



Inspiring Excellence

INTERNSHIP REPORT ON

COMMON STOCK VALUATION OF ORION PHARMA LIMITED

Prepared for:

Mr. Riyashad Ahmed
Assistant Professor
BRAC Business School
BRAC University, Dhaka

Prepared by:

Priya Darshini Dina
Student ID: 13104222
BRAC Business School
BRAC University, Dhaka

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Letter of Transmittal

January 17, 2018

Mr. Riyashad Ahmed
Assistant Professor
BRAC Business School
BRAC University

Subject: Submission of Internship Report

Dear Sir,

This is to submit my internship report titled, “**Common Stock Valuation of Orion Pharma Limited**”, for the completion of the course BUS400 and as a requirement for my graduation. This report was completed after the three-month internship undertaken at the Orion Group under the supervision of Mr. Md. Ashfaqul Alam, AVP, Corporate Affairs.

Thank you very much for giving me the opportunity of working on a topic that interests me greatly.

Sincerely,

Priya Darshini Dina
BRAC Business School
Student ID: 13104222

Acknowledgments

I sincerely acknowledge the contributions of many people who have assisted me over the course of my internship, particularly Mr. Riyashad Ahmed for agreeing to supervise this report, Mr. Md. Ashfaqul Alam, my organizational supervisor, and my wonderful colleagues at Orion Group. Their advice, support and confidence has been a source of encouragement and without their guidance, this paper would not have come into existence. I believe their constant support and dedication deserves to be reciprocated with great gratitude.

Executive Summary

This internship report has been submitted in partial fulfillment of the requirements for a Bachelors of Business Administration and was prepared during my internship at Orion Group.

The report is divided into two parts. The first part is the organizational section, which covers the organizational overview and my responsibilities during my internship. The second part is the independent project. For this section, I chose to study the common stock valuation of Orion Pharma Limited. Using month-end close price of Orion Pharma stock and closing value of DSEX index (of Dhaka Stock Exchange) from 30th June 2014 to 30th June 2017, and dividend per stock of Orion Pharma from 2012 to 2016, I try to estimate the common stock price of Orion Pharma by applying the dividend discount model and EPS growth model.

Table of Contents

1	Introduction.....	1
1.1	Origin of the Report	1
1.2	Objective of the Report	1
1.3	Methodology	1
1.4	Scope and Limitations of Report.....	1
2	Organizational Overview	2
2.1	Background	3
2.2	Sister Concerns of Orion Group.....	5
2.3	Key Responsibilities.....	5
3	Independent Project: Common Stock Valuation.....	7
3.1	Introduction	8
3.2	Dividend Discount Model	8
3.2.1	Estimation of the required parameters	8
3.2.2	Market return of Dhaka Stock Exchange.....	9
3.2.3	Systematic risk of Orion Pharma	9
3.2.4	DPS (Dividend per share) growth rate of Orion Pharma.....	10
3.2.5	Common stock valuation using dividend discount model	10
3.2.6	Limitations of dividend discount model	10
3.3	EPS Growth Model	11
3.3.1	Limitations of EPS growth model.....	12
3.4	Findings.....	13
4	Conclusion	14
5	Reference	15
6	Appendix.....	16

1 Introduction

Since its inception in 1965, Orion Group has been one of the leading group of companies in Bangladesh specializing in industrial products. Currently, Orion exports its products to more than 10 countries including Armenia, Bhutan, Nepal, Afghanistan, Sri Lanka, Lesotho, Cambodia, Jamaica, Philippines. Orion Group consists of more than 27 companies encompassing at least 12 industry sectors. Approximately 18,000 people are employed by various sister concerns of Orion Group.

1.1 Origin of the Report

The report has been prepared as a part of the internship undertaken as a partial requirement for the completion of the Bachelors of Business Administration.

1.2 Objective of the Report

The objective of the report can be viewed in two forms:

1. General objective: To primarily fulfill the degree requirement for the Bachelors of Business Administration under BRAC Business School
2. Specific objective: More specifically, this report intends to:
 - a. Provide an estimation of the common stock value of Orion Pharma Limited using dividend discount model

1.3 Methodology

This report is quantitative in nature, and as such it relies extensively on secondary data collected from: (i) Dhaka Stock Exchange for data on stock price of Orion Pharma Limited & DSEX index value and (ii) Annual Reports (2012-2016) of Orion Pharma Limited for financial statements.

1.4 Scope and Limitations of Report

The scope of the report is limited to time constraint and data availability.

2 Organizational Overview

2.1 Background

Orion Group has been one of the leading group of companies in Bangladesh specializing in industrial products. Currently, Orion exports its products to more than 10 countries including Armenia, Bhutan, Nepal, Afghanistan, Sri Lanka, Lesotho, Cambodia, Jamaica, Philippines. Orion Group consists of more than 27 companies encompassing at least 12 industry sectors including pharmaceuticals & healthcare, power, agriculture, textile, food & beverage etc. Some of these companies are - Orion Pharma Ltd., Orion Infusion Ltd., Orion Renal and General Hospital, Orion Power Dhaka Ltd., Orion Power Khulna Ltd., Jafflong Tea Company Ltd., Orion Knit Textiles Ltd., etc. Approximately 18,000 people are employed by various sister concerns of Orion Group. Orion Group is dedicated to serving its valued customers with products of excellent quality through continuous improvement in technology, process and human resources complying with the guidelines of Good Manufacturing Practice (GMP) and the requirements of ISO-9001: 2008 Quality Management System (QMS). Orion Group does this by upholding these values:

1. Strict quality control
2. Living up to the commitments
3. Transparency and fairness in dealings
4. Taking initiative to exceed standards
5. To trust and respect for others
6. Working as a team
7. Sharing social responsibility

Over the last six decades, Orion Group has emerged as the leading industrial manufacturer, and has been acting as a pioneer to drive the economic & industrial growth of the country by serving customers within Bangladesh, and also contributing in our exports by competing in the global market.

Orion Group specializes on the following industry sectors:

- Pharmaceuticals
- Cosmetics & Toiletries
- Infrastructure Development

- Real Estate & Construction
- Power
- High-tech Agro Products
- Hospitality
- Textiles & Garments
- Aviation Management

2.2 Sister Concerns of Orion Group

Orion Group has more than 27 sister concerns among which the major ones are:

1. Orion Pharma Limited
2. Orion Infusion Limited
3. Orion Renal and General Hospital
4. Orion Power Meghnaghat Limited
5. Dutch Bangla Power & Associates Limited
6. Digital Power & Associates Limited
7. Orion Power Dhaka Limited
8. Orion Power Khulna Limited
9. Orion Gas Limited
10. City Centre
11. Interior Accom Consortium Limited
12. Jafflong Tea Company Limited
13. Panbo Bangla Mushroom Limited
14. Orion Agro Products Limited
15. Noakhali Gold Foods Limited
16. Kohinoor Chemical Company (BD) Limited
17. Orion Knit Textiles Limited
18. Fish & Co.
19. Krispy Kreme
20. Orion Footwear Limited
21. Global Shoes Limited
22. Orion Home Appliance Limited

2.3 Key Responsibilities

I was assigned to the Corporate Affairs Department at Orion Group where my main responsibilities included:

1. Assisting the team with research on existing and potential new projects;
2. Assisting with contact and information management;
3. Providing general logistical/organizational support to the team as required.

Some of the tasks that I undertook included:

- i. Preparation of database for book keeping and updating various documents relating to the operation to the company such as Tax identification (TIN) certificate, Bangladesh Energy Regulatory license, trade license, fire license, site clearance certificate, environmental clearance certificate, etc.
- ii. Preparing monthly summary report on revenues, expenditure and profits from the operation of Mayor Mohammad Hanif Flyover project
- iii. Development of a proposal for marketing strategies for upcoming hotel project of Orion group
- iv. Review of audit reports submitted by Orion Pharma and Orion Infusion and identification of major deficiencies requiring actions by senior management

Key Learning and Takeaways

Perhaps the most important take away from the internship was learning how to adjust to a corporate environment and work with and within a team. While I had prior working experience, those were not in a typical business organizational setting with clear objectives. However, the internship allowed me to better learn how to have a predefined set of objectives and goals and also to redefine them periodically as new information is obtained, resulting in a greater appreciation for the immense work in a large corporation. On a broader scale, the internship allowed me to develop a clearer understanding about how civil society think-tanks function and their roles in the society.

3 Independent Project: Common Stock Valuation

3.1 Introduction

This section consists of stock valuation of Orion Pharma using two methods dividend discount model and modified EPS (earnings per share) growth model. Firstly, dividend discount model will be applied for this purpose and later the EPS growth model.

3.2 Dividend Discount Model

One of the most common methods of stock valuation is the dividend discount model. This model is based on the theory that the stock price of a company is equal to the sum of all of its future dividend payments, discounted to their present value. To further simplify the method, it is assumed that the expected dividend per share grows at a constant rate of g in perpetuity. D_0 is the value of the last paid dividend per share and D_1 is the value of next year's dividend per share; and r is the required rate of return by investors. Hence, the current stock price is the sum of the infinite series:

$$P = \frac{D_1}{1+r} + \frac{D_2}{(1+r)^2} + \frac{D_3}{(1+r)^3} + \dots$$

$$P = D_0 \frac{(1+g)}{(1+r)} + D_0 \frac{(1+g)^2}{(1+r)^2} + D_0 \frac{(1+g)^3}{(1+r)^3} + \dots$$

$$P = \sum_{t=1}^{\infty} D_0 \frac{(1+g)^t}{(1+r)^t}$$

The above infinite sum can be simplified to:

$$P = \frac{D_0(1+g)}{r-g} = \frac{D_1}{r-g}$$

3.2.1 Estimation of the required parameters

The required rate of return (r) can be estimated with the help of Capital Asset Pricing Model (CAPM):

$$r = R_F + \beta(R_M - R_F)$$

Where,

- r : Required rate of return by investors
 R_F : Risk free rate (interest rate of 5-year treasury bond)
 R_M : Market return
 β : Systematic risk

In Bangladesh, interest rate of 5-year Treasury bond is 5.73%. Therefore, $R_F = 5.73\%$. For estimation of the required rate of return of Orion Pharma, the systematic risk of Orion Pharma (β) and market return (R_M) of Dhaka Stock Exchange have to be estimated.

3.2.2 Market return of Dhaka Stock Exchange

Market return can be estimated from the mean monthly returns of a market. For this calculation, DSEX index data from June 30, 2014 to June 30, 2017 is considered.

DSEX Index	
Monthly mean return	Annual return
0.76031562%	9.12378861%

Annual market return is calculated by multiplying the monthly mean return by 12, since compounding effect is not applicable in this case. A market return of 9.12% (approximately) means that investing on a market portfolio would result in an expected annual return of 9.12%.

3.2.3 Systematic risk of Orion Pharma

Systematic risk of a stock is calculated as the slope of the linear regression of the stock returns against the market returns in the corresponding time period. For this calculation, data of DSEX index and closing price of Orion Pharma share from June 30, 2014 to June 30, 2017 is considered. The DSEX index and Orion Pharma share closing price data are provided on the appendix.

Beta (β) of Orion Pharma	1.40283968128837
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Orion Pharma has a systematic risk of 1.4028 (approximately), it means that Orion Pharma stock price is more volatile than the market and moves in the same direction as market. An increase (or decrease) of 1% in market return would result in an expected increase (or decrease) of 1.4028% in Orion Pharma stock return.

With $R_F = 5.73\%$, and estimated values of R_M and β , value of the required rate of return of Orion Pharma can be estimated as below:

$$r = R_F + \beta(R_M - R_F) = 5.73\% + 1.4028(9.12\% - 5.73\%) = 10.49094134\%$$

3.2.4 DPS (Dividend per share) growth rate of Orion Pharma

Orion Pharma has been paying a dividend of BDT 1.50 per share for the last 4 years (2013-2016). So the dividend is constant, which makes the dividend growth rate, $g = 0$. The associated data used for the calculation are provided on the appendix.

3.2.5 Common stock valuation using dividend discount model

By plugging in the estimated values of DPS growth rate (g) and required rate of return by investors (r) on the formula below, we have:

$$P = \frac{D_1}{r - g} = \frac{\text{BDT } 1.50}{0.1049094134 - 0} = \text{BDT } 14.30 \text{ per share}$$

Orion Pharma has 234,000,000 of shares outstanding. So the total value of common stock of Orion Pharma is BDT 3,345,743,616 according to this estimation. For comparison, the closing price of Orion Pharma stock was BDT 45.00 per share on June 30, 2017, and the total value of common stock of Orion Pharma was BDT 10,530,000,000. This is more than 3 times of the estimated value. So it can be concluded that the dividend discount model is not suitable for valuation of Orion Pharma stock given the extent of discrepancy with the market values.

3.2.6 Limitations of dividend discount model

The discrepancy between actual value and estimate value of share price of Orion Pharma presents some limitations of the dividend discount model including –

- If a stock pays very small dividends, the estimated value is more likely to be much lower than the market value.
- If a stock pays no dividends, the estimated value is 0, regard less of the market value.
- It does not consider the portion of the earnings that are retained and re-invested.

3.3 EPS Growth Model

This method is similar to the dividend growth model. In this model, the EPS (earnings per share) is discounted rather than the DPS. The other assumptions remain same as the previous model. For this purpose, the following formula is used:

$$P = \frac{EPS_0(1 + g_{EPS})}{r - g_{EPS}} = \frac{EPS_1}{r - g_{EPS}}$$

Where,

- r : Required rate of return by investors
- g_{EPS} : EPS growth rate
- P : Price per share
- EPS_0 : Last EPS paid
- EPS_1 : Expected value of next EPS to be paid

EPS growth rate is calculated as the average growth rate of EPS from 6 years of EPS, from 2011 to 2016.

Year	EPS (BDT)	EPS growth rate
2011	4.13	
2012	4.38	5.9486%
2013	4.17	-4.6526%
2014	4.34	3.9588%
2015	4.51	3.8710%
2016	4.62	2.4643%

$$g_{EPS} = 2.31803564\% \quad EPS_0 = 4.62 \quad r = 10.49094134\%$$

Plugging in the above values in the formula:

$$P = \frac{EPS_0(1 + g_{EPS})}{r - g_{EPS}} = \frac{4.62(1 + 0.0231803564)}{0.1049094134 - 0.0231803564} = 62.64936453$$

$$P \approx \text{BDT } 62.65 \text{ per share}$$

Considering the above calculation, the value of Orion Pharma stock is BDT 62.65 per share and the total value of common stock is BDT 14,659,951,301. For comparison, as of June 30, 2017, the closing price of Orion Pharma stock was BDT 45.00 per share, and the total value of common

stock of Orion Pharma was BDT 10,530,000,000. The estimated value is 1.39 times of the market value. As of 30th June 2016, the book value of Orion Pharma's total equity was BDT 16,377,819,562, and NAV (net asset value) per share was BDT 69.99, 1.117 times of the estimated value. Comparing the dividend discount model and EPS growth model, it can be concluded that EPS growth model has provided more accurate results, considering the market value and NAV per share of Orion Pharma.

3.3.1 Limitations of EPS growth model

Like dividend growth model, EPS growth model also assumes constant EPS growth rate and constant required rate of return over the future years, which is not the most probable case in the real world. These assumptions simplify the method of valuation. Multiple approaches of equity valuation must be considered in order to make more precise estimations.

3.4 P/E Ratio

Year	Price per share (BDT)	Earnings per share (BDT)	P/E Ratio
2011	56.40	4.13	13.65
2012	46.00	4.38	10.51
2013	58.70	4.17	14.06
2014	45.50	4.34	10.48
2015	36.80	4.51	8.16
2016	42.10	4.62	9.12

3.5 Findings

This section compares the findings of valuation methods with the market values of Orion Pharma stock price per share.

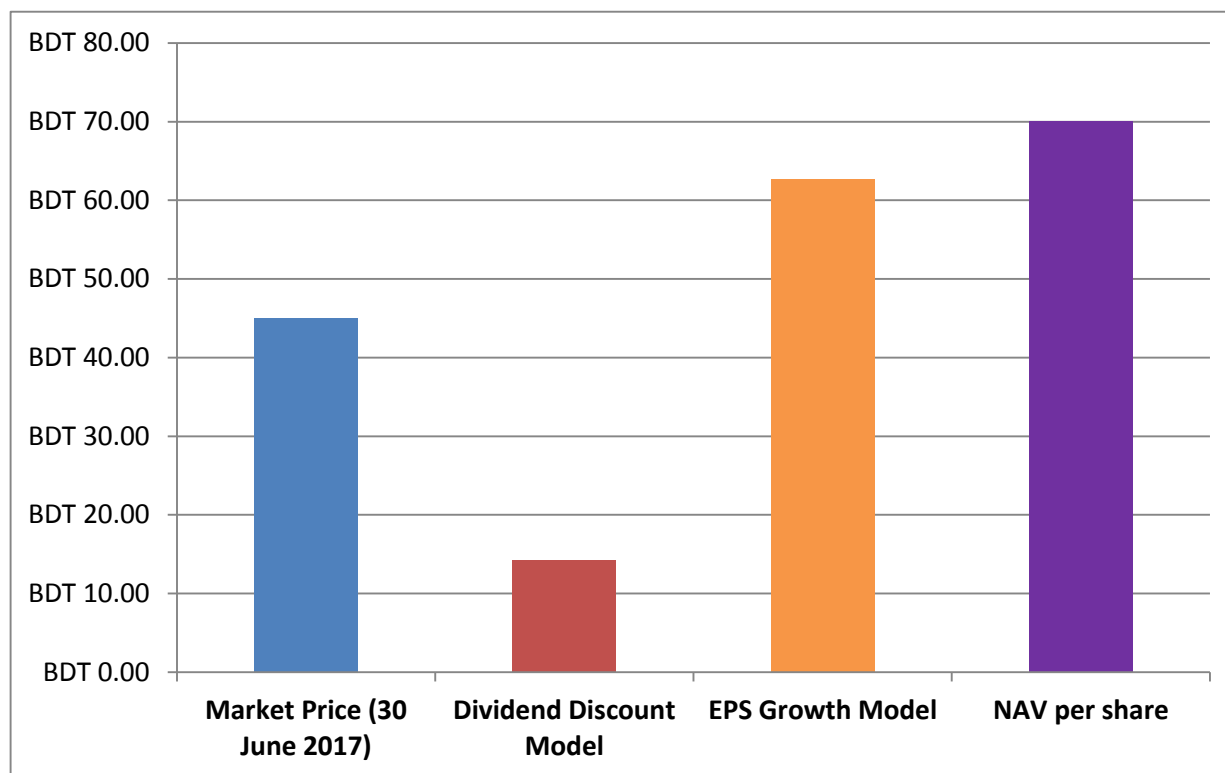


Figure: Comparison of different valuation techniques

Dividend discount model gives the lowest estimate and is more likely to be inaccurate due to the limitations of this valuation technique. EPS growth model gives a higher estimate of BDT 62.65 per share. NAV per share is based on the book value of equity and it provides a result of BDT 69.99 per share; while the market price of Orion Pharma stock was BDT 45.00 per share. EPS growth model gives the closest estimate to the market value. Nevertheless, none of these consider the changes in future market & industry conditions, political environment and other risk factors, and are merely based on single linear regressions. For more precise estimations, more variables must be considered.

4 Conclusion

This report conducted study on common stock valuation of Orion Pharma using two methods, namely dividend discount model and EPS growth model. There are many more approaches for equity valuation, including free cash flow analysis, sales growth, terminal value, enterprise value etc. Only two methods are presented on this study due to time limitations and data availability. These methods are simplified models and do not consider multiple factors that can affect the estimation results. For more accurate results, multiple approaches can be applied.

5 Reference

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6 Appendix

Date	Close price of Orion Pharma	Closing value of DSEX	Return of Orion Pharma	Return of DSEX
30 June 2014	45.00	4480.52	-	-
24 July 2014	42.90	4427.16	-4.67%	-1.19%
31 August 2014	49.10	4549.52	14.45%	2.76%
30 September 2014	54.00	5074.31	9.98%	11.54%
30 October 2014	53.50	5173.23	-0.93%	1.95%
30 November 2014	46.10	4769.43	-13.83%	-7.81%
30 December 2014	45.50	4864.96	-1.30%	2.00%
29 January 2015	43.40	4724.05	-4.62%	-2.90%
26 February 2015	43.70	4624.95	0.69%	-2.10%
31 March 2015	42.00	4530.48	-3.89%	-2.04%
30 April 2015	33.00	4047.29	-21.43%	-10.67%
31 May 2015	38.50	4586.95	16.67%	13.33%
30 June 2015	40.80	4583.11	5.97%	-0.08%
30 July 2015	39.40	4792.31	-3.43%	4.56%
31 August 2015	37.30	4768.67	-5.33%	-0.49%
30 September 2015	38.10	4852.08	2.14%	1.75%
29 October 2015	34.80	4564.49	-8.66%	-5.93%
30 November 2015	33.90	4581.00	-2.59%	0.36%
31 December 2015	36.80	4629.64	8.55%	1.06%
31 January 2016	35.60	4540.89	-3.26%	-1.92%
29 February 2016	39.30	4511.97	10.39%	-0.64%
31 March 2016	37.60	4357.54	-4.33%	-3.42%
28 April 2016	34.40	4195.70	-8.51%	-3.71%
31 May 2016	37.00	4419.39	7.56%	5.33%
30 June 2016	36.80	4507.58	-0.54%	2.00%
31 July 2016	37.00	4525.35	0.54%	0.39%
31 August 2016	37.30	4526.58	0.81%	0.03%
29 September 2016	38.00	4695.19	1.88%	3.72%
31 October 2016	35.30	4592.18	-7.11%	-2.19%
30 November 2016	41.50	4801.24	17.56%	4.55%
29 December 2016	42.10	5036.05	1.45%	4.89%
31 January 2017	47.80	5468.34	13.54%	8.58%
28 February 2017	53.20	5612.70	11.30%	2.64%
30 March 2017	49.10	5719.61	-7.71%	1.90%
30 April 2017	46.30	5475.55	-5.70%	-4.27%
31 May 2017	48.10	5403.12	3.89%	-1.32%
29 June 2017	50.80	5656.05	5.61%	4.68%