## Report On

# Market Sentiment Assessment of Investors on Bangladeshi Pharmaceutical Stocks incorporating Multiples valuation approach

By

Tazir Chowdhury Mikath 19304021

An internship report submitted to the BRAC Business School in partial fulfillment of the requirements for the degree of Bachelor of Business Administration (BBA)

BRAC Business School BRAC University May 2023

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## Declaration

It is hereby declared that

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

### Student's Full Name & Signature:

**Tazir Chowdhury Mikath** Student ID: 19304021

Supervisor's Full Name & Signature:

**Sang H Lee, PhD** Professor and Dean, BRAC Business School

## Letter of Transmittal

Sang H Lee, PhD Professor and Dean, BRAC Business School BRAC University 66 Mohakhali, Dhaka-1212

Subject: Submission of internship report on "Assessment of Market Sentiment of Bangladeshi Investors on Pharmaceutical Stocks incorporating Multiples valuation approach"

Dear Sir,

I feel privileged to be able to submit the internship report as part of the Bachelor's degree program requirements at BRAC Business School of BRAC University. As part of my internship, I worked in the Research department at BRAC EPL Stock Brokerage Ltd, that came out as a great learning opportunity. I have given my utmost efforts to finish the report incorporating necessary methodologies to while interpreting authentic data in order to make a comprehensible conclusion.

I've tried to be as specific as possible in describing the duties and lessons that have been learned over the course of these three months while also working on a topic related with my discipline, based on your recommendations. I wish to successfully exhibit my learning. I hope that the report will meet the desires and requirements of BBS internship standards.

I would also like to take this time to express my appreciation for all the tremendous assistance and guidance you've provided, which I expect to continue receiving in the future.

Sincerely yours,

Tazir Chowdhury Mikath Student ID: 19304021 BRAC Business School, BRAC University Date: May 2, 2023

# **Non-Disclosure Agreement**

This agreement is made and entered into by and between BRAC EPL Stock Brokerage LTD and the undersigned student at BRAC University, Mr. Tazir Chowdhury Mikath of avoiding and not including any kind of confidential or sensitive data from the organization while working as a research intern in BESL and making this report.

Salim Afzal Shawon, CFA Head of Research, BRAC EPL Stock Brokerage Ltd.

# Acknowledgement

Firstly, I would like to express my gratitude to the research department of BRAC EPL Stock Brokerage Ltd. For accommodating me as an Intern. It has been a matter of great joy for me to kickstart my career in a reputed firm within the capital market of Bangladesh, which is also recognized as a dynamic and traditionally eminent industry worldwide.

Moreover, without the tremendous help and encouragement from my internship supervisor, Mr. Salim Afzal Shawon, CFA; I would not have been able to finish my internship journey seamlessly. Also, I want to thank him for giving me access to the resources I needed to finish this report and broaden my learning experience. I would also want to thank my colleagues Mr. Tanvir Ahmed CFA, Mr. Hossain Zaman Towhidi Khan, Ms. Anika Mafiz, Mr. Fahim Hassan, and Mr. Billal Hossain, from the bottom of my heart. Dealing with them has been one of my most cherished experiences because of their continuous mentorship and guidance to make sure I comprehend the task at hand and the disciplinary subjects.

Finally, I would like to express my earnest gratitude to Professor Dr. Sang H Lee, my faculty supervisor for the internship, for consistently giving me the necessary support and vital disciplinary insights. The unwavering support was crucial for me to ensure sound and seamless development of my internship report while avoiding mistakes.

## **Executive Summary**

The main objective of this report, in chapter-3, is to apply the market-based valuation approach on 5 prescription drugs-producing listed pharmaceutical companies from the Dhaka Stock Exchange, in order to comprehend the market sentiment of a specific time period, from the year 2018 to 2022 (June is the Year end for those companies). Along with the primary objective, there is another objective of this report which is Peer-to-peer comparison of these Bangladeshi pharmaceutical companies' financial performance and growth potentials based on their historical trend analysis. Therefore, in order to carry put the market-approach valuations, secondary data have been collected from the financial statements of those companies' annual reports for the past 5 years. Based on these data, key ratios also known as 'multiples' have been calculated that led to the methods of finding out the 'implied' share price of these companies. Moreover, comparisons have been carried out of these with the actual or market price of those companies' shares. However, in chapter 2, the report has covered an overview of BRAC EPL Stock Brokerage Limited and its different aspects of its departmental functions, as well as experiences from the intern's three-month role at research department of the company. Moreover, attempts have been made to compare BESL's growth strategy to those of other financial institutions operating within Bangladesh's capital market industry.

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# List of Acronyms

BESL	BRAC EPL Stock Brokerage Limited
DSE	Dhaka Stock Exchange
SME	Small and medium-sized enterprises
CSE	Chittagong Stock Exchange
FDI	Foreign Direct Investment
FDR	Fixed Deposit Receipt
ROA	Return on Asset
ROE	Return on Equity
SWOT	Strengths, Weaknesses, Opportunities, and Threats
FCFE	Free Cash Flow to the Equity

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## 1. Chapter 1: Overview of the internship

## **Student Information:**

Name: Tazir Chowdhury Mikath

ID: 19304021

Program: Bachelor of Business Administration

Major/Specialization: Finance

# **Internship Information**

### **Company Information**:

Tenure: January 2, 2023 to April 2, 2023. (Total time period: 3 months)

Company Name: BRAC EPL Stock Brokerage Limited.

Department: Research.

Address of the company: Symphony (3rd Floor) SE (F) -9, Road No. - 142, Gulshan Avenue,

Dhaka- Bangladesh.

#### **On-Site Supervisor Information**:

Name: SALIM AFZAL SHAWON, CFA

Designation: Assistant Director & Head of Research

Job Scope:

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As a Research intern, I have to work under the supervision of Analysts and Associates of BESL research team to assist them in various kinds of research-intensive tasks. My job responsibilities include but not limited to:

- Caring out primary and secondary research on different industries and companies for facilitating investment decisions
- Conducting secondary research on Listed corporations, based on their publicly available publications like Annual reports and price sensitive information.
- Creating financial models based on their published to better analyze their performance and investment potentials.
- Preparing valuations of banks and different companies.
- Maintaining database of shareholding structures and earnings updates of listed firms
- Prepared daily and weekly reports on Dhaka Stock Exchange, Mutual Funds and MacroEconomic Indicator

## **Internship Outcomes**

#### Student's contribution to the company:

The core responsibility of the Research team in BESL is to conduct research on specific companies, industries, and markets and produce reports that provide insights and recommendations to investors. These reports may include financial analysis, company profiles, industry trends, and economic forecasts, among other things. Thus we, as a research team, play a critical role in the capital market industry by helping investors make informed investment decisions based on accurate and insightful information.

In BESL, Research associates and analysts receive daily updates on Record Dates, Board Meetings, AGM/EGM, and Technical Chart information. As an intern, Occasionally, I was needed to produce draft summaries, based on hose published information, of those

corporations. My duties also include calculating revenue growth, and provide analysis based on a few corporate changes. Thereby, I assisted my colleagues of the research department with financial data entry into their excel models with close-up verification while they prepared reports while making investment recommendations for BESL's clients.

#### Benefits to the student:

The main purpose of the internship is to gain practical hands-on experience on some topics that we have studied during our undergraduate business program. It is essential for someone before kickstarting their actual career into a field related to their discipline of studies.

Interning in capital market research has brought phenomenal benefits for me as someone who has a keen interest on pursuing a career in finance and business analysis industry. Necessary lessons from this research internship in BRAC EPL Stock Brokerage Ltd. include the following:

Industry exposure: Interns in equity / capital market research have the opportunity to work with and learn from experienced professionals like CFA charter holder's analysts and others experts in the field. This exposure can help interns gain a deeper understanding of various industries and macro-economy, including the key players, trends, and challenges. Being around key capital market professionals enabled me to comprehend how any change in regulation impacted the organization and how it dealt with all the alterations. Throughout my internship, Bangladesh Bank made some changes in regulatory. Thereupon, BESL had to go through rigorous decision-making process on how to operate various financial services they had offered, which would be affected due to the changes in the regulation. These instances tremendously helped me to better understand the nature of Bangladesh's economy from the perspective of my disciplinary academic topics. Whereas our academic understanding of investment finance, based upon the books and other learning materials we

have studied, was restricted mostly to the USA based financial market, However, the BESL internship allowed me to observe how a brokerage house operates within the framework of Bangladesh's economy.

- 2 Hands-on experience: In BESL research interns are often given tasks from real-world projects and responsibilities, which can help them develop practical skills and knowledge that will be valuable in their future careers in Finance-related fields like Equity market, Investment Banking, Portfolio Management, Development Economics and many more.
- 3 Networking: Interning in BESL research team provides opportunities to build relationships with industry professionals, including CFA charter holding analysts, associates, and other investment professionals. These connections can be valuable for job opportunities and professional development for Finance Majoring graduate.
- 4 Career exploration: Employers value candidates who have practical experience and a proven track record of success. I truly believe, BESL's internship has made my resume strong and more competitive in the job market by giving me an exposure to the real-life corporate culture, which was unfortunately absent from my undergraduate level studies in BRAC University. These types of internships can also help individuals gain a better understanding of the field and determine whether it is a good fit for their skills, interests, and career goals. In my case, it genuinely astonished me; the complex nature of real-life implications of those theoretical Knowledge I have learned during my Finance disciplinary courses.

#### Problems faced during the internship period:

During my internship, I encountered some obstacles. The following are:

1. The department's file space <u>is not sufficient enough</u>. As a result, I had to devote a significant amount of effort to locating previously finished files that needed Further moderation.

2. Lack of incorporation with modern innovative tech-based solutions make our research-tasks more difficult, tedious and time consuming.

However, in my experience, the kind warmth and helpfulness of every BESL staff, made those difficulties quite insignificant for myself. The continual interests and supervision of my teammates in my well-being and corporate learning process made my internship an experience filled with joyous moments.

#### **Recommendations**:

Considering a better experience for their interns, I think, in BESL, there are few areas of improvement that may require extra oversight. For examples:

- An Orientation program, curtailed for a certain batch of interns, at the very beginning of their internship period, would work like ice-breaker while creating a sense of belonging among them.
- 2. As most interns join BESL, willing to receive a superior learning experience and enrich their career potentials, 1 or 2 learning or training sessions can be arranged every month by BESL's professionals. These could be directed toward specific areas of disciplinerelated skills such as Excel Modelling, Financial Valuation methods, Performance and Metric analysis, Presentation pitching skills and other industry-trending technical tools like Blomberg Terminal, Refinitiv etc.

 BRAC EPL Stock Brokerage Limited should emphasize on hiring qualified interns for full-time role after completing their respective internship period. This will definitely motivate the interns to fulfil their duties in more efficient and competitive manner with utmost commitment.

## 2. Chapter 2: Organization Part

## Introduction

The main purpose of this study is to conduct a comprehensive analysis of the organization, BRAC EPL Stock Brokerage Ltd. From a critical point of view. This study will include a critical review of the overall organization and its' key departmental strategies, procedures, policies etc.

For the chapter-2 part, both primary and secondary research has been incorporated within the study. The main source of secondary data is the Annual report of BRAC Bank 2021, the parent organization of BESL. As an important subsidiary operating amidst the booming capital market of Bangladesh, key strategic, managerial, financial and performance information related to BESL are being presented there in a separate chapter of the report.

Moreover, personal consultations, dialogues and inquiries with personnels from different departments have been the primary source of information for this study. However, interns are restricted in some access to departmental information. Due to company policy, it has not been possible to learn about many distinctive company procedures that offered BRAC EPL Stock Brokerage Limited a competitive advantage.

## **Overview of the company BESL**:

BRAC EPL Stock Brokerage Limited is a subsidiary of BRAC Bank Limited, a leading private commercial bank in Bangladesh. It is a full-service brokerage firm that offers a range of services to its clients, including brokerage, research, and advisory services for investing in the stock market. The company is headquartered in Dhaka, Bangladesh, and operates under the guidelines of the Bangladesh Securities and Exchange Commission (BSEC).

After acquiring license from Securities and Exchange Commission of Bangladesh, in 2000, a brokerage house, targeting Dhaka Stock Exchange of Bangladesh, had been formed named Equity Partners Securities Limited (EPSL). Later, it was re-named as BRAC EPL Stock Brokerage Ltd. (BESL) when BRAC Bank Limited, a leading private commercial bank operating as a subsidiary of BRAC NGO, acquired 51% shares of the EPSL brokerage house. It happened during the ending of the month of July 2009. In addition, after 2011, BRAC Bank took control of additional shares of the company leading a total ownership of more than 90% of BESL. Thus, BRAC Bank become the parent organization of BESL. BESL has a dominant market share of 60% in the foreign portfolio investment execution segment. BESL's net profit in 2021 was around 260 million takas, increased from 162 million takas in 2020. BRAC EPL Stock Brokerage Limited has membership at both country's stock exchanges; the Dhaka Stock Exchange (DSE) and the Chittagong Stock Exchange (CSE). As per 2022, there are more than 8 branches of BESL, locations include several districts of Bangladesh: Dhaka, Chittagong, Comilla, Chowmuhani and Sylhet. Furthermore, BESL has organized more than 40 reverse roadshows during the past five years including first roadshow in the countries like United States, Singapore, and Hong Kong as a Bangladeshi firm.

As per the official website of BRAC EPL Stock Brokerage Limited, their implied Vision, Mission, and Values of are mentioned below:

Vision:

BRAC EPL Stock Brokerage Limited's vision is to be the leading stock brokerage firm in Bangladesh, providing innovative and value-added services to its clients and contributing to the development of the capital market.

### Mission:

BRAC EPL Stock Brokerage Limited's mission is to create value for its clients by providing superior investment products and services that meet their unique needs and help them achieve their financial goals. The company aims to achieve this by:

- Building long-term relationships with its clients based on trust, integrity, and mutual respect.
- Providing personalized and innovative investment solutions that are tailored to each client's specific requirements.
- Ensuring the highest standards of professionalism, ethics, and transparency in all its dealings with clients.
- Continuously enhancing its technology, research, and product offerings to stay ahead of the competition and meet the evolving needs of its clients.

#### Values:

BRAC EPL Stock Brokerage Limited's values are at the core of its business and guide all its activities. The company is committed to the following values:

- Integrity: The company operates with the highest standards of ethics, honesty, and transparency in all its dealings.
- Client focus: The company puts its clients at the center of everything it does, and strives to provide them with the best possible investment experience.

- Innovation: The company is committed to continuous innovation and improvement, and aims to stay ahead of the competition by adopting new technologies, products, and services.
- Teamwork: The company believes in the power of teamwork and collaboration, and works closely with its clients, employees, and partners to achieve its goals.
- Social responsibility: The company is committed to giving back to the community and contributing to the development of the capital market in Bangladesh.

#### **Products and Services of BESL:**

BESL offers comprehensive capital markets investing solutions. While brokerage firm is commonly viewed as an execution-only industry, they feel they owe their valued clients much more. They have assembled a dynamic team of traders, relationship managers, and analysts to provide clients with comprehensive, customized services.

### 1. Equity:

- Beneficiary Accounts (BO) are opened for people.
- Providing margin lending
- Trading for domestic and foreign institutional investors
- Providing liquidity support, particularly to foreign institutional investors
- Helping to develop and implement an investment plan
- Providing financial counseling services for corporations
- Facilitating investment by Bangladeshi Non-Residents (NRBs)

### 2. BESL PROBASHI BINIYOG:

Probashi Biniyog allows Non-Resident Bangladeshis (NRBs) to participate in the Bangladeshi Capital Market via a Beneficiary Owner's (BO) account funded by a Non-Resident Investor's Taka Account (NITA). BO and NITA accounts would be kept with BRAC Bank Limited.

- NRBs can invest from anywhere around the globe in the Bangladeshi Capital Market.
- Utilize BRAC EPL Stock Brokerage Limited to execute purchases and sales of clients chosen stocks.
- One hundred percent repatriation of money, dividends, and investment gains
- BRAC Bank Limited enables NRBs to apply for IPOs and purchase and sell shares on the Secondary Market. They may send trading orders to BRAC Bank Limited through email, fax, or telephone.

### 3. Full DP Service from BESL:

BRAC EPL Stock Brokerage Limited is a Full-service participant at Central Depository Bangladesh Limited (CDBL) and offers all required services. The following are the services:

- Dematerialization
- Re-materialization

Unpledged

Pledge

• Transfer

• Alteration of Ownership

• Transmission

## 4. EFT/BFTN/RTGS:

BRAC EPL Stock Brokerage Limited provides investors with the quickest and most convenient means of transferring funds.

## 5. BESL SMS Service:

BRAC EPL Stock Brokerage Limited provides their Investors with some SMS Notifications Regarding Buy-Sell Transactions and Reports of Deposit and Withdrawal.

#### 6. BESL Email Service:

BESL sends daily and weekly reports of the DSE market to their clients, making it easy for them to know what is going on in the stock market at a glance. Following are the reports that have been sent through emails to their clients.

- Daily DSE Market and SME Update
- Daily Portfolio
- Weekly Reports on DSE market
- Weekly Reports on Mutual Fund

#### 7. Research Service:

BRAC EPL Stock Brokerage Limited publishes reports on various aspects of economy that can impact the market significantly, which helps investors to decide on their investments. Following are the topics that the research team focuses on.

- Research Advisory
- Customized Research regarding Macro-Economy, Micro-economy, particular sectors, industries and corporations.
- Proprietary Market Research

It's vital to remember that BESL has a research team that has won multiple international awards and is made up of seasoned analysts who hold CFA charters. The team is committed to developing stock recommendations, industry-specific analyses, company valuations, and capital market predictions. The group has frequently received research funds for producing reliable studies for clients in both the local and global market. The UK's International Finance Publications Limited, the publisher of the prestigious business and finance publication International Finance, has named BRAC EPL Stock Brokerage Limited as the Best Brokerage House and Best Research House for 2019.

#### **Management Practices**:

BRAC EPL Stock Brokerage Limited has a diversified management team and professional HR team that consistently excels at their work to move the company toward its objective. The BESL team is divided in a manner that strikes a compromise between efficiency and effectiveness innovation. The company's management is continually looking for effective solutions to the problem concerns with the country's dynamic market. Additionally, they stress delivering novel solutions to meet the ever-changing market's needs.

#### **BESL Board of Directors:**

- Fahima Choudhury, Director
- Saiful Islam, Director
- Selim R. F. Hussain, Director
- Tamara Hasan Abed, Director
- Mohammod Masud Rana, Director
- Dr. Zahid Hussain, Director

#### Management Team:

- Ahsanur Rahman, Chief Executive Officer
- Kumaresh Saha, Head of ICC & Premium Brokerage
- Prottay Kundu, Head of Finance & Accounts and Administration
- Md. Khalilur Rahman, Head of Retail Sales & Trading
- Moynul Islam, Head of Information Technology

- Salim Afzal Shawon, CFA., Head of Research
- Md. Raquibul Islam Russeau, Head of Digital Business and Service Innovation
- Rajib Kumar Sarkar, Head of Priority Business & Investors Relationship
- Mahfuz-E-Rabbani, Head of Human Resources

#### Human Resource / People Management:

Here are some of BRAC EPL Stock Brokerage Limited's most crucial HR strategies:

- Enhancing staff diversity to generate innovation and originality
- Develop a culture of lifelong education through job rotation and training.
- Integrate corporate ideals into the workforce through team building.
- Focusing on talent acquisition and succession planning to guarantee long-term success.

BESL has been maintaining a shallow employee turnover rate due to its innovative approach to human resources. BRAC EPL Stock Brokerage Limited strives to foster a feeling of community among its workers via the organization of many training sessions and social gatherings. Their strategy has been influential throughout the years.

BESL HR has a fairly standard employee policy, and they pay close attention to their employees' well-being. BESL employees get lucrative benefits from the company. Such as: Provident fund (Maturity 2 years), Gratuity Fund (Maturity 5 years), Earn Leave- (2 days monthly), Wedding Gift- BDT 10,000 or its equivalent, New Born- BDT 5,000 or its equivalent, Mobile Bill- (With Ceiling depending on employee position), Conveyance allowance, Car Loan etc.

BESL continues to provide on-the-job training. Employees learn more and refine their skills as a result of day-to-day operations. In-house training is sometimes organized by HR based on the skill set required in the firm at the moment. HR also organizes customized Psychometric assessments for counseling and employment in order to match an employee's skills and personality to a suitable.

### **Marketing Practices**:

BRAC EPL Stock Brokerage Limited has a dynamic and purposeful marketing department that is prospering in the current market environment to establish BESL as one of the country's most well-known and trustworthy financial institutions. Its target group of clients ranges from high net-worth individuals of the country to young university-going people who are willing to invest their small amount of spare cash, earned from their part-time jobs, in a fruitful manner. The marketing team of BESL continuously deliver answers to the organization's intense marketing demands, emphasizing its current marketing strategies. Here are some of BRAC EPL Stock Brokerage Limited's primary marketing strategies listed below:

- Concentrating on market communication that is inexpensive but yields high returns
- Promoting innovative strategic products by way of premier events
- Recruiting creative and innovative people who will add value and strengthen market strategies
- Enhancing customer relationship management and business intelligence to develop customer-focused business solutions

Recently, BESL has tried to communicate and attract potential clients through various posts on Facebook and LinkedIn. They did not have an excellent social media presence before. As of March 2023, BESL have almost 10,000+ followers in their Facebook page whereas it had only 3,000 followers back in 2021. They communicate with investors through social media (Facebook and LinkedIn) by posting regular stock market information such as forthcoming

AGMs, EGMs, and earnings. Here are samples given below of BESL's marketing and advertising activities through Facebook.

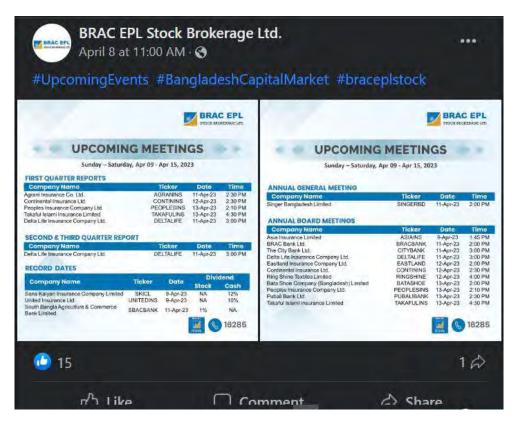


Figure 1: Facebook post highlighting some key DSE market activities

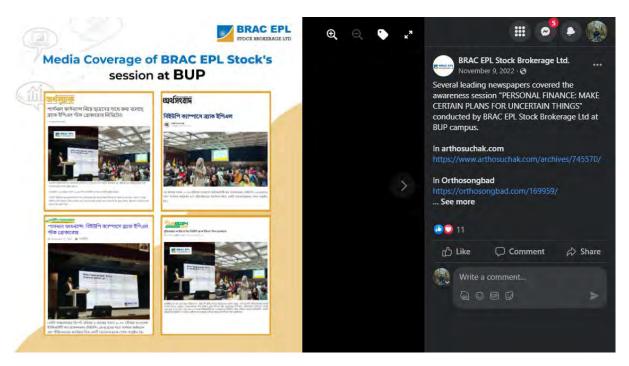


Figure 2: Personal Finance Awareness campaign; targeting young varsity students



Figure 3: Promotional and Informative Facebook content

Due to its unique marketing methods, BESL has received several distinctions. Here are a few instances:

- Corporate Access leader in Bangladesh, with the most roadshows and reverse roadshows organized in the country.
- Best Brokerage House and Best Research House in Bangladesh 2019 according to International Finance Publication.
- BESL organized the nation's first roadshow in the Singapore, Hong Kong, and United States.

## **Financial Performance**:

In this section, to showcase BESL's financial performance, data gathered from BRAC Bank's annual report for the last five years (2017-2021). There are some analyses performed on the company's revenue, return on assets, return on equity, and other ratios that would be beneficial in highlighting the BESL's financial performance.

The following two tables display the financial performance of BRAC EPL Stock Brokerage Limited. Table 1 displays the Income Statement of BRAC EPL Stock Brokerage Limited from the year 2017 to December 31, 2021, and later displays the Balance Sheet for the same period till December 2021. The tables contain data from previous years to provide a year-to-year comparison including growth rates (%) in terms of Gross income, Operating income, Net profit and Total Asset figures.

Income Statement	2017	2018	2019	2020	2021
Service Revenue	565	494	406	397	714
Direct expenses	(138)	(143)	(114)	(108)	(165)
Gross profit	426	352	292	289	550
% Growth		-17.48%	-17.11%	-0.80%	89.93%
Operating expenses	(260)	(231)	(214)	(190)	(203)
Operating profit	166	121	77	99	346
% Growth		-27%	-36%	28%	250%
Investment income	-	(30)	(110)	116	30
Other income	-	3	2	(0)	0
Finance income	134	14	16	18	11
Finance expenses	(6)	(7)	(7)	(9)	(8)

Share of profit of equity in associate company	0	0	1	-	-
Profit before tax	295	102	(21)	224	379
Income tax expenses	(90)	(78)	(64)	(63)	(121)
Net Profit	205	24	(85)	161	258
% Growth		-88%	-455%	290%	60%

Balance Sheet	2017	2018	2019	2020	2021
Property, plant and equipment	34	38	33	23	22
Intangible assets	0	1	1	0	1
Right of use assets	-	-	61	22	69
Membership at cost	11	-	-	-	-
Investment in associate company	15	15	-	-	-
Deferred tax assets	-	-	-	-	9
Investment in DSE & CSE	46	97	97	97	97
Total non-current assets	106	151	191	142	198
Investment in shares	510	544	456	407	415
Account receivables	1,617	151	174	185	58
Inter-company receivables	23	1	1	1	-
Margin loan receivables	141	171	90	163	268
Advances, deposits and prepayments	396	490	542	15	21
Other receivables	4	1	1	2	3
Investment in FDRs	129	63	-	-	-
Cash and cash equivalents	174	446	531	1,105	1,463
Total current assets	2,995	1,866	1,795	1,878	2,228
Total assets	3,102	2,017	1,987	2,020	2,426
% Growth		-35.0%	-1.5%	1.7%	20.1%
Share capital	701	701	701	701	841
Retained earnin	233	257	172	333	451
Revaluation for TREC license	-	88	88	88	88
Total equity	934	1,046	961	1,122	1,380
Lease Liability	-	-	31	8	60
Defined benefit obligations	2	-	-	-	0
Total Non-current liabilities	2	-	31	8	60
Account payables	1,650	440	23	807	882
Lease Liability- current portion	-	-	2	15	12
Payable to Clients	-	-	381	-	0
Investment suspense account	46	-	-	-	0
Inter-company payables	2	1	0	0	0
Liability for expenses	74	60	54	53	59
Provision for Income tax	393	471	535	16	34
Total current liabilities	2,165	972	995	890	986
Total liabilities	2,168	972	1,026	898	1,046
Total equity and liabilities	3,102	2,017	1,987	2,020	2,426

ROE 21.92% 2.29% -8.85% 14.38% 18.69%
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To better highlight last years' performance of BESL, a more in-depth knowledge of ROE is necessary to avoid mistaken assumptions. DuPont analysis method fills this need by breaking down ROE into a more complex equation. Here, ROE broken down into net profit margin (how much profit the company gets out of its revenues), asset turnover (how effectively the company makes use of its assets) and equity multiplier (a measure of how much the company is leveraged).

This equation for ROE breaks it into three widely used and studied components:

 $ROE = NPM \times Asset Turnover \times Equity Multiplier$ 

Thereby, the above mentioned 3 ratios are being calculated from the last 5 years BESL financial statements to construct DuPont ROE calculation.

Net Profit Margin	0.36	0.05	(0.21)	0.41	0.36
Financial Leverage	3.32	1.93	2.07	1.80	1.76
ROA	0.18	0.25	0.20	0.20	0.29
ROE (DuPont)	0.22	0.02	(0.09)	0.14	0.19

Furthermore, the current ratio for BESL has been calculated below which compares all of the company's current assets to its current liabilities. Over the last 5 years, for BESL, it shows a upward moving trend. It indicates the increasing company's ability to cover its short-term debt with its current assets.

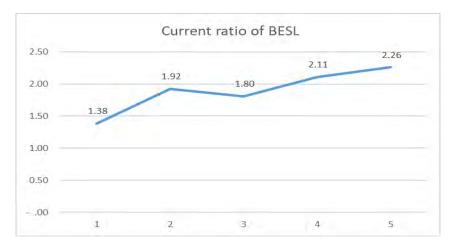


Figure 4: Current ratio of BESL

## **Accounting Practices**:

BESL is a stock-oriented company that operates a brokerage house and provides vital services to domestic and international investors. Their financial procedures differ significantly from those of other businesses. The company's business development department establishes an objective for the year ahead, based on which they plan and practice. They contact international clients to increase income and do road shows in other places to raise knowledge of Bangladesh's stock market. Furthermore, BESL is striving to attract retail investors by opening additional branches around the country, which would allow them to collect more income from the retail sector, therefore assisting in the expansion of the company. The Accounting practices in BESL is similar to its parent BRAC Bank Ltd. According to their latest annual report from 2021, they adhere to the International Financial Reporting Standards (IFRSs). Both cash basis or accrual basis of accounting is followed in case of recognizing different form of income and expenses.

BESL accounting team use straight line depreciation to work out the loss of value of an asset over time. The company has number of assets for example- software, computer accessories, office space, vehicles etc. They use straight line method to calculate the depreciated value for each asset and use weighted average to calculate the overall depreciation of the company every year.

The subsidiaries of BRAC Bank have some variations in depreciation rates and method for few classes of fixed assets. These are very usual practice considering their separate line of business, nature of operation and asset consumption pattern.

Category of assets	BRAC Bank Limited	BRAC EPL Investments Limited	BRAC EPL Stock Brokerage Limited
Furniture and fixture	10%	10%-20%	12.5%
Building	2.5%	5%	2%
Office equipment	20%	10%-20%	20%
IT equipment - Hardware	20%	25%	
IT equipment - PC, Laptop, UPS, Printer and Scanner	33.33%	33.33%	25%
IT equipment - Software	10%-20%	33.33%	33.33%
Motor vehicles	20%	20%	20%
Office decoration/enovation works	10%	15%	15%

Figure 5: The depreciation rates of BRAC Bank and BRAC EPL subsidiaries

The management of BRAC Bank decided to follow uniform accounting policies in compliance with IFRS 10 "Consolidated Financial Statements" with the retrospective effect as per IAS 8 for the preparation of consolidated financial statements as per IFRS 10. Accordingly, consolidated financial statements of BRAC Bank for the year ended 31 December 2021 have been prepared applying uniform accounting policies giving impact of uniform depreciation policy. (BRAC Bank, 2022)

## **Operations Management and Information System Practices:**

The robust IT infrastructure of BRAC EPL Stock Brokerage Limited enables the organization to give novel digital solutions to the market. Strong IT infrastructure and efficient Operations Management, across its 8 branches throughout the country, enable BESL to excel in the industry. As a stock Brokerage firm BESL's IT infrastructure is designed to handle high volumes of transactions, ensure data security and confidentiality, and comply with regulatory requirements. They also have disaster recovery and business continuity plans in place to ensure that it can continue to operate in the event of an IT outage or other disruption.

Here are some of the company's Operations Management and Information System's most important approaches:

- Increasing BRAC EPL Stock Brokerage Limited's footprint in the country's major vital regions.
- Optimizing the company's procedures by establishing a solid infrastructure
- Decentralizing processes to increase productivity.

However, as a private company, BESL Information Technology team prefer to keep it confidential; the in-depth details or descriptions of its Operational infrastructures including some advanced tools and methods currently being employed.

## **Industry and Competitive Analysis**:

According to Business Inspection BD, there are more than hundreds of stock brokerage houses currently operating in Bangladesh, focusing on the nation's two stock exchanges: Dhaka Stock Exchange, the largest stock exchange established in 1954 while the second largest in the Chittagong Stock Exchange founded in 1995. These brokerage firms, like any other sort of business, has many divisions that perform various duties, all of which are ultimately tied to buying and selling stocks in some manner.

As per July 2022, Business Inspection picked Bangladesh's top 12 stock brokerage firms and ranked BRAC EPL Stock Brokerage Ltd. into the 5<sup>th</sup> position. Considering the industry

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competitiveness of Bangladesh's capital market, Porter's 5 and a comprehensive SWOT analysis on BESL are being incorporated below.

#### Porter's 5:

Porter's 5 forces analysis of BRAC EPL Stock Brokerage:

- <u>Threat of new entrants</u>: The threat of new entrants in the stock brokerage industry in Bangladesh is relatively moderate. The capital requirements to start a brokerage firm are significant, and there are several regulatory requirements to meet according to BSEC. Additionally, established players like BRAC EPL Stock Brokerage have strong brand recognition and loyal customer bases, making it difficult for new entrants to gain such a foothold in the market.
- <u>Bargaining power of suppliers</u>: The bargaining power of suppliers in the stock brokerage industry of Bangladesh is relatively low. Brokerage firms require access to financial products, such as equities and bonds, to offer to their clients, but there are numerous suppliers of these products in the market. As such, suppliers have limited bargaining power.
- <u>Bargaining power of buyers</u>: The bargaining power of buyers in the stock brokerage industry is moderate. Bangladeshi stock market investors have several options to choose from in the market, which gives them some bargaining power. Additionally, the availability of information on investment products through the internet has increased buyers' ability to compare prices and offerings. However, BESL's strong brand reputation and full-scale customer service including research insights, as well as a diversified range of products, can help mitigate this bargaining power.

- <u>Threat of substitutes</u>: The threat of substitutes in the stock brokerage industry is moderate. Bangladeshi Buyers have more than hundred options to choose from, including other brokerage firms, investment advisors, and self-directed investing platforms. However, the range of services offered by brokerage firms, including research and analysis, and the access to professional advice, can make them a more attractive option than substitutes. However, the ongoing advancement of Artificial Intelligence and digitalized trading platform may pose some level of threats on Stock Brokerage businesses and their employee's job securities.
- <u>Rivalry among existing competitors</u>: The rivalry among existing competitors in the stock brokerage industry in Bangladesh is moderate. The industry is relatively concentrated, with a few large players like BRAC EPL Stock Brokerage dominating the market. This competition can lead to price competition and attempts to differentiate through product offerings and customer service.

Overall, the stock brokerage industry in Bangladesh is moderately competitive, with barriers to entry limiting the threat of new entrants. Strong brand reputation and customer service, as well as a diversified range of products, can help mitigate the bargaining power of buyers.

#### SWOT:

SWOT analysis of BRAC EPL Stock Brokerage:

Strengths:

• Strong brand reputation: BRAC EPL Stock Brokerage is a subsidiary of BRAC Bank, which is a highly reputable and well-known bank in Bangladesh. This gives the brokerage a strong brand reputation and can help attract clients.

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- Diversified product offerings: The brokerage offers a wide range of investment products, including equities, bonds, and mutual funds, which can help attract a diverse client base.
- Strong customer service: BRAC EPL Stock Brokerage has a reputation for providing excellent customer service, which can help retain clients and attract new ones.
- Access to research: As a subsidiary of BRAC Bank, the brokerage has access to the bank's research and analysis, which can help provide valuable insights to clients.

#### Weaknesses:

- Limited market share: While BRAC EPL Stock Brokerage has a strong reputation, it has a limited market share compared to larger competitors, such as Lanka Bangla and Royal Capital, IDLC Securities etc. which can limit its growth potential.
- Limited geographic reach: The brokerage is primarily focused on the Bangladesh market, which can limit its revenue growth opportunities.
- Limited digital capabilities: BRAC EPL Stock Brokerage's digital capabilities are relatively limited compared to some competitors, which could make it less attractive to younger or more tech-savvy investors.

#### Opportunities:

- Growing market: Bangladesh's economy is growing rapidly, which could lead to an increase in demand for investment services.
- Increasing interest in capital markets: There is increasing interest in capital markets among retail investors in Bangladesh, which could lead to growth opportunities for BRAC EPL Stock Brokerage.

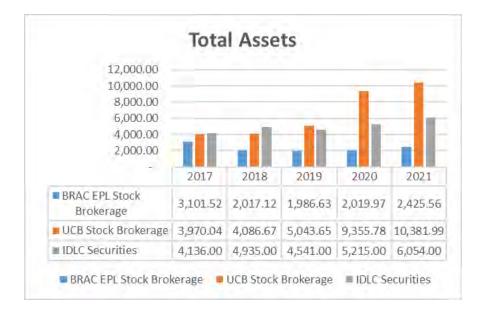
• Partnership opportunities: The brokerage could explore partnerships with other financial institutions or technology companies to enhance its product offerings and digital capabilities.

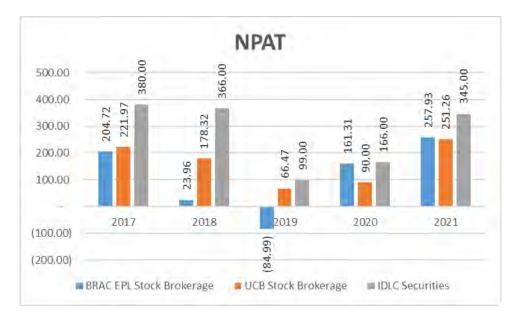
Threats:

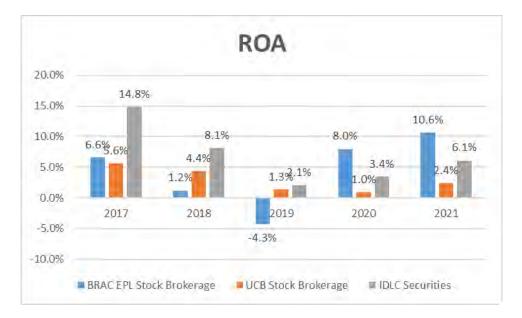
- Economic instability: Bangladesh's economy is vulnerable to economic instability and political unrest, which could negatively impact the brokerage's revenue.
- Increased competition: The brokerage faces increased competition from larger and more established competitors, which could impact its market share and revenue growth.
- Changing regulations: Changes in regulations or increased regulatory scrutiny could impact the brokerage's operations and revenue. As per April 2023, the on-going price flooring restriction imposed by the BSEC is a good example of how regulatory measures hampers these financial institutions basic businesses and investors' confidence in the market (Habib 2023).

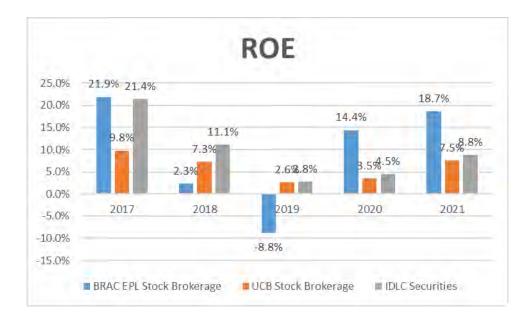
#### **Competitive Financial performance:**

Among 250+ Brokerage firms operating in Bangladesh, according to Business Inspection BD, two important brokerage / securities firm named UCB Capital Management and IDLC Securities Ltd. are being taken for this section's competitor analysis with BESL. Here, both cross-sectional and timeseries analysis (2017-2021) have been conducted with BESL's these 2 competitors, emphasizing the financial performance trend regarding NPAT, Total Assets, ROA (NPAT / Total Assets) and ROE. Figures demonstrating these trends graphically are being attached below.









#### Summary:

This chapter provides a summary and overview of the company's general organizational structure. From its founding in 2000 to the present day, BRAC EPL Stock Brokerage Limited has efficiently operated as one of the market leaders in the brokerage business. The BRAC EPL Stock Brokerage Limited's business strategy is sustainable due to the innovative and consistent approaches of the organization's various major departments.

In conclusion, I believe that aspiring financial organizations in the country should model themselves after BESL. Despite the obstacles presented by Bangladesh's economy, all of the nation's financial institutions should be motivated by BRAC EPL Stock Brokerage Limited's unwavering commitment to innovation and efficiency.

BESL provides a one-stop solution for all kind of capital market investment solutions and being third leading stockbroker in Bangladesh with a dominant market share of over 55% in the foreign portfolio investment execution segment. It has always focused on bringing foreign investors in country's financial market. Besides, it has recently start operating more actively to attract retail investors of our country. In dept research, market analysis, regular economic and financial news provides to the investors to help them make their investment strategy efficient.

In 2021 till of august, BESL research team has successfully made a return of 12% for the

company which is very extra-ordinary in only 6 months.

### **Recommendations**:

After completing a strategic analysis of the organization, I provide the following suggestions:

- <u>Having a greater presence within the student body</u>: Students and younger generations lack adequate understanding of investing. Since students make up the majority of the younger generation, BRAC EPL Stock Brokerage Limited should take greater steps to inform students about their existence. It will not only enhance the likelihood of producing more business once the students become potential customers, but it will also entice intelligent individuals to join their organization and propel it to unrestricted growth.
- <u>Individualizing the competence of each branch</u>: In the existing arrangement, other branches mostly dependent on head office. They look to the headquarters for financial analysis and other crucial matters. It takes significantly more time. If BRAC EPL Stock Brokerage Limited takes steps to make each branch capable of performing all clientrelated financial analysis and paperwork independently, the system would operate at a significantly faster rate.
- Expanding presence in locations outside megacities: BRAC EPL Stock Brokerage Limited has a strategic objective to grow its facilities outside of megacities, and it should immediately implement this approach. It will offer the organization with a competitive advantage. Additionally, clients from these regions would be able to utilize BESL's services, hence expanding the company's customer base.

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#### **3. CHAPTER 3**

#### 3.1 Introduction:

The year 2022 was crucial for Bangladesh as well as for the whole world, as it has passed through various historic events that highly influence nation's economic well-being. The middle of 2022 (around July 2022) had been a peculiar period for Bangladesh, marked by the re-opening of economy after the turbulence impact of Covid-19 pandemic throughout the years of 2020 and 2021. Yet like other parts of the world, Bangladesh's economy was also battling with the supply chain crisis, which had begun in 2021 (Hassan, 2021). On top of this, the break out of Russia-Ukraine war in February 2022 and the disruption caused by these events genuinely worried the nation with fears of high Inflationary Expectation, eventually which has come out true (Uddin, 2023). The following figure, demonstrating the sharp increase of Consumer Price Index (CPI) for Bangladesh, confirms that. (Source: BBS data)



Consumer Price Index CPI in Bangladesh increased to 339.07 points in March from 335.29 points in February of 2023. source: Bangladesh Bureau of Statistics

Thereby, this project will attempt to analyze the market sentiment of investors, towards the pharmaceutical sectors of Bangladesh, amidst the peculiar economic situation, for the past 5

years, with rising high Inflation (and consumer pricing) expectations. Pharmaceutical industry, world-wide, often being considered by experts as defensive sector of a stock market, that is not very volatile or reactive to any adverse economic situation. Thus, the impact of any systematic economic risk would be lower on pharmaceuticals and essential drug producing companies (Azam et al., 2022).

#### **3.2 Background of this study**:

A nation's economic development and growth are dependent on well-productive investments. However, it would be impossible to achieve without securing the availability of long-term funding and their effective and efficient applications. Stock market plays a significant role in this matter. Economic growth in emerging economies is strongly depending on stock market (Mauro, 2003). A capital market can play an important role in capital formation and allocation because it provides a platform for investment opportunities with a competitive pricing mechanism, which in turn influences investors' sentiment to save and invest domestically.

#### **3.2.1 Inflationary Expectations and Stock Market**:

However, it is worth noting that the relationship between inflation and the stock market is complex, and there are many factors that can influence the stock market during periods of high inflation. Due to High inflation expectations, the stock market can be affected in several ways according to a remarkable study of Solnik (1983). Some crucial impacts are:

• Rising Interest Rates: Central banks may raise interest rates to combat inflation. Higher interest rates make it more expensive for companies to borrow money, which can reduce their profits and slow down economic growth. This can lead to a decline in stock prices, particularly for companies that are heavily dependent on borrowing.

- Reduced Consumer Spending: Inflation can reduce the purchasing power of consumers, leading to a decrease in consumer spending. This can hurt companies that rely on consumer spending for their revenue and profits. As a result, stock prices of such companies may decline.
- Increased Input Costs: Inflation can cause input costs such as raw materials and labor costs to rise. This can reduce the profit margins of companies, leading to lower stock prices.
- Flight to Safety: Investors may shift their investments to safer assets such as bonds, which can cause stock prices to decline.

Its worth to mentioned that, pharmaceutical industry is being referred as defensive sector, as people don't stop or reduce purchasing their essential medicinal products even at the cost of higher pricing. Thus, unlike other cyclical sectors, less anomaly from the demand side is less noticeable for theme pharma and drug manufacturing corporations.

#### 3.2.2 Market Approach: Multiples-based valuation:

Multiples-based valuation method is called the Market-based approach because it uses marketderived data to estimate the value of a company. The multiples are based on the company's stock price or enterprise value divided by a relevant financial metric, such as earnings, revenue, or cash flow. These multiples are then compared to the multiples of other similar companies in the market or industry.

By using multiples derived from the market, the multiples-based valuation method takes into account the supply and demand forces in the market. The multiples reflect the collective opinions of investors and analysts about the value of the company, as reflected in the stock price or enterprise value. The Market-based approach is a contrast to the other primary/intrinsic valuation methods, such as the Income-based approach, which is based on a company's projected future cash flows, or the Asset-based approach, which is based on the company's net asset value. While these other methods are focused on the internal workings of a company, the Market-based approach looks externally at how the market perceives the company's value.

Overall, the Market-based approach is a useful method for investors and analysts to estimate the value of a company quickly and easily by using market-derived data, thereby indicating the sentiment of investors towards a particular industry or a strategic group of companies within a capital market.

### 3.3 Objectives:

#### 3.3.1 Primary objective:

The main objective of this project is to apply the market-based valuation top 5 listed pharmaceutical companies from the Dhaka Stock Exchange, in order to comprehend the market sentiment for the period of last 5 years, from years-end (June 31<sup>st</sup>) of FY 2018 to FY 2022, amidst the rising inflationary tend.

#### **3.3.2 Specific objective:**

Along with the primary objective, there are some other objectives of this report and they are as follows:

- Peer-to-peer comparison of Bangladesh's top pharmaceutical companies' financial performance and growth potentials to get basic investment recommendations.
- Being able to understand whether Pharmaceuticals in Bangladesh can truly be a defensive sector for investors amidst inflationary periods of time.

• How applicable is the market approach method in these companies from Bangladeshi context.

#### 3.4 Methodology:

The Pharmaceutical sector has been chosen as a strategic sector of this project, intended to conduct a market approach valuation based on their multiples data. Initially, financial statements of at least 5 listed pharmaceutical companies collected from DSE: Square Pharmaceuticals, Beximco Pharmaceuticals, Renata Pharmaceuticals Ltd, Orion Pharma Ltd. and Beacon Pharmaceuticals Ltd. All these data were collected from their annual reports of the time period of ending of (June) FY 2018, FY 2019, FY 2020, FY 2021, and FY 2022.

Then, financial ratios calculated from the 5 peer pharma companies: P/E, P/Sales, EV/EBITDA, EV/EBIT, and EV/Sales, and get their harmonic average values.

P/E: Price per share/ Earnings per share (EPS)

P/Sales: Price per share/ Sales per share (SPS)

EV/EBITDA: Enterprise Value/Earnings before Interest, Tax, Depreciation, and Amortization EV/EBIT: Enterprise Value/EBIT

EV/Sales: Enterprise Value/ Sales

After that, using each of these 5 companies' company's EPS, BPS, SPS, EBITDA, EBIT, and Sales, target company's implied stock price and EV have been calculated, with the help of a MS Excel template intended for multiples-based valuations.

By doing so, the average and median values of 10 estimates from these 5 selected companies (5 from the average and another 5 from the median value) have been brought out and compared

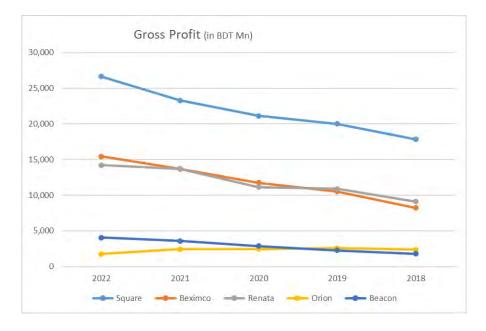
with the actual price of stocks (Year ending; June 31<sup>st</sup>) during the time period between FY 2018 and FY 2022. The range of price estimates for each of these 5 companies, for the past 5 years, has also been analyzed.

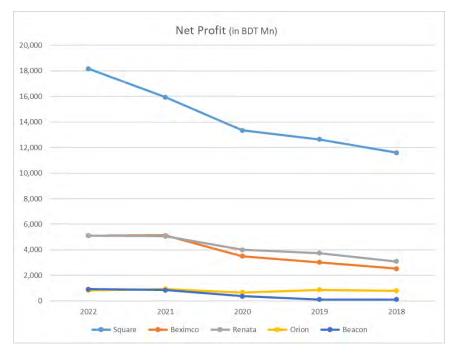
Beside conducting market approach valuation, to better interpret those 5 companies' performance, key financial metrics such as Gross profit, Net profit, EPS as well as the R&D spending amount have been analyzed for the past 5 years.

#### 3.5 Findings and Discussion:

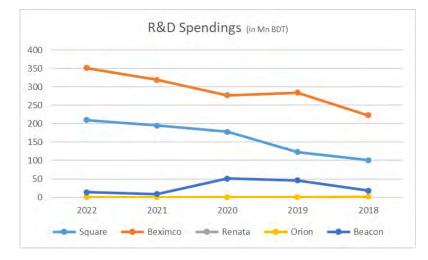
For this project, Market approach of multiples-based valuations of the 5 listed pharmaceutical companies: Square Pharmaceuticals, Beximco Pharmaceuticals, Renata Pharmaceuticals Ltd, Orion Pharma Ltd. and Beacon Pharmaceuticals Ltd; has been calculated in the excel files titled "June20xx\_Chapter 3 Draft Market Multiples Approach Valuation\_Internship\_19304021". The Results, the average and median values of 10 implied price estimates from these 5 selected companies, for each of the past 5 years, and the range of price estimates have been displayed in the Appendix section.

Before showing the price (actual vs implied) movement trend, I would like to demonstrate the financial performance of those 5 pharmaceutical companies over the past 5 years.

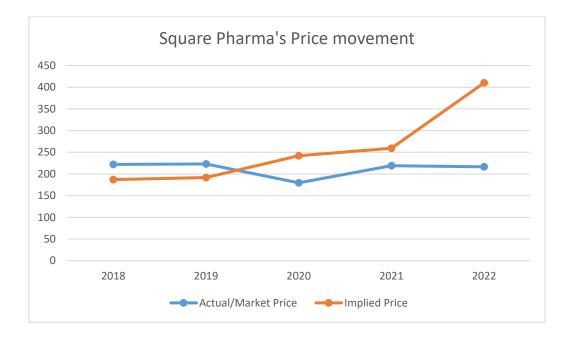






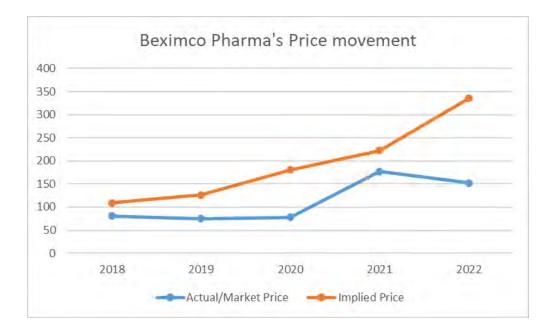


Now, the trends, in case of both the actual market price (year ending; June 31<sup>st</sup> of each year) and the implies estimates (form the market approach valuation) for the past 5 years, are being displayed below, followed by a brief interpretation.

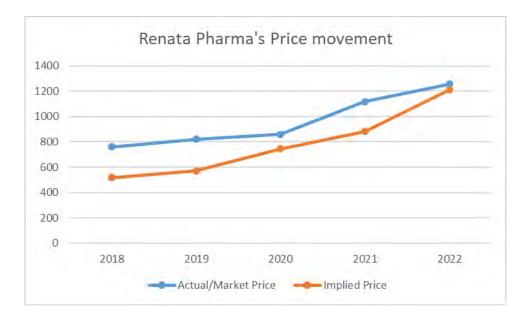


The Square pharmaceuticals can be considered as behemoth in the pharmaceutical industry compared to the others, which is evident from their financial strengths, market size and higher profitability. Square also spend disproportionately higher in research and development than the other companies. Moreover, they are first company from Bangladesh that announced to produce medicines in a foreign country, with a view to transform this into a multi-national corporation originating from Bangladesh. (TBS Report, 2021) However, the increasing trend of Square's higher profitability may not reflect properly in the investors' sentiment in the stock market; whereas the implied price over the last 5 years, derived from the market approach, showing the upward trend.

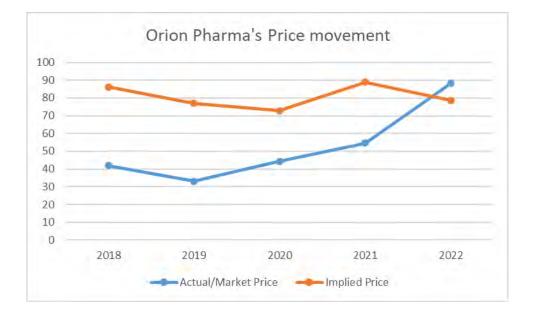
Although rising inflation is supposed to be not harmful for the pharmaceutical's demand side, some adverse effect could be the higher interest rate, which can reduce corporate profits and make it more expensive for companies, especially for those which have plans for business expansion or massive investments of long-term assets, to borrow money. This can lead to a decline in stock prices as investors' sentiments anticipate lower earnings and slower growth.



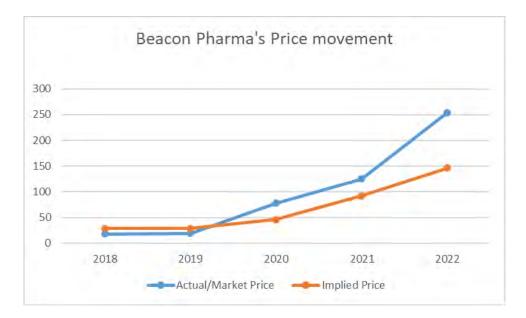
Like Square, Beximco Pharmaceuticals, a leading conglomerate from Bangladesh, has a strong financial position with consistent revenue and profit growth in recent years. My analysis showed that they have been consistently spent higher over the years in research and development. Also, Beximco Pharmaceuticals has formed strategic partnerships with global pharmaceutical companies, including Pfizer and Sanofi, which provides access to new products and technologies, as well as increased distribution and marketing capabilities. Furthermore, after Square, they are set to start producing medicines in the kingdom of Saudi Arabia with joint venture investments from the year of 2023, as per their chairmen's announcement recently. (The Daily Star, 2023) Despite these investment positives regarding Beximco, many pharmaceuticals in Bangladesh are now increasing raw materials and operational costs, which can hamper down net profitability. The expectation of higher cost margin in genuine as recently Pharma owners claimed how the industry is currently passing a tough period due to high prices of materials, the US dollar, energy and transportation. (TBS report, 2023) Thus, Investors may lose confidence on this sector despite being known as 'defensive' theoretically.



On the other hand, some company's overvaluation can be a result of the market's demand of the stock, such as Renata pharmaceuticals that has been offering more than 100% cash dividends for last few years. (TBS Report, 2022)



If we look at Orion Pharma's performance, its evident that over the last few years, unlike its peers, both gross profit and net profit for the company is either declining or stagnating. Lack of financial strength and better performance is the reason their implied price (by market valuation) has been going down.



Although, inflation erodes people's purchasing power greatly, demand for highly-essential products such as prescription drugs usually stays unchanged. This may explain why investors have relatively higher confidence on some of the pharma companies despite the expectations of higher inflations and other macro-economic adversaries.



Nevertheless, to say, despite there are some companies getting undervalues or overvalues by investors over last couple of years, the trend of annual market price and the implied price, estimated by multiples valuation has always been on an upward sloping movement. If we take 'Median' of both annual actual and implied prices of these companies, it can be shown that the

implied price has always been higher than the actual one, thus indicating undervaluation in an overall basis. This may contradict the common understanding regarding the pharma stock's defensive nature, whereas stocks should have been overvalued by the higher confidence of investors in the market.

#### **4 Recommendation and Conclusion:**

From basic point of view, both square and Beximco's actual share prices have been undervalued by the market investors despite their evident financial strength and growing potentials. Thus, investors may consider investing in those companies for a better future return. Ultimately, the impact of inflationary expectation on the stock market can be complex and multifaceted, and investors' confidence can be influenced by a range of factors, including economic indicators, company earnings reports, and global events. It's important for investors to carefully evaluate their risk tolerance and investment goals and to seek professional advice when making investment decisions.

By incorporating the market valuation method on Bangladesh's top 5 pharmaceuticals companies, using both average and median price-based approaches, it can be inferred that there is no monolithic tendency of our investors in terms of their reaction to such a non-cyclical, defensive sector like pharmaceuticals. Some companies may face overconfidence in the market, while others may fail to do so. It is nearly impossible to determine whether the market's overvaluation or undervaluation of a particular stock is right or wrong, without finding the 'intrinsic value' of the stock which may need to incorporate some rigorous methodologies.

The Market based approach doesn't show us the intrinsic value of a stock; thus, giving exact stock buy or sell recommendations cannot be possible. In this Project's case, the gigantic nature

of Square, Beximco and Renata compared to the Orion and Beacon pharmaceuticals, could be responsible for the higher implied price than the market price. Thereby, while determining target price of any of these companies' stock, less weight should be assigned on the multiples based or market approach valuation method. Instead, Discounted cash flow method on each stock while incorporating multifaceted analysis necessary to determine appropriate future cash inflows, could be more plausible solution in case of determining the 'True' value of stocks.

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### Appendix:

### Valuation Results from FY 2018-year end to FY 2022 Year end:

June 2018:

	Implied Share Price calculated by Multiples Valuations (Average)	Implied Share Price calculated by Multiples Valuations (Median)	Difference of these 2 estimates
Square	187.00	181.33	(5.67)
Beximco	108.98	109.13	(0.15)
Renata	517.23	483.15	(34.08)
Orion	86.13	81.02	(5.11)
Beacon	28.53	31.17	(2.63)

	Actual Price per share (Closing Price of June 2018)	Implied Share Price calculated by Multiples Valuations (Average)	Differences	Differences %
Square	222.0	187.00	(35.00)	(15.77)
Beximco	81.0	108.98	27.98	34.55
Renata	761.0	517.23	(243.77)	(32.03)
Orion	42.0	86.13	44.13	105.07
Beacon	18.0	28.53	10.53	58.53
			Avg Differences	30.07

	Actual Price per share (Closing Price of June 2018)	Implied Share Price calculated by Multiples Valuations (Median)	Differences	Differences %
Square	222.0	181.33	(40.67)	(18.32)
Beximco	81.0	109.13	28.13	34.73
Renata	761.0	483.15	(277.85)	(36.51)
Orion	42.0	81.02	39.02	92.90
Beacon	18.0	31.17	13.17	73.16
			Avg Differences	29.19

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	Implied Share Price calculated by Multiples Valuations (Average)	Implied Share Price calculated by Multiples Valuations (Median)	Difference of these 2 estimates
Square	191.88	176.48	(15.40)
Beximco	126.29	122.92	3.37
Renata	570.59	516.73	(53.86)
Orion	77.06	73.72	(3.34)
Beacon	28.32	30.99	(2.66)

	Actual Price per share (Closing Price of June 2019)	Implied Share Price calculated by Multiples Valuations (Average)	Differences	Differences %	Comment on the company
Square	223.0	191.88	(31.12)	(13.95)	Overvalued
Beximco	75.0	126.29	51.29	68.39	Undervalued
Renata	822.0	570.59	(251.41)	(30.59)	Overvalued
Orion	33.0	77.06	44.06	133.52	Undervalued
Beacon	19.0	28.32	9.32	49.08	Undervalued
			Avg Differences	41.29	

	Actual Price per share (Closing Price of June 2019)	Implied Share Price calculated by Multiples Valuations (Median)	Differences	Differences %	Comment on the company
Square	223.0	176.48	(46.52)	(20.86)	Overvalued
Beximco	75.0	122.92	47.92	63.89	Undervalued
Renata	822.0	516.73	(305.27)	(37.14)	Overvalued
Orion	33.0	73.72	40.72	123.39	Undervalued
Beacon	19.0	30.99	11.99	63.08	Undervalued
	-		Avg Differences	38.47	

June 2020:

	Implied Share Price calculated by Multiples Valuations (Average)	Implied Share Price calculated by Multiples Valuations (Median)	Difference of these 2 estimates
Square	241.89	273.52	31.63
Beximco	180.51	171.16	9.35
Renata	746.07	712.41	(33.66)
Orion	72.79	81.45	8.65
Beacon	45.89	38.84	7.05

	Actual Price per share (Closing Price of June 2020)	Implied Share Price calculated by Multiples Valuations (Average)	Differences	Differences %	Comment on the company
Square	179.5	241.89	62.39	34.76	Undervalued
Beximco	77.7	180.51	102.78	132.22	Undervalued
Renata	858.5	746.07	(112.43)	(13.10)	Overvalued
Orion	44.3	72.79	28.49	64.32	Undervalued
Beacon	78.0	45.89	(32.11)	(41.17)	Overvalued
			Avg Differences	35.41	

	Actual Price per share (Closing Price of June 2020)	Implied Share Price calculated by Multiples Valuations (Median)	Differences	Differences %	Comment on the company
Square	179.5	273.52	94.02	52.38	Undervalued
Beximco	77.7	171.16	93.43	120.20	Undervalued
Renata	858.5	712.41	(146.09)	(17.02)	Overvalued
Orion	44.3	81.45	37.15	83.86	Undervalued
Beacon	78.0	38.84	(39.16)	(50.21)	Overvalued
			Avg Differences	37.84	

June 2021:

	Implied Share Price calculated by Multiples Valuations (Average)	Implied Share Price calculated by Multiples Valuations (Median)	Difference of these 2 estimates
Square	259.37	266.38	7.00
Beximco	222.18	221.94	0.23
Renata	883.18	882.06	(1.11)
Orion	88.98	80.15	(8.83)
Beacon	92.05	94.68	(2.62)

	Actual Price per share (Closing Price of June 2021)	Implied Share Price calculated by Multiples Valuations (Average)	Differences	Differences %	Comment on the company
Square	219.0	259.37	40.37	18.44	Undervalued
Beximco	177.0	222.18	45.18	25.52	Undervalued
Renata	1,118.0	883.18	(234.82)	(21.00)	Overvalued
Orion	54.5	88.98	34.48	63.27	Undervalued
Beacon	125.0	92.05	(32.95)	(26.36)	Overvalued
			Avg Differences	11.97	

	Actual Price per share (Closing Price of June 2021)	Implied Share Price calculated by Multiples Valuations (Median)	Differences	Differences %	Comment on the company
Square	219.0	266.38	47.38	21.63	Undervalued
Beximco	177.0	221.94	44.94	25.39	Undervalued
Renata	1,118.0	882.06	(235.94)	(21.10)	Overvalued
Orion	54.5	80.15	25.65	47.07	Undervalued
Beacon	125.0	94.68	(30.32)	(24.26)	Overvalued
	-		Avg Differences	9.75	

Square 410.06 429.72 19.66		Implied Share Price calculated by Multiples Valuations (Average)	Implied Share Price calculated by Multiples Valuations (Median)	Difference of these 2 estimates
	Square	410.06	429.72	19.66
Beximco 334.87 319.13 15.74	Beximco	334.87	319.13	15.74
Renata      1,211.63      1,231.06      19.44	Renata	1,211.63	1,231.06	19.44
<b>Orion</b> 78.52 100.63 22.11	Orion	78.52	100.63	22.11
Beacon      146.19      136.40      9.78	Beacon	146.19	136.40	9.78

	Actual Price per share (Closing Price of June 2021)	Implied Share Price calculated by Multiples Valuations (Average)	Differences	Differences %	Comment on the company
Square	216.6	410.06	193.46	89.32	Undervalued
Beximco	152.3	334.87	182.57	119.87	Undervalued
Renata	1,257.0	1,211.63	(45.38)	(3.61)	Overvalued
Orion	88.2	78.52	(9.68)	(10.97)	Overvalued
Beacon	253.5	146.19	(107.31)	(42.33)	Overvalued
			Avg Differences	30.45	

	Actual Price per share (Closing Price of June 2021)	Implied Share Price calculated by Multiples Valuations (Median)	Differences	Differences %	Comment on the company
Square	216.6	429.72	213.12	98.39	Undervalued
Beximco	152.3	319.13	166.83	109.54	Undervalued
Renata	1,257.0	1,231.06	(25.95)	(2.06)	Overvalued
Orion	88.2	100.63	12.43	14.09	Undervalued
Beacon	253.5	136.40	(117.10)	(46.19)	Overvalued
	-		Avg Differences	34.75	