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Financial Performance Test for Bangladesh Pharmaceutical Industry with Special Reference to Square Pharmaceuticals Ltd.

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Abstract:
No doubt financial performance analysis is a subjective & fundamental tool to discover the proficiency of the management in various parts of an organization. Evaluation of financial performance through analyzing the financial statement using financial ratios is usually related to how well an organization is using its revenue, expenses, assets as well as equity and liabilities which shows the picture of the financial position of that organization. Solvency (liquidity), profitability, turnover and return on assets (ROA) and return on equity (ROE) have been analyzed to interpret & measure the efficiency of management, financial performance and position of Square Pharmaceuticals Ltd. (SPL). The nature of the study is empirical based on secondary data that have been collected from annual reports of SPL (2012-2019). Pharmaceutical is a significant aide of industrialization in the nation. Having a significant contribution (1.83%) of pharmaceutical industry to our GDP with a growth rate (15%) sound financial performance of pharmaceutical industry may be useful for getting ready financial and monetary policy of the nation. From the finding of the study, it is revealed that profitability, inventory & accounts receivable turnover, assets turnover, financial leverage, ROA & ROE are doing well but liquidity position is not so much satisfactory and assets turnover ratio requires more concentration on it cause of a mixed trend. From overall findings, it is supposed that the management of SPL has been able to keep stability in running the business affairs and bring upward trend in generating earnings. The study draws the attention of the proper authority through some recommendations like keeping up a compelling coordination among different departments particularly in the finance, sales and PPIC department for further improvement of SPL.

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1. INTRODUCTION

The word performance is used to uphold a firm's success, conditions and compliance. Financial performance is an abstract proportional measure of how well a business venture can utilize its resources from its primary mode of business operations that details the organization's revenues, expenses and net income, the financial interests of its stakeholders, expressed in terms of overall profits and losses over a given timeframe. Evaluation of the financial performance of an entity facilitates the judgement of the results of business operations & its policies in objective monetary terms by the stakeholders at different level. There are several different means to measure & evaluate the financial performance although all the measures ought to be taken in aggregation. Financial statement analysis is an interlinked process of evaluating the relationship among different parts of financial statement to draw a better understanding of the firm's position and performance. This analysis can be carried out by management of the firm or by the external parties like creditors, investors and other stakeholders. To maintain or increase the profitability of a business venture, sound and effective financial performance of the business is for the most part wanted. Salmi and Martikainen (1994), they state that financial ratios are widely used for modeling purposes both by practitioners and researchers. The firm involves many interested parties, like the owners, management, personnel, customers, suppliers, competitors, regulatory agencies, and academics, each having their views in applying financial statement analysis in their evaluations. Practitioners use financial ratios, for instance, to forecast the future success of companies, while the researchers' main interest has been to develop models exploiting these ratios.

The reason why financial statements of a business venture are prepared is to meet up the external reporting commitments as well as to facilitate the dynamic decision making purposes of its own & its stakeholders too. But the financial information shown in the financial statements isn't an end in itself as no significant & meaningful decisions can be made & taken from these statements alone. Analysis of financial statement is implied as the way toward identifying financial strengths and shortcomings of a business organization by the proper establishment of logical relationship among the elements of financial statement. Financial ratios are widely used for modelling purposes both by practitioners and researchers. Practitioners use financial ratios, for instance, in order to forecast the future success of companies, while the researchers' main interest is to develop models exploiting these ratios (Salmi and Martikainen, 1994). Financial ratios to predict a firm's crisis. There are four factors affecting a firm's vulnerability which are the firm's scale, financial structure, performance and liquidity (Ohlson, 1980). Growing financial performance is a demonstrative of financial soundness of a business venture which is strongly linked to the managerial-operational efficiency & effectiveness, success through positive earnings and advancement through additional investment in new sectors of that business venture. Financial statements analysis is of interest to different stakeholders like fund provides investors, security analysts, suppliers, managers and others at different levels. Financial ratios are used to display the financial position and performance analysis of Bangladesh Shilpa Bank. Tools/techniques of financial analysis can be used to evaluate the financial position and performance of financial and non-financial institutions and even Development Financial Institutions (DFI) as well (Hannan and Shaheed, 1979). However, the information provided in the financial statements is of massive implication in making decisions through understanding, analysis and interpretation of financial statements.

The pharmaceutical industry, one of the most developed hi-tech and professional knowledge based significant sectors within in the financial system of Bangladesh, has been achieving an amazing twofold digit growth rate as far as sales in the course of the most recent decade. The industry has been contributing a lot towards boosting up the economy profoundly and investors along with other stakeholders are also recognizing it to be promising one. The financial performance of this sector is, in recent times, accepting a lot of consideration among the partners. According to Bangladesh Association of Pharmaceutical Industries (BAPI) and Directorate General of Drug Administration (DGDA), approximately 257 licensed pharmaceutical manufacturers are operating in Bangladesh and about 150 are functional which clearly indicates that Bangladesh is currently being considered as emerging generic drug hub in the area.

Manufacture of pharmaceuticals is now one of the largest capital-intensive white-collar industries in the country, which has grown tremendously over the past few decades. Bangladesh enjoys comparative advantages in the sector due to its available cheap labour and raw materials, a favourable World Trade Organisation (WTO) system and sufficient supply of skilled human resources. Of course this sector has reduced the acute dependency on agriculture as ours is an agrarian country & also reduced the unemployment problem. By overcoming the underling obstacles and enhance the image of it in the regional and global markets pharmaceutical industry has an opportunity to build up itself as a high volume export-oriented industry near RMG sector. In general, the management of the pharmaceuticals industry may be benefited from the findings & recommendations of the current study in their policy making phase. To the extent the researcher knows a few study on financial performance of Square Pharmaceuticals Ltd. The researcher has been pervaded to conduct research work taking a shot at the current topic titled "Evaluation of Financial Performance of Pharmaceutical Industry in Bangladesh with Special Reference to Square Pharmaceuticals Ltd." as a modest attempt to fill in this gap.

2. OVERVIEW OF SQUARE PHARMACEUTICALS LTD.

The present study has been conducted on the Square Pharmaceuticals Ltd. Before going for the analysis it is significant enough to have a clear view of the company. Followings are the basic point of SPL needed to present for complete understanding of the study:

Historical Background

SQUARE is a brand name - a state of mind. SQUARE Pharma, the largest pharmaceuticals company in the country, is a trusted name in the pharmaceuticals sector of Bangladesh. Like most indigenous concern it made its debut in a humble way in 1958 as a Partnership Firm under the leadership of Late Samson H Chowdhury. It has been continuously in the 1st position in Bangladesh among all national and multinational companies since 1985. It was established in 1958, converted into a public limited company in 1991 and listed with stock exchanges in 1995. Under the leadership of Samson H Chowdhury Dr. Kazi Harunur Rashid, Dr. PK Shaha and Radha Binod Roy, 3 of his friends started SQUARE Pharma as a partnership business with a total initial investment of Rs. 17,000 in 1958 under the companies Act. 1913 and converted into a Public Limited Company in 1991 as well as offered its share to the public with the approval of the BSEC in 1994. Since 1987 SPL started its exporting of different types of antibiotics and medicine across the world. Square Pharmaceuticals reported its net profit of above Tk. 10.56 billion for the year ended on June 30, 2019 against Tk. 8.21 billion reported for same period of the previous year with about 16.95% market share having a growth rate of about 10.85%. SPL is offering quality pharmaceuticals products at competitive price & contributing a huge amount of vat, taxes, customs and excise duty to our economy each year. With the expansion of company it recruits a large number of unemployed people of the country. In 2019, Square Pharmaceuticals Limited won the President's Award for

Industrial Development-2017' for securing first place in large enterprise category. The main factory plant is situated at pabna and another factory is at Kaliachoir, Gazipur, Dhaka. Legal address of SPL is Square Centre, 48 Mohakhali Commerical Area, Dhaka; Postal Code: 1212.

Mission: The mission of Square Pharmaceuticals Ltd. is to produce and provide quality & innovative healthcare relief for the people, maintain stringently ethical standard in the business operations also ensuring benefits to the shareholders, stakeholders and the society at large (Annual Report, 2018-2019:7).

Vision: The vision of the company is to view business as a means to the material and social wellbeing of the investors, employees and the society at large, leading to accretion of wealth through financial and moral gains as a part of the process of the human civilization (Annual Report, 2018-2019:7).

Objectives: SPL's objectives are to conduct transparent business operations based on market mechanism within the legal & social framework with aims to attain the mission reflected by the vision (Annual Report, 2018-2019:7).

Corporate Focus: The vision, the mission and the objectives of SPL are to emphasize on the quality of products, processes and services leading to grow of the entity imbibed with good governance practice (Annual Report, 2018-2019:7).

Corporate Social Responsibility: CSR is the continuing commitment by SPL to behave ethically & hence contribute to our economic growth & development through the improvement of the quality of life the humane resources & their families along with the local community & society as a whole in which the entity is being operated.

3. STUDY OBJECTIVES

The fundamental objective of the current study is to investigate & measure the financial health (strengths and weaknesses) of Square Pharmaceuticals Ltd. Along with the main objective, the study has some another particular objectives like contemplating the various sources of funds of Square Pharmaceuticals Ltd. financed by long & short-term sources of finance, assessing the financial performance of the entity through liquidity, profitability, activity or turnover ratios, analyzing the financial changes over the period of study period (2012-2019) with a view to informing about the progress, recognizing the corporate efficiency and managerial performance of SPL in dealing with the funds, assets, investments etc. as well as sharing the lesson learnt & suggesting some effective measures to overcome the existing shortcoming of the entity in particular and Pharmaceutical industry of Bangladesh in general.

4. RATIONALE OF THE STUDY

At present the pharmaceutical industry is one of the most technologically advanced, skilled and knowledge based sectors existing in Bangladesh - grown in the last two decades at a remarkable rate. The companies operated in the pharmaceutical industry of our country Square Pharmaceutical Limited is the pioneer one. A very few researches have been conducted on SPL using its very recent data. That is why stakeholders might not have the knowledge of its current position. So, it is seemed to conduct the study titled 'Evaluation of Financial Performance of Pharmaceutical Industry in Bangladesh with Special Reference to Square Pharmaceuticals Ltd.' for the fulfilment of the demand of the time.

5. SCOPE OF THE STUDY

The present study has attempted to covers nearly the financial operations performed by Square Pharmaceuticals Ltd. The study has been directed with the data available in the annual reports that are audited in general financial records. The researcher has tried to assess the financial performance of the company that incorporates different sources of finance, solvency, profitability, activity or turnover and return on assets and equity etc. The study covered 08-year time span data ranging from 2012 to 2019 of SPL.

6. METHODOLOGY OF THE STUDY

Along with a few primary data the study is primarily based on secondary data. The secondary data have been drawn from the annual reports and primary data through talking a few officials of Square Pharmaceuticals Ltd. To ensuring better understanding and present the different terms, a few books and some related articles have been reviewed by the researcher. For the analysis of data simple statistical tools like ratios and percentage have been used.

7. LITERATURE REVIEW

A concise summary of the research relevant to financial performance of pharmaceutical industry in Bangladesh is underneath:

The ratio analysis is typically done to make sense of the massive amount of numbers presented in the company's annual report under financial statements section. It helps evaluate the performance of a company so that investors can decide whether to invest in that company. Here we are looking at the different ratio categorised in separate sections of the article on different aspects of performance such as profitability ratios, liquidity ratios, debt ratios, performance ratios, turnover & investment evaluation ratios (Thachappilly, 2009). The liquidity ratios help good financial health of a company. He knows that a business has high profitability, it can face short-term financial problems and its funds are locked up in inventories and receivables not realizable for months. Any failure to meet these can damage its reputation and creditworthiness and in extreme cases even lead to bankruptcy. In addition to, liquidity ratios are work with cash and near-cash assets of a business on one side and the immediate payment obligations (current liabilities) on the other side. The near-cash assets mainly include receivables from customers and inventories of finished goods and raw materials. Coupled with, current ratio works with all the items that go into a business' working capital and can give a quick look at its short-term financial position. Current assets include cash, cash equivalents, marketable securities, receivables and inventories. Current liabilities include Payables, Notes payable, accrued expenses and taxes, and Accrued instalments of term debt etc. Current Ratio = Current Assets /Current Liabilities. Similarly, Quick ratio excludes some basic facts like inventories & prepayments expenses. Quick Ratio = Current Assets less (Inventories + Prepaid expenses)/ Current Liabilities. In the final ratio under this article is cash ratio .Cash ratio excludes even receivables that can take a long time to be converted into cash. Cash Ratio = (Cash + Cash equivalents + Marketable Securities)/Current Liabilities (Thachappilly, 2009).

The return on assets is an important percentage that shows the company's ability to use its assets to generate income. She said that a high percentage indicates that company's is doing a good utilizing the company's assets to generate income. He notices that the following formula is one method of calculating the return on assets percentage. Return on Assets = Net Profit/Total Assets. The net profit figure that should be used is the amount of income after all expenses, including taxes. She again said that the low percentage could mean that the company may have difficulties meeting its debt obligations. She also shortly explained about the profit margin ratio – Operating Performance. He pronounced that the profit margin ratio is expressed as a percentage that shows the relationship between sales and profits. It is sometimes called the operating performance ratio because it's a good indication of operating efficiencies. The following is the formula for calculating the profit margin. Profit Margin = Net Profit/Net Sales (Zain, 2008).

Analysis of the financial statements is used to measure company performance. It also analyzes the comprehensive income statement and statement of financial statement. Investors and lending institutions will often use the ratio to determine a company's profitability and liquidity. If the ratios indicate poor performance, investors may be unwilling to invest. Therefore, the current ratio or working capital ratio, measures current assets against current liabilities. The current ratio measures the company's ability to pay back its short-term debt obligations with its current assets. He thinks a higher ratio indicates the company is better equipped to pay off short-term debt with current assets. Wherefore, the acid test ratio or quick ratio, measures quick assets against current liabilities. Quick assets are considered assets that can be quickly converted into cash. Generally they are current assets less the summation of inventory & prepayments (Clausen, 2009). Jo Nelgadde showed briefly the asset management ratio. He told how to analyze accounts receivable and other working capital figures to identify significant changes in the company's operations and financial accounts. He said that there are two categories about this ratio such as account receivable turnover and average age of account receive. He showed the measurement of the ratio as, Accounts receivable turnover = Sales / Average Accounts receivable (Nelgadde, 2010).

The profitability ratios measure margins and returns such as Gross, Operating, Pre-tax and Net Profits, ROA ratio, ROE ratio. However, he determined the Gross profit is the surplus generated by sales over cost of goods sold. His discussion about the Gross Profit Margin = Gross Profit/Net Sales or Revenue. Moreover, Operating profits are arrived at by deducting marketing, administration and depreciation and R&D costs from the gross margin. Nonetheless, He explained about the operating profit margin. Operating Profit Margin = Operating Profit/Net Sales or Revenue. Nevertheless, pre-tax profits are computed by deducting non-operational expenses from operating profits and by adding non-operational revenues to it. Pre-tax Profit Margin = Pre-tax Profit/Net Sales or Revenue. Nonetheless, he also analyzed the net profit margin. Net Profit Margin = Net Profit/Net Sales or Revenue. He also explained that the returns on resources used divided into different categories such as ROA & ROE: At first the Return on Assets = Net Profit Margin × Assets Turnover. Return on Equity = EAT/Shareholders' Equity (Thachappilly, 2009).

8. FINANCIAL STATEMENT ANALYSIS AND INTERPRETATION THEREON

8.1 Financing of Current assets by Short-term and Long -term Sources of Fund

In general, current assets of an entity are the mixture long-term (shares, debentures and debts form different financial institutions etc.) or short-term (short-term credit, commercial papers etc.) sources of fund or the combination of both. In this combination, long term source of fund provides support for a small part of current assets requirements known as working capital margin (CA-CL). Normally, there is a risk/return trade-off in the combination where short-term financing typically costs less than long-term financing & their use will have a favorable impact on profitability, however, greater use of short-term financing also results in a greater risk.

Table-1 has shown the financial data that are related to the financing in current assets by long-term and short-term sources of fund by Square Pharmaceuticals Ltd. The study showed the proportion of short-term sources of funds in current assets financing ranged between 7.73 to 63.24 percent (on an average 35%) whereas long-term funds in current assets financing ranged between 36.76 and 92.27 percent (on an average 65%).

Table-1: Position of Current Assets' (C.A) financing in Square Pharmaceuticals Ltd. from Short-term and Long-term fund from 2012-2019

(Amount in lac Tk.)

Year	Total Current Assets	Total Current Liabilities	Current Assets Financed by Long-term Fund		Current Assets Financed by Short-term Fund		Total %
			Amount	%	Amount	%	
2012	67455.07	42529.35	24925.72	36.95	42529.35	63.05	100
2013	59966.98	37924.38	22042.60	36.76	37924.38	63.24	100
2014	77680.68	34166.20	43514.48	56.02	34166.20	43.98	100
2015	97397.82	23908.48	73489.34	75.45	23908.48	24.55	100
2016	170532.95	25818.22	144714.73	84.86	25818.22	15.14	100
2017	222685.98	35056.04	187629.94	84.26	35056.04	15.74	100
2018	271965.89	55397.91	216567.98	79.63	55397.91	20.37	100
2019	382915.45	29612.71	353302.74	92.27	29612.71	7.73	100

Source: Annual Reports of Square Pharmaceuticals Ltd. from 2012 to 2019.

Thus it is clear that the SPL finances its current assets mostly from long-term sources of fund although this trend is not stable over the years. Accordingly it can be said that the SPL follows a good policy in financing the current asset to some extents although there was a mild unstable trend in the ratio of long-term funds to total current assets. In conclusion, it is to be said that the financial risk at moderate level to some extents which led at the same time the profitability of Square Pharmaceuticals Ltd. is on an increasing way.

The table above shown in the following graph:

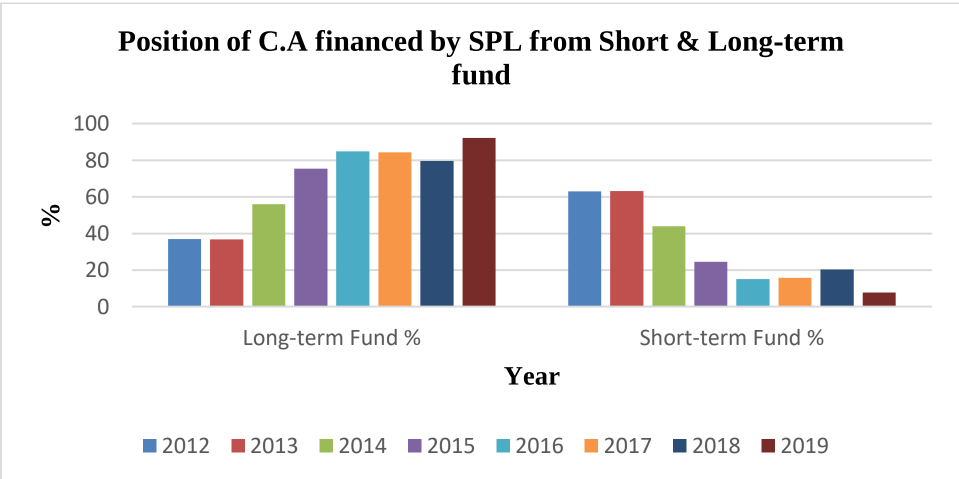

Figure-1: Position of C.A financed by SPL from Short and Long-term fund

8.2 Analysis of Liquidity of SPL

Simply liquidity is to have the money at whatever point it is expected/needed to raise cash for seizing opportunities. Liquidity states the degree to which an asset can be quickly bought or sold in the market at a price reflecting its intrinsic value. Liquidity ratios are an important class of financial metrics used to determine a debtor's ability to pay off current debt obligations without raising external capital which measure a company's ability to pay debt obligations and its margin of safety. Liquidity ratios commonly involves: current & quick ratio, cash ratio & net working capital. In fact, liquidity is a prerequisite for the very survival of a firm. It reflects the short-term solvency/liquidity of a firm. The short-term creditors are interested in the short-term solvency/liquidity of the firm. But liquidity implies, from the view point of utilization of the firm's fund, which funds are idle or they earn very little. A proper balance between the two contradictory requirements, i.e., liquidity & profitability, is required for the efficient financial management. (Khan & Jain: 2012-2013:6.3). Because lower liquidity (less than 1) state of an entity meaning it has no financial ability to meet up the short-term obligation & keep up the goodwill through continuing the smooth running of business whereas higher liquidity of a firm states the poor efficiency of the management of the business as it can't utilize its fund.

a. Current Ratio = $\frac{\text{Total Current Assets}}{\text{Total Current Liabilities}}$

b. Quick Ratio= $\frac{\text{Total Quick Assets}}{\text{Total Current Liabilities}}$

c. Cash Ratio = $\frac{\text{Cash} + \text{Marketable Securities}}{\text{Current Liabilities}}$

d. Net Working Capital = Current Assets – Current Liabilities

N.B.: Quick Assets = Current Assets-Inventory-Prepayments.

Table-2: Liquidity Measurement of Square Pharmaceuticals Ltd. from 2012 to 2019

(Amount in lac Tk.)

Year	Total Current Assets	Total Current Liabilities	Current Ratio	Inventory	Prepayments	Quick Assets	Quick Ratio	Cash + Marketable Securities	Cash Ratio	Net Working Capital
2012	67455.07	42529.35	1.59	26878.18	5771.56	34805.33	0.82	12819.58	0.30	24925.72
2013	59966.98	37924.38	1.58	25036.83	6503.80	28426.35	0.75	15217.22	0.40	22042.6
2014	77680.68	34166.20	2.27	23453.89	5306.60	48920.19	1.43	28169.76	0.82	43514.48
2015	97397.82	23908.48	4.07	26842.59	7148.43	63406.80	2.65	47287.25	1.98	73489.34
2016	170532.95	25818.22	6.61	29476.64	10500.60	130555.71	5.06	95173.77	3.69	144714.73
2017	222685.98	35056.04	6.35	29881.22	13810.67	178994.09	5.11	175247.67	5.00	187629.94
2018	271965.89	55397.91	4.91	36420.91	21313.47	214231.51	3.87	191840.33	3.46	216567.98
2019	382915.45	29612.71	12.93	45965.13	22729.75	314220.57	5.67	299366.08	10.11	353302.74

Source: Annual Reports of Square Pharmaceuticals Ltd. from 2012 to 2019.

Table-2 has involved the liquidity analysis of SPL which showed the current ratio as well as quick ratio are below the standard norm in the beginning 2 years of the study period but it is gradually increasing due to the increasing trend of financing the current assets by long-term sources of funds. Here it is to be noted, in 2012, 2013 and 2014 both the current and quick ratio are very low during the considerable periods and accordingly the percentage of financing the current assets from short-term source is also higher (See Table-1). The liquidity position of SPL is comparatively sound in 2014 and accordingly percentage of financing the current assets from short-term source is at moderate level. The overall liquidity position of the company is not showing the efficiency of the management team as in the early stage SPL has no sufficient fund or ability to pay the current obligation and in the later years SPL has excess idle fund. Both of the situations are so much risky for the entity. Because in one hand the lower liquidity position is a threat to a company as well as on the other hand the higher liquidity position is an indication of weak cash management and both of which make the entity unsafe and unsound. The cash ratio of SPL in the first 3 years was not enough to cover for all current liabilities & to fund its operations. In 2015 the cash ratio was close to the standard norm but in the later years the higher cash ratio might mean that too much cash is left idle. The net working capital computed above resulted in a positive amount which is increasing gradually. It means that the company has enough current assets to meet its current liabilities. If all current liabilities are to be settled, the company would still have positive amount left to continue its operations. Although a high net working capital is a good sign for the company, excessive current assets may not be so good after all. So, SPL could have been invested its huge positive amount of net working capital in more productive assets (i.e., non-current assets). The table above shown in the following graph:

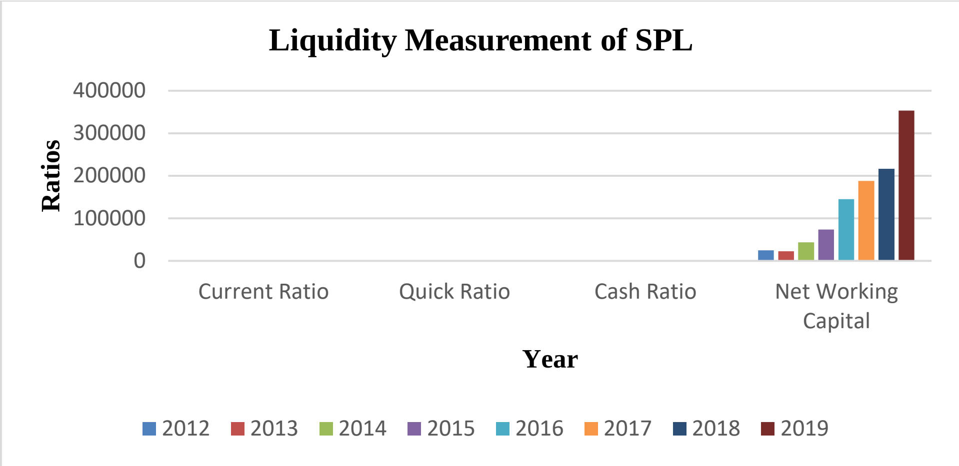

Figure-2: Liquidity Measurement of SPL

8.3 Analysis of Profitability of SPL

Profit is an absolute number determined by the amount of income or revenue above and beyond the costs or expenses a company incurs. While profit is an absolute amount, profitability is a relative one. Profitability is the ability of the company to utilize their resources in such a way that they can generate more revenue than what they must pay in expenses. The two major states of profitability are income (revenues) and expenses of en entity on which deep concentration is given to perceive/assess how well a business venture is performing and the future potential prospect that the entity may have. Profitability is a key measurement of efficiency of financial performance through business operations and hence ultimately its failure or success. Profitability ratios are broken down into two groups: Margin Ratios (examine how effectively a company transforms sales revenue into profits) and Return Ratios (show whether a business generates a profit for its owners or shareholders). In the present study following ratios are taken into consideration for better understanding:

a. Gross Profit Margin = $\frac{Gross\,Profit}{Sales} \times 100$

b. Pre-Tax Profit Ratio = $\frac{Earnings\,Before\,Tax\,(EBT)}{Net\,Sales} \times 100$

c. Net Profit Margin = $\frac{Earnings\,After\,Tax\,(EAT)}{Sales} \times 100$

d. Operating Expense Ratio = $\frac{Operating\,Expenses}{Sales} \times 100$

e. Financial Expense Ratio = $\frac{Financial\,Expenses}{Net\,Sales} \times 100$

Table-3: Profitability Ratio Measurement of Square Pharmaceuticals Ltd. from 2012-2019

(Amount in Lac Tk.)

Year	Net Sales (Net Turnover or Revenue)	Gross Profit		Pre-Tax Profit		Net Profit		Operating Expenses		Financial Expenses	
		Amount	Ratio	Amount	Ratio	Amount	Ratio	Amount	Ratio	Amount	Ratio
2012	160544.25	68871.72	42.90	39789.39	24.78	28977.11	18.05	35660.25	22.21	4335.81	2.7007
2013	179594.89	77360.11	43.07	44810.47	24.95	33414.25	18.61	38832.01	21.62	3252.81	1.8112
2014	209107.74	91827.81	43.91	55044.60	26.32	40318.11	19.28	41739.65	19.96	1691.81	0.8091
2015	262128.62	118419.90	45.18	75959.01	28.98	57436.24	21.91	45372.21	17.31	343.08	0.1309
2016	290583.50	140564.82	48.37	99438.36	34.22	75102.65	25.85	51458.91	17.71	48.72	0.0168
2017	288859.39	140615.87	48.68	103668.57	35.89	77924.98	26.98	58922.42	20.40	1.48	0.0005
2018	300049.75	144063.66	48.01	108250.55	36.08	82195.26	27.39	66843.20	22.28	0.85	0.0003
2019	386856.56	189745.90	49.05	139652.89	36.10	105628.64	27.30	77493.09	20.03	0.77	0.0002

Source: Annual Reports of Square Pharmaceuticals Ltd. from 2012 to 2019.

From Table-3, it is said that profitability of SPL during the considerable study period is absolutely sound & satisfactory. Because the study shows the gross profit range is 42.90-49.05 and net profit range is 18.05-27.39. But it is also observed that during the whole period of study, the gross profit rate is much higher than the net profit rate. It is because of higher volume of operating and other non-financial expenses. It is also noticed in this study that the net profit rate has been gradually increased during the study period except in 2019. The highest operating and other non-financial expenses & net profit were both in the year of 2018. Thus, it is found in this table that while the operating expenses are higher, net profit is also higher and vice-versa. From the view point of accounting operation, it is said that the lower the operating and other non-financial expenses, the higher the net profit. So, there is an inverse relation between net profit and operating expenses but this analysis has not been agreed with this relation. Different (inverse) findings found by Rahman (2014). A higher pre-tax ratio indicates a company with a high degree of operational profitability & vice-versa. Looking at the numbers in Table- 3, we can see that the SPL's operational profitability slowly increased each year from 2012-2019. We can also see that the company's EBT is gradually increasing & its total revenue is increasing too year over year. This may indicate that the company's expenses are growing with its revenues, meaning that the SPL's future profitability will be in stable position. The gradual decrease in financial expenses ratio indicating lower payment as 'interest and other costs' made for borrowing (Short & Long-term) of funds which is a good sign of SPL's strength of its own. The table above shown in the following graph:

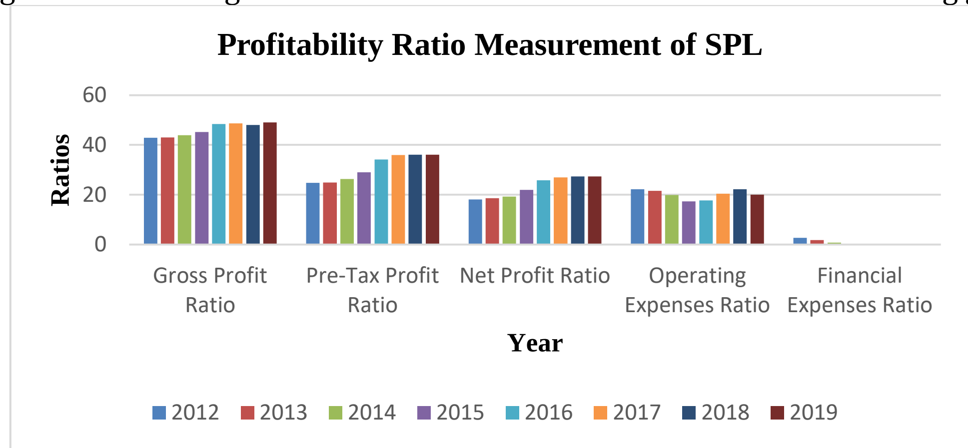

Figure-3: Profitability Ratio Measurement of SPL

8.4 Inventory Turnover and Accounts Receivable Turnover Ratio

Inventory turnover (inventory turns, merchandise turnover, stock turns, turns and stock turnover) is a ratio showing how many times a company has sold and replaced inventory during a given period. A low turnover implies weak sales and possibly excess inventory, while a high ratio implies either strong sales or insufficient inventory. It is a trail of efficiency in inventory management. The accounts receivable turnover (also called debtor's turnover ratio) ratio is an accounting measure used to quantify a company's effectiveness in collecting its receivables or money owed by clients (debtors). A high receivables turnover ratio can indicate that a company's collection of accounts receivable is efficient and that the company has a high proportion of quality customers that pay their debts quickly. A low receivables turnover ratio might be due to a company having a poor collection process, bad credit policies or customers that are not financially viable or creditworthy.

a. Inventory Turnover = $\frac{Cost of Goods Sold}{Average Inventory}$

b. Accounts Receivable Turnover = $\frac{TotalSales}{Accounts\,Receivable}$

N.B.: i. Average Inventory = $\frac{Opening + Closing\,Inventory}{2}$

ii. Ending inventory Tk. 25416.88 lac of 2011 is the opening inventory of 2012.

Table-4: Inventory Turnover and Accounts Receivables Turnover

Year	Cost of Goods Sold	Closing Inventory	Average Inventory	Inventory Turnover	Net Sales	Accounts Receivable	Accounts Receivable Turnover
2012	91672.54	26878.18	26147.53	3.51	160544.25	8083.12	19.86
2013	102234.78	25036.83	25957.51	3.94	179594.89	8009.75	22.42
2014	117279.93	23453.89	24245.36	4.84	209107.74	7577.57	27.60
2015	143708.72	26842.59	25148.24	5.71	262128.62	8945.43	29.30
2016	150018.67	29476.64	28159.62	5.33	290583.50	13297.54	21.85
2017	148243.53	29881.22	29678.93	4.99	288859.39	21884.48	13.20
2018	155986.09	36420.91	33151.07	4.71	300049.75	15872.11	18.90
2019	197110.66	45965.13	41193.02	4.79	386856.56	15618.18	24.77

Source: Annual Reports of Square Pharmaceuticals Ltd. from 2012 to 2019.

From the accounting point of view the ideal inventory turnover ratio is about 4 to 6 which usually means that the rate at which a company restocks items is well balanced with its sales. Here Table-4 shows the inventory turnover is in between the ideal norm during the study period which tells the satisfactory position of the entity. Accounts receivable turnover ratio is considered moderately satisfactorily high in the sense that the highest turnover is 29 times in a year (2015) in this study and another at least 02 (two) years were close to the number i.e. in 2014 & 2019. The lowest turnover was 13.20 times in the year of 2017. Here it is seen that in most of the years in the study periods the collection of accounts receivable is in one-two times in a month. From the above analysis, now it can be concluded that the accounts receivables are being converted into cash within a very short time period which implies the frequency of sales. So it may be said well for the company under the current study.

The table above shown in the following graph:

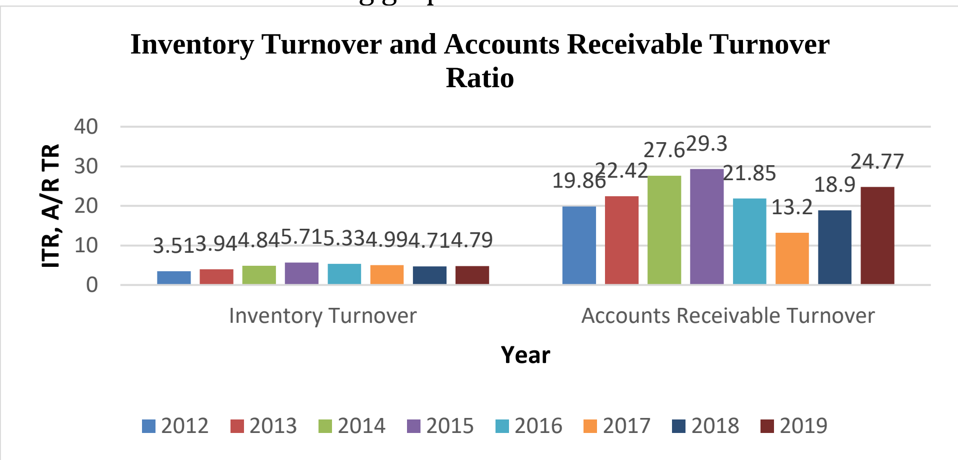

Figure-4: Inventory Turnover and Accounts Receivables Turnover

8.5 Assets Turnover Ratio and Financial Leverage Ratio Analysis

Assets turnover indicates the efficiency with which firm uses all its assets to generate sales. The higher the turnover ratio, the more efficient is the management and utilization of assets while low turnover ratios are indicative the underutilization of available resources and presence of idle capacity (Khan & Jain: 2012-2013:6.30-31). Financial leverage ratios (also known as debt ratios) measure the ability of a company to meet its financial obligations when they fall due. They give insights into the mix of equity and debt & indicate the ability of a company to repay principal amount of its debts, pay interest on its borrowings and to meet its other financial obligations.

a. Assets Turnover Ratio = $\frac{NetSales}{TotalAssets}$

b. Financial Leverage Ratio = $\frac{TotalAssets}{Shareholders'\,Equity}$

Table-5: Assets Turnover ratio and Financial Leverage Ratio

Year	Net Sales	Total Assets	Assets Turnover Ratio	Shareholders' Equity	Financial Leverage Ratio
2012	160544.25	214537.85	0.75	162668.84	1.32
2013	179594.89	234476.46	0.77	188447.46	1.24
2014	209107.74	265495.35	0.79	222775.17	1.19
2015	262128.62	313541.82	0.84	280318.92	1.12
2016	290583.50	391746.86	0.74	355970.63	1.10
2017	288859.39	457632.46	0.63	412019.62	1.11
2018	300049.75	533293.13	0.56	466628.76	1.14
2019	386856.56	650616.73	0.59	608060.55	1.07

Source: Annual Reports of Square Pharmaceuticals Ltd. from 2012 to 2019.

In the above Table-5, assets turnover and financial leverage ratio have been portrayed. The highest asset turnover ratio is 0.84 shown in 2015. It is obvious from this analysis that the assets turnover ratio has been increased progressively up to a certain period i.e. from 2012-2015 & in the later years of the study period the ratio has been gradually decreased but in 2019 (0.59) it has been increased again compared to the immediate early year 2018 (0.56). So, it may be concluded that although the efficiency of management team of SPL is being increased gradually in managing and utilizing its assets in the initial four years (2012-2015), there is a down trend observed in the later three years (2016-2018) which indicates that the management team could not keep its efficiency up. The increasing trend in later year (2019) indicates that SPL has been concentrating on this alarming issue. From the accounting point of view, if the financial leverage ratio of a company is higher than 2-to-1, it indicates financial weakness (leveraged highly). There is an inverse relation between assets turnover and financial leverage ratio. The increasing trend in the assets turnover ratio, the decreasing trend in the financial leverage and vice-versa. It is established so from the above Table-5 with a few exception. In the first 4 years of the study, the assets turnover has been increased (0.75, 0.77, 0.79 & 0.84) and accordingly the financial leverage has also been decreased (1.32, 1.24, 1.19 & 1.12) and the trend is observed inversely in the later 4 years. In 2019 as the trend in assets turnover ratio has been increased (0.56 to 0.59) the financial leverage ratio of SPL has been decreased (1.14 to 1.07) again. From the analysis, it is concluded that the financial leverage ratio of the company is being decreased progressively which indicates that the burden of debt financing of the entity is being gradually decreased and accordingly the cost of debt/capital is also being decreased. It is apparent from this Table-5 that almost throughout the study periods the inverse relationship of trend between assets turnover ratio and financial leverage ratio has been effectively established.

The table above shown in the following graph:

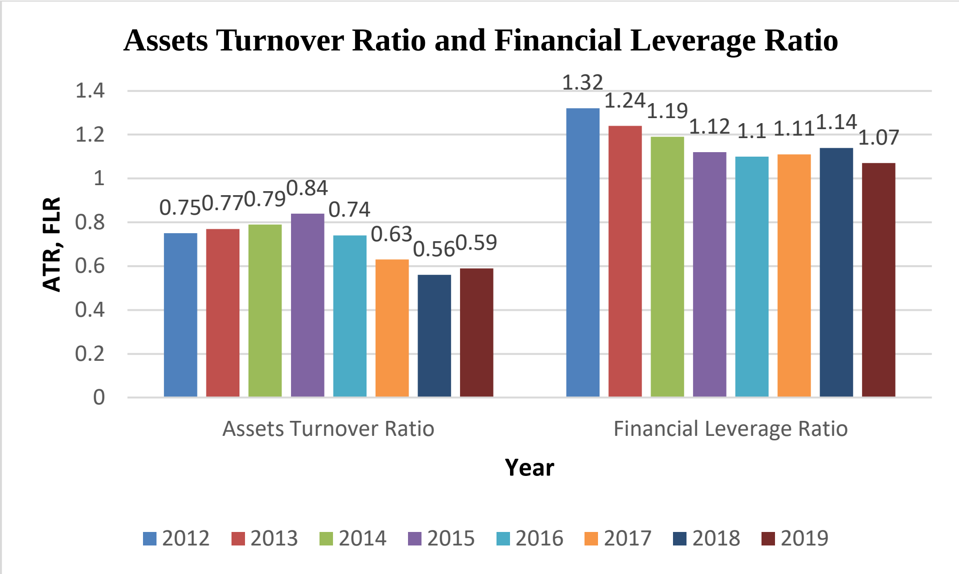

Figure-5: Assets Turnover ratio and Financial Leverage Ratio

8.6 Return on Assets (Earning Power), Return on Equity and Equity Multiplier

Return on assets (ROA) is a financial ratio that shows the percentage of profit that a business venture earns in relation to its overall resources (total assets). It is a key profitability ratio which measures the amount of profit made by a company per cash of its assets. It shows the company's ability to generate profits before leverage, rather than by using leverage. Return on equity (ROE), often said to be the ultimate ratio or the 'mother of all ratios', is the amount of net income returned as a percentage of shareholders equity. It reveals how much profit a company earned in comparison to the total amount of shareholder equity found on the statement of financial position. It measures how profitable a company is for the owner of the investment and how profitably a company employs its equity. The equity multiplier is a financial leverage ratio that measures the portion of company's assets that are financed by stockholder's equity. A higher equity multiplier number indicates that the debt portion of total assets is increasing which translates to more financial leverage for the company.

a. **Return on Assets (Earning Power)** = Net Profit Margin × Assets Turnover

Where, Net Profit Margin = Earnings After Tax (EAT) / Net Sales

Assets Turnover = Net Sales / Total Assets

i.e. Return on Assets (Earning Power) = $\frac{\text{Earnings After Tax (EAT)}}{NetSales} \times \frac{NetSales}{TotalAssets} = \frac{\text{Earnings After Tax (EAT)}}{TotalAssets}$

b. **Return on Equity (ROE) =** Net Profit Margin × Assets Turnover × Financial Leverage/Equity Multiplier

Return on Equity (ROE) **=** $\frac{\text{Earnings After Tax (EAT)}}{NetSales} \times \frac{NetSales}{TotalAssets} \times \frac{TotalAssets}{Shareholders'\,Equity} = \frac{EAT}{Shareholders'\,Equity}$

c. **Equity Multiplier =** $\frac{TotalAssets}{TotalShareholders'\,Equity}$

Table-6: Return on Assets (Earning Power), Return on Equity and Equity Multiplier

Year	Earnings After Tax (EAT)	Total Assets	Earning Power (ROA)	Shareholders' Equity	Return on Equity (ROE)	Equity Multiplier
2012	28977.11	214537.85	13.51	162668.84	17.81	1.32
2013	33414.25	234476.46	14.25	188447.46	17.73	1.24
2014	40318.11	265495.35	15.19	222775.17	18.10	1.19
2015	57436.24	313541.82	18.32	280318.92	20.49	1.12
2016	75102.65	391746.86	19.17	355970.63	21.10	1.10
2017	77924.98	457632.46	17.03	412019.62	18.91	1.11
2018	82195.26	533293.13	15.41	466628.76	17.61	1.14
2019	105628.64	650616.73	16.24	608060.55	17.37	1.07

Source: Annual Reports of Square Pharmaceuticals Ltd. from 2012 to 2019.

From the accounting view point, the normally the average value of ROA 7-8% is considered to be a decent value. Here the average value of ROA of SPL is 16.14% which indicates a well stable trend. The lowest (13.51%) & highest (19.17%) ROA rate have been recorded in 2012 and 2016. ROEs of 15-20% are generally considered good. The return on equity of SPL is seen also more stable. The lowest (17.37%) & highest (21.10%) return on equity have been recorded in 2019 and 2016. So, it is to be said that the management of SPL is efficient and sound enough in dealing with their fund/capital and the assets of the company as well. The rate of ROA and ROE that appeared in this analysis is a pointful sign for the entity under the study which is simply the indicative of overall efficient management and utilization of assets as well as overall profitability of the company. There is a decreasing trend in equity multiplier over the study periods except in 2018 which states that SPL's debt levels are extremely low. Only around 10% of its assets are financed by debt. Conversely, investors finance around 90% of its assets. This makes SPL very conservative as far as creditors are concerned. SPL's return on equity will be negatively affected by its low ratio, however.
The table above shown in the following graph:

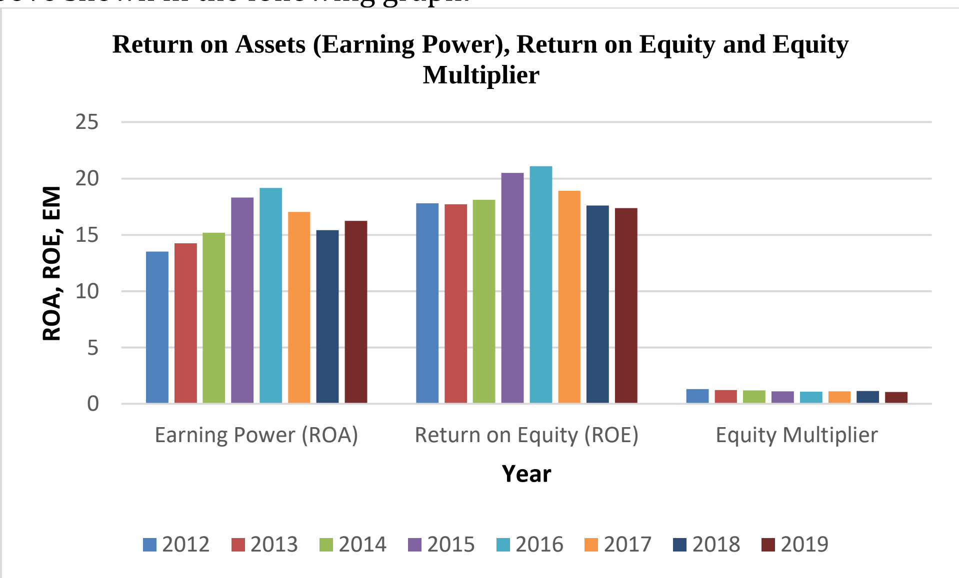

Figure-6: Return on Assets (Earning Power), Return on Equity and Equity Multiplier

9. FINDINGS OF THE STUDY

The major findings that have been found from the study are underneath:
Square Pharmaceuticals Ltd. maintains enough liquidity that may not be resulted falling into shortage of working capital. It is the consequence of financing the current assets in greater volume from long-term sources of fund. The SPL finances the current assets from long-term sources and short-term sources on an average 65% and 35% respectively during the study

time frame. Because of this SPL may generate profit on an increasing way at moderate level of financial risk with a few exceptions which tells the good financing policy. Although SPL has a higher net working capital it is not a good sign for the company in some cases. It is just because of excessive current assets may result in idle capital. Cash & quick ratios are at increasing level but there is a greater fluctuation in the trend which may result abnormally on the company's net working capital all on sudden. Although the net profit rate is satisfactory, it is on an average half of the company's gross profit. It has been happened due to the higher operating and other non-financial expenses. The growth rate of increasing in net profit is lower than the growth rate of operating expenses. This may indicate that the company's expenses are growing with its revenues, meaning that the SPL's future profitability will be in stable position. The gradual decrease in financial expenses ratio indicating lower payment as 'interest and other costs' made for borrowing (Short & Long-term) of funds which is a good sign of SPL's strength of its own. SPL's inventory turnover is in between the ideal norm during the study period which tells the satisfactory position of the entity. The collection period of accounts receivable is also satisfactory since accounts receivables are collected on an average 02(two) times in a month which means SPL has a little chance to fall into the crisis of working capital. An inverse relation between assets turnover and financial leverage ratio has been strongly established with a few exceptions which shows the gradual increase of SPL's efficiency in the field of asset management and its utilization. SPL's financial leverage ratio is being decreased day by day meaning the cost of debt is also being reduced. ROA & ROE simply tell how efficient a company's management in generating earnings because it is an integrated analysis of profitability through sound asset management of that entity. The present study shows that SPL is able to maintain stability as well as consistency in running the business nearly in all regards for its increasing earning power and on the other side diminishing the reliance on its debt. SPL's debt levels are extremely low which also tell that the company is very conservative as far as creditors are concerned.

10. RECOMMENDATIONS and CONCLUSION

There is a mixed trend in the liquidity level of Square Pharmaceuticals Ltd. should be strictly maintained so as not to face the situation of working capital crisis. SPL can invest its huge positive amount of net working capital in more productive assets (i.e., non-current assets). SPL is doing well in its inventory level at present but the concerned department should be more tactical as well as efficient in handling the inventory in such a way that will not block the capital to buy raw materials earlier and increase it carrying cost which will help expand its business activities without employing additional capital. The company should try to improve its accounts receivables collection period as it can. Desired & effective coordination should be maintained among all the functioning divisions of the SPL which will help determine the requirement of working capital, proper asset management, planning of current & future production and increase the sales volume of the entity. SPL ought not to abuse the law exceptionally on account of offering its products to the customers which will mislead them & hence destroy the trust of individuals of the nation. Last but not least, it is clear that the Bangladesh pharmaceutical industry is emerging at a fast pace. In order to keep up this pace we have to devise mechanisms to overcome the obstacles and enhance our image in local and international markets. As a pioneer in the Pharmaceuticals industry in Bangladesh the overall financial performance of Square Pharmaceuticals Ltd is almost satisfactory.

11. LIMITATIONS OF THE STUDY

In general, every study has some limitations & the present study is not an exception. Basically this study is conducted on secondary data that appeared on the company's annual reports. Because of unavailability of some essential financial data like credit sales in the yearly report, the alternative way had to be in use to have the better ratios of turnover in that case. Well beyond, the officials of the entity were hesitant to share such type data. Rather they suggested relying on the annual reports as it were.

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