturing build with advertising potential, and trading on in any event 80 destinations of the world, they said. The industry's capability to go along with rules for caliber certification need set it around a robust base. Just about the greater part organizations need aid prepared with World Health Organization (WHO). It need the capacity with face rivalry from creating nations in India, China, brazil and turkey On its fare businesses because of strict nature consistence.

However, masters in this division recommend to structure An flag inside the 50 LDC's from claiming Asia-Pacific, Africa, pharmaceutical amongst those service for wellbeing What's more

crew Welfare or service for nourishment Also pill organization (DA) powers with keep away from re-registration about organizations and results inside the part nations under this umbrageous. The send out esteem from claiming pharmaceuticals may be little anyway developing toward 50 percent for every year. Fares expanded starting with \$8. 2 million On 2004 on \$28. 3 million clinched alongside 2007, same time send out destinations climbed starting with 37 nations on 72 Throughout the period. A great amount of organizations including Square Pharma, Renata also Incepta bring won accreditation starting with the UK drugs Also social insurance items administrative org.

The mild regulated export markets which categories as second consisting the markets of Singapore, Srilanka, Vietnam, Philippine also need ACTD formats along with bio equivalence clinical test reports of pharmaceutical products and these are critical procedures with time and money consuming factors and many of the midlevel companies cannot afford. The final category is the less regulated export markets which are the only target markets remain in our hand to explore under the umbrella of AAPU. The products, which are registered by the DG of Drug Registration Authority (DRA), Bangladesh may be treated as registered within these countries, pharmaceutical official claimed. If required only Free Sales Certificates/Certificate of pharmaceutical products, Valid GMP Certificate, Product Approved Annexure, DML can be asked directly from our DRA Bangladesh by the importing countries MOH/FDA for the import of pharmaceutical products from Bangladesh. This will not only safe time and money but the current pharmaceutical turnover will grow many fold higher within shortest possible time before the implementation of WTO/TRIPS by the year 2015. Only 39 pharmaceutical manufacturing and marketing companies exported about Tk. 4.21 billion out of around 256 pharmaceutical manufacturers of Bangladesh. Moreover, pharmaceutical industry is now exporting active pharmaceutical ingredients (APIs) and a wide range of pharmaceutical products covering all major therapeutic classes and dosage forms to 79 countries. Besides, tablets, capsules and syrups, the country is also exporting high-tech specialized products like HFA Inhalers, CFC Inhalers, Suppositories, Nasal Sprays, Injectables, IV Infusions, etc. The packaging and the presentation of the products of Bangladesh are comparable to any international standard and have been accepted by them, said the official.

According to the UKTI report 2010, the total size of the pharmaceutical market of Bangladesh was estimated to be \$700 million in 2007. It also reports that the industry produced medication worth \$715 million in 2007 with the market growing over 12pc annually over the last half a decade and firms primarily focus primary on branded generic final formulations by using mostly imported APIs. According to a World Bank report of 2008, about 80pc of the drugs sold in Bangladesh are generics and 20pc are patented drugs. It also reports that domestically Bangladeshi firms generate 82pc of the market in pharmaceuticals and locally based multinational companies account for 13pc, and the final 5pc is imported. There are 240 registered pharmaceutical companies in Bangladesh where 164 of these actively involved in the manufacture or marketing of pharmaceutical products.

3.1 Drug Regulatory Authorities in Bangladesh

An administrative organization is a general population power or administration ever-enduring answerable for working out self-sufficient power again some range for human action over a administrative alternately supervisory limit. An autonomous administrative org may be an administrative organization that is autonomous starting with different limbs alternately arms of the legislature. Two associations control medications and pharmacies Previously, Bangladesh, person governmental and particular case semi-government, which are:

The Directorate General of Drug Administration (DGDA)

The Pharmacy Council of Bangladesh (PCB)

The Pharmacy Council of Bangladesh (PCB):

PCB was established under the Pharmacy Ordinance in 1976 to manage pharmacy practice in Bangladesh. The Bangladesh Pharmaceutical Society is related with international organizations International Pharmaceutical Federation and Commonwealth Pharmaceutical Association. The National Drug Policy (2005) states that the WHO's current Good Manufacturing Practices (GMP) ought to be strictly followed which producing units are going to be frequently inspected by the DDA. Other key options of regulation are restrictions on foreign drugs; a ban on the assembly in Bangladesh of around 1,700 medicines which are considered non-essential or harmful; and strict price controls, affecting some 117 principal medicines.

3.2 Local Market Overview

Bangladesh pharmaceutical commercial center may be predominantly a marked non specific commercial center. Pharmaceutical organizations in Bangladesh might whichever offer of the private division pharmacies, of the legislature Also its government funded medicinal services facilities, or will universal associations working over Bangladesh (e. G. UNICEF). Bangladesh pharmaceutical industry is basically overwhelmed Eventually Tom's perusing household Makers. Of the aggregate pharmaceutical business of Bangladesh, the nearby organizations would enjoying a advertise allotment arriving at around 97%, same time those MNCs would Hosting An poor market offer. Out of the highest point ten pharmaceutical organizations for Bangladesh, every last bit need aid nearby pharmaceutical organizations. The top banana two household manufacturers, in particular square also Incepta pharmaceuticals would Hosting a consolidated advertise impart about more than 30% of the aggregate pharmaceutical business of the particular nation.

Bangladesh affiliation for pharmaceutical commercial enterprises might have been established over 1972, from that point forward BAPI playing a critical part in molding dependent upon the industry. Association's part incorporate large, medium, small, national What's more remote organizations who together are answerable for manufacturing 97% of the country's pharmaceutical preparation.

3.3 Marketing Strategy of Pharmaceuticals in Bangladesh

Marketing is the procedure by which organizations make worth for clients and raise solid client connections up request should catch esteem starting with client as an exchange (Kotler, 2005). Advertising is those spine about every last bit commercial enterprises. In spite of pharmaceuticals process life sparing drugs, they additionally require showcasing. Anyway their showcasing may be to some degree unique in relation to other commercial enterprises. Some significant qualities about advertising segment are provided for below:

- Their distributional channel includes invoice system, own distribution channel.
- Medical representatives are the key persons in marketing.
- For promotion, the groups such as doctors, surgeons are targeted.
- Major promotional strategies include printed promotional materials, physical sample, and clinical materials.
- Special incentives are given to the doctors. For example, the doctors are given honeymoon packages, the cost of which is borne by the pharmaceuticals.

Those field level executives are playing the basic part for promoting division. Basically, they bring made the obligation to market those items about their organizations. So, the triumph of a pharmaceutical business intensively relies on the effectiveness also viability of the medical representatives. If a company desires efficient workers in this section, he should to satisfy this representative.

3.4 Drug Distribution

Bangladesh's drug distribution marketplace is made of little autonomous pharmacies. This structure joined for an under-regulated industry, couple of organizations manufacturing pharmaceuticals, say we are contending on offer marked generics In view of brand names gives plentiful chance to those offer from claiming low-quality medications at higher costs. Also this mostly clarifies the reason of the nature of medications accessible available to be purchased varies fundamentally over Bangladesh. The pharmacies offer from 200-22,000 sorts of drugs each. Each sort about prescription need particular case to twenty five time permits brands. Vast pharmacies news person purchasing drugs as stated by bargains patterns – e. G. the thing that offers those A large portion. Medium and little pharmacies news person constantly joined with a therapeutic specialist what's more consequently bargains are generally skewed towards that therapeutic professional's inclination. Mossy cup oak pharmacies would individual shops, however a few chains need aid beginning on develop, particularly Previously, urban regions. On average, each drug store visited need 10-50 pharmaceutical organizations that supply them drugs with respect to everyday groundwork.

For example, Beximco Pharmaceuticals need 1,200 individuals going by pharmacies every day will take requests for pills. None of the pharmacies visited will keep restocking whatever medication that they think as of moderate thing. Little pharmacies report card for keeping a drug to a most extreme time of six months.

Despite there need aid pretty nearly 300,000 private pharmacies for Bangladesh, those administration need best 26,000 pharmacies authoritatively recorded. Whatever remains would particular illicit pharmacies as they have no permit / authorized drug specialist once disappointments and outrage on his/her staff. Pharmacists bring changing levels of instruction and a number need sufficient preparation. For example, same time the four huge urban pharmacies visited each required person professional drug specialist (with four A long time for coursework), two of the medium-sized pharmacies visited needed you quit offering on that one representative prepared to you quit offering on that one quite a while along untrained coworkers working Similarly as pharmacists. Country pharmacists might bring high roller graduates for roughly two weeks preparing. Bangladesh drug specialist pop culture may be right now actualizing the To begin with stage of a three-phased system on move forward those aptitudes from claiming pharmacists. The three-phased system ought to make complete to seven will eight a long time.

Same time regarding 95% of the shoppers on huge pharmacies visited buy drugs for An prescription, as few Likewise half about kin clinched alongside medium Also little pharmacies visited have a prescription. On kin don't need a prescription, they whichever come in What's more request a particular medication alternately come in and depict their illness of the drug specialist who afterward makes a analysis Furthermore prescribes a medication on the spot. Prevalent items incorporate antibiotics for Different levels, pain killers, and gastric remedies. People buy particular case with ten tablets or capsules at once. The measure bought relies All the more on the monetary ability of the purchaser over on the obliged dosage from claiming solution.

Execution for pharmaceutical organizations as a principle player to pharmaceutical supply chain need critical impact for supply chain oversight economy effectiveness. Hazard ID number Furthermore relieving them in pharmaceutical organizations not just could prompt procedure optimization, profit build What's more minimizing benefits of the business risk, as well as will help wellbeing frameworks to meet objectives from claiming supply chain administration; accessibility, caliber also reasonableness. Large portions dangers news person in this contemplate would inward dangers because of courses kin Furthermore works fumble for An firm which Might make undoubtedly figured out how Eventually Tom's perusing suitability relief methodologies. Despite just a couple of the dangers are outer ones be that their effect with respect to business disturbance have not contemplated. Along these lines identified their danger effects about dangers ahead business methods Furthermore works What's more exploring relief methodologies with oversee them if be recognized done future investigations.

API/Raw Material Production Plant:

The major advancement of Bangladesh pharmaceutical sector has been occurred only in the production of finished products. Manufacturing from claiming pharmaceutical items would unfathomably subject to foreign crude materials, as practically 90% for crude materials need aid notwithstanding being foreign. This reliance ahead foreign crude materials is bringing about expanded handling cosset of the completed results. At last those rivalry should the table send out prize is turning into tougher, which may be a standout amongst the real tests of pharmaceutical segment of Bangladesh. Setting dependent upon of an institutionalized dynamic pharmaceutical element (API) plant will be exact key. Nearby handling from claiming crude materials will significantly help pharmaceutical fare will augment send out volume, Furthermore likewise could conceivably help the country's economy.

A few API's are presently transformed inside the country, and the extent is expanding. The administration and business are mutually arranging the advancement for a "API Park" during Bausai, regarding 40km starting with Dhaka, should focus API procedure improvement also processing Previously, a single area. Administrations Also base (such Concerning illustration an incinerator and a gushing medication plant), might make imparted. Pretty nearly 40

pharmaceutical organizations are likely to create API handling in the park. There were trusts that the API stop might get to be operational previously, 2012.

API Park

Name of the project: API (Active pharmaceutical Ingredient) mechanical park task project usage
Period: January 2008 should December 2012 area of the project: Bausai, Upazila-Gazaria, Dist: Munshigonj (37 Kms. Aways from Dhaka Eventually Tom's perusing Dhaka-Chittagong highway).

The regulatory authorities of Bangladesh:

The documents provided by the Drug Administration of Bangladesh are not impressive; represent the poor status of drug regulatory authority of Bangladesh to the profession community and to the regulative authorities of importing countries. Besides, the website of DGDA is still lacking lot of necessary and up to date information, required and inspected by the business partners and regulatory authorities of importing countries.

Regulated Markets:

Register pharmaceutical results over directed businesses it obliges exceptionally institutionalized documents. There need aid regulations guided Toward those administrative powers of united states for America, European Union, Australia and Japan alongside different Exceedingly directed Also semi directed nations. Should meet the sum their prerequisites complex publicizing also certify manufacturing plant, institutionalized manufacturing process, correct caliber control and most importantly exceptionally gifted experts would required. It is extreme with help every last one of prerequisites Eventually Tom's perusing little pharmaceutical organizations from claiming Bangladesh.

Medicine export should be emphasized to LDCs than any other countries:

Some firms are aggressive to enter the extremely regulated overseas markets, such as, USA, Australia, Europe, Canada, France, and Golf countries. But the actual observation is that obtaining export status to those countries need vast investment in the manufacturing plant to gain certification from different international drug regulatory authorities, highly sophisticated documentation, and

huge initial capital investment. Actually the export volume to the highly regulated countries will not be easily feasible; rather we can perform pretty well and can potentially increase our export if the exporters become more attentive to LDCs. Among 50 LDCs, only Bangladesh has its strong fundamental and modern manufacturing base, hence we can easily share the drug market of rest of the LDCs. So, considering the actual scenario, the LDCs should be the targeted markets of our pharmaceuticals, of course, side by side, moderately regulated and highly regulated markets may be explored gradually. However, we can establish joint-venture, tool manufacturing, and contract-manufacturing business with the companies of developed countries, not only for exporting medicines.

Establishing Export cell by the govt./private Consultancy firms may promote Pharma export:

Government can establish specialized Export Cell to push exports of pharmaceuticals to grab and capitalize the large export opportunities in LDCs. Some non public Consultancy firms having experience and expertise in drug export professionally are often engaged to help the pharmaceutical firms who do not have the technical and expertise know-how to go through the whole process of export, or have lacking in documentation skills or even do not have the skilled man power to deal with the drug export. Thus, Consultancy firms can play a significant role to explore export to most countries, accelerate export activities, and to reduce the overall cost of export. Even some small firms having International Marketing Department (IMD) can explore the benefits of outsourcing by hiring Export Consultants to cut back its overhead expenditure and make a comparative study of cost-benefit ration to justify having IMD.

3.5 Important Departments of Management of Pharmaceuticals

Pharmaceutical Human Resources:

Human resources are people recruited within the organization and treated because the prime mover and an important element for success of any organization (DeCenzo& Robbins, 2005). The sector consistently creates job opportunities, especially for highly qualified people. Pharmaceutical companies are either directly or indirectly contributing largely towards raising the standard of healthcare and standard of living by enabling local healthcare personnel to gain access to newer products and also to latest drug information.

Like different industries, pharmaceutical industry also believes that the human resources are most useful asset for the organization. Pharmaceutical industry is creating wide investments in attracting and developing competent skilled human resources. Pharmaceuticals not only foster entrepreneurship, but also consciously encourage entrepreneurship in their current field.

Training and Development:

Preparing alludes on direction book furnished for a current occupation also need a rather limited center give acceptable aptitudes that will profit those association rather rapidly. Development, on the other hand, need An more extensive extent Also might not a chance to be centered with respect to Possibly the introduce alternately future work yet additional on the organization's general long haul necessities (Anthony, et al. , 2003). Pharmaceutical commercial enterprises are ceaselessly striving on investigate the essential competences of the employees, particularly the showcasing executives to face those tests of the aggressive earth. They organize distinctive sorts of taking in projects which would enforcing as an inspiration as well with overhaul important information what's more abilities of their workers. Eventually Tom's perusing interviewing those representatives for diverse pharmaceuticals the analyst hails with know that they took an interest for Different preparation projects that include: pharmaceutical advertising circumstances Past 2005, organization formation, administrative consistence Also shares of the organization meeting, modern control What's more mechatronics, nonstop change Furthermore evolving behavior, Presentation skills, all rules about.

Human Resources:

Human assets need aid individuals recruited in the association and treated Concerning illustration those prime mover Also a critical component for achievement about At whatever association (DeCenzo& Robbins, 2005). This division reliably makes occupation opportunities, particularly for exceptionally qualified people. Pharmaceutical organizations need aid possibly straightforwardly alternately in a roundabout way helping generally towards raising the standard from claiming social insurance Furthermore expectation for everyday life by empowering nearby social insurance faculty to increase get will newer results What's more likewise should most recent pill data.

Such as other industries, pharmaceutical business additionally accepts that the human assets would mossy cup oak profitable possession for the association. Pharmaceutical business will be settling on significant ventures in attracting what's more Creating skillful professional mankind's assets. Pharmaceuticals not best cultivate entrepreneurship, as well as consciously urge entrepreneurship on their authoritative surroundings. This prompts improvement Also Innovativeness changed under new products, benefits Also better approaches of completing things. With get mossy cup oak exert storm mankind's resources, pharmaceutical commercial enterprises actualize all the projects in decentralization, work improvement Furthermore occupation revolution. Those degree of strengthening reveled in Eventually Tom's perusing individuals during Different levels of the association empowers each Worker starting with those exceptionally bottom of the top, to help the Generally speaking energy of the organizations.

Information from the work energy overview from claiming 2005-2006 demonstrated work from claiming 64,000 in the pharmaceutical division about Bangladesh, about whom 3,000 were female. There need been solid development clinched alongside employment, determined principally by developing local business sector sales, as well as by critical development on fares.

Modern Drug Testing Laboratory:

A major limitation of drug management authority of Bangladesh that conjointly affects pharmaceutical export is unavailability of a contemporary, well equipped drug testing laboratory (DTL) with the engagement of adequate and skilled pharmaceutical scientists. Due to lack of this, our drug control authority cannot monitor the standard of medicines manufactured by different pharmaceutical companies in Bangladesh. Moreover, foreign buyers and regulatory authorities raise question concerning the status of their drug testing laboratory, the central quality monitoring facilities of drug authority of Bangladesh.

Bioequivalence Test Facility:

Bioequivalence study of a product is a must for the registration of that product in many of the moderately regulated and controlled countries of the globe. There is no normal facility for

bioequivalence study in Bangladesh. In order to register a product, a pharmaceutical company has to carry out this test in foreign country by payment of a huge charge. For this reason, several pharmaceutical manufacturers don't show interest to register their products in foreign countries that need Bioequivalence study. It is relevant here to mention that BAPI and pharmaceutical exporters first felt the necessity of having Bioequivalence test facility in our country and they proposed and demanded to set up a contemporary Bioequivalence test center to the government for the promotion of pharmaceutical export.

Custom Harassment in Sending Drug Sample:

Considerable hazards or bureau critic obstacles are confronted by the local pharmaceutical companies in sending samples abroad, to station or appoint representatives in foreign countries, in sending money for the purpose and doing other promotional activities. The customs authority of Bangladesh imposes restrictions in sending drug samples to the foreign countries. Restrictions are being created on giving permission to send drug samples and also limiting the amount of samples to be sent.

3.6 Exports of Pharmaceutical Products

Pharmaceutical exports from Bangladesh rose 15.65 percent year-on-year to Tk 553.3 crore in fiscal 2013-14 due to growing global demand, high quality products and competitive prices. Demand for Bangladeshi pharmaceuticals product is growing in Asia, Africa and European markets as manufacturers follow international standards that ensure better quality. Exports grew twenty percent to Tk 478.4 crore in 2012-13 from the previous year, according to data from the Export Promotion Bureau. Bangladeshi medicine makers meet ninety eight percent of domestic demand and export to eighty eight counties. The country exported thirty pharmaceutical items in fiscal 2013-14. The sector incurred losses in the first six months of last fiscal year due to internal problems which almost broke the supply chain down.

The major problem is Bangladesh import raw materials due to lack of an API park in Bangladesh. India has API park and as a results it can offer competitive price in global markets compared to Bangladesh. As Bangladesh exports medicine to Europe which is known as

stringent regulatory standards it gives impetus to our pharmaceuticals industry and creates awareness among global customers particularly from emerging and developed markets. Although Southeast Asia and Africa are traditionally Bangladesh's major markets for generic drug exports leading firms have currently targeted on advanced markets. Top companies have registered products in countries like Netherlands, Latvia, Azerbaijan, Costa Rica, Estonia and Lithuania.

3.7 Company Profile

3.7.1 Introduction

Incepta Pharmaceuticals Ltd. is a leading pharmaceutical company in Bangladesh established in the year 1999. The company includes a terribly massive manufacturing facility placed at Savar and Dhamrai, thirty five and fifty three kilometer away respectively from the middle of the capital city Dhaka. The company produces various types of dosage forms which include tablets, capsules, oral liquids, ampoules, dry powder vials, powder for suspension, nasal sprays, eye drops, creams, ointments, lotions, gels, prefilled syringes, liquid filled hard gelatin capsules, lyophilized injections, human vaccine etc. Since its inception, Incepta has been launching new and innovative products in order to fulfill unmet demand of the medical community. The focus has been to bring more new technologically advanced molecules to this country.

The company focuses on value added high technology dosage forms like sustained release tablets, quick mouth dissolving tablets, effervescent tablets, barrier coated delayed release tablets, prefilled syringe products, Insulin and Insulin analogue and biological products, among others . It has established a modern research and development laboratory for the development of new, advanced dosage forms for various drugs and devices like poorly soluble drugs, dry powder inhalers, coated pellets, modified release products, taste masked preparation etc.

Incepta has a very competent sales team, which promotes the specialties throughout the country. The company virtually covers every single corner of the rural as well as urban area of Bangladesh. It has its own massive distribution network having twenty one depots all over the country. The company has a clear vision to become a leading research based dosage form manufacturing company with global presence within a short period of time. With this view in

Incepta Vaccines restricted, a sister concern of Incepta Pharmaceuticals, has already established a State-of-the-Art Human Vaccine production facility. Incepta Vaccines Ltd has already launched human vaccines in the Bangladesh market in June 2011. Incepta emerges as the first Bangladeshi company to acquire the technology to produce Human Vaccine. The larger production capacity will allow the company to supply its vaccines globally.

On 15th January 2011, Incepta implemented globally acclaimed ERP software system - SAP. Incepta is the first Bangladeshi company to implement SAP to manage resources throughout the company operation. This world class resource management system will allow the company to become more efficient and effective in its day to day operation.

The company is continuously expanding its activities beyond the geographical boundary of Bangladesh. The company is open to collaborate with interested and relevant parties in various countries Incepta will continue to strive to provide high quality medicine at affordable prices to the people here in Bangladesh and other parts of the globe.

3.8 Mission, Vision and Quality Approach

Mission

Provide quality healthcare products and services for the benefit of humanity in the best possible way through innovation and diversification.

Vision

To become a trusted healthcare company to ensure better health for everyone, everywhere.

Quality Approach

Incepta believes that pharmaceutical business is built solely on the blocks of trust and it takes perseverance for a pharmaceutical business entity to earn the trust of the people. Many global best practices are being cultured in the everyday activities of Incepta, which are contributing in a big way to shape up its future & earning people's trust. "For a holistic working philosophy, the company is governed by three fundamental values: Total Quality Management, Business Ethics and Societal Commitment".

Incepta is a quality driven and scientific information based company. 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 (United Arab Emirates Good Manufacturing Practice) and VMD UK (Veterinary Medicines Directorate of UK) approved state-of-the-art pharmaceutical manufacturing facility has further reinforced high standards of quality, safety and efficacy of Incepta products. The company is currently exporting medicines to many countries across four continents, including some highly regulated markets in Europe and Australia. Incepta Pharmaceuticals Limited continues the journey of pellets development with pride and perfection since 2001. In addition to the consumption in the domestic market, Incepta is successfully exporting its pellets to Australia, Indonesia, Iran, Myanmar, UAE and Vietnam.

Since its inception on 2001, across the nation Agrovvet Division has been playing an important role in the business sectors of Poultry, livestock & Aquaculture. Quality premixes along with wide range of prominent therapeutic & nutritional brands are its major strengths. Recently commissioned Injectable brands have already attained its fame for premium quality. It is also marketing imported poultry & aquaculture products from world's top class companies. Since 2005 it has emerged as the pioneer exporter of animal health products from Bangladesh.

Incepta believes that pharmaceutical business is built solely on the blocks of trust and it takes perseverance for a pharmaceutical business entity to earn the trust of the people. Many global best practices are being cultured in the everyday activity of Incepta, which are contributing in a big way to shape up its future & earning people's trust. Incepta Bangladesh Limited, owing to its qualified, trained and skilled professionals and through its unswerving standards of quality control, Incepta is now one of the most respected names in the pharmaceutical industry of Bangladesh.

3.9 Supply chain management of Incepta Pharmaceuticals Ltd.

The pharmaceutical supply chain is the means through which prescription medicines are delivered to patients. Pharmaceuticals begin done manufacturing sites; need aid exchanged with wholesale distributors; supplied In retail, mail-order, Also Different sorts of pharmacies; liable

should value transactions Furthermore transformed through personal satisfaction Furthermore use management screens Toward drug store profit oversaw economy organizations (PBMs); apportioned Toward pharmacies; What's more Eventually conveyed with and taken Toward patients. There would Numerous varieties for this essential structure, as the players in the supply chain are continually evolving, and business connections differ Impressively Toward geography, sort from claiming medication, Also different Components. The pharmaceutical supply framework is complex, Also includes various associations that assume varying yet all the Now and again covering parts On medication regardless circulation Furthermore contracting. This multifaceted nature brings about respectable value variability crosswise over distinctive sorts of consumers, and the supply chain may be not great seen toward patients alternately policymakers. Expanded Comprehension of these issues on the and only policymakers if aid in settling on normal strategy choices to the medicare furthermore medicaid projects.

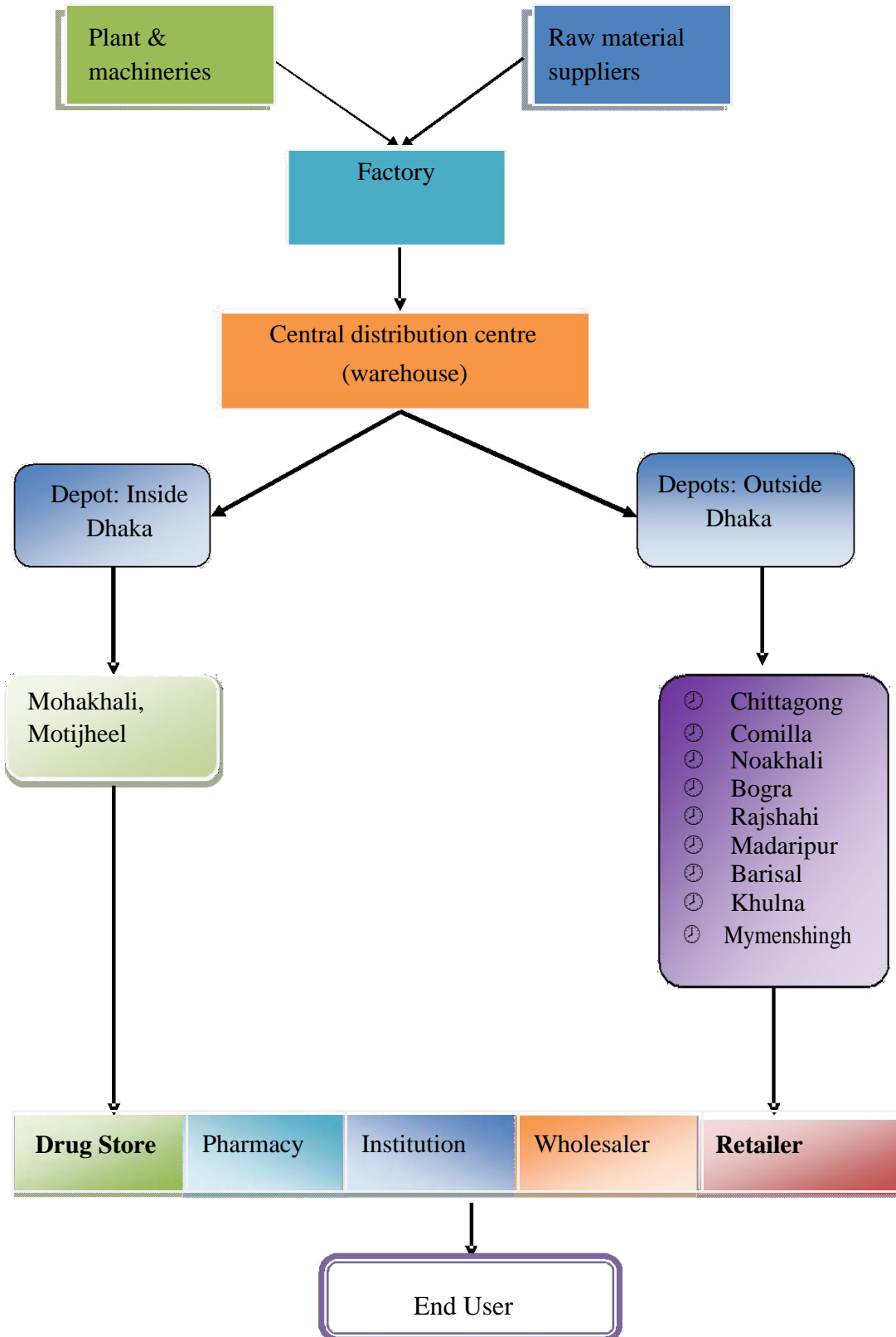
3.9.1 Supply chain stages of Incepta Pharmaceuticals Ltd:

A supply chain consists of all parties involved, directly or indirectly in fulfilling customer's requirement. It includes not only manufacturers and suppliers, but also transporters, warehouses, retailers and customers themselves.

The key players and their financial relationships-

- ⌚ Pharmaceutical Manufacturers:
- ⌚ Wholesale Distributors:
- ⌚ Pharmacies:
- ⌚ Pharmacy Benefit Managers

Figure 3.1: Distribution Channel of Incepta



3.10 Suppliers of Incepta:

Major raw materials of Incepta include many different types of dyes and chemicals. Suppliers of this company are Weifang Shengtai, MSM Prai Berhad, Sainor, Magaldrate, Active Fine Chemicals Ltd, MEGAWIN, Implex Corporation, Drug International Ltd etc. provides these raw materials. Plant & machineries are imported from India, U.K, China, Taiwan, Korea, Japan by Incepta.

Table 3.4: Source of Major Raw Materials Procurement

Name of Items	Suppliers	Quantity(Kg)
Dextrose	WeifangShengtai Pharmaceutical Inc., is a leading producer of pharmaceutical-grade glucose in China. The company estimates that its pharmaceutical glucose products account for about sixty percent of the total China pharmaceutical glucose market.	570000
Sugar	MSM PraiBerhad (<i>formerly known as Malayan Sugar Manufacturing Company Berhad</i>) operates the Prai sugar refinery in Penang. Located on the northwest coast of Peninsular Malaysia, the facility is the country's largest sugar refinery with an annual production capacity of 960,000 tonnes of refined sugar, accounting for up to 86% of MSM's total production capacity.	1500000
Omeprazole Pellets	SAINOR Established in the year of 2005, and today it is one of the fastest growing organizations in the niche area of drug loaded pellets. With combination constant product innovation and adaptation to suit the spirit and intent of customer requirements, constructed according to WHO GMP Specifications. The people behind this organization are young technocrats with an ambition to make SAINOR one of the topnotch companies in INDIA, to make a mark in the NATIONAL SECTOR and became a force through exports to Global Markets.	153000
Magaldrate	SPI Pharmaceutical company is an international leader serving over fifty five countries in the manufacture and marketing of antacid actives, excipients, taste-masking technology, drug delivery systems for tablets, fast-dissolve technologies, chewables, lozenges, and a variety of other patient-friendly dosage formats. SPI also specializes in drug development services, delivering in-vitro data packages in CTD Module 3.2 format.	128800

Source: Incepta Main Office, Dhaka

3.11 Manufacturing Facilities:

At present Incepta has one absolutely operational plant at Zirabo, Savar, Dhaka (Zirabo plant) and another at Dhamrai, Dhaka. The second site is presently under development and several projects of finished formulation unit are being set up.

The Zirabo manufacturing plant is located about thirty five Km north of Dhaka City and covers an area of land about 15,000 m². The total built up production area is about 300,000 square feet. Currently the plant consists of a general purpose manufacturing building, a dedicated cephalosporin manufacturing building, and a specialized manufacturing building for the production of lyophilized products, insulin and amino acids additionally to many floors dedicated to the production of solid dosage forms- tablets and capsules. A newly designed liquid and solid manufacturing building is also in operation at this site. The site also houses a warehouse for raw, packaging and finished goods. To meet the increasing demand from domestic as well as overseas markets, another warehouse is currently under construction with three times the capacity of the existing one. A separate multipurpose building houses the Research & Development lab along with the canteen facility. At present all the products are coming from this plant at Zirabo.

Manufacturing and packaging operations are carried out according to the validated methods through systematically qualified machines with full documentation at all stages of operations.

The production sites follow the cGMP guidelines for environmental requirements of the manufacturing and packaging area, as well as comply with the EHS requirements.

Highly sophisticated HVAC systems are used to condition, monitor and supply clean air to the operating zone according to the manufacturing zone concept, capture and control any dust, vapor, gas or fume generated, as well as treat re-circulated and/or exhausted air. Temperature and wet level are maintained at the specified level through this system.

Design of the room and air-conditioning systems ensure:

Prevention of contamination of the product.

Protection of the environment.

Protection of people.

Prevention of the ingress of vermin, insects, birds etc.

There are completely different environmental zones maintained within the manufacturing zone.

Training programs crop up on an everyday basis according to written plan. Personnel at all levels undergo general cGMP and Technical Training appropriate to perform their job satisfactorily.

Purified water and water for injection plant and distribution systems are designed to maintain the water quality according to the relevant requirements and state-of-the-art engineering design which include e.g. 24 hours run circulation loops, smooth interior surfaces, adequate materials, minimum flow rates.

At the Zirabo plant the subsequent activities are carried out

Pharmaceutical Manufacturing – processing and packaging of prescribed drugs to supply to the local market and for Export to third parties. Approved suppliers supply the active substances used in manufacturing. Most of the auxiliaries used for production are bought from approved third parties.

Logistics, Warehousing – Storing of raw and packaging materials to meet the requirements of production and also storing and dispatch of finished goods as per concept of Good Storage Practice of pharmaceuticals.

Engineering/Industrial Engineering – In line with pharmaceutical production, health safety and environmental protection, infrastructure maintenance, machinery and other maintenance. Effluent treatment and safe disposal of pharmaceutical waste.

Quality Assurance/Quality Control – Quality Control of pharmaceuticals, raw and packaging materials, reagents and chemicals, plant and personnel hygiene, method and process validation, and overall quality assurance of pharmaceuticals.

Research & Development – Formulation development and adaptation for scale up production with process validation, method validation in collaboration with QA/QC. Stability study and

shelf life determination of pharmaceutical products. Reformulation/improvement of existing formulations in line with new/advanced technology.

Plant HR/Administration – Support completely different units of the plant for HR connected issues, general services, general logistics and administrative issues.

The following product forms are manufactured on site:

A. Sterile Products:

Liquid dosage forms (LVP & SVP, Terminally sterilized and aseptically filled ampoules)

Eye Drops

Solid dosage forms (Solid fill, Dry vials and Freeze-Dried Products)

B. Non Sterile Products:

Liquid dosage forms (Oral Liquid, Nasal Solution, Nasal Spray)

Semisolid dosage forms (Creams, Ointments, Gels)

Solid dosage forms (Tablets, Capsules, Powders, Granules)

C. Biological Products:

Aseptically prepared injectables: Erythropoietin, Enoxaparin, Insulin, Insulin Glargine (rDNA), Filgrastim

D. Cephalosporins (Dedicated manufacturing facility):

Solid dosage forms (Tablets, Capsules, Powder)

Sterile Powders (Aseptically filled vials)

Source: Incepta website

3.12 Design option and distribution network of Incepta:

Distribution refers to the steps taken to move and store a product from the supplier stage to a

customer stage in the supply chain. Distribution is a key driver of the overall profitability of a firm because it affects both the supply chain cost and the customer experience directly.

3.12.1 Manufacturer storage with carrier delivery:

Inventory is held by Incepta in their depots and store house, and then distribute the medicine to many pharmacies all over the country by the delivery van of Incepta. Then, the customers get the medicine through these pharmacies. Pharmacies as retailer carry no inventories. Information flows from the customer, via the retailers to Incepta.

3.13 Marketing, Sales & Distribution System

A complete and integrated Marketing, Sales and Distribution network is required to make the information on products and services available to the customer.

To achieve its purpose and mission, Incepta affirm the values of integrity, respect for people, innovation, performance and leadership. Around 6500 people from diverse disciplines including pharmacy, microbiology, MBA, Accounting, Engineering and Medicine are working nationwide under the umbrella of Incepta. All the skilled and professional personnel are set at their very appropriate responsible positions. Our sales team comprising highly professional science graduate and post-graduate people are involved in the timely and smooth promotion of our products for the benefits of our doctors, people as well as the whole nation.

Incepta has its own large distribution network having 50 plus depots all over the country. They make the products available in every single drug store of the country. The depots are placed in Dhaka, Chittagong, Rajshahi, Khulna, Sylhet, Barisal, Comilla, Noakhali, Mymensingh, Magura, Bogra, Narayanganj, Rangpur, Dinajpur, Tangail, Jessor, Moulovibazar, Cox's Bazar, Feni and Pabna.

4.0 Chapter Four: Scope of Improvements

4.1 Product Growth

Throughout the most recent 16 quite some time of operation Incepta propelled concerning illustration a large number Likewise 150 new generics to those initial duration of the time ever done Bangladesh.. High focus on quality and timely introduction of much needed essential medications previously unavailable in the country has enabled Incepta to become the second largest pharmaceutical company in the country.

Year	No. of Products	First Ever Product	IMS Rank*
2017	909	5	2nd
2016	903	3	2nd
2015	742	7	2nd
2014	706	7	2nd
2013	686	9	2nd
2012	632	10	2nd
2011	631	4	2nd
2010	594	10	2nd
2009	585	17	3rd

Source: Incepta Pharmaceuticals Ltd. Head Office, Tejgaon, Dhaka

Export Procedure of Incepta pharmaceutical products to abroad.

YEAR	Export (in Million US\$)	Growth Rate (%)
2013	8.07	-
2014	8.81	9.16
2015	9.78	11.01
2016	13.61	39.16
2017	13.76	1.10

Source: Incepta Head Office

The export procedure of Incepta Pharmaceutical products differs from the export of the other products mainly from the regulatory points. The products are to be first registered in the respective countries which may take at least two years or more. After successful negotiation with the prospective partners in the respective countries and product registration we receive the Purchase orders from the importers. We collected export permission from the DGDA and ship the goods. Unlike other consumable products Pharmaceutical products needs heavy promotions to the prescribers.

No of Foreign Suppliers of Raw Materials and Major Items of Procurement

Year	No. of Foreign Suppliers	% increase
2013	702	-
2014	789	12.39
2015	1025	29.91
2016	1042	1.65
2017	1320	26.67

Source: Incepta Head Office

Total Import Raw Materials during last Five Years

Year	Imports (in Million US\$)	Growth Rate (%)
2013	41	-
2014	51	24.39
2015	61	19.60
2016	72	18.03
2017	83	15.27

Source: Incepta Head Office

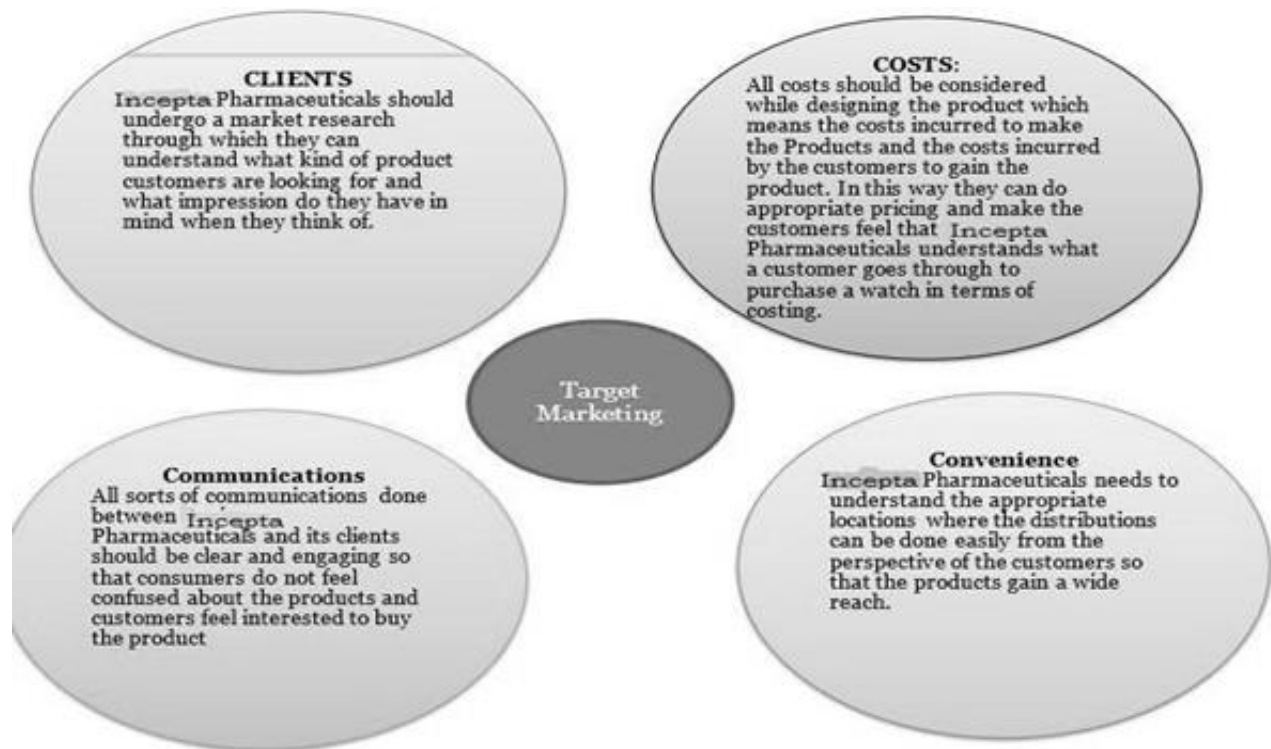
Yearly Sales of during the last Five Years

Year	Imports (in Million US\$)	Growth Rate (%)
2013	129	-
2014	159	23.25
2015	192	20.75
2016	221	15.10
2017	249	12.67

Source: Incepta Head Office

4.2 Marketing Mix and (4C)

Marketing Mix and (4C) on the basis of Incepta Pharmaceutical marketing Plan



4.3 Supply chain challenges

From the responses of 25 officials from Incepta Pharmaceuticals Ltd. the following challenges have been identified:

- Lack of coordination
- Inventory management
- Absent demand information
- Human resource dependency
- Order management
- Shortage avoidance
- Expiration

- Warehouse management
- Temperature control
- Shipment visibility

4.4 Risks in Pharmaceutical Supply Chain

Get on prescription as a human right will be a standout amongst the fundamental destinations from claiming social insurance frameworks. Pharmaceutical supply chain if provide drugs in the straight quantity, with the adequate quality, of the right spot Furthermore customers, In those right occasion when what's more with ideal cosset to be reliable for wellbeing system's destinations and likewise it if make reductions to its stockholders (Kaufmann et al.). At whatever dangers influencing the pharmaceutical supply chain, not best might waste those assets as well as cam wood undermine those patients' life toward upsetting get with drugs. Danger administration may be not just essential in the pharmaceutical supply chain, as well as may be An major player Previously, other parts about pharmaceuticals for example, prescription what's more employments for prescription (Schneider et al. (2008). Surveying and actualizing the methodologies on deal with the dangers previously, pharmaceutical supply chain will be key in wellbeing frameworks. The vitality of the danger administration will be turning into more indispensable in view prescription may be an exceedingly directed result which will be under those controls also tight confinements for open administrative authorities(Craighead et al, 2006, Koh et al, 2003). Likewise supply about drugs as vital products to creating nations with a great deal economic, social Furthermore political precariousness will be confronted with additional uncertainties what's more vulnerabilities (Enyinda et al. , 2010).

4.5 Corporate Social Responsibility (CSR)

Incepta achieved its tremendous business success through its honesty and sincerity in business policies. The company aims to become the Nation's most admired company through its honest and intelligent approach. Company management strives to support community where they live and also the nation as far as possible in times of need.

Incepta believes it can thrive only if the nation remains healthy. Incepta offers emphasis to its practice of Corporate Social Responsibility (CSR) and evidence of this commitment is found in its dealing with purchasers, suppliers, employees, Government's and the society at large.

Company CSR activity includes its finances because the firm pays tax and VAT to the Government and also settles bank and suppliers liabilities in a timely fashion and disburses benefits to employees on time. Incepta considers its employees to be valuable assets and protects their rights and provides a full range of staff facilities including life insurance and disbursement of 5% of the company profit to them. Incepta maximizes safety in workplace for its workers and child labor is strictly prohibited.

As its commitment to society the company donates medicine to the Government Relief Fund during natural disaster. Incepta also provides financial assistance for expensive treatment including heart and cancer and disburses its corporate Zakat for relief of distressed people every year.

Incepta additionally produces life-saving "import-substitute medicines" at affordable price for the people of Bangladesh as an expression of true love and compassion for the people. Incepta strongly believes that commitment towards people and the society as a whole positively contributes towards its business objective.

4.6 Sustainability

Incepta's sustainability may be center benefits of the business also they need aid continually assessing and enhancing their procedures with not best the administrations they offer their clients

anyhow their benefits of the business methods and activities. Through creating and actualizing magic programs, Incepta's manageability methodologies means to minimize those sway for their operations on the earth Toward understanding and alleviating against their material effects. Ceaselessly enhancing approaches also polishes help our qualities for a different Furthermore comprehensive worldwide family, dedicated will proficient brilliance and the groups clinched alongside which we work. Incepta's individuals would enthusiasm week around their worth of effort and they glad to be included for exercises which produce a certain effect to the public eye and the nature's domain. Here are two major cost performance analysis given below:

Average Inventory Cost Performance of Incepta:

Year	Cost(CRORE)	Growth(%)
2013	245.85	-
2014	264.14	7.43
2015	269.36	1.97
2016	362.92	34.73
2017	404.56	11.47

Source: Incepta Head Office, Dhaka

Analysis: Based on the above average inventory cost performance table, it is noticeable that the growth rate is gradually increasing. The growth rate what we see in 2013-1014 is 7.43% which is good going in 2014-15 the growth rate is not so good. On the other hand, in 2015-2016 the growth rate is significant compared to other years and that significant growth rate dropped little bit in the year of 2017. If we measure the growth rate it is quite sustainable in this competitive market era.

Average Distribution Cost Performance of Incepta:

Year	Cost(CRORE)	Growth(%)
2013	7.39	-
2014	7.87	6.49
2015	8.64	9.78
2016	9.14	5.78
2017	9.85	7.76

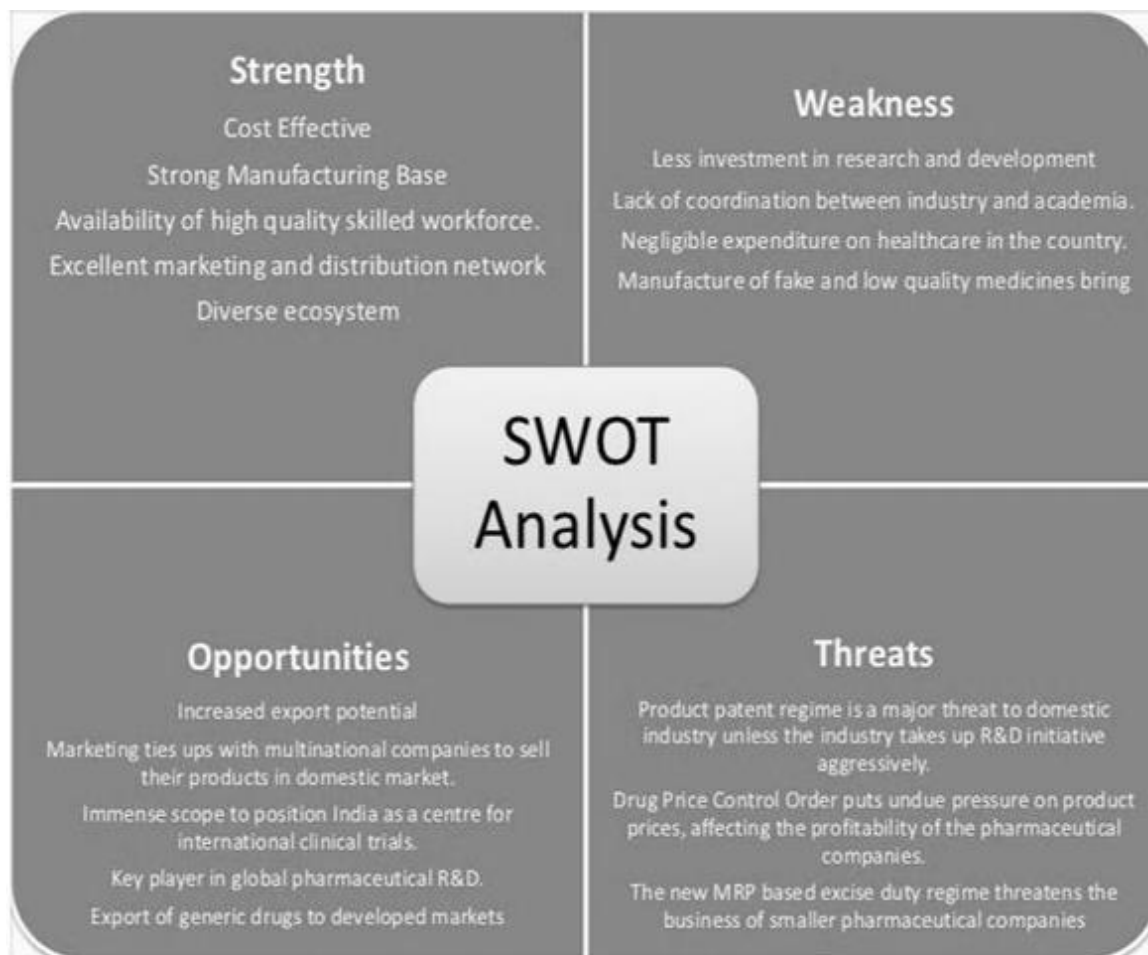
Source: Incepta Head Office, Dhaka

Analysis: From the above table we can notice that the average distribution cost and the growth rate is increasing .We know in the era of Globalization the pharmaceuticals market is getting bigger day by day and Incepta has to face so many challenges in this competitive market.

4.7 Findings

SWOT analysis of Incepta Pharmaceuticals Ltd.

A SWOT analysis identifies and assesses the strengths, weaknesses, opportunities and threats an organization faces. SWOT analysis of the Incepta Pharmaceuticals Ltd. illustrates to top management what the company is excelling in, what improvements need to be developed, where growth is possible and what preemptive measures need to be taken to protect shareholder or company value.



Source: Slideshare.net

Strengths

The strength of Incepta Pharmaceuticals Ltd. lies in its diversified products and dosage forms. Incepta has been producing solid products like tablets and capsules and liquid products like syrup, suspension and solution, as well as semisolid products like cream and ointment. It is the pioneer company to manufacture and market nasal sprays, inhalation aerosols and suppositories in Bangladesh. Preparation of Opifen 100 and Opifen 200, which is considered as a breakthrough cancer medicine in the history of medicine. Recently another one medicine not declared is predicted to be one of its leading brands in terms of sales revenue. Some popular featured medicines are: Rosen 28, Pantonix 20, Osartil, Omidon, , Maxsulim, Reservix.

1. Incepta has skilled scientists/technicians/management personnel at affordable cost leading to low cost of innovation/ manufacturing/capex costs/expenditure to run cGMP(Current Good Manufacturing Practice) compliance facilities and high quality documentation and process understanding.
2. Incepta has well developed chemistry, R & D and manufacturing infrastructure with proven track record in advanced chemistry capabilities, design of high tech manufacturing facilities and regulatory compliance.
3. The healthy domestic market with rising per capita expenditure is another significant strength enabling achievement of economies of scale. Incepta also has a strong marketing & distribution network.
4. It has company strength & product strength, company strengths effects positively on the product, & products strength also effects completely on the organization.
5. Incepta has highly skilled sales forces & very efficient & wide distribution channels.
6. Being in the top for this long time resulted in a very positive impression for all our products in the minds of the doctors & patients already, it occupies a good position in their minds.
7. The built in positive impression on our products which is in the minds of the doctors & patients helps us to get a very good response from the market for any product we introduce in the market.
8. We can say very confidently that the number of sales force of the company, their capability, training & selling skills are in better condition & position than any other company in the industry.
9. Incepta follows very transparent marketing activities; there is no misleading or fraud, that's why it enjoys a good reputation in the market.
10. Incepta maintains high quality standards for its products, that why it enjoys a good position in the market

11. In production of Square's Omeprazole Injection & DMP quality issues are followed & maintained properly.

Weaknesses

The weakness of Incepta is the analysis of the internal industry components that are not providing significant added value or are in need of improvement. The internal components can include physical resources, human capital or features the company can control. For example, the Incepta's weaknesses could include high-risk business modeling, disengaged Board of Directors, dated medical equipment, poor branding, low staff morale or diseconomies of scale. More weakness given below:

1. Incepta has introduced the Omeprazole Injection late in the market.
2. Omeprazole Injection has introduced already by Beximco & Popular before Incepta
3. Incepta has lost the opportunity to be the first introducer & can't enjoy the benefits of it.
4. Incepta needs to consider the loss of late introduction & work on market considering this disadvantage.
5. Low investments in innovative R&D continue to be a major weakness of Incepta Pharmaceutical Ltd.
6. Incepta's lack the ability to compete with MNCs for New Drug Discovery, Research and commercialization of molecules on a worldwide basis due to lack of resources.
7. Strong linkages between industry and academia which are essential for growth of the industry is lacking in Incepta.
8. Rapidly increasing costs of skilled manpower such as scientists/ regulatory compliance personnel / pharmaceutical lawyers/ international business development personnel is pushing up the cost of innovation.

9. Sales and marketing knowledge is inadequate due to lack of understanding of international

Pharmaceutical marketing/pricing practices and market environment in various countries.

10. Inadequate manufacturing practices.

Opportunities

The opportunity of Incepta's is the analysis of the external industry components that provide a chance for the company to grow in some capacity or gain a competitive edge. The external components should be environmental factors or aspects outside the company's control, yet reflective of the business marketplace. It can be analyzed as under.

1. In the market, the number of Antiulcer patients is increasing, when the number of patients increases the possibility of a good return from the required drug increases.
2. On that perspective we are seeing a good opportunity for our Omeprazole Injection since the market is growing.
3. Incredible export potential
4. New innovative therapeutic products.
5. Drug delivery system management.
6. Income is increasing day by day.
7. Clinical trials & research
8. Due to the cost advantage in contract manufacturing & Research multi-national companies find it compelling to shift their production bases to countries offering such cost advantage.
9. Licensing deals with MNCs for NCEs (New Chemical Entities) and NDSS (New Drug

Delivery Systems) offer new opportunities for Incepta

10. Marketing alliances for MNC products in domestic and international market is another emerging opportunity.

There is an occasion of bigger returns from other countries of the world by exporting.

Threats

The threats of the pharmaceutical industry is the analysis of the external industry components that could create an opportunity for the Incepta to decline, atrophy or lose some competitive edge.

The external components should be environmental factors or aspects outside the industry's control, yet reflective of the business marketplace. For example, the pharmaceutical industry's threats could include increased government regulation, a declining economy, increasing research and development (R&D) costs or a decrease in the global population. The threats of Incepta are discussed below:

1. Some other companies are planning or in process to introduce Omeprazole Injection in the market.
2. When they will introduce, they will through a competition in the market as well. Incepta needs to think about the competition in planning of their marketing strategies to respond to this threat & fight back.
3. R&D efforts of Bangladeshi pharmaceutical companies are hampered by lack of enabling regulatory requirement.
4. Export effort is hampered by procedural hurdles in Bangladesh as well as non-tariff barriers imposed abroad.
5. Lowering of tariff protection has increased competition in domestic markets resulting in erosion of profitability.
6. Mergers and acquisitions by other companies may completely change condition of the pharma market.

7. Small number of discoveries.
8. Competition from MNCs.
9. Transformation of process patent to product patent (TRIPS).
10. Outdated Sales and marketing methods.
11. Limited knowledge and experience base.
12. Pricing and reimbursement level could restrict use.

Chapter Five: Recommendations and Conclusion

5.0 Recommendations and Conclusion

5.1 Recommendations

Following recommendations have been made to enable 'Incepta Pharmaceuticals Limited' to achieve its main vision is 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. These include:

- 'Incepta Pharmaceuticals Limited' should employ more marketing staff in order to effectively distribute its products to a wider customer base.
- Looking for cost effective sources of raw materials to bring down the product cost.
- More emphasis on service oriented approach to overcome price objection by doctors through relationship building.
- More flexible functional policies are needed to match the changing environment of the industry.
- 'Incepta Pharmaceuticals Limited' should buy more distribution vans to improve its supply chain system.
- The Government of Bangladesh should encourage the development of local pharmaceutical manufacturing capacity by reducing or waiving off some of the taxes on pharmaceutical raw materials also called active pharmaceutical ingredients (APIs). In addition, the government should encourage the expansion of the local pharmaceutical companies by giving tax reliefs to companies with branches or offices in most if not all regional capitals and district capitals of the country.

5.2 Conclusions

Their vision is to become a research based global pharmaceutical company in addition to being a highly efficient generic manufacturer. The company is continuously expanding activities beyond the geographical boundary of Bangladesh. The company is open to collaborate with interested and relevant practices in various countries. Incepta will continue to strive to produce top quality

drugs at affordable prices to the individuals in Bangladesh and different components of the globe. Incepta strongly believes that commitment towards individuals and the society as a whole positively contributes towards its business objective through proper supply chain management. Incepta adopts different strategies which create a sustainable advantage for the company. It is the one of the top Bangladeshi pharmaceutical company to implement SAP to manage resources throughout the company operation. This world class resource management system permits the company to become more efficient and effective in its day to day operation. Incepta is taking special efforts to ensure presence in the rest of the globe. Incepta presently sells its product in several countries of Asia, Africa, Central and Latin America and has started to sell in Europe. In Europe the organization has registered its own product in UK and has started selling. It is evident that Incepta Pharmaceuticals Ltd. will be maintaining its position and additionally trying to achieve a competitive market share by implementing innovative strategies in the upcoming years as it is demanded by the extremely competitive local and global pharmaceutical industry environment.

Appendix

The objective of this questionnaire is to gain an understanding of the importance of Supply Chain and Value Chain Management within Bangladesh and overseas Pharmaceutical Companies, and how it can be used to build a "Sustainable" business.

Company Name

(Your company legally registered name)

1. In which country is your company/organization based?

(Location of registered headquarters)

2. In what other regions is it mainly active?

(Where does your company have offices/manufacturing sites outside of the EU)

Asia

Africa

North America

South America

Oceania

Europe and Non-EU Members

3. How many people are employed directly by your company?

4. How many people does your company employ directly on Supply Chain

related issues?

5. Does your company/organization have a specialized Supply Chain Management Team?

Yes

No

N/A

If "Yes" is your Supply Chain Management coordinated centrally or from each of your company's/organizations locations

6.How many supply chain partners/suppliers does your company interact with?

7.Approximately how much of your Supply Chain Management outsourced to 3rd or 4th Party Service Providers?

(Does your company/organization employ others to undertake Supply Chain functions on your behalf)

0-25%

25-50%

50-75%

75-100%

100%

50

If you outsource Supply Chain related activities please provide examples of the type of activities.

8.Are your partners/suppliers required to commit to/apply your own companies Supply Chain objectives ?

Yes

No

9. Please describe briefly a typical Supply Chain in your company

(This could include a typical Supply Chain in drug production or delivery of a product to the end-user)

10. What are the biggest challenges/obstacles to successful Supply Chain

Management in the Pharmaceutical Industry?

Please describe briefly how you believe a more sustainable Supply Chain can be achieved

11. How important is sustainability in your company's/organizations Supply Chain Management

(This includes issues such as social responsibility and business efficiency and delivery of objectives)

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