ANALYSIS OF PHARMACEUTICAL INDUSTRY OF BANGLADESH: (IT’S CHALLENGES & CRITICAL SUCCESS FACTORS)

Md. Arafater Rahman Bhuiyan¹, Maniruzzaman² and Shamin Sultana¹


Abstract

The pharmaceutical industry is globally known as the fastest growing industry in the world. With revenues of USD 518 billion and 9% of global GDP in the year 2007, Pharmaceuticals have a reputation for having the highest profit margin in the world. Bangladesh possesses a sizeable pharmaceutical industry that has the potential to live up to global standards. The country can expand its economic growth by investing in their fast growing pharmaceutical industry which has an annual average growth rate of 16% and a market size of BDT 30 billion in 2007 according to International Management System (IMS). It employs around 75,000 skilled and unskilled employees and is considered to be the second largest contributor to country’s national revenue (Bangladesh Gazette). This sector is the second largest contributor to the Govt. exchequer, employing around 75,000 skilled & unskilled employees. With huge demand-supply gap, major players see basic chemicals as the greatest opportunity for expansion and better control over formulation industry forces.

Key Words: Medicine, Drug, Brands, Expansion, Performance, Domination, Profit.

Introduction

Pharmaceutical is one of the highest priority sectors in Bangladesh. There are more than 230 small, medium, large and multinational companies operating in the country producing around 97% of the total demand (Bangladesh Bureau of Statistics (BBS), Annual Bulletin -2008) The sector is the second highest contributor to the national exchequer after tobacco and it is the largest white-collar intensive employment sector in Bangladesh. 95% of the total demand of Bangladesh is being met by local manufacturing (Ministry of health of BD, Half yearly assessment report published in 2007). The remaining 5% basically constitute import of much specialized products like vaccines, anti-cancer products and hormone drugs (Bangladesh Pharmacy Council (BPC), Annual Report -2009). The country can continue to produce patented products until 2016 as per trade related intellectual property rights (TRIPS)

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Objectives of the Study

Broadly the objective of the study is to make familiar with the present status of pharmaceutical industry of Bangladesh. Specific objectives are:

- To present historical background of pharmaceutical industry of Bangladesh.
- To present the overall situation of pharmaceutical industry of Bangladesh.
- To identify the existing problems in pharmaceutical industry of Bangladesh.
- To show the trend of pharmaceutical industry.
- To provide some guidelines to policy makers.

Methodology

Secondary data was used for the purpose of the study. Secondary data and information were collected from the existing literature in the field of both local and international pharmaceutical area. It used synthesized information collected from several recognized journals, magazines, newspapers and websites of both local and international pharmaceutical companies and various published and unpublished research materials on the subject. Collected data are analyzed on the basis of the objective of the study. While interpreting the findings, apart from using these sources the writer also incorporated his observations and experiences to better explain the crucial issues through the writing process. This paper discussed the relevant issues and analyzed the current market situation based on recent phenomenon.

Limitations of the Study

- The study has been conducted during the period from 2000 to 2006. Any change made after this period has not been covered in this study.
- Lack of available previous research works in this area for designing the study.
- Time and cost is also a considerable limitation.
- The category of the product of the pharmaceutical organization was not same. So it was difficult to compare among their performance.

History of Bangladeshi Pharmaceutical Industry

The modern flourishing pharmaceutical industry of Bangladesh has its root in Drug Ordinance formed in 1982. The rules and regulations of the Drug Act forms the foundation of the current industry. Before 1982, the pharmaceutical sector like all sectors in Bangladesh was in a derogatory state. The situation remained the same till 1982 when the Drug Act of 1982 was formed preceding the poorly planned Drug Act of 1940. Multinational companies controlled the pharmaceutical market in the pre-1982 era. In 1981, there were 166 licensed pharmaceutical manufacturers in the country but local production was dominated by 8 multinational companies who manufactured about 75% of the products.

Table 1: Bangladesh Pharmaceutical Market Prior to 1982

<table>
<thead>
<tr>
<th></th>
<th>BDT 1,500 million per year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government spending</td>
<td></td>
</tr>
<tr>
<td>Number of brands in the market</td>
<td>3,500</td>
</tr>
<tr>
<td>Number of manufacturers</td>
<td>177</td>
</tr>
<tr>
<td>Multinationals</td>
<td>8</td>
</tr>
<tr>
<td>Retail pharmacists</td>
<td>16,000</td>
</tr>
<tr>
<td>Number of Wholesalers</td>
<td>1,300</td>
</tr>
<tr>
<td>Private sector</td>
<td>90% available drugs</td>
</tr>
<tr>
<td>Government utilize</td>
<td>10% available drugs</td>
</tr>
</tbody>
</table>

Source: Bangladesh Pharmacy Council (BPC), Annual Report -2009
**Pharmaceutical Market Size and Growth Rate**

The Pharmaceuticals industry in Bangladesh is the largest growing sector after the garments industry contributing an annual turnover of Taka 30 billion (including export proceeds). The pharmaceuticals sector in Bangladesh is recognized as one of the fastest growing industry with an annual average growth rate of 14-16% p.a. The industry had an annual growth rate of 22.51 per cent during the fiscal year 2001 although the values fell by 12% in 2002. The lower growth recorded in 2003 and 2004 is mainly because of the country’s economic recession. According to IMS the growth rate in 2004 stood at 16%. The pharmaceutical industry registered nearly 15-20% growth in recent times.

There are about 400 generics registered in Bangladesh. Out of these 450 generics, 117 are in the controlled regulatory 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. The Bangladeshi 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 MNC’s are having a market share of 20%. Out of the top ten pharmaceutical companies in Bangladesh, eight are local companies only two companies are multinational. The top two domestic companies, Square and Beximco Pharmaceutical, have a combined market share of about 25% of the total pharmaceutical market of Bangladesh.

**Geographic Concentration**

Due to higher purchasing power the urban areas account for 85% of the modem pharmaceutical market. The five major districts (Dhaka, Chittagong, Comilla, Sylhet and Khulna) account for 70% of the entire market. In rural areas a vast majority of the population go to unqualified Allopaths, un-trained Paramedics, untrained Midwives and Traditional Healers for treatment. They take up a large share of the market.

**Demographic Concentration**

The pharmaceutical market can also be grouped on the basis of demographic concentration. The main consumer of pharmaceutical products is people aged above 16 years. The population and concentration of disease by age is shown in Table 2.

**Table 2: Demographic Concentration of Population & Disease**

<table>
<thead>
<tr>
<th>Age Group</th>
<th>0-4</th>
<th>5-16</th>
<th>16+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>14%</td>
<td>31%</td>
<td>55%</td>
</tr>
<tr>
<td>Disease</td>
<td>24%</td>
<td>31%</td>
<td>45%</td>
</tr>
</tbody>
</table>

**Source:** Bangladesh Bureau of Statistics (BBS), Annual Bulletin -2008

**Pharmaceutical Market Analysis and Divisional Scenario**

Drug manufacturers, pharmacists, third party payers - in fact, all pharmaceutical marketing professionals - are concerned getting better patient outcome. As a result, marketing of prescription and OTC (over-the-counter) drugs has largely increased during the past decade. Still within the industry, marketing must be approached with extreme caution. Restrictive patient privacy laws, intense regulatory scrutiny, and public doubt all impact a marketer’s ability to deliver information to consumers.

The pharmaceutical industry as a business sector is performing relatively well in Bangladesh.
Table 3: Divisional Sales contribution

<table>
<thead>
<tr>
<th>Division</th>
<th>Dhaka</th>
<th>Chittagong</th>
<th>Rajshahi</th>
<th>Khulna</th>
<th>Barisal</th>
<th>Sylhet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contribution</td>
<td>35%</td>
<td>21%</td>
<td>20%</td>
<td>14%</td>
<td>4%</td>
<td>6%</td>
</tr>
</tbody>
</table>

Source: Bangladesh Bureau of Statistics (BBS)., Annual Bulletin -2008

Table 4: Sales and Growth Percentage

<table>
<thead>
<tr>
<th>Year</th>
<th>Sales (MIO BDT)</th>
<th>Growth (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>14932</td>
<td>5.7</td>
</tr>
<tr>
<td>2001</td>
<td>19127</td>
<td>21.3</td>
</tr>
<tr>
<td>2002</td>
<td>23018</td>
<td>18</td>
</tr>
<tr>
<td>2003</td>
<td>24957</td>
<td>10.8</td>
</tr>
<tr>
<td>2004</td>
<td>27107</td>
<td>8.6</td>
</tr>
</tbody>
</table>


At the end of 1999 the total pharma market was about Taka 15,000 Million and now at the end of 2003 the market is about Taka 30,000 Million. Within five (05) years the industry has achieved around 50% growth. The industry has, thus, become a leading growth sector, with some prominent manufacturers operating under ISO certification and producing the finest medicines by internationally accepted standard. SQUARE, the market leader since 1985, has maintained its position with over Taka 4000 million sales. Pharma market is dominated by top 10 companies with a contribution of as high as 76%. Most notable aspect about Bangladesh’s pharmaceutical industry is the strong presence national companies, only 2 MNCs feature among top 10 companies. Incepta, a new local pharmaceutical company has also shown its remarkable presence in the market.

Table 5: Bangladesh Pharmaceutical Globe at a Glance

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Universe of Chemist</td>
<td>68,281</td>
</tr>
<tr>
<td>No. of Pharmaceutical Companies working</td>
<td>190</td>
</tr>
<tr>
<td>No. of Products</td>
<td>7,133</td>
</tr>
<tr>
<td>No. of Standardized Product Group</td>
<td>405</td>
</tr>
<tr>
<td>Value per product in Million Taka</td>
<td>3.8</td>
</tr>
</tbody>
</table>

Source: Bangladesh Bureau of Statistics (BBS), Annual Bulletin -2008

Division Wise Industry Scenario

Dhaka division is contributing as high as 35% of the total sales of the Pharmaceutical industry, next comes Chittagong with 21%. The main reason for this is the high density of doctor’s community in these two divisions. Record shows that around 55% of the doctors and 58% of the chemists are within Dhaka and Chittagong division.

Source: Bangladesh Bureau of Statistics (BBS), Annual Bulletin -2008

Fig. 1: Division wise sale contribution to the Industry

Source: Bangladesh Bureau of Statistics (BBS), Annual Bulletin -2008
However, sale in Chittagong and Rajshahi division seems to be very nearer. Khulna division is also very potential. The least potential seems to be Barisal division. In short, the pharmaceutical companies have also been observed to distribute their efforts in 6 divisions according to the above contribution factor.

**Table 6: Division wise Value per Pharmacy**

<table>
<thead>
<tr>
<th>Division</th>
<th>No. of Pharmacy</th>
<th>Average Sales per pharmacy (Taka)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dhaka</td>
<td>27,548</td>
<td>246,000</td>
</tr>
<tr>
<td>Chittagong</td>
<td>16,322</td>
<td>241,000</td>
</tr>
<tr>
<td>Rajshahi</td>
<td>8,265</td>
<td>194,000</td>
</tr>
<tr>
<td>Khulna</td>
<td>6,345</td>
<td>397,000</td>
</tr>
<tr>
<td>Barisal</td>
<td>5,365</td>
<td>173,000</td>
</tr>
<tr>
<td>Sylhet</td>
<td>4,436</td>
<td>238,000</td>
</tr>
</tbody>
</table>

**Source:** Bangladesh Pharmacy Council (BPC), Annual Report -2009

Pharmaceutical companies are mainly concerned with 2 sets of customers: doctors and pharmacies. As per the doctors prescription pharmacies purchase the products. Sales volume seems to be very potential in Khulna division and least at Barisal division from the perspective of pharmacy number in those divisions.

**Industry Structure and Profitability**

Bangladesh pharmaceutical industry has been witnessing 15-20 percent growth overall during the last couple of years with a large amount of investment, rise in exports and diversification of local products. The industry export grew by around 11% during July-February period of the current financial year and was doubled in just two years. Pharmaceuticals export rose to US $ 15.72 million in the first eight months of the 2005-06 financial years while it was US $ 14.21 during the same period of last fiscal year, according to export to Export Promotion Bureau (EPB) statistics.

The leading pharmaceutical companies in Bangladesh like Square Pharmaceutical, Beximco Pharma, Acme Laboratories, Novartis, Incepta etc. invested heavily to expand their manufacturing plants to increase their production capacity. The new entrants are Popular Pharmaceuticals, Radiant Pharmaceuticals, Novo Healthcare Pharmaceuticals and Social Marketing Pharmaceutical focused on export of patented drugs.

Joint-venture between foreign and local pharmaceutical companies will help them to save money and to grow bigger in respect of size, exports, resources and investment. It would be a great opportunity for foreign pharmaceutical companies to be involved with local companies to reap the benefit of low cost business environment.

**Investors and Sources of Capital**

In Bangladesh, there are several national investors interested in building up pharmaceutical manufacturing: many of the existing pharmaceutical corporations, like Square and Beximco, belong to large conglomerates that have proven the commercial opportunities to invest in this industry. Foreign investors have been particularly interested in setting up manufacturing plants in Bangladesh, notably the investment flow from India, expected by some industry specialists following the Doha declaration, has not materialized so far. When investing in Pharmaceutical manufacturing plants, the equity rate used by Bangladeshi investors is significantly higher than the usual equity rate in transnational pharmaceutical companies.
Major Competitors and Market Share

The major players in the market are Square, Beximco, Aventis, GlaxoSmithkline, Opsonin Chem., Acme, Eskayef, Drug International, A.C.I, Renata, Incepta, Novartis, Ibn Sina, and Jayson, Aristoparma etc. The top three pharmaceutical companies in Bangladesh in the five years before 2005 were Square, Beximco and Aventis. They were stable and always at the top of the ranking during that period. Acme Laboratories improved their market share the most, whereas Opsonin and GlaxoSmithkline went downward.

Although Square, Beximco and Aventis were the top 3 companies all through, all 3 lost market share during the last five years. They were able to stay at the top of the list because of their competitive advantage in the pharmaceuticals industry. But all participants had to lose some part of their share because of the new entrants in the industry. Even in this competitive environment Acme increased their relative share in the industry.

According to cumulative result Incepta is in the 3rd position, in the last quarter of 2006 Incepta came up as the 3rd position pulling ACME in the 4th position. The growth rate of Incepta is quite high, in fact among the top 15 Incepta recorded the highest growth rate in 2004-05 around 40%.

Pharmaceutical market size in QTR 2008: 7169,566
Market size after end of 2004-05: 28,654,395
Market growth: 8.6%
Market size after end of 2005-2006: 3.8 crore
Market growth rate Current: 11.2-12

<table>
<thead>
<tr>
<th>Company</th>
<th>Rank in 2004-05</th>
<th>Rank in 2005-06</th>
</tr>
</thead>
<tbody>
<tr>
<td>Square</td>
<td>1 (15.2%)</td>
<td>1 (18%)</td>
</tr>
<tr>
<td>Beximco</td>
<td>2 (8.2%)</td>
<td>2 (8.5%)</td>
</tr>
<tr>
<td>Acme</td>
<td>3 (5.31%)</td>
<td>4 (6.5-7%)</td>
</tr>
<tr>
<td>Sanofi Aventis</td>
<td>4 (4.89%)</td>
<td>9 (4.45%)</td>
</tr>
<tr>
<td>Incepta</td>
<td>5 (5.14%)</td>
<td>3 (4.45%)</td>
</tr>
<tr>
<td>Eskayef</td>
<td>6 (4.45%)</td>
<td>7 (3.79%)</td>
</tr>
<tr>
<td>Opsonin</td>
<td>7 (4.45%)</td>
<td>8 (4.20 %)</td>
</tr>
<tr>
<td>Renata</td>
<td>9 (3.79%)</td>
<td>10 (3.55%)</td>
</tr>
<tr>
<td>Drug International</td>
<td>10 (3.55%)</td>
<td>12</td>
</tr>
<tr>
<td>Aristopharma</td>
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</tbody>
</table>


The Domestic companies have historically grown at a faster pace than the MNCs primarily on account of the impact of the Drug ordinance of 1982 that prohibits the MNC’s to produce and market some essential drugs like Antacid, Vitamin etc. as well as some other restrictions. In 2009 among the top 10 companies in terms of sales value two were MNCs namely Sanofi Aventis & GlaxoSmithkline ranked 4th and 8th respectively. However both the MNCs experienced negative growth in 2008 over 2007 results.

The top 2 MNCs namely Aventis & GSK both experienced negative growth. Aventis experienced a negative growth ~13% whereas GSK experienced a negative growth of ~3.4%.
Table 7: Top Ten Selling Brands from 2004-2006

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<tbody>
<tr>
<td>Neocptin-R</td>
<td>Beximco</td>
</tr>
<tr>
<td>Neotack</td>
<td>Napa</td>
</tr>
<tr>
<td>NAPA</td>
<td>Beximco</td>
</tr>
<tr>
<td>Beximco</td>
<td>Neoteck</td>
</tr>
<tr>
<td>NAPA</td>
<td>Square</td>
</tr>
<tr>
<td>Beximco</td>
<td>Eskayef</td>
</tr>
<tr>
<td>Neocptin-R</td>
<td>Beximco</td>
</tr>
<tr>
<td>Beximco</td>
<td>Eskayef</td>
</tr>
<tr>
<td>Neoteck</td>
<td>Ciprocin</td>
</tr>
<tr>
<td>Beximco</td>
<td>Square</td>
</tr>
<tr>
<td>Seclo</td>
<td>Square</td>
</tr>
<tr>
<td>NAPA</td>
<td>Ciprocin</td>
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<tr>
<td>Beximco</td>
<td>Square</td>
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<tr>
<td>Neoteck</td>
<td>Ciprocin</td>
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<td>Beximco</td>
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<tr>
<td>Neoteck</td>
<td>Ciprocin</td>
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</tbody>
</table>


Competitive Analysis

SQUARE is still leading the industry with 413.7 crore taka sales followed by Beximco with 234.7 crore taka. Top 8 companies are having more than 100 million taka sale while the rest fall below. Though Incepta is totally new to this industry, incorporated in 1999, but it has shown a tremendous sales growth in every year. It is now a company of 110 crore Taka. The detail growth of top 7 companies in 2003 has been shown in the graph below:

![Growth of Top Players](image)


Top 7 companies have been observed to hold more than 50% sales of the industry. INCEPTA has shown the highest growth in 2003-2004, which is around 41% more than the industry growth. Only SQUARE among the top five has registered higher growth than that of the industry (industry growth is 8.6%). AVENTIS & OPSONIN have shown negative growth though they are the 3rd & 5th largest pharmaceutical company respectively in Bangladesh. BEXIMCO and the others had a growth below the market level.
Factor Conditions:

- **Labor**: Mostly unskilled, and there are not too many pharmacy graduates and chemical engineers in Bangladesh, therefore, most companies have to depend heavily on skilled professionals from other countries. But local drug manufacturers are technically very efficient.

- **Land**: In Dhaka city, most of the lands are used for urbanizations. Square, Incepta, Beximco & few other pharmaceuticals have production plant in Dhaka, but for any new companies to enter into the market, huge investment is required for setting up new plant.

- **Natural resources**: Local herbs for producing herbal medicines, natural resources are not sufficient and needs to improve.

- **Capital**: Huge capital is needed for entering into pharmaceutical industry, the competency depends much on producing at least one distinct brand, therefore, the pharmaceuticals often try to compete on one specific brand and to establish one particular brand requires huge working capital for setting up production plant, distribution channel and to meet quality control.

- **Infrastructure**: Production infrastructure is needed for medicine manufacturing, though only few companies in Bangladesh meet the international standard of pharmaceuticals infrastructure.

Demand Conditions:

**Past Demand Analysis:**

The pharmaceutical industry has an unusual trend in terms of generating a demand of the products. Most of the companies in the pharmaceutical industry do not actually direct its promotional activities towards the ultimate consumers or the users of the product. The primary target of their promotional activity is in fact, aimed at physicians who actually not the users of the product are. Doctors are the key drivers of the business of the pharmaceutical companies.

**Demand Trend of the top companies**

The demand of the products of Aventis Pharma increased from 1997 to 1998, declined in 1999, and then it has been on the rise till 2002. Being a multinational company, it has been tough for Aventis to compete with the top...
two local companies (Square and Beximco). After 2002 the demand of Aventis Pharma’s products has been declining as most of their products became matured and they were late in launching new products into the market.

According to IMS in 2005 the Pharmaceutical manufacturers made a total sale of 377-million units of pharmaceutical products in the domestic market, which is a 4% growth over the previous year. Among the top 10 two are MNCs and the rest are local companies. This shows that at the current market scenario, the local companies are producing the greatest demand of their products. The growth of the top 4 local companies has been positive showing that the demand of their products has been increasing. Whereas the leading MNC Aventis recorded a negative growth of -16.1% and the other MNC GSK also recorded a negative growth of -4% in 2005.

Generating demand by introducing new products:

Bangladesh Pharmaceutical industry is still at its growth stage and the companies are generating new demands for their new products. The market has experienced a tremendous rate of new products introduction enjoying the patent free market Environment. Square is the market leader by introducing highest number of brands each and every year. Last year, they introduced 109 new medicines in the market, where INCEPTA introduced 88 brands.

Past Supply Analysis:

The pharmaceutical companies make a market prediction in each quarter of the year and produce their drugs according to their demand prediction. Most of the pharmaceutical companies are not operating at their full production capacity; they produce only what is demanded plus a 10% of extra stock. So the demand supply gap is quite narrow. More the drugs are in demand more will be the supply.

Supportive and relative Industries:

Supporting industries operate in close co-operation with the pharmaceutical industry. The inputs of companies in other sectors, such as chemical manufacturers, service producers, research laboratories, universities, and packaging companies contribute to the formation of the pharmaceutical cluster as an integrated and competitive entity. Products and services that can be used in diagnosing or preventing illness or enhancing health can be regarded as complements to drugs and therefore, the food science industry can be characterized as a related industry.

Firm structure, strategy & Rivalry:

Rivalry is being determined by the number of players who compete in same therapeutic segments in Bangladeshi pharmaceuticals industry. The recent trend in the sales of pharmaceuticals market shows that, the top ten players usually rely on at least one or two profitable brands which contribute to the 25-30% of total sales. The small and medium sized firms compete for 15% of total market share due to limited category expansion, shared R&D, contract manufacturing, and specialize in few therapeutic sectors. Some new entries in the market such as Jaysen pharmaceuticals, IBNE SINA, Navana pharmaceuticals have the potentials to compete with major players in the market as they are introducing many new brands in therapeutic sectors each and every year.

Cost leadership Strategy is being applied by Square pharmaceuticals as their products are of lowest price in the market. The prior goals and objective of the pharmaceuticals are common and almost similar to produce quality & innovative healthcare relief for people, maintain ethical standard in the business,
to meet the shareholder’s demand, and to ensure transparent business operations. While focusing on objectives, firm’s strategies are based on specializing in at least one therapeutic area, maintaining strong distribution channel which is a core competency, skilled sales personnel which is a distinct core competency of Square pharmaceuticals, category expansion and business diversification (Square), huge investment in production plant (Incepta), specializing in Veterinary (Renata), Ayurvedic and Unani Medicines (Hamdard), Import of medicines, foreign medicine manufacturing and quality control (Novartis, GSK), emphasize on highly profitable brands (Beximco, Sanofi-Aventis).

**Industry Life Cycle of Pharmaceutical industry in Bangladesh**

The overall pharmaceutical is in the growth stage, though there are sub-industries within the main industries which are in the different stages in the industry life cycle. If we take the overall industry output, it can be seen that the growth of the pharmaceuticals in Bangladesh is tremendous, and the industry has a lot of growth potentials given the fact that, there are fierce competitions in the market and companies are coming up with strategies to compete in a niche or specialize in at least in one of the segments. Square leads the therapeutic segment which is a major disease class in Bangladesh due to their strong distribution system and key sales personnel. In animal health care medicines, Renata, ACI pharmaceuticals, Sanofi-Aventis, General pharmaceuticals compete with each other for major market share. Homeopathic segments seem to be little in the industry shakeout stage in between decline and maturity due to the fact that, people do rely more on allopathic treatment rather than homeopathic medicines and this segment is being covered by small and medium pharmaceuticals in the rural areas and also by some doctors. To compete for major market share, firms focus more on introducing new brands under each therapeutic class, and Cephalosporins & combs, Antiulcerant, Antihistamines systemic are the major therapeutic class in which companies launch number of brands. Medicines for diabetes, pain killers, tablets, syrups, have growth potentials in this segment, and cancer treatment medicines, hormone based products are produced or ordered by the large firms on supply to order basis, that’s why their original life cycle status can’t be determined. Anti-biotic, inhalers, capsules, minerals and vitamins always had good sales record because of the demand of the market, and recently companies are also diversifying their segments with production of herbal medicines. Under the herbal segment, two major classes are Ayurvedic and Unani, and Square have the first-mover advantage in this sector though they will face competitions from ACME, Renata, and they are already facing indirect competitions from Hamdard, Herbal care, Holy drugs and few other companies. The herbal sector has lots of growth potentials in the market due to the fact that, in rural areas herbal treatment is very popular, because of people’s belief that Ayurvedic treatment is better than therapeutic medicines.

![Figure 4: Industry Life Cycle of Pharmaceuticals in Bangladesh](http://www.bdresearchpublications.com/journal/)

**Source:** Bangladesh Pharmacy Council (BPC), Research Publication, Published in 2007
Key Challenges of Pharmaceutical Industry

- Primary role is to discover, develop and successfully market innovative products to cure diseases, to ease suffering and to enhance the quality of life.
- To ensure that humanity continues to benefit from pharmaceutical innovation.
- To define an equitable way for sharing the economic burden of pharmaceutical development among the various segments of society.
- To ensure that research, development and application of pharmaceuticals are conducted in harmony with society’s ethical and cultural standards.
- Other key challenges include the issues of marketing practices, animals used in research and development, and accountability for suppliers and contractors.

Industry SWOT Analysis

Strengths

- There is a large population base in Bangladesh for the pharmaceutical sector.
- The use of allopathic medicine is increasing with increase in number of qualified medical practitioners (MBBS doctors) and health facilities.
- Bangladesh has the necessary technical experts (pharmacists, chemists, microbiologists etc.) who are capable of producing high quality medicine and have the necessary knowledge to comply with the latest guidelines for good manufacturing practice (GMP).
- The top local companies are already exporting their formulation products and have the necessary technology and capacity to produce world standard products.

Weaknesses

- Although Bangladesh manufactures 95% of the necessary formulation drugs it is heavily dependent on imported raw materials for their production.
- The economy of the country is not strong enough to support the drug manufacturing industry to the extent that bulk drug manufacturing can begin based on the local demand only.
- Compared to China and India, Bangladesh pharmaceutical industry operates in a much smaller internal market with an even weaker economy.

Opportunities

- From 2005 onwards Bangladesh being a member of LDC will be allowed to produce cheap copies of patented drugs and their raw materials.
- If the government extends necessary support to the industry it has the potential to become a very big export as it will be able to export both API and formulation products to all the LDC countries and off patented formulation products to developing and develop countries.
- As Indian and Chinese companies will not be able to produce patented active ingredients but they have the necessary technology and expertise in reverse engineering and chemical synthesis they will be more interested in cooperation with Bangladesh after 2005.
- The government has decided to set up an API park in Chittagong with the facility to house 20 plants and investment worth TK. 20 billion is expected.
Analysis of Pharmaceutical Industry of Bangladesh

Threats

- In the post 2004 scenario Bangladesh may end up not having the necessary raw materials and may have to buy raw materials from the innovator company at a much higher price.
- The current regulations require that all manufacturing facilities comply with World Health Organization (WHO) GMP requirements. The small industries of the country are still lagging behind and in the post 2004 scenario find it very difficult to survive.
- The implementation of TRIPS agreement is very likely to result in the rise in production cost of medicine and their distribution which may adversely affect the local industry.
- Big multinationals may come and take major market due to their economies of scale, superior technology and product patent.
- Cheap and substandard drugs especially from neighboring countries may enter the market illegally and destabilize the market.
- The present regulation does not allow companies to advertise their OTC drugs in the mass media whereas these are allowed in neighboring countries already creating a market for those products.

Findings of the Study

♦ In manufacturing Pharmaceuticals Industries environmental control is very essential. In Pharmaceuticals Industry lack of proper environmental control may destroy the quality of the medicine but many firms in Bangladesh fails to maintain proper control.
♦ Though Pharmaceuticals Industry is an emerging export earning industry but there is no separate Pharma Industrial Park. This is a very essential requirement to maintain the quality.
♦ Government & the Industries Research and Development effort are very poor. Moreover the Government support an initiative for conducting R & D is very much limited.
♦ In the post 2004 scenario Bangladesh may end up not having the necessary raw materials and may have to buy raw materials from the innovator company at a much higher price.
♦ The current regulations require that all manufacturing facilities comply with World Health Organization (WHO) GMP requirements.
♦ The implementation of TRIPS agreement is very likely to result in the rise in production cost of medicine and their distribution which may adversely affect the local industry.
♦ Big multinationals may come and take major market due to their economies of scale, superior technology and product patent.
♦ Cheap and substandard drugs especially from neighboring countries may enter the market illegally and destabilize the market.

Identification of Critical Success Factor

1. **Leadership, Human resource**: leadership skills and human resources can be termed as one of the most critical success factor within the industry and square has the core competency in managing their human resources.
2. **Key sales personnel**: recruiting and selecting key sales personnel is crucial factor for this industry as the sales depend much on personal selling. Square tops in this position as they have the best sales personnel in the country.

3. **Production facilities**: Depends on number of manufacturing plant in city and outside city. Square and Beximco meets the international standard as they have the huge production capacity.

4. **Star Brand**: Beximco, Sanofi-Aventis, ACI Pharmaceuticals, Renata, have at least two or three popular brands in the market which are of always high demand, therefore, having a brand like NAPA is a core competency for Beximco which ensures 25-30% of their sales.

5. **Finance**: Square and Incepta have huge financial resources and R & D Capabilities, therefore, the strong financial positions allow them to invest more on quality control, R&D, Human resource Department.

6. **Introduction of new brands per year**: Square leads the market in terms of new brand development per year Last year; they introduced 108 brands in therapeutic segments, while Incepta introduced 88 brands. Beximco introduced 54 brands in therapeutic sectors, and is in the 3rd position.

7. **Export base**: Beximco pharmaceuticals have huge export base in the market, and last year, they experienced a huge export growth rate of 11.79%. Incepta, Square also exports their medicines to other countries, especially to developing countries, and also to some European countries such as Germany, where the drug cost is very expensive.

8. **Category expansion**: pharmaceuticals are expanding their categories in therapeutic, animal health care, cardiac, chemical fertilizers, herbal segments. Square pharmaceuticals cover all the segments in pharmaceuticals and market leader in most of those.

9. **Research & Development**: One of the most crucial factors in pharmaceutical industry, Square and Incepta had huge investment in their research & Development, small and medium sized firms mostly rely on shared R &D, joint ventures with the manufacturers, and strategic alliances for R & D, quality control.

**Recommendations**

From the analysis it is clear that as a multinational pharmaceutical company operating in Bangladesh is helping the pharmaceutical industry with the supply of different types of drugs medicine sealing in the market with the local competitors. Only sale of a few drugs under patent will be affected. But this will, hopefully, not affect the market share of domestic pharmaceuticals.

The possible recommendations are:

- **Expanding Pharma Market**
  
  Ever pharmaceutical company faces ever-increasing pressure to keep pipelines full control R&D costs, deliver more drugs to market and build shareholder value. To succeed in this environment, it needs a partner with the knowledge and esthetes to propel innovation and accelerate the drug development process.

- **Market Development for Pharmaceutical Product**
  
  All Pharmaceutical companies in world have become competitive and require a professional approach in reaching to the markets. An effective market development for Pharmaceutical products in various countries can
bring key success for it. Proper channel should be built. The channel to such market is a part of the Market Management Program, where the organization brings to the client the understanding approach to a specific market and helps the organization to manage the market for better profits.

♦ **Apply Field Force Strategy:**

Field force is one of the most important parts for any pharmaceutical company. If the pharmaceutical company needs to create good market share then Field Force, Medical Promotion Officers, Regional managers are the key personnel. They must know a better way of marketing management. The total marketing strategy should be very clear to these people. Again with the expert field force it is not possible for the pharmaceutical company to sell their products.

♦ **Proper Distribution and Sells through the help of HR:**

Each department of the organization should have to help each other. Not only to help each other should the departmental heads work as a team to achieve the goal of the organization. Human Resource department should be playing the key assembler of the entire department. Marketing and other department should help the management to take quick decisions as well as if any problem regarding pharmacy found any problem and solve it as soon as possible.

♦ **Introduction of new products:**

The Introduction of new product is essential for maintaining growth of domestic companies and also helps in promoting of products of the companies. Launching of new products makes a company different among the competitors. Leading domestic companies take this issue very seriously as a matter of prestige.

♦ **Establishment of joint venture projects:**

Joint Venture projects are profitable for Bangladesh, as this will ensure technology transfer. Government of Bangladesh has to do much in this regard for attracting foreign investments to foster pharmaceutical industry.

♦ **Pharmaceutical Industry & Government have to build a separate plant and also a Pharmaceutical Industry Park for Manufacturing Medicine immediately.**

♦ **Government has to employ more skilled workforce to monitoring the Pharmaceutical Industry properly.**

♦ **Policy should be taken to ensure transformation of all pharmaceutical plants of Bangladesh according to WHO guidelines for producing generic version of patented or molecule through ‘Reverse Engineering’. Active support for R and D is needed on molecule and innovative health care items.**

♦ **New entrepreneurs should be encouraged to establish plants for producing patented necessary drugs through ‘Compulsory Licensing’ as per regulations of USFDA and UKMHRA to earn the necessary norms to export in regulatory market under the government support and supervision.**

**Conclusion**

The pharmaceutical industry is highly complex. The technologies leading to drug discovery and development are at the limits of human knowledge. The huge size of the companies and the complexities of their processes and technologies presents many organizational and management challenges. The development and management of the distribution system is highly costly. However while
excellence in managing all these aspects of the industry is a necessary condition for the survival of the global pharmaceutical companies, the uncertainty of the discovery process and the potentially huge returns from the discovery of a single drug means that like drilling for oil or randomly choosing the black beans from a jar of overwhelmingly white ones, success in the industry depends on a high measure of luck. Pharmaceutical sector has the potential to emerge as second largest export sector after readymade garments (RMG) sector. To get the maximum benefit of this potentiality, Government should attract foreign investors in establishing world class manufacturing facilities and also needs to make the domestic companies to perform bioequivalence tests after establishing a test center in the country. Consideration should be taken of the claim of pharmaceutical sector for cash incentives where companies can be given facilities to produce their products at reasonable cost. Wholehearted support from all stakeholders for growth of a potential sector like Pharmaceutical can bring great benefits for the country’s economy.

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