

Development and Potentials of Pharmaceutical Industry in Bangladesh: A Synopsis

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Abstract

Bangladesh has made impressive economic and social progress and is now honoured globally as an emerging economy. The average GDP growth over the last five years was over 6%, which is enviable one. In Bangladesh, the pharmaceutical industry is one of the most developed hi-tech one within the country's economy. This sector is also providing about 97% of the total medicine requirement of the local market. Like Readymade Garments, this industry is also potential for the growth of the economy.

Keywords: Pharmaceutical Industry, hi-tech industry, Active Pharmaceutical Ingredient (API), (Multi-National Corporations (MNCs), etc.

1.1. Introduction

The pharmaceutical sector is one of the thrust sectors in Bangladesh. Before liberation, there was hardly any remarkable pharmaceutical enterprise in Bangladesh (the then East Pakistan). Even after several years of liberation, the government could not increase (in relative terms) budgetary allocations for the improvement of health sector. At that time, most of the people had little access to the essential lifesaving medicines. This sector started to improve since 1980s.

The pharmaceutical industry has grown in the last two decades at a considerable rate. After the promulgation of Drug Control Ordinance-1982, the development of pharmaceutical industry has accelerated. The skills and knowledge of the professionals and innovative ideas of the people involved in this industry are the key factors for the developments. Due to recent development of this sector, the country is exporting medicines to global market including European countries and on the top of it; the industry has been supplying about 97 per cent of the present domestic demand for medicines.

The industry has been experiencing robust growth over the last few years. A local industry supporting drug policy and effective regulatory framework, along with Trade Related Intellectual Property Rights (TRIPs) relaxations are the key reasons for the success of the industry.

While the industry is achieving self-sufficiency, it yet procures 70% of raw materials from abroad. But developments are already taking place, with a number of firms now manufacturing raw

materials locally. In addition, an Active Pharmaceutical Ingredient (API) project has already been undertaken to accelerate the vertical integration within the industry.

The industry has been expanding locally and internationally. Local market grew at 23% in 2010, while import reached USD 50 Million landmark. A number of firms got accreditations from USA, UK, Australia, etc. developed markets, and are underway toward expansion into the developed markets. Locally, firms are preparing themselves for post 2016 scenario, now 2030 when TRIPs will be implemented. Almost all the firms are upgrading their facilities and taking up precautions for post 2016 scenario, while aggressively expanding in both local and export markets. This deadline has been extended to 2030. Like Readymade Garments (RMG), this industry is going to be very potential for the economy of the country and hence deserves comprehensive research for its further growth.

1.2. Objectives of the Study

The study aims at representing the development history and potential for pharmaceutical industry in Bangladesh and to highlight the necessity for patronization of the government.

1.3. Methodology of the Study

The study is a desk research. Different literatures have been reviewed to summaries the developments in this area. Customer's choice or perception has been collected and summarized.

2.0. Background of Pharmaceutical Industry in Bangladesh

Pharmaceuticals industry is the core of healthcare sector of Bangladesh. Being part of healthcare sector, its performance is related to demographic variables like population growth as well as economic growth and healthcare policy. In our country, with improving demographic characteristics, recent economic growth and favorable policy, the industry has seen good growth.

The history of pharmaceuticals industry dates back to 1950s. Over the years, the industry has gone through some significant changes. After liberation in 1971, the industry was largely dominated by MNCs, and the country was very much import-dependent one. In 1982, through the formulation of National Drug Policy, and Drug Control Ordinance, a defined guideline for the development of the industry was given. By then, 75% of the market was dominated by the MNCs, whereas the rest were shared by some 133 local firms. Since then, the local firms have established a stronger foothold, and the country has become from an import-dependent to an active exporter of pharmaceuticals products. At 2010, top 5 MNCs have approximately 9.05% of the market share and 97% of total local demand is met through local production.

Nowadays globally, Bangladesh pharmaceutical market has demonstrated the highest growth among all countries in 2013. Whereas Global market and Afro-Asian market is growing at a

rate of 6.70% and 15.70% only, our country is demonstrating an annualized growth of 24.58%. As a result of such significant growth along with a consistent economic growth of around 6%, recently Bangladesh was included on the Goldman Sach's "Next Eleven" list as well as the JP Morgan "Frontier Five". As per their observation, Bangladesh represents significant potentials to become an important global manufacturer of pharmaceuticals, joining China, India, Brazil and Russia.

3.0. Classification of Products in Pharmaceutical Industry:

From the perspective of business nature, the industry can be classified as-

- i. High-End products (Anti-Cancer, Insulin, Vaccines, etc.),
- ii. Branded generics (Products with a brand presence),
- iii. Low End generics,
- iv. Contract manufacturing (domestic and export).

3.1. High End Generics

These are essentially products specific to market niches, i.e. Anti-cancer, Diabetic products, Vaccines, etc. these products are usually high priced and represent a small portion of the market. Profit margins in such products are very high. Historically, these were import-dependent, and MNCs were the key provider. Recently, domestic firms have been entering into this field, and competition is expected to drive prices and import dependency down. Especially, in Anti-cancer, Insulin and several vaccine productions, several local firms have made significant progress.

3.2. Branded Generics

This represents broadest segment of the market, comprising products with relatively stable margin and brand orientation. This segment is dominated by local manufacturers, and due to high brand loyalty observed in our market, market share of manufacturers is usually moves rarely. Competition is branding oriented, and firms try to improve market share and relationships with doctors and related parties to increase market presence. Anti-Gastric and Anti-Biotic are the two-dominant product category in this segment.

3.3. Low-end Branded Generics

This segment is small, often for products with low branding possibility, and price war is most evident here. The number of competitors is very high, and market share of each competitor depends on success of marketing strategy.

3.4. Contract Manufacturing

Locally, this segment is small as almost every firm manufactures its own products. The business usually comes from health organizations like SMC (Social Marketing Company), UNICEF,

etc. to provide products such as saline, contraceptives, etc. However, there is a good market for foreign contract manufacturing. As per observation of Bangladesh Pharmaceuticals Society, our industry can earn approximately BDT 200 billion (USD 2.9 Billion) each year.

Presently, a number of top firms engage in contract manufacturing. Competition is very low, as each firm engages based on foreign counterpart relations. Manufacturing technologies and accreditations play a vital role in developing contract manufacturing capability.

4.0. Present scenario of Pharmaceutical Industry in Bangladesh

- i. Bangladesh pharmaceutical industry is the largest (in volume) among the Least Development Countries (LDCs) with a market size of USD 600 million & an average annual growth rate of 12%.
- ii. The industry is primarily a generic one. There are about 8,000 different brands which meet 97% of the domestic demand.
- iii. The local companies have 86% share of the market. Out of 245 registered companies the top ten companies account for almost 70% of the total market.
- iv. The LDCs are exempted from "Patent Protection" according to the WTO TRIPS policy. This agreement allows legal reverse engineering and sale of patented product until 2016. This gives the local pharmaceutical industry an advantage over India and China who do not come under the exemption agreement.
- v. After entering the global market, Bangladesh pharmaceutical industry has made great progress in export. Between 2003 and 2006 pharmaceutical exports increased to about 61 countries from 51 and quadrupled in value from USD 7.9 million to USD 36.5 million.
- vi. Many Bangladeshi companies have acquired international certifications like US FDA, UK MHRA and TGA; these allows them to penetrate regulated and unregulated markets.
- vii. Bangladeshis in a position to emerge as one of the regional R&D centers for pharmaceutical research as reverse engineering has ended in China and India. There is an opportunity to emulate the Contract Research and Manufacturing Services (CRAMS) model of India.
- viii. Currently 80% of the APIs are imported from abroad. But with the establishment of adequate reverse engineering and API manufacturing facilities the local demand for raw materials can be met without import.
- ix. Bangladesh can provide a strong platform for off-shoring/outsourcing generic bulk and formulation drugs due to a cheap labor force and established infrastructure. With more and more western companies looking to cut cost in their manufacture of bulk drugs as they focus

more on the high-cost patented drugs, Bangladesh can present itself as an attractive destination for off-shoring.

- x. With the establishment of modern technical facilities, the industry can emerge as a regional hub for pre-clinical testing and clinical trials. The Contract Research Organization (CRO) model success of India can act as a template to emulate as subject cost will be very low in Bangladesh compared to that of western countries.
- xi. There is an opportunity for substituting import of vaccines, injectables through manufacturing it locally.
- xii. Many local entrepreneurs are now looking to expand their operations beyond the country borders. Some are looking to emulate the buying of distressed companies in the west to gain immediate market access.

5.0. Customer Perception & Reputation

Customer is a person who buys the products as well as consumes the products and consumer only consumes the products (Chowdhury, 2000). Pharmaceutical industries are dealing with lifesaving drugs; here customer choice does not change so rapidly. People may prefer one brand to

Table 1. Customer's choice of brand name.

Brand Name	Respondent (%)
Square	38
Beximco	24
Incepta	16
Glaxo SmithKline	8
Acme	6
SK-F	4
Others	4

Source: Habib et al., (2011).

another. But the medicine may carry the same compound/same ingredients. Customer choice depends on the customers' reliance upon the company. For example, Beximco's Napa, and Glaxo's Parapirol carry the same compound and used for the same purpose. But, the customer purchases one of them. Customers usually prefer some foreign medicine in case of sensitive problem. However, our local pharmacies do not produce all the sensitive drugs, especially injections. This research also conducted a small survey over the customer of medicinal product and their choices. The sample was taken from different hospitals and pharmacy that came to buy the products. The above chart represents the scenario of customer choice toward the brand name. Most of the customers choose their medicine

produced by square pharmaceuticals limited. According to the customer choice, no organization can play dominant role in the market.

6.0. Size of the Market

There are several sectors on which Bangladesh can be proud of and undoubtedly the pharmaceutical sector is one of these sectors, rather it is the sector, which is the second-largest contributor to the government exchequer. There are about 231 companies in this sector and the approximate total market size is about Taka 76,500 million per year of which about 97% of the total requirement of medicines is produced by the local companies and the rest 3% is imported. The imported drugs mainly comprise of the cancer drugs, vaccines for viral diseases, hormones, etc. Bangladesh pharmaceutical industry is now heading towards self-sufficiency in meeting the local demand. The industry is the second highest contributor to the national exchequer after garments, and it is the largest white-collar intensive employment sector of the country. There are about 450 generics registered in Bangladesh. Out of these 450 generics, 117 are in the controlled category, i.e., in the essential drug list. The remaining 333 generics are in the decontrolled category. The total number of brands/items that are registered in Bangladesh is currently estimated to be 5,300, while the total number of dosage forms and strengths are 8,300. Bangladesh pharmaceutical industry is mainly dominated by domestic manufacturers. Of the total pharmaceutical market of Bangladesh, the local companies are enjoying a market share reaching around 80%, while the MNCs are having a market share of 20%.

7.0. Marketing Strategies

There are different forms of marketing and promotional activities done by pharmaceutical companies. Those are as follows:

7.1. Relationship Building with Doctors

A major part of marketing pharmaceutical products is building strong relationship with the doctors. The opinion of the physicians matters a lot in consumer's decisions and preferences. Hence, the sales representatives go a long way to build strong relationships with leading doctors, whose prescription and suggestions would promote sales of drugs.

7.2. Providing Samples to Doctors

The pharmaceutical companies promote their products indirectly by supplying physician's sample to the doctors. This process includes the companies sending sales representatives to different doctors and providing the doctors with free samples of their products. This allows the pharmaceutical companies to introduce and expose their products to the doctors. Due to the absence of any media

promotion combined with the fact that the Bangladeshi market is a generics market, it is imperative to get prescription share of the leading doctors.

7.3. Providing Doctors with Gifts

Code of Pharmaceutical Marketing Practices (CRMP) strictly regulates the marketing tools and states that any gift given to the doctors has to benefit the end patients in some way. Any household or entertainment purpose related gifts like cards, prescription pads can't be given as these are considered as promotional items. These gifts can also include items like refrigerators for storage of drugs in a certain clinic or hospital. The main function of these gifts is the same as of any other PR gifts – to create exposure and eventually generate share of mind.

7.4. Discounts and Other Sales Promotion Tools

Promotional discounts are given for over the counter (OTC) products. This is the primary promotion tool used for OTCs to increase consumer demand. The price plays a very important role as mentioned above in creating consumer preference and eventually brand loyalty.

7.5. Sponsoring Events/Conferences

Sponsoring conferences and other medical related events and activities are often done by pharmaceutical companies to improve brand image.

7.6. Innovative and Other Techniques

Some companies imply other innovative techniques. For example, Renata once financed cancer treatment for a doctor who in turn regularly prescribed Renata's brands.

8.0. Nature of Channel of Distribution in Pharmaceutical Industry

The distribution channel is a key aspect for a pharmaceutical company. To ensure the widespread availability of pharmaceutical products throughout the country, it is necessary to include effective and efficient channels of distribution within the marketing channels. Because, as the aim of most pharmaceuticals is to cover the majority of the geography of a country, so the distribution process becomes a major ground of expenditure. Hence companies should not only focus on their functioning distribution channels but also on their distribution costs as well. There are institutions however which perform outsourced distribution for other companies. The price on average that these distribution agencies charge pharmaceutical companies is 10% - 15% of sales, whereas internally, this cost is generally less than 10%. An example of a distribution agency is Transom which charges 12%. The cost of distribution for Renata, which performs the distribution themselves, is around 6%. The factors that are included in the cost determination of maintaining an efficient distribution chain are:

8.1. Economies of Scale

The predominant system of circulating pharmaceutical products outside Dhaka involves the following pattern; the small-town chemists place orders according to their requirements of products of a particular company. The same company later supplies the products to them according to their demands listed. But this does pose a seemingly insignificant but in reality, quite a considerable problem. Quite often, as it happens, the transporting vehicle is not used to its optimum delivery amount if the order size is too small thus leading to inefficiencies. Large production volumes help to reduce this problem.

8.2. Efficiency of the Staff

As we know, as equally important as the distribution channel is the quality of the sales personnel. The productivity and efficiency of these very crucial staff members is essential to the success of a company in semi-urban and rural areas. The sales force generally receives adequate training but it is always difficult to maintain and monitor the required standard of skill of people employed by the organization. Inefficiencies among the sales force leads to cost inefficiencies in the distribution chains as well.

9.0. Government Regulation

The industry is regulated by Drug Regulatory Authority (DRA) through the Drug Control Ordinance of 1982, and National Drug Policy 2004.

9.1. Pricing

Under the present regulatory structure, government fixes the Maximum Retail Prices (MRP) of 209 essential drug chemical substances. Other drugs, listed as non-essential, are priced through an indicative price system. For imported finished products, whether they fall in the category of vital or non-vital drugs, a fixed percentage of markup is applied to the C&F price to obtain the MRP. For local distribution, all drugs must be registered with DRA. However, for export purpose, such registration is not mandatory. (Source: National Drug Policy 2004).

9.2. Key Registration Areas

- i. Combination drugs (other than vitamins, nutritional preparations or therapeutically useful) are not allowed.
- ii. For imported drugs, GMP validation, bioavailability and bio-equivalency are important registration criteria.

9.3. Drug Production Regulations

- i. Firms are required to upgrade their productive facilities to ensure cGMP (Current Good Manufacturing Practice) is followed.
- ii. Foreign and MNCs are allowed to manufacture drugs in Bangladesh only if at least three of their original research drug products are registered in at least two of the following countries: USA, UK, Switzerland, Germany, France, Japan, and Australia.
- iii. Drugs not in British Pharma Copea (BP), US Pharma Copea (USP). Indicative Price (IP), International Non-proprietary Name (INN) or Bangladesh Pharmacy Council (BPC) will not be allowed to be manufactured.
- iv. Foreign firms can produce drugs in Bangladesh under licensing agreement following certain conditions.
- v. For export purpose, only, any drug can be produced in Bangladesh.

9.4. Drug Distribution, Storage and Sale

- i. Only registered drugs are allowed for sale,
- ii. Other than OTC drugs, no drugs should be sold without prescriptions,
- iii. Advertisements are not allowed.

10.0. Current Market Scenario of Pharmaceutical Industry

Bangladeshi Pharmaceutical companies are not allowed to do any direct promotion of their products since the regulatory policies prohibit it. The policy frame work for promotion of pharmaceutical products is guided by Directorate of Drug Administration (DDA). DDA has a detailed CRMP that regulates the promotion of pharmaceutical products and this excludes any form of direct marketing through media tools. To illustrate this, the pharmaceutical companies cannot promote their products or their company through the Television, Radio, Newspaper or any other form of printed media. The primary means of promotion for pharmaceuticals is through personal selling and trade marketing. The companies try to identify key opinion leaders namely the reputed doctors and convincing them to prescribe and promote the companies' products.

Currently there are 245 registered pharmaceutical companies in Bangladesh, out of which 200 companies are still in operation. These 245 companies together have 5,300 registered brands. The market is largely dominated by local companies and there are only 5 multi-national companies currently in operation.

11.0. Factors Affecting Development of Pharmaceutical Industry

There are some factors which are affecting the pharmaceutical industry, these are given below -

11.1. Political Factors

Within Bangladesh political ambitions and, is fissiparous tendencies are on the rise and may well continue for quite some time to future. Therefore, it is expected that the Pharmaceutical Industries might consider inclusion of political risk coverage also. The only area where Bangladesh Pharmaceutical industrialists consider giving cover is with regard to TRIPS under certain conditions. Certain type of political risk at the international level has serious implications for exporters & importers. The term 'political risk' has a wider connotation than commonly understood or assumed. It covers events raising not just from politics, but risks in the course of international transactions. In this connection, it may be noted that export has evolved out of uncertainties relating to international trade, particularly due to problems arising out of foreign legal jurisdiction, political changes and currency exchange difficulties faced by many developing countries.

11.2. Economical Factors

Bangladesh has a very small economy and the contribution of pharmaceutical industry in the economy as a sector is also very low. Moreover, unlike other industries and financial institutions, Pharmaceutical Industries concentrate heavily on the urban market. This also reduces the actual size of the market. Interest rate at bank and interest rate of P. F. variation very much affect to pharmaceutical industry. Inflation also affects Pharmaceutical Industry. Because of the inflation, the price of the raw materials increases. Volatile stock market position has also an impact upon Pharmaceutical industry.

11.3. Socio-Cultural Factors

Socio-Cultural factors affecting pharmaceutical industry are as follows:

- a. Population
- b. Life style
- c. Educational level
- d. Level of earning
- e. Societal benefits
- f. Level of consciousness

These are the major social factors, which affect the pharmaceutical industry sector.

11.4.0. Dynamics of Marketing

Since the pharmaceutical market of Bangladesh is generic, there is not much difference in the composition of different products. As a result, a consumer will find several brands which will serve the same purpose. In such a situation, the primary three reasons for a consumer to have any preference towards any particular brand of drug are:

11.4.1. Price

Being a generic market, the content differentiation of different brands of same drugs is not very high. Invariably, there will be several drugs that will be able to meet the needs of a certain problem. In such a case, the price of the different brands becomes an important decision criterion for the consumer, especially in the case of OTC drugs.

11.4.2. Physician's Opinion

As in most situations, the physician's opinion is of imperative importance to any consumer. The case is not different for the Bangladeshi market. In fact, if anything, it is probably even more so. The influence of the physician's opinion probably stretches more on people who have limited medical knowledge and thus they heavily rely on the doctor's opinion.

11.4.3. Overall Brand Image of Drug / Manufacturer

This element is particularly applicable for OTC drugs. The overall brand image of the drug / drug manufacturer can have significant impact on the consumer's choices of purchasing drugs. The consumers might even be willing to incur a cost disadvantage to attain a trusted product. Such brand equity often provides the consumer with quality assurance.

12.0. Conclusion

Pharmaceutical Industry is now an export-oriented industry of the country. The export earnings already exceeded Tk. 500 crores and a number of countries including Srilanka and Russia imports medicine from Bangladesh at present. This is also a labor-intensive industry, conducive to highly populated country like Bangladesh. At present pharmaceutical industry is very much important in the business sector of any country. There are many companies that produce high quality medicines in Bangladesh. New company comes to this sector and produces quality medicines. For this reason, competition in this industry is increasing day by day. Not all firms in this sector do well, but most of them perform well. A new era has begun for Bangladesh pharmaceutical sector with the TRIPs agreement from 2005 and was to continue up to 2016, which has been extended another 15 years, up to 2030. These extended periods will be very crucial and important for the pharmaceutical industry. New technology should be developed so that some new kinds of medicines are added in the

product line and it can be used in various establishments. Progress in Pharmaceutical industry means progress in economy. The progress of pharmaceutical industry depends on the progress of economic condition. Pharmaceutical industry also faces many problems. So, if government develops policies to support this industry as well as to overcome its problems, this industry will flourish and its contribution to employment, other sectors of the economy and enhancement of export earnings from present level of Tk. 5,000 million would more in our country.

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