



Inspiring Excellence



Internship Report on:

“Operational Activities of Supply Chain Management at Novo Nordisk Bangladesh Ltd”



Submitted To: Ms. Tanzin Khan

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Submission On: 25-01-2017



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“Operational Activities of Supply Chain Management at Novo Nordisk Bangladesh Ltd”



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diabetes®**

LETTER OF TRANSMITTAL

January 25, 2017

Tanzin Khan

Lecturer

BRAC Business School

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66 Mohakhali, Dhaka- 1212

Subject: Application for acceptance of the Internship Report on Novo Nordisk Bangladesh Ltd.

Dear Mam,

It is my pleasure to submit you my internship report on “Operational Activities of Supply Chain Management at Novo Nordisk Bangladesh Ltd” which I was assigned as a partial requirement of my graduation program. I enjoy preparing this report, which enriched my partial knowledge of the theoretical concept. I tried to reflect the operational aspects of the multinational company, which is complementary to the theoretical lessons.

I am very much glad that you have given me the opportunity to prepare this report for you and hope that this report will meet the standard your judgment.

Sincerely Yours,

Nirjhar Chakraborty

ID- 10304074

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ACKNOWLEDGEMENT

At the beginning of this report I would like to express my deepest gratitude to the Almighty. For endowing me with the ability to complete such a huge task of preparing this report as outlined. After successful completion of BBA Program, a student is required to submit an Internship report based on a chosen topic. I have been working in Novo Nordisk Bangladesh Ltd. since May 5, 2016 as an Intern. In connection to this my topic for the Internship report has been carefully and relevantly chosen as “Operational Activities of Clinical, Medical, Regulatory and Quality Department under Supply Chain Management at Novo Nordisk Bangladesh Ltd”

Before proceeding further, I would like to thank those persons without whose help and guidance it was almost impossible for me to complete this report. It would be my honor to convey my special thanks to my Honorable Supervisor Ms. Tanzin Khan, Lecturer, BRAC Business School, BRAC University, for her constant supervision, moral support, valuable instruction & helpful advice throughout the preparation of this report.

My warmest thanks go to Novo Nordisk Bangladesh Ltd. where I have completed my internship program. I would also like to thank specially Md. Javed Sobhan, Head of CMR & Quality; Ms. Aparajita Das Keya, Executive Medical Services and Mr. Rouf Sifat Bin, Executive Medical services as well. Without their help and encouragement I would have never complete this report.

I am also grateful to all senior colleagues in the office for being so cooperative to me and for not being bothered by my enthusiasm. At last I cannot help but mention the wonderful working environment and commitment of the officials that has enabled me to make best use of my time and thus enriched myself with an experience that worth more in the upcoming future.

EXECUTIVE SUMMARY

This report has been prepared on the basis of experience gathered during the period of internship at Novo Nordisk Bangladesh Ltd. Basically; it is a reflection paper which includes my learning from day to day activities on operational activities to scheduling and organized works of the company. The report mainly portrays my duties, activities, learning, achievements and other issues related to my workings during the internship tenure.

The first section of the report includes basic introduction on supply chain, origin of the report, methodology, objectives, scopes and limitations of the report.

Followed by in second part of the report it contains the overview of the organization and industry, history of Novo Nordisk and Novo Nordisk Bangladesh Ltd., structure and products of Novo Nordisk Bangladesh Ltd.

Moreover, in third part of this report consists of the duties and responsibilities which I have done so far during my internship period.

Furthermore, in forth part it gives a overview on operational activities that how Novo Nordisk runs its business through distributor and what would happen if they introduce their own distributor. Also, this part includes the SWOT analysis of this company.

After that, in fifth part of that report I tried to show some findings based on my observation about the company while working with it and suggest some recommendations through which Novo Nordisk can improve further.

Finally at last part which is sixth part, I conclude the whole report of my internship period in Novo Nordisk Bangladesh Ltd.

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CHAPTER- 01

INTRODUCTION

1. INTRODUCTION

1.1: About Supply Chain:

Supply chain is a very crucial and as well as very prominent part of an organization. Supply chain management is the active management of supply chain activities to maximize customer value and achieve a sustainable competitive advantage. Supply chain activities cover everything from product development, sourcing, production, and logistics, as well as the information systems needed to coordinate these activities. To stay competitive in the industry, companies need advance technology, new product, new method or working process and innovative research. But all these will remain unless, if there does not exist a very effective chain to convey services and products from producers to final end users. So, it is very important to have an effective and efficient supply chain system.

1.2: Origin of the report:

Internship is a part of BBA program under BRAC University. The report is originated from the curriculum requirement of BBA program. The topic of my report is “Operational Activities of Supply Chain Management at Novo Nordisk Bangladesh Ltd”. For this purpose, I have observed their functions and operational activities closely. I accommodate my Internship Program with Novo Nordisk Bangladesh and as per consultation with my academic supervisor Ms. Tanzin Khan; I chose the topic “Operational Activities of Clinical, Medical, Regulatory and Quality Department under Supply Chain Management” for my study and analysis.

1.3: Objective of the study:

The objective of the study is divided into two steps. These are given as bellow-

1.3.1: Primary Objective

The primary objective of preparing this report is to fulfill the requirement of BBA program. This contains four credits for internship and to apply the theoretical knowledge gained from the coursework of the BBA program into a specific field of real life.

1.3.2: Secondary Objective

- To acquaint with Supply Chain Management of Novo Nordisk
- To relate the theoretical learning with the real life situation
- To assemble various policy, procedure and practices regarding Supply Chain Management
- To gain a vast knowledge on how operations of departments are really takes place
- To formulate recommendations for possible improvement

1.4: Methodology:

1.4.1: Type of report:

This report is exploratory in nature focusing on qualitative analysis and description.

1.4.2: Population and Sample:

The population covers 255 regular staffs of Novo Nordisk.

1.5: Sampling Method:

Data have been collected through working, random and convenience sampling, interview, conversation, and previous documentary evidences.

1.6: Sources of Data Collection:

Data collected from primary and secondary sources.

1.6.1: Primary Sources:

- Data has been collected through working in the CMR & Q department of Novo Nordisk.
- Officials from CMR & Q department of Novo Nordisk have provided information.
- Additional information was collected through interviewing method key informant- interview, informal conversational interview and semi-structured interview.

1.6.2: Secondary Sources:

Secondary data was collected from different sources like: reference books on Supply Chain, different website on current Medical and Quality practices, annual report, and internal information system of Novo Nordisk.

1.7: Scope of the study:

The scope of this report is to cover how the theoretical concept is implemented for improving the material and parts management. For this Purpose data was collected from primary and secondary sources.

1.8: Limitations of the study:

While preparing the report, I faced some problems which have limited purpose of the report. The limitations are as followed---

- It was difficult to collect information regarding some aspects of 5S process, as the authority regarded this information highly confidential.
- The internship has been made for three months long duration but it is very much difficult to set true practical experience with current world circumstances in this short span of time.
- Legal issues can be a parameter of evaluation of 5S implementation. However, it was not considered as a parameter in this report due to lack of comprehensive knowledge in legal issues.

In spite of all these limitation I have tried to put the best effort as per as possible.

CHAPTER- 02

ORGANIZATION

OVERVIEW

2. ORGANIZATION OVERVIEW

2.1: Introduction:

Supply chain management has become an integral part of all the organization now days. Its importance cannot be neglected in the current era. Implementing the comprehensive management of a supply chain is no easy task, but once it has been put into place, every person and organization within the chain benefits greatly. These days are different, and companies must ensure that each link in a supply chain is as strong as the one preceding it. In order to do that World's renowned Organizations are implementing many methods and policies. Some of them have turned their supply chain system into near perfect system. Since I have started working as an intern in Novo Nordisk Bangladesh, in this report I will be working on a very specific and important department CMR & Q and also about supply chain management as well. This particular department helps in their Production Facilities by consulting with experienced doctors about different types of diabetes insulin in order to support their production and supply chain system. Considering the fact that, Novo Nordisk has one of the best supply chain systems, I've tried to gather information regarding how they have implement strategies to boost up their production and maintain a smooth supply chain system.

2.2: Pharmaceutical Industry:

The pharmaceutical industry is now one of the most rapid growing sectors of Bangladesh. It is technologically advanced and most developed sector among the manufacturing industries of Bangladesh. The skills and vast knowledge of the professionals and as well as some effective innovative ideas of the people involved in this industry are the key factors for these developments. The increase in awareness about healthcare among mass people, higher income and increasing government expenditure plays a vital role in higher demand for medicine. Currently there are about 300 pharmaceutical companies are operating in Bangladesh. 98% of the demand for medication comes from local companies while only 2% medicines are imported. This sector enables Bangladesh to export drugs to global markets by having the positive developments. Nevertheless, pharmaceutical sector of Bangladesh can develop more and can be an effective exporting sector by overcoming and underlying obstacles. It can also plays a vital role to boost up the economy as this sector already contributes to the GDP of the country which is growing positively every year.

2.3: History of Novo Nordisk:

Novo Nordisk is a global healthcare company with more than 90 years of innovation and leadership in diabetes care. This legacy has given the company experience and capabilities that also enable to help people defeat other serious chronic conditions like; haemophilia, growth disorders and obesity.

Headquarter of Novo Nordisk is established in Denmark. This company employs approximately 42,600 people (September 2016) in 75 countries and markets its products in more than 180 countries.

Novo Nordisk at a glance

- Novo Nordisk is a global healthcare company with 90 years of innovation and leadership in diabetes care.
- The company also has leading positions within
 - Haemophilia care,
 - Growth hormone therapy and
 - Hormone replacement therapy.
- Headquartered in Denmark
- Novo Nordisk employs approximately 40,300 employees in 75 countries, and markets its products in more than 180 countries.
- Production facilities in 7 countries
- A world leader in diabetes care since 1923
- Committed to environmental and social responsibility



NN Denmark website address: www.novonordisk.com

Figure: Novo Nordisk at a glance

Novo Nordisk began in 1923 and 1925 with the two small Danish companies Nordisk Insulinlaboratorium and Novo Terapeutisk Laboratorium founded respectively. These two companies started the production of the revolutionary new drug insulin, which had just been discovered by two Canadian scientists, Banting and Best. In 1989, Nordisk and Novo decided to merge together and finally they formed Novo Nordisk. After that, they gradually began to produce more insulin and day by day came up with innovative products as shown the figures below. Novo Nordisk launches world's first pen system for insulin injection in 1985.





Figure: History of Novo Nordisk from founders to introduced innovative products

The logo of Novo Nordisk has also contains significance of their heritage. It shows how they attract people by changing their design of logo APIS Bill which bears the symbol of life and health based on Egyptian statuette dating from circa 664–323 BC. The figure below tells all the history at it owns.

NOVO NORDISK LOGO –



THE APIS BULL

- One of the sacred animals worshipped in ancient Egypt
- Seen as the reincarnation of the god of science and art
- Design of logo based on Egyptian statuette dating from circa 664–323 BC in which APIS Bull also bears other symbols for life and health
- The choice of the logo follows an old European chemist's tradition of identifying pharmacies by an animal symbol

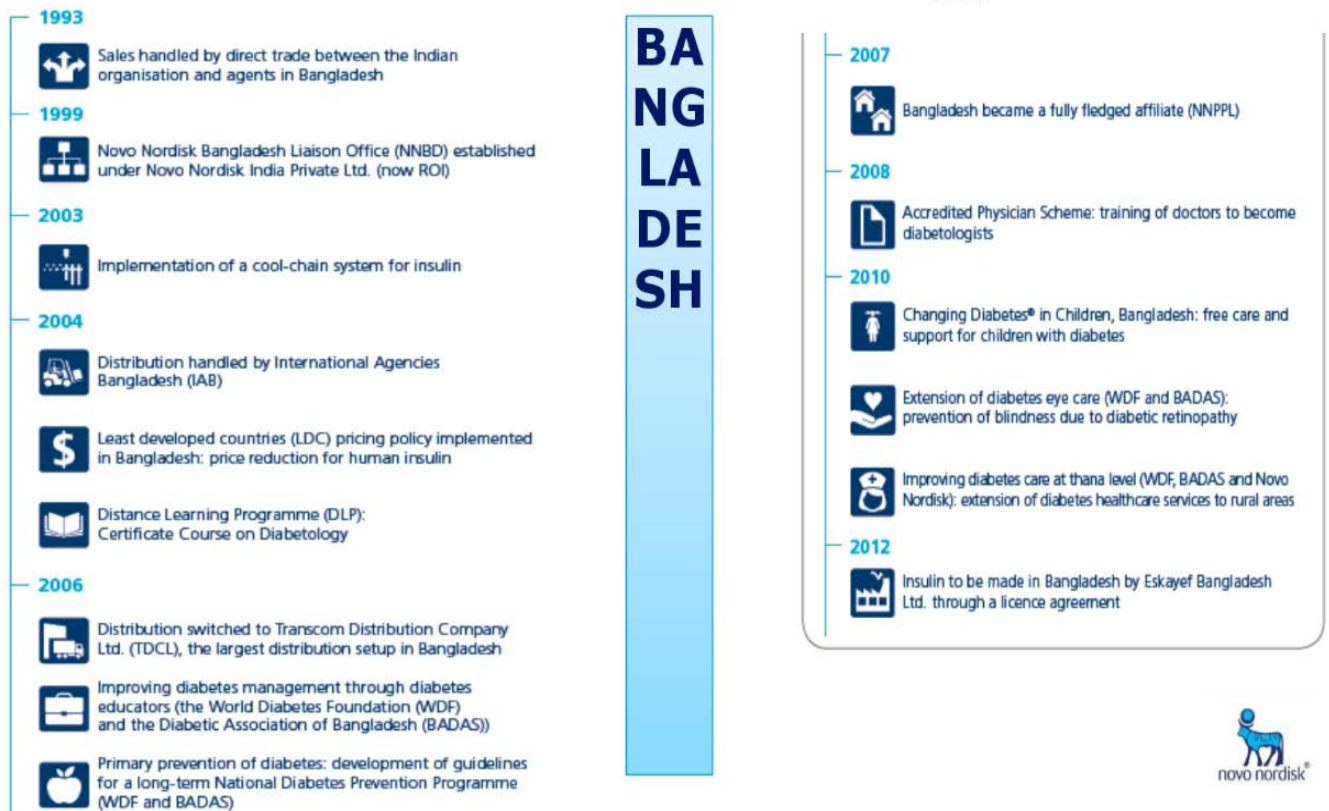


Figure: History of Logo

2.4: History of Novo Nordisk (Pvt.) Ltd. Bangladesh:

Novo Nordisk is Danish multinational pharmaceutical company who established their liaison office in Dhaka, Bangladesh in 1999. Between the years 2004 to 2006, the liaison office ran its operation through a sole distributor International Agencies, Bangladesh. International Agencies, Bangladesh (IAB) was responsible for registration, sales activities, storage and distribution. In 2006, Transcom Distribution Company Limited (TDCL) was made their sole distributor. Similar to IAB, they were also responsible for registration, sales activities, storage and distribution. In January 24, 2007 Novo Nordisk set their Headquarters in Dhaka. On July 1st, 2007 Novo Nordisk took all of their sales forces to their employer lists who were previously working for Novo Nordisk under Transcom Distribution Company Limited.

Followed by, in 2008, Novo Nordisk started to train doctors to become Diabetologist as the number of Diabetes patients were increasing in the country. In the year 2010, they started working for children who suffered from diabetes. They launched a program named Changing Diabetes in Children to support children with diabetes. They start improving diabetes care in Upazilla level which was an extension of diabetes healthcare services to rural areas. In 2010, Novo Nordisk Bangladesh started making insulin in Bangladesh through Eskayef Bangladesh with license agreement. It is needed to mention that, this company launched world's first Insulin pen NovoPen in 1985. Novo Nordisk is now leading in Insulin and growth hormone business in Bangladesh. There are few competitors of Novo Nordisk like Sanofi, Lilly, ACI, Square etc but in growth hormone they are the only one.



Milestones of Novo Nordisk Bangladesh

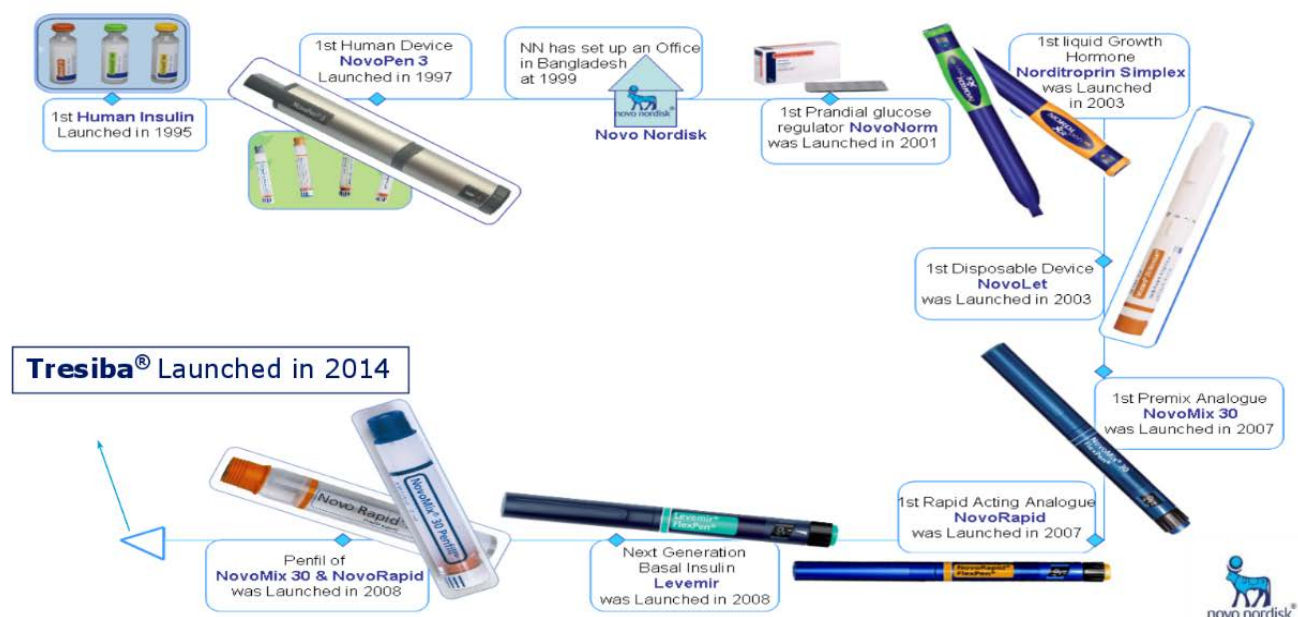


Figure: History of Novo Nordisk (Pvt.) Ltd. Bangladesh

2.5: Structure of Novo Nordisk (Pvt.) Ltd. Bangladesh:

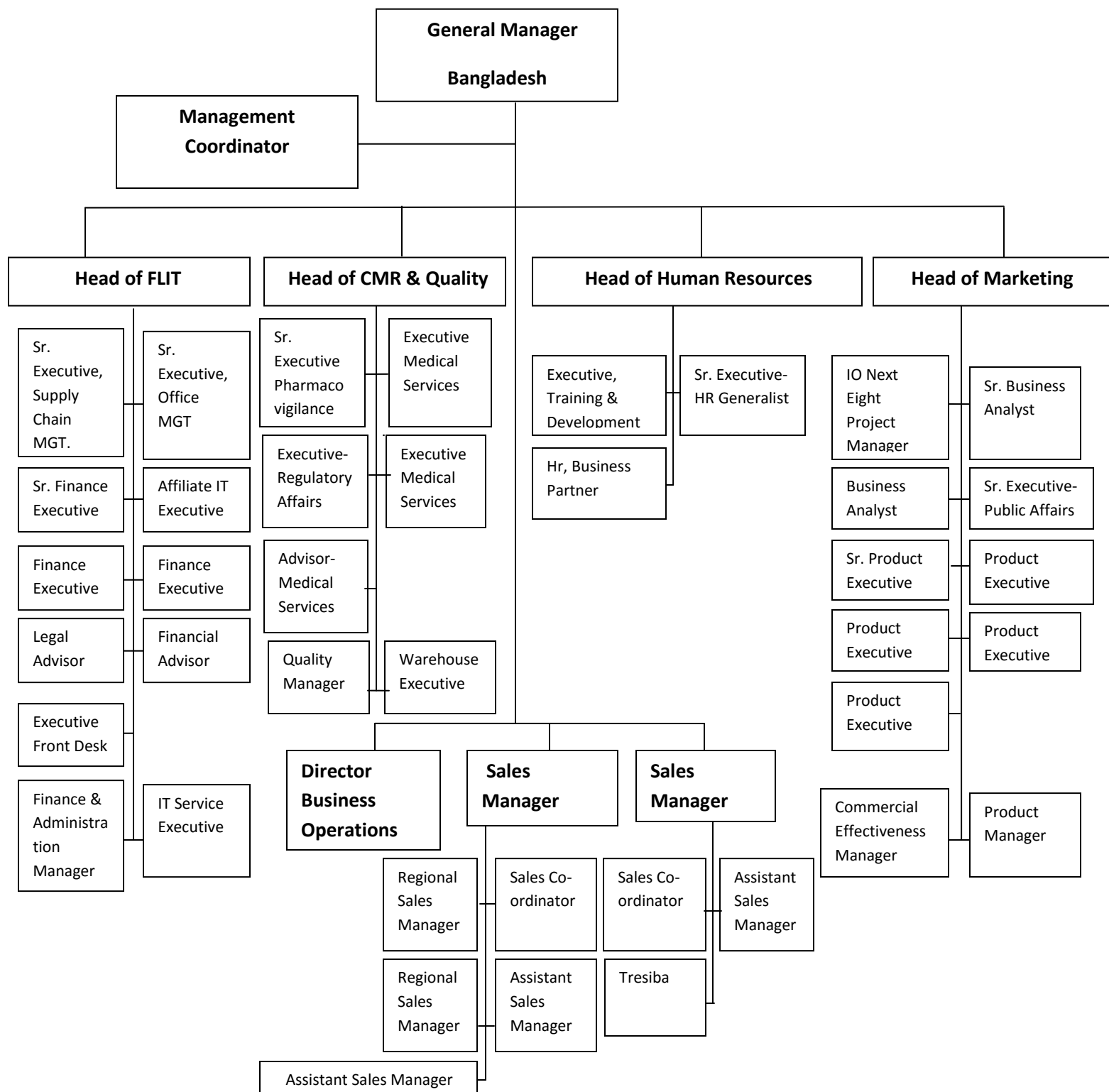


Figure: Organogram of Novo Nordisk Bangladesh

2.6: Products of Novo Nordisk (Pvt.) Ltd. Bangladesh:

As early mentioned, Novo Nordisk not only works for Diabetics care but also have medication for haemophilia, growth disorders and obesity. So they have variety of products in their product list. This pharmaceutical company has products like- New-Generation Insulins, Modern Insulins, Human Insulins, Glucagon-Like Peptide-1, Diabetes Devices and Oral antidiabetic agents in terms of diabetes care. Moreover, in Biopharmaceuticals line they have variety like- Haemostasis, Human Growth Hormone and Hormone Replacement Therapy. In each individual product line Novo Nordisk has different product category. These are shown below:

PRODUCT OVERVIEW



A selection of Novo Nordisk injection devices.

DIABETES CARE

NEW-GENERATION INSULINS

- Tresiba®, insulin degludec
- Ryzodeg®, insulin degludec/insulin aspart
- Xultophy®, insulin degludec/liraglutide

GLUCAGON-LIKE PEPTIDE-1

- Victoza®, liraglutide

MODERN INSULINS

- Levemir®, insulin detemir
- NovoRapid®, insulin aspart
- NovoRapid® PumpCart®, pre-filled insulin pump cartridge
- NovoMix® 30, biphasic insulin aspart
- NovoMix® 50, biphasic insulin aspart
- NovoMix® 70, biphasic insulin aspart

HUMAN INSULINS

- Insulatard®, isophane (NPH) insulin
- Actrapid®, regular human insulin
- Mixtard® 30, biphasic human insulin
- Mixtard® 40, biphasic human insulin
- Mixtard® 50, biphasic human insulin

DIABETES DEVICES

Pre-filled insulin delivery systems

- FlexTouch®, U100, U200
- FlexPen®
- InnoLet®

OTHER INSULIN DELIVERY SYSTEMS

- PumpCart®, NovoRapid® cartridge to be used in pump
- Cartridge
- Vial

INSULIN PENS

- NovoPen® 5
- NovoPen® 4
- NovoPen® 3
- NovoPen Echo®, with memory function

NEEDLES

- NovoFine® Plus
- NovoFine®
- NovoTwist®
- NovoFine® AutoCover

ORAL ANTIDIABETIC AGENTS

- NovoNorm®, repaglinide

GLUCAGON

- GlucaGen®, glucagon for diagnostic use
- GlucaGen® Hypokit, glucagon emergency kit for severe hypoglycaemia

OBESITY

- Saxenda®, GLP-1 analogue for weight management

BIOPHARMACEUTICALS

HAEMOSTASIS

- NovoSeven®, recombinant factor VIIa, also available with pre-filled syringe in an increasing number of countries
- NovoThirteen®, recombinant factor XIII
- NovoEight®, recombinant factor VIII

HUMAN GROWTH HORMONE

- Norditropin®, somatropin (rDNA origin)
- Norditropin® FlexPro®, pre-filled multi-dose delivery system
- Norditropin® NordiFlex®, pre-filled multi-dose delivery system
- Norditropin® NordiLet®, pre-filled multi-dose delivery system
- Norditropin® SimpleXx®, durable multi-dose delivery system
- NordiPen®
- PenMate®, automatic needle inserter, (for NordiPen® and NordiFlex®)

HORMONE REPLACEMENT THERAPY

- Vagifem®, estradiol hemihydrate
- Activelle®, estradiol/norethisterone acetate
- Kliogest®, estradiol/norethisterone acetate
- Novofem®, estradiol/norethisterone acetate
- Trisequens®, estradiol/norethisterone acetate
- Estrofem®, estradiol

Figure: Product Variety of Each Segment

Novo Nordisk also has product for children who have diabetics which launched back in 2010 named NovoPen Echo. It was the first product that launched by this company especially for children. So in that case Novo Nordisk holds pioneer position.



Figure: NovoPen Echo

Furthermore, Novo Nordisk has different variety in insulin and insulin pens as well. It is needed to be mentioned that, they launched their first human insulin in 1995 and first human devices NovoPen 3 launched in 1997. In terms of human insulin they have ----

Insulatard



Actrapid



Mixtard (30,40,50)

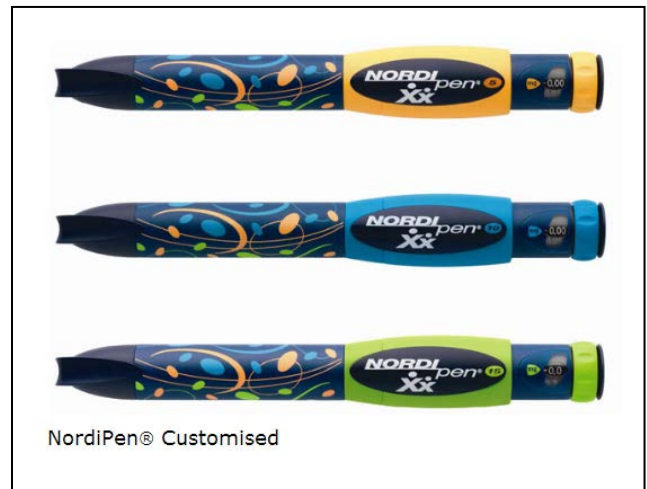


Again there are lot varieties in pen insulin for easily inject insulin in body and also has hormone tablets as well. They are----





NordiFlex® Pens



NordiPen® Customised



NovoRapid® PumpCart



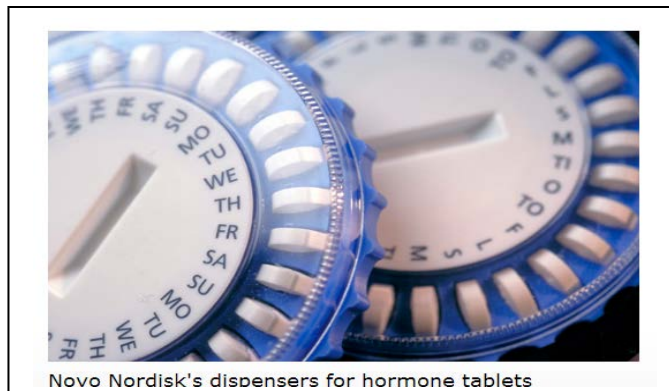
FlexTouch®



NordiFlex® Penmate



NovoSeven® prefilled syringe



Novo Nordisk's dispensers for hormone tablets



Pen device



A selection of Novo Nordisk injection devices. From the front: NovoPen® 5, Tresiba® FlexTouch®, Victoza®, and Norditropin® FlexPro®.

In terms of needles Novo Nordisk manufactures -----



Nevertheless, in biopharmaceuticals line they have----



CHAPTER- 03

DUTIES & RESPONSIBILITIES

3. DUTIES & RESPONSIBILITIES

3.1: Department Overview:

I worked for Clinical, Medical, Regulatory & Quality (CMR & Q) Department which deals with every activities of meeting doctors, maintaining proper scheduling in terms of receiving doctors in different health awareness programs, communicate with departments regarding billing, regulate or monitor smooth operation of medical educational activities, maintain the quality assurance and etc.

The head of this department allocates works between employees and employees have to report to the head. The hierarchy that follows by this particular department as bellow----

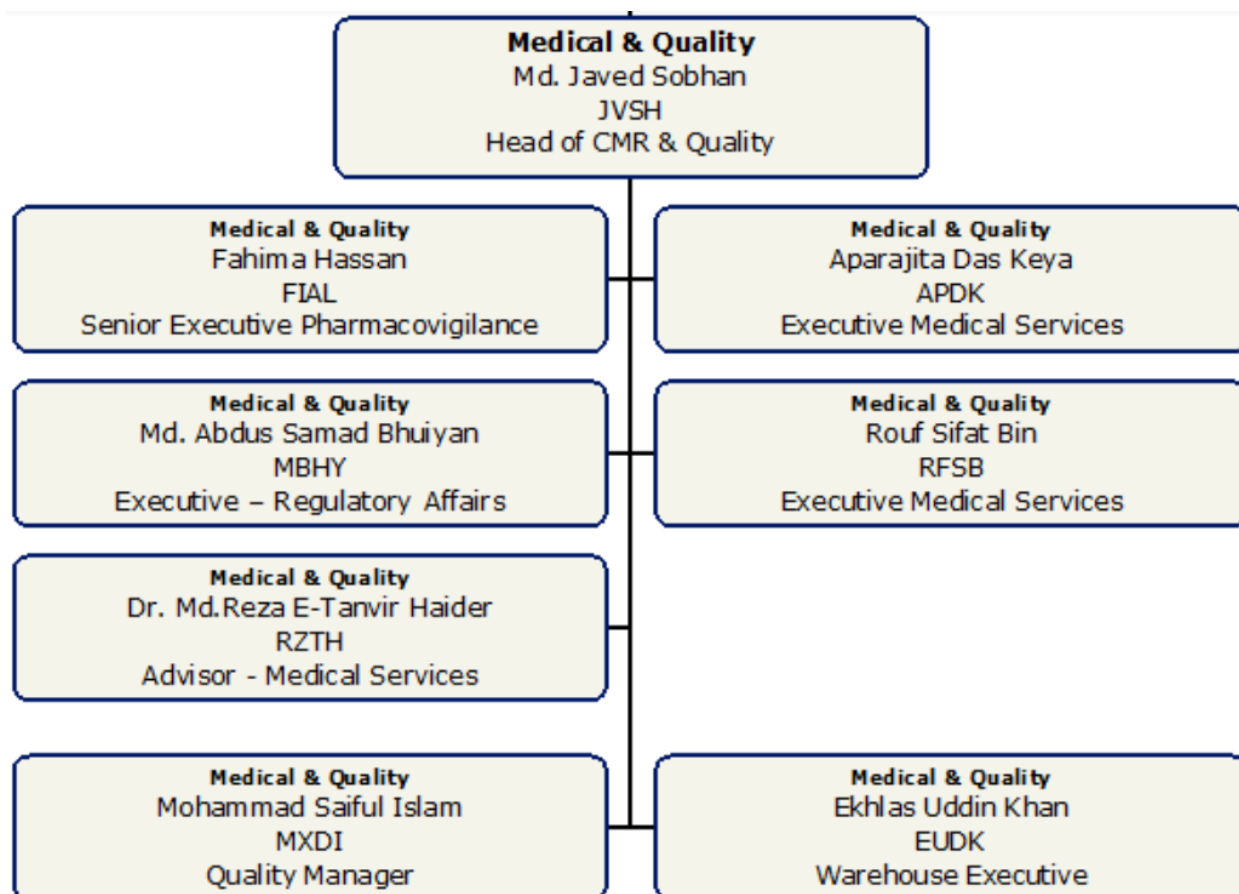


Figure: Organogram of CMR & Q Department

3.2: Duties I Perform:

As an Intern of CMR & Q Department, I have to perform different activities to ensure a smooth operation of this department. Duties are----

1. Communicate with other department to get a proper information:

I have to communicate with regional sales manager and takes information about Continues Medical Education (CME) as per the plan they submitted previous month. Mail communication with RSM is one of the main tasks.

2. Product wise excel sheets:

After receiving proper information I have to make a product wise excel sheet where I put all the information and sent the file to respective medical person who is working with the product.

3. Processing proper billing:

In the middle of the month I received all the CME bills from two sales coordinators. After that I track those bills in excel sheet and check whether the total cost was given in advance or paid by credit card. Sometimes I have to contract with RSM for some bills issues. Moreover, I have completed the bills with few things like adding Agenda of the program and inter office memo where total cost of the program mentioned, pictures of the program. After preparing all the bills in proper way, I took them to my department's Head for his sign and after signing submit those bills to Finance department.

4. Communicate and visited with doctors in different tours:

I have visited in some CME programs inside Dhaka or outside Dhaka where I have to communicate with Doctors.

5. Proper Documentation of Files:

Proper documentation is very important for any department to run a smooth operation. I have documented files for audit issues. Keep individual record of each and every program, doctor's appointment, health awareness programs, costs of that programs, scheduling of doctors meeting and programs etc. activities done by me.

6. Visa Processing for doctors:

Novo Nordisk sends respective doctors to different Country's Health care program organized by Novo Nordisk. During this I did visa processing for them with accurate information of having all the documents or records.

7. Handel foreign clients:

Sometimes Foreign Doctor came here as CME Speaker. My department assigned me to be with them, took them to CME Programs place, accompany them during travel.

CHAPTER- 04

OPERATIONAL OVERVIEW & SWOT

4. OPERATIONAL OVERVIEW & SWOT

4.1: Operational Overview of Novo Nordisk (Pvt.) Ltd. Bangladesh:

It is early mentioned that Novo Nordisk is a company originated from Denmark. So all of their health care medicines or products are made in Denmark. They always try to develop innovative biological medicines and to make them available to patients throughout the whole world. So Novo Nordisk chooses its partner when necessary, to provide its products to patients at very ease. They encourage private institutions to invest in healthcare infrastructure and services sector. Partnership with government or private organizations who share common goal to improve healthcare delivery is necessary to bring Changing diabetes in developing countries. By following that, Diabetic Association of Bangladesh (BADAS) which is a non-profit, volunteer socio-medical service, founded in 1956 by National Professor (Dr) Mohammed Ibrahim, do their partnership with Novo Nordisk with the ambition to treat 50% of all people with diabetes by 2020. The World Diabetes Foundation (WDF) also provides supporting resources to their activities. The aim of WDF was to help meet the healthcare needs of people in the developing world who live with diabetes and pre-diabetes.

The gap between supply and demand of healthcare products for diabetics drives how buying and selling interests works for this sector in Bangladesh.

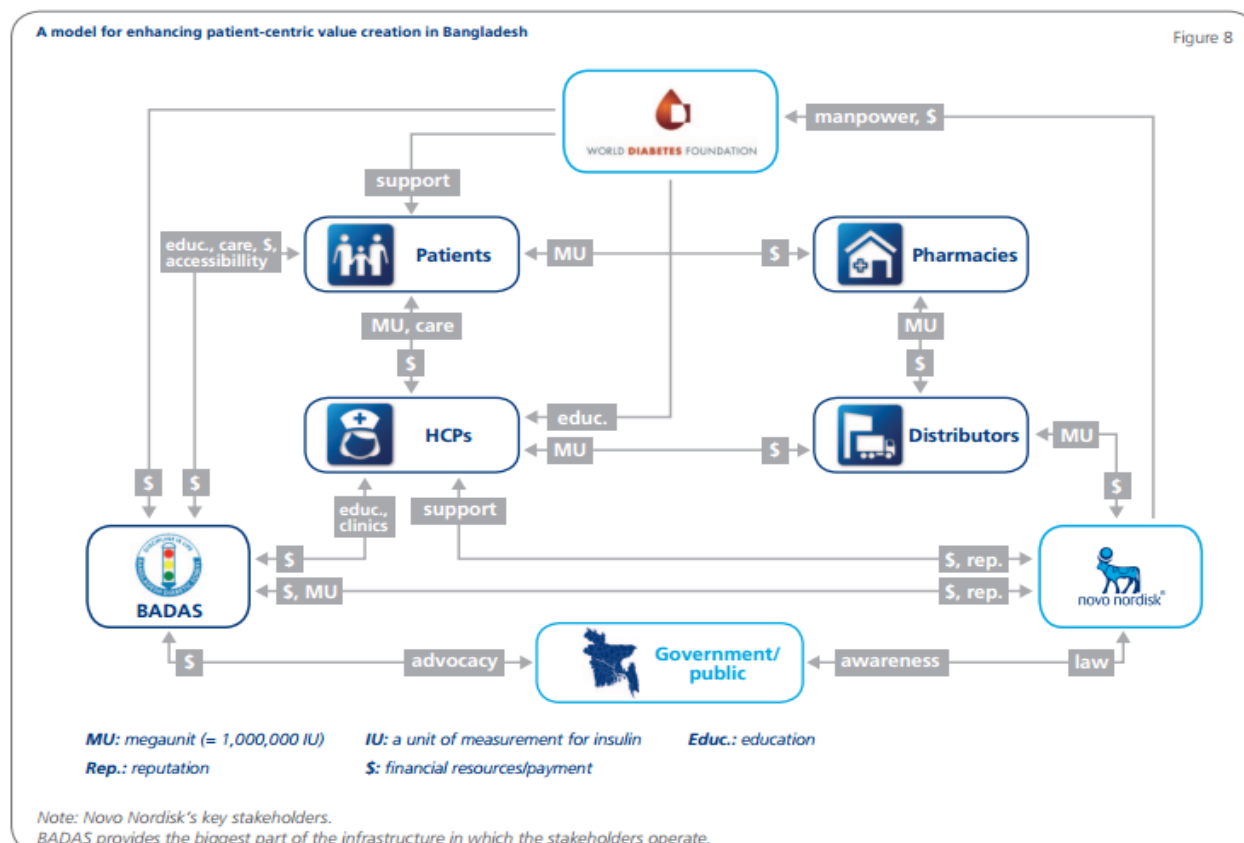


Figure: Flow of diabetics care services and products

To distribute the healthcare products smoothly among patients, Novo Nordisk choose Transcom Distribution Co. Ltd. (TDCL) to distribute their products. Firstly, BADAS distributes Novo Nordisk's insulin through its 99 affiliated associations across the country. However, now they also give their distributorship to Transcom and as well Eskayef Bangladesh Ltd., owned by TDCL helps Novo Nordisk to produce insulin in Bangladesh.

Partners:

- BADAS distributes insulin through its 99 affiliated associations throughout the country
- Transcom Distribution Co. Ltd. (TDCL) has the largest independent distribution network in Bangladesh³⁰
- Eskayef Bangladesh Ltd., owned by TDCL, will produce Novo Nordisk insulin in Bangladesh

It is needed to mention that, by involving Transcom in distribution Novo Nordisk now able to increase their distribution points from one central depot in Dhaka to 25 depots across the country. Currently which is again increased into 30 and they have their branches in – Dhaka South, Dhaka North, Narayanganj, Chittagong South, Chittagong North, Comilla, Sylhet, Noakhali, Khulna, Mymensingh, Faridpur, Barisal, Rangpur, Bogra, Rajshahi, Kushtia, Dinajpur, Cox's Bazar, Tangail, Jessore, Moulavi Bazar, Gazipur, Pabna, Chandpur, Savar, Bhairab, Kishoregonj, Patuakhali, Feni and Keraniganj.

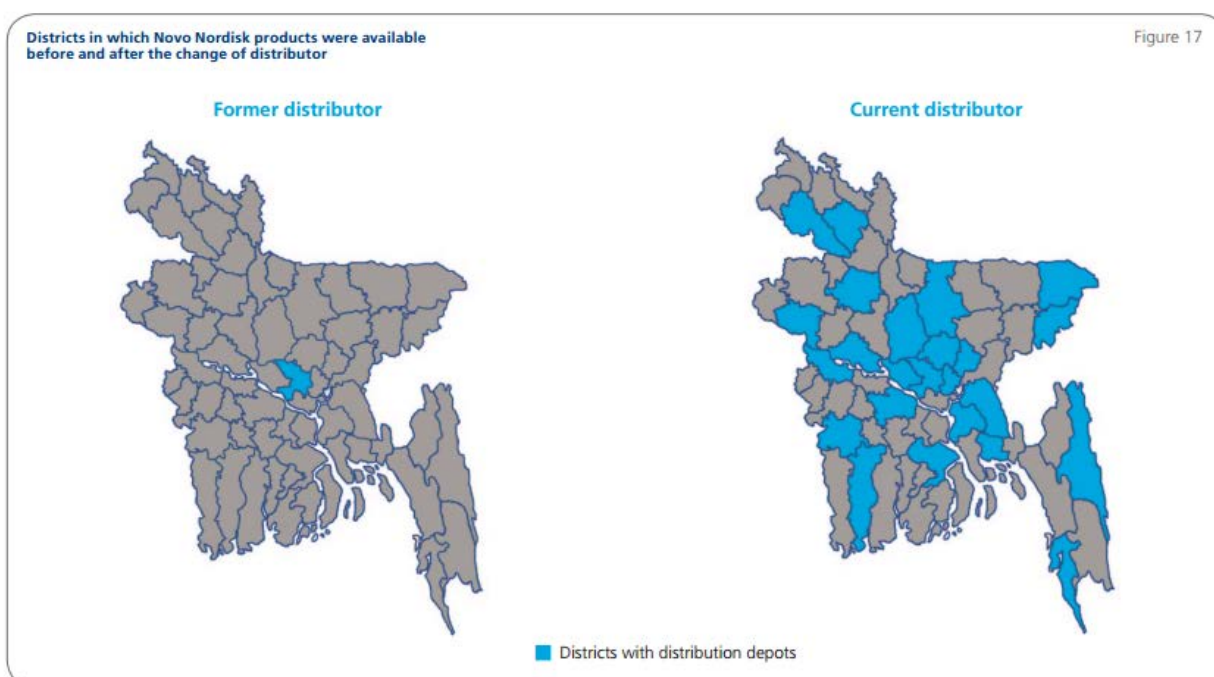


Figure: Increasing distribution points after involving TDCL

Furthermore, this company successfully able to increase its sales after start working with Transcom.

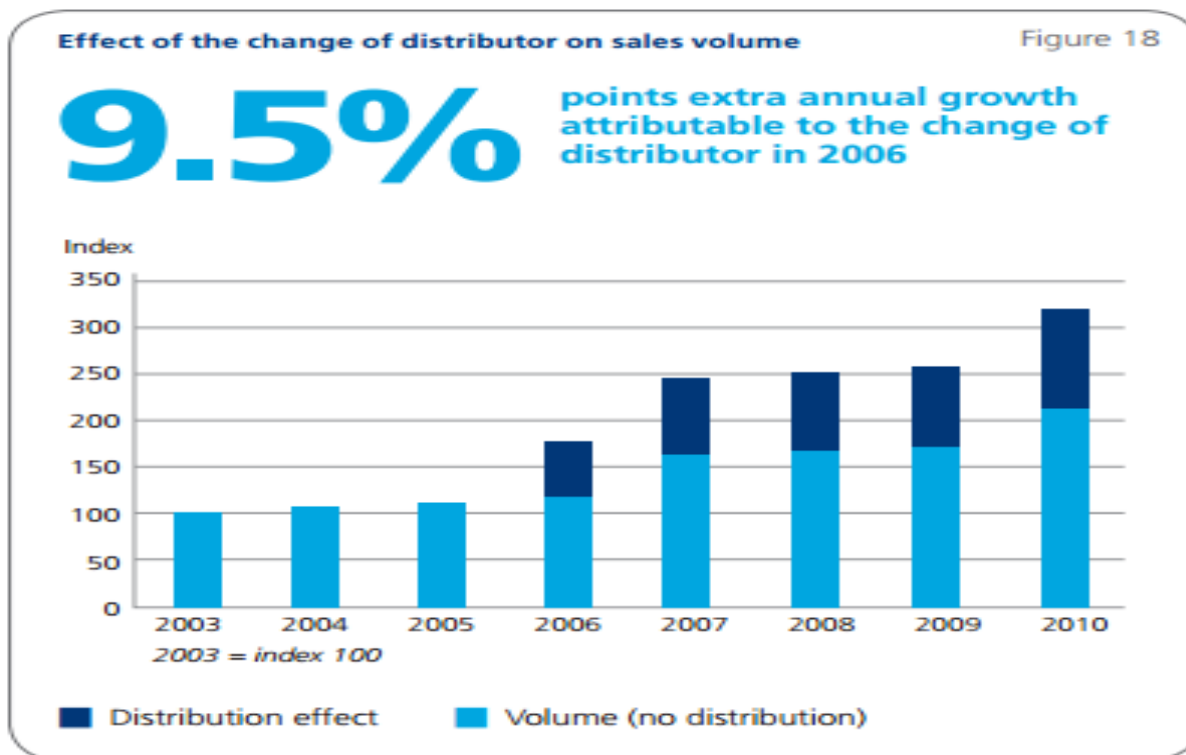


Figure: Significant change in sales volume

As a third party, Novo Nordisk chooses Transcom to distribute its products. This company imports its healthcare products of Pen Fill Insulines from Denmark and after that TDLC takes all their products for distributing to its customers. As early mentioned, with the help of partnership from Eskayef Bangladesh Ltd., they able to manufacture their insulin in Bangladesh. It helps Novo Nordisk to minimize its importing costs of insulin. These insulines also distributes by TDCL as Eskayef Bangladesh Ltd. is also owned by Transcom.

Through this process Novo Nordisk gets help to increase their sales volumes however it creates many difficulties to handle this process. The profit divides and also it may create a bad impression of company if the third party is not distributing its products in a correct manner. Insulin refrigerating is very important in terms of smooth running distribution. As Novo Nordisk already buys a refrigerating unit from Transcom, so they may think to start their very own distribution channel rather having a third party to avoid any kind of negligence for distributing products. If this company starts their own distribution channel then the profits they make can keep among themselves. Moreover, they also can have a strict monitoring on their each and every medicine. It would also help them to develop more reputation as a multinational pharmaceutical company.

4.2: SWOT analysis of Novo Nordisk (Pvt.) Ltd. Bangladesh:

Strength

1. Knowledge of Diabetes

Before Novo Nordisk entered the Bangladeshi market, there was little to no knowledge about the disease among the people. In a population of nearly 150 million people, only 43500 physicians were available-1 physician for 3400 people. Doctors received only 5 hours of Diabetes related training in their 5 years of study. The disease was generally undiagnosed and common misconception such as the disease being contagious existed among the people. As a result, the Diabetes patients were ostracized from the society and received inadequate treatment from tradition and untrained healers.

In collaboration with BADAS, Novo Nordisk launched, Diabetes Learning Program of DLP a Certificate Course of Diabetology (CCD). It is a six month program, focused on teaching doctors about Diabetes. When Novo Nordisk entered the market, only 58% of the doctors knew about Diabetes from their earlier class courses. Out of those, only 24% knew about Diabetes management. DLP aimed to make the physicians more aware about Diabetes. Since its launch, 4500 doctors received CCD. The rural patients, who were previously socially stigmatized due to lack of knowledge of Diabetes, started to receive advanced healthcare. According to the Matrix Study, 57% more doctors were giving advice on Diabetes treatment, direct doctor-patient interaction rose by 19% and proper diagnosis of the disease rose by 29%. The increase in knowledge of Diabetes through DLP has led to more purchase of Novo Nordisk's products over the past five years. Doctors around Bangladesh recommend Novo Nordisk's products to their patients due to the products' superior quality.

2. Strong Distribution Network

As early mentioned above, with the increasing number of BADAS affiliates, the distribution of insulin has increasingly grown throughout Bangladesh. In 2005, insulin was available through 70 centers. Today, insulin is available through 99 centers. In 2006, Novo Nordisk entered into an agreement with Transcom Distribution Company Ltd. which increased the distribution points. Enhancing Diabetes Care is a joint program of BADAS, WDF and Novo Nordisk. The aim of this program is to increase the availability of insulin in rural areas by opening 500 accredited centers and decrease the average transportation distance for the patients.

Moreover, Transcom Distribution Company's subsidiary, Eskayef Bangladesh Ltd., is also building a manufacturing plant in which Novo Nordisk's insulin mass produced. Novo Nordisk can gain economies of scale by promptly responding to the market demand for insulin. Furthermore, the manufacturing plant will create more jobs in the society. Strengthening the distribution chain is a vital competitive advantage for Novo Nordisk. This cleared up the way for the firm to penetrate the rural areas, where the accessibility of insulin is low. Entering this market, gave Novo Nordisk more opportunities to grow. The physicians were trained through DLP to gain new competencies and use insulin more efficiently on patients and increase awareness on Diabetes.

3. Strong CSR Activities

“Children are getting help, especially insulin, for free and it’s saving many lives; lots of poor families/children are now dreaming of new things to do and about building their careers.”

– Md. Masudur Rahman, Assistant Sales Manager,

Novo Nordisk, Bangladesh

Compared to the diabetic children in the western countries where the patients have free and easy access to public and private treatments, in Bangladesh, most families cannot afford the cost of treatment for Diabetes. Poverty is one of the major barriers for children with Diabetes to have access to the medicines. Additionally, people are either ignorant or unaware of the implications of Diabetes especially among the children. Children are unable to receive proper treatment due to the lack of resources and lack of proper treatment facilities and at times, are undiagnosed. “We didn’t know what insulin was, and we had no idea my son needed it. We went to a religious healer and prayed to cure his disease,” said Mrs. Ahmed, mother of Nime, who has Type I Diabetes. Other than the DLP which aims to raise awareness about Diabetes, Novo Nordisk also indulges in strong corporate social responsibility. In 2008, Novo Nordisk established Changing Diabetes in Children (CDIC) to provide treatment and funds for children with Type I Diabetes. The aim of Novo Nordisk was to enroll 10,000 children in the CDIC program by 2015. Almost 23% of the children enrolled in CDIC were from Bangladesh in 2011. Novo Nordisk provides insulin to the children with Type I Diabetes at no cost. Between 2010 and 2011, the volume of free medication provided to these children increased by 50%. Novo Nordisk also provided more than US\$138000 in 2011 to cover Health Care Professional (HCP) training and education, devices, strips, patient instruction programs etc. As a result, Type I Diabetes decreased among the children and there was a continuous enrolment of children in the program. This program supports Novo Nordisk global strategy of Changing Diabetes. It increased the reputation of the firm and Novo Nordisk received high stakeholder support.

Weakness

1. No Manufacturing Plant in Bangladesh

Novo Nordisk does not own its own manufacturing plants in Bangladesh, despite having factories abroad. Instead, Novo Nordisk entered into a strategic alliance with Eskayef Pharmaceuticals. As part of the agreement, Eskayef is provided with the original recipe and ingredients needed to manufacture the medicines under a license, while Novo Nordisk sells the products under its own name. This agreement requires Novo Nordisk to share its resources and formula with Eskayef however, Eskayef is prevented from becoming a direct competitor to Novo Nordisk under a secrecy clause. In case of an agreement breakdown, Novo Nordisk will have to find another local manufacturer to produce its products.

Another big weakness is that Novo Nordisk is restricted to insulin and hemophilia treatment. Even though it is a pharmaceutical; it only produces insulins for diabetes patients. It does not cater to other types of diseases nor produce other kinds of medicines. The market is a niche and the product range is comparatively limited.

2. High price of Insulin

Diabetes is a chronic illness. It is lifelong and the patients will have to take the insulin for the rest of their lives. One of the biggest problems for people with this disease is that there is no cure for it. The price of insulin in Bangladesh remains high. On average, the price of Novo Nordisk's insulin ranges from 300 to 4000 taka. Tresiba, the insulin with long lasting effects, costs around 2400 taka while Victoza, which is catered for the more affluent, costs around 4000 taka. Compared to competitors like Sanofi or Eli Lilly, Novo Nordisk is charging higher price for its insulins. Being a pioneer in innovative medicines and the need to produce insulins of high quality, Novo Nordisk faces tough setbacks as they are forced to push back prices. Earlier, the premium prices for insulins were acceptable. However, as the market changes, patients are reluctant to pay high prices for the drugs.

“In Europe, it is already a challenge and pricing in the United States is likely to be challenging in the future as well, with healthcare reform and concentration in the distribution chain. Getting the pricing mix right is a balancing act for Novo Nordisk, which supplies half the world's insulin, making both modern products for rich markets and cheap generics for the developing world.’

-Lars Sorenson, the CEO of Novo Nordisk.

3. Low employer branding

Compared to other firms in the pharmaceutical industry, Novo Nordisk Bangladesh has lower employer branding. This is mainly due to the fact that the means of external recruitment are extremely limited. The job adverts are posted through the global network which is prevalent throughout the world but is not so well known in Bangladesh. As a result, there is a severely limited pool of job candidates for some of the posts. Also, the Facebook recruitment page of Novo Nordisk Bangladesh receives very little exposure as it needs constant updating for job postings to attract attention.

4. Lack of BioPharma Organization

Novo Nordisk not only focuses on Diabetes but also focuses on other treatments like Hemophilia and Hormone Growth Deficiency. In case of Hemophilia, it goes undiagnosed most of the time. A developing country like Bangladesh does not have the necessary awareness nor expertise to tackle this incurable disease. This poses a problem for Novo Nordisk Bangladesh. There are no BioPharma organizations to help Novo Nordisk to explore this area in Bangladesh. There are only one or two employees in Novo Nordisk Bangladesh who are associated with the work in BioPharma and hence, there is a lack of knowledge and skills for the company to break into this market in Bangladesh.

Opportunities

1. Growing Market

The pharmaceutical market of Bangladesh is one of the fastest growing industries. The recent increase in health awareness led to increase in demand for medicines and government expenditure also increased in order to invest in this market. The Drug Policy Act 1982 also led to a growth in the industry as the market grew by 65 percent.

Rank	Company	Market Size (BDT bn)	Market Share (%)	Growth 2014 (%)
12	SANOBI BANGLADESH	2.19	1.94	7.66
14	NOVO NORDISK	2.04	1.81	-1.99
17	GLAXOSMITHKLINE	1.79	1.59	5.93
18	NOVARTIS	1.76	1.56	28.45
20	SANDOZ	1.45	1.28	21.09
25	ROCHE	0.77	0.68	9.02

Figure: Top MNC multinational Companies

Currently, there are around 8.4 million people who are suffering from Diabetes in Bangladesh. Almost 50 percent of them do not even fully understand the nature of their disease. The major care provider for Diabetes, the Diabetic Association of Bangladesh (DAB) can only cater to around 25 percent of the patients. Novo Nordisk has lent its support and facilities to DAB to tackle these issues and has emerged as the market leader in Bangladesh Diabetes care. In 2014 there was almost 5.9 million people living with diabetes and this number is expected to double by 2030.

“We are committed and will continue to support all the major initiatives of DAB to reach this ambition. Of the total diabetic patients in Bangladesh, around 90-95 percent are type 2 diabetic, which occurs mainly due to poor lifestyle choices and food intake.”

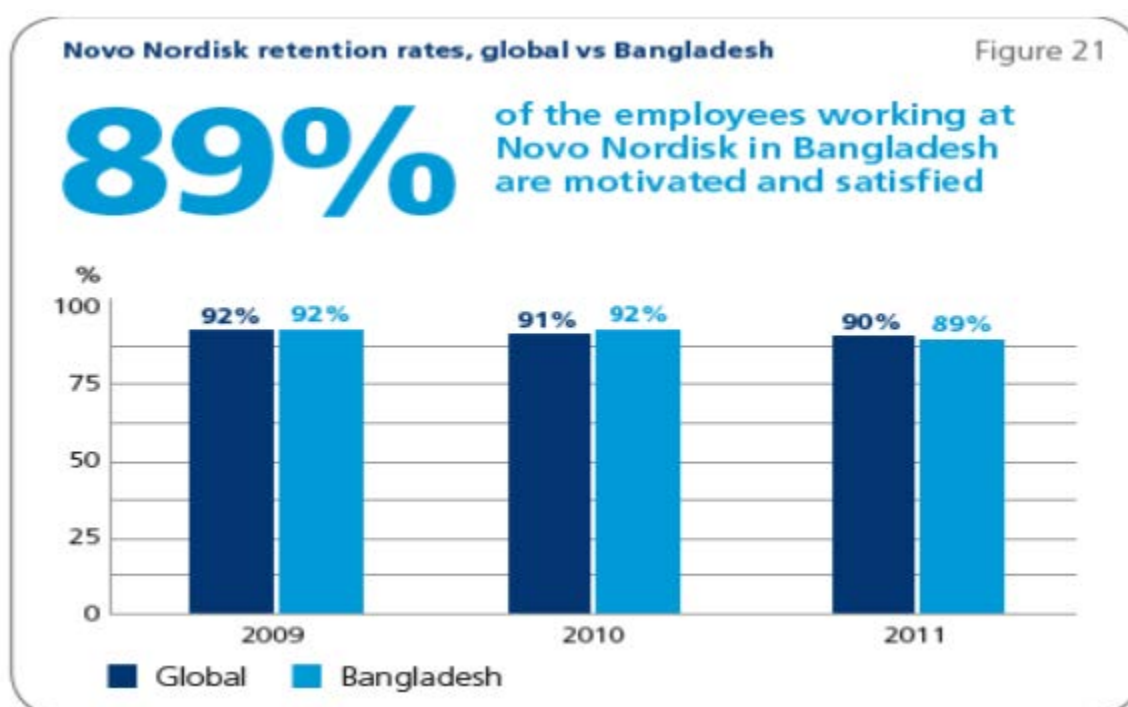
-Maziar Mike Doustadar, Senior Vice president of Novo Nordisk’s International Operations.

Seeing the increase in Diabetes patients, the company launched Ryzodeg and Victoza, two revolutionary insulins for Type-II Diabetes. ‘Diabetes is one of the biggest healthcare challenges in Bangladesh, like in many other countries. So it is critical that product innovations are aimed at assisting physicians to provide better and effective treatment options,” said A Rajan Kumar, managing director of Novo Nordisk Pharma in Bangladesh. Moreover, the hemophilia market is still relatively untapped in the Asian regions. The global hemophilia market is 56 billion DKK and only 45 percent of the patients are diagnosed out of which 15 percent receive treatment. As the rate of hemophilia grows at 5 percent per annum, Novo Nordisk has been actively researching on hemophilia treatment.

2. Job Creation and Employee Relations

Novo Nordisk Bangladesh has a firm motto: Life Changing Careers. It aims to change and further the careers of all its employees and anyone wanting to join the Novo Nordisk family will get the opportunity to work in a very friendly and dynamic environment. Between 2004 and 2011, Novo Nordisk created nearly 180 jobs in Bangladesh. Its expansion of business activities resulted in 440 jobs among its suppliers and 230 jobs as a result of employee responding.

Bangladesh, being an underemployed country with unemployment rate of 40%, Novo Nordisk managed to create 850 jobs. Moreover, the firm faces high retention rates. The employees are highly motivated and satisfied.



The staff turnover rate is low and a brand loyalty among the staff only strengthens the management-employee relationship. Along with that, the employees receive substantial intrinsic and extrinsic benefits packages to keep them motivated for work. The overall environment is also friendly and lack of office politics and grapevine also act as motivational factors for the employees. Novo Nordisk also follows an open door policy. Any employee facing work related difficulties or problems in the workplace can easily approach his or her line manager to resolve the issue. If the issues are not resolved by the line manager, the employee can directly approach the head of the department for help.

Along with that, Novo Nordisk also has different fellowship programs and opportunities for the employees to work abroad. The International Operations (IO) Business Graduate program is a 2 year rotational program. Out of all the employees who participate in the competition, one will be chosen to train 8 months in the Denmark Headquarters, next 8 months in any country and last 8 months in the home country. This provides the employee to develop a wide variety of skills and build an international network.

3. Emergence of new markets

Over the past 3 decades, obesity has been on the rise in Bangladesh. Around 17 percent of the adult population was obese in 2014 and ten out of hundred children are overweight while 4.5 percent of those children were obese. The numbers are still on the rise especially in urban areas. Almost one fifth of the population in Bangladesh is considered to be obese. “Bangladesh has lowered the rates of death from infectious diseases, childhood causes of death and complications during pregnancy,” said Dr. Aliya Naheed, Associate Scientist at the International Centre for Diarrhoeal Disease Research in Bangladesh and one of the paper’s co- authors. “For overweight and obesity to be rising to the point where nearly 1 in 5 adults are too heavy, we must look for ways to change behavior and change policy.” Since obesity is one of the key reasons for Diabetes, Novo Nordisk can use this opportunity to break into the treatment of obesity in Bangladesh. Novo Nordisk’s anti-obesity Saxenda, which was approved by FDA in USA, can be established in Bangladesh to tackle the problem of obesity. Novo Nordisk can also promote the dangers of obesity in its Diabetes Awareness programs and work with local physicians to educate the masses on the topic as part of their Corporate Social Responsibility.

Threats

1. Emergence of Biosimilars

Biosimilar products are defined as large, complex molecule products which are made from living cells. These have been developed to be as similar to the original products. The biosimilar market is being valued at almost 200 Billion USD. In Bangladesh, this offers a great opportunity as the patents for many drugs are reaching their expiration. In case of insulin, however, the complexity of the biological ingredients makes it almost impossible to be copied. There will always be structural and procedural differences among the originating insulins and biosimilars.



Biosimilars are seen as cheaper alternatives. As the biosimilar products copy off the original ones, these can be sold at almost 40 to 60 percent discount. Bangladesh has one of the most thriving pharmaceutical industries from the developing nations. Almost 97 percent of the domestic demands are met. As the patents of the first generation biopharmaceuticals began to expire in 2004, Biosimilars are emerging as one of the most in-demand substitutes to expensive medicines. However, Novo Nordisk has been actively championing the dangers of Biosimilars and sees it as a potential threat.

First of all, the complexity of insulin and its ingredients makes it almost impossible to copy. Biosimilars will always differ from the original insulins of Novo Nordisk and the changes in structure or ingredients of the insulin will not have the same effect as the originator. Diabetes being a highly complex and chronic disease without a cure, might not be properly treated using replicas of insulins.

There is a lack of safety surveillance for Biosimilars as governments champion the use of these cheaper alternatives and sometimes even fund it. These Biosimilars must be subjected to the same restrictions, inspection and surveillance as the original products. There needs to be proper research and quality assurance that Biosimilars will not harm the health of the patients. There is little accountability for biosimilars. But its comparatively cheaper prices and availability makes it easier for people to buy it especially in the urban areas, threatening the position of Novo Nordisk in Bangladesh and other countries.

2. Competition

Globally, Novo Nordisk is facing intense competition from firms like Eli Lilly and Sanofi. Both the firms are churning out their own insulins, which are being sold at a cheaper price. In 2013, the shares of Novo Nordisk fell by 1.7 percent as the competitors introduce their drugs in the markets. In Bangladesh, there are around 250 pharmaceutical firms and the industry is one of the fastest growing markets here. The market is very concentrated and competitive, but it is dominated by local manufacturers. Multinational pharmaceuticals hold around 13 percent of the market while the domestic suppliers dominate the rest.

Square Pharmaceuticals own around 19.3 percent market share while Incepta and Beximco hold 8.5 percent and 7.6 percent respectively. Even though a number of MNC's operate in Bangladesh, none of them are in the top ten pharmaceutical firms here.

Top Companies	Revenue April 09 - March 10 (MM BDT)	Market Share	Revenue 2009 (MM BDT)	Market Share
Square Pharmaceuticals	11,158	19.3%	10,701	19.5%
Incepta Pharmaceuticals	4,919	8.5%	4,524	8.2%
Beximco Pharmaceuticals	4,415	7.6%	4,239	7.7%
Opsonin Pharmaceuticals	2,817	4.9%	2,614	4.8%
Eskayef Pharmaceuticals	2,788	4.8%	2,520	4.6%
Acme Laboratories	2,717	4.7%	2,640	4.8%
Renata Limited	2,623	4.5%	2,495	4.5%
ACI Limited	2,466	4.3%	2,460	4.5%
Aristopharma	2,355	4.1%	2,240	4.1%
Drug International	2,283	3.9%	2,132	3.9%
Sanofi-Aventis	1,700	2.9%	1,634	3.0%
GlaxoSmithKline	1,266	2.2%	1,229	2.2%
Novo Nordisk	1,005	1.7%	878	1.6%
Sandoz	936	1.6%	908	1.7%
Novartis	675	1.2%	558	1.0%
Others	13,691	23.7%	13,158	24.0%
Total	57,815	100.0%	54,929	100.0%

Source: BAPI and newspaper reports

Novo Nordisk on the other hand occupies around 1.7 percent of the market shares in Bangladesh. First of all, unlike other pharmaceuticals which cater to a number of diseases, Novo Nordisk is more focused on Diabetes, Hemophila and Hormone Growth therapy care. The target market is limited for Novo Nordisk. The lack of a manufacturing plant in Bangladesh also acts as a threat as competing firms like Sanofi can produce their own insulin domestically in their factories.

Therefore, compared to its competitors, Novo Nordisk Bangladesh holds a smaller market share due to its niche market segment.

CHAPTER- 05

FINDINGS & RECOMMENDATION

5. FINDINGS & RESPONSIBILITIES

5.1: Findings & Recommendations:

Novo Nordisk is a renowned multinational pharmaceutical company and runs its operations smoothly as much as they can. However, they also have some lacking.

- Novo Nordisk may introduce their own distributor to distribute healthcare medicines among people. They can ensure proper distribution through that.
- Novo Nordisk can involve more people to distribute their insulines and thus they can be able to create more employment for people.
- As this is a multinational company, this organization may bring more technological changes to develop the pharmaceutical sector by bringing more mercenaries, more expertise and can also build their own manufacturing house.
- Moreover, they can work more in an organized way so that the clashes between departments come to an end. Novo Nordisk can involve departments together to more focus to achieve organizational goals.
- As pharmaceutical sector now a days is a rapid growing sector and competitors are increasing both local and multinational for Novo Nordisk, so they need to grow their market share as much as they can. By making their healthcare products available with a reasonable price in market Novo Nordisk can increase their market share.
- This company needs to do more advertising of their insulines and other healthcare products, so that people can know the benefits to consuming their products.
- Novo Nordisk can introduce help line or customer care center so that interaction between customers and company can increase a lot. Thus it will help the company to know how their product is really running in the market and also what patients or doctors think about their products as well.
- Furthermore, this company can do more CSR activities so that people of rural area also get to know about their company and about the benefits of their healthcare products as well.
- Nevertheless, Novo Nordisk can open a sector with employees on how to use their penfill products in an accurate manner. Many people do not know how to fill and inject the penfill insulin. So assigned and trained employees by Novo Nordisk can help people to get know how to use these kinds of products.

CHAPTER- 06

CONCLUSION

6. CONCLUSION

6.1: Conclusion:

All in all, Novo Nordisk Bangladesh is successful in reaching out to its customer base. Since it operates mostly in the Diabetes market, it managed to carve a niche for itself in the minds of its target market. Despite the lack of a manufacturing plant, Novo Nordisk Bangladesh has built a strong distribution channel through its deal with Eskayef and reaches out to all its customers. A strong sales department also ensured its brand building among the doctors, distributors and the Diabetes patients. Also through its CSR activities, Novo Nordisk Bangladesh has increased the awareness of Diabetes among the masses.

Moreover, Novo Nordisk is considered one of the best places to work in due to its strong employee policies. The employees are very motivated due to the incredible intrinsic and extrinsic benefits packages and the regular training ensures that their product knowledge is always high. Despite high competition from Biosimilars and other firms, Novo Nordisk Bangladesh has managed to work towards its mission of Changing Diabetes. For those looking for a successful career in one of the fastest growing industry of Bangladesh, Novo Nordisk would be the ideal place to work for. Therefore, for anyone looking for a 'Life Changing Career,' Novo Nordisk Bangladesh will be the place for him or her.

References

1. http://dspace.ewubd.edu/bitstream/handle/123456789/1467/F.%20M._Anwarul_Kabi_r.pdf?sequence=1&isAllowed=y
2. <http://dspace.bracu.ac.bd/bitstream/handle/10361/3220/13274025.pdf?sequence=1>
3. <http://www.lightcastlebd.com/blog/2015/12/market-insight-how-the-bangladesh-pharmaceutical-sector-is-performing-in-2015>
4. Tashnuva Sumaiya Islam, North South university, Internship Report
5. <http://www.novonordisk.com/about-novo-nordisk/novo-nordisk-history/step-by-step.html>
6. <http://www.novonordisk.com/content/dam/Denmark/HQ/Commons/documents/Novo-Nordisk-Annual-Report-2015.PDF>
7. <http://dspace.bracu.ac.bd/xmlui/bitstream/handle/10361/3615/10104135.pdf?sequence=1&isAllowed=y>
8. <http://www.novonordisk.com/about-novo-nordisk/novo-nordisk-history.html>
9. <http://www.novonordisk.com/content/dam/Denmark/HQ/Commons/documents/Novo-Nordisk-Annual-Report-2015.PDF>
10. <http://www.novonordisk.com/patients/diabetes-care/insulin-pens-and-needles.html>
11. <http://www.novonordisk.com/content/dam/Denmark/HQ/Sustainability/documents/blueprint-changing-diabetes-in-bangladesh-through-sustainable-partnerships.pdf>