

## Financial Performance Analysis of LP Gas Ltd. with Special Reference to Govt. Restriction on New Piped Gas Connection to Households

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### ABSTRACT

*This paper examines the financial performance of LP Gas Ltd. and impact on sales resulting from the Govt. restriction on new piped gas connection to households. The existing literature was reviewed to establish the financial performance framework of the company and at the same time to examine the sales (m. ton) of LP Gas Ltd before and after the Govt. proscription of Gas connection to the households. The performance of the company has been measured through various financial ratios i.e. liquidity ratios, activity ratios, leverage ratios, and profitability ratios with an analysis of market value ratios. SPSS software package is used for descriptive statistics and to predict the sales trend linear regression method is used. To examine the impact of Govt. restriction on piped gas connection on the sales of LP Gas: t-test has been resorted. The analysis brings to the fore that the financial position and operational performance of LP Gas ltd. in most cases are not satisfactory. Sales trend shows huge incongruities over the 23 years period. Sales (m.ton) of LP Gas Ltd. have not been significantly increased since the time after the Govt. restrictions of new gas connection to households.*

**Keywords:** financial performance, LP Gas Ltd, financial ratios, Govt. restriction, sales trend

### 1. INTRODUCTION

Performance means accomplishment of a course of action. Simply it refers to success in work measurement with reference to some standards. It also refers to quantitative and qualitative work and expected results in the form of output (Thevraj, 1978).

Performance measurement is related to the process of providing necessary information to the interested parties on all aspects of the operation – resources, process, and consequences. It is the vocal point of decision making and organizational learning.

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It helps the optimization of the interaction of organizational elements. Performance measurement of public enterprises has been the subject matter of discussion for planners, administrators, managers, economists and academics since long (Rahman, 2009).

The ultimate determinant to success of any firm is its ability to run its affairs effectively in order to remain in perpetuity and as such the importance of continual generation of profit cannot be overemphasized. Going concern is an accounting concept this is because a continuous lift is anticipated for the firm within foreseeable future (Abdulrasheed, 2004).

Financial Analysis is a process of assessing the viability, stability and as well as profitability of an organization. Financial analysis is the process of identifying the financial strength and weakness of the firm by properly establishing relationship between the items of the balance sheet and the profit and loss account (Pandey, 1991). Analysis of financial statement is of interest to lenders, security analysts, managers and others (Chandra, 1995).

## **2. BACKGROUND AND RATIONALE OF THE STUDY**

There are 9 LPG companies in Bangladesh, and all of them are not enumerated in the capital market. 8 out of these 9 are private limited companies and only one i.e. LP Gas Ltd. is state owned public limited Company. It is the pioneer in the liquid petroleum gas industry. To facilitate the use of LP Gas for domestic purpose, LP Gas plant in Chittagong was established in 1978 under the supervision of Bangladesh Petroleum Corporation. Later on in 1983, this plant was converted into a Public Limited Company having 100% share owned by Bangladesh Petroleum Corporation. This company was given the responsibilities of supplying LPG throughout the country as an alternative fuel to firewood and kerosene. This company on an average has been supplying over 20,000 M. tons of LPG to various parts of the country which is roughly account for 15%-20% of the current demand (welcome to, 2013). Different estimates show demand for LPG is 5, 00,000 to 6, 00,000 tons a year against the supply of only 75.000 tons. LPG demand is increasing sharply with the Govt. decision of not providing fresh piped gas connection to household since 2009. Besides, firewood accessibility is gradually shrinking and the price of kerosene is going up resulting in intense rise in LPG demand (Welcome to, 2013).

Against the backdrop of demand and supply and the present role of LPG, many people assert that it has become the right time to make the LPG firms self-sufficient for the betterment of the country. At this juncture the performance of LP Gas Ltd. needs to be measured and analyzed so as to show its status and prospects. But the evaluation of performance of LP Gas Ltd. is yet to be done comprehensively by many and independent quarters. Against this backdrop, this study is an attempt to evaluate the performance of LP Gas Ltd. for the period under study. To evaluate the performance, the technique of financial analysis has been applied.

### **3. OBJECTIVES OF THE STUDY**

The study is designed to achieve the following objectives:

1. To evaluate the financial performance of LP Gas Ltd.
2. To examine the sales (m. ton) of LP Gas Ltd before & after the Govt. announcement of stopping Gas connection to the households.

### **4. LITERATURE REVIEW**

Financial ratios are the simplest tools for evaluating the financial performance of the firm (Lin, Liu & Chu, 2005). Individual be able to utilize financial ratios to determine a firm's liquidity, profitability, solvency and capital structure and asset turnover. Ohlson (1980) employed financial ratios to predict a firm's crisis. He found four factors affecting a firm's vulnerability. These factors are the firm's scale, financial structure, performance and liquidity. Jahur and Uddin (1995) used financial ratios to measure operational performance of limited company. They used profitability, liquidity, activity and capital structure to measure operational performance. Uddin and Kabir (1996) examined the financial performance of Bangladesh Shipping Corporation. They found that conversion of long-term debt to equity might improve the financial performance of Bangladesh Shipping Corporation to a greater extent. Hye and Rahman (1997) conducted a research to assess the performance of the selected private sector insurance companies in Bangladesh. The study revealed that the private sector insurance companies had made substantial progress. The study found that the insurance companies were keeping their surplus funds in the form of fixed deposits with different commercial banks due to the absence of suitable avenues for investment. Hannan and Miah (1998) used financial ratios to show the financial position and performance analysis of Bangladesh Shilpa Bank. They showed that techniques of financial analysis could be used in the evaluation of financial position and performance of financial intuitions as well as non-financial institution even Development Financial Institutions (DFI). Sina and Matubber (1998) used financial ratios to test the financial strengths and weaknesses of Khulna Newsprint Mills Ltd. They found that due to lack of planning and control of working capital, operational inefficiency, obsolete store, ineffective credit policy, increased cost of raw materials, labor and overhead, the position of the company was not good. In the article "The Assessment of Financial and Operating Performance of the Cement Industry: A Case Study of Confidence Cement Limited", Dutta and Bhattacharjee (2001) found that the investment in cement was fairly profitable. Salauddin (2001) examined the profitability of the Pharmaceutical Companies of Bangladesh. By using ratio analysis, mean, standard deviation and co-efficient of variation he found that the profitability of the Pharmaceuticals sector was very satisfactory in terms of the standard norms of return on investment.

## 5. RESEARCH METHODOLOGY

Research methodology is defined as the common approaches the researcher uses in carrying out the research project (Leedy & Ormrod, 2005). Research methodologies of the present study are outlined below:

The nature of this research is descriptive and the goal of this research is to know the financial performance of LP Gas Ltd. & examine the sales (m. ton) of LP Gas Ltd before & after the Govt. announcement of stopping Gas connection to the households. The study is focused on secondary data which were collected from published annual reports of LP Gas Ltd. The study covers a period of twenty three (23) years from 1990 to 2012. Moreover, extensive literature survey is done by searching different books, journals & internet.

To analyze the data, this study used descriptive (Mean, Median, Standard Deviation (S.D.), Maximum and Minimum) and difference inferential statistics (t-test). All statistical calculations were carried out by SPSS version 16. To draw the linear sales (m. ton) trend by the method of least square MATLAB software has been used. Researchers use sales in M. Ton instead of sales in TK to avoid the pricing effect and to know actual effect on sales & to compare the significance of Govt. restriction on new piped gas connection to household's trend value of sales (m. tons) & actual sales (m. tons) are considered.

## 6. KEY FINANCIAL RATIOS (THE FRAMEWORK OF RATIO BASED ON FINANCIAL PERFORMANCE EVALUATION)

There are various categories of ratios used in financial statement analysis. In this study five different ratios are used. These are: (1) liquidity ratios, which measure a firm's ability to meet cash needs as they arise; (2) activity ratios, which measure the liquidity of specific assets and the efficiency of managing assets; (3) leverage ratios, which measure the extent of a firm's financing with debt relative to equity and its ability to cover interest and other fixed charges; (4) profitability ratios, which measure the overall performance of a firm and its efficiency in managing assets, liabilities and equity; and (5) market value ratio/ growth ratio, which bring to light the stock price and give an idea of what investors think about the firm and its future prospects.

Liquidity Ratio:	Current Ratio: $\frac{\text{Current Assets}}{\text{Current Liabilities}}$	Profitability Ratios	Gross profit Margin: $\frac{\text{Gross Profit}}{\text{Sales}} \times 100$
	Quick Test Ratio: $\frac{\text{Quick Assets}}{\text{Current Liabilities}}$		Net Profit Margin: $\frac{\text{Net Profit}}{\text{Sales}} \times 100$
	Working Capital:		Operating Income Ratio:

	$\frac{\text{Current Assets} - \text{Current Liabilities}}{\text{Net Operating Profit}} \times 100$	$\frac{\text{Net Operating Profit}}{\text{Net Sales}} \times 100$
Activity ratios	Inventory Turnover Ratio: $\frac{\text{Cost of Good Sold}}{\text{Average Inventory}}$	Return on Assets Ratio: $\frac{\text{Net Profit before Tax}}{\text{Total Assets}} \times 100$
	Total Assets Turnover ratio: $\frac{\text{Cost of Goods Sold}}{\text{Total Assets}}$	Return on Equity Ratio: $\frac{\text{Net Profit before Tax}}{\text{Equity Fund}} \times 100$
Leverage Ratios	Debt- Equity Ratio: $\frac{\text{Total Debts}}{\text{Equity Fund}}$	
Market Value/ Growth Ratio:	Earnings per Share: $\frac{\text{Profit after Tax}}{\text{No.of Share}}$	

## 7. HYPOTHESIS

The government halted piped natural gas connections to households in July 2009 -- due to a gas shortage in the country (Rahman, 2013). Governmental intervention created an opportunity for liquid petroleum gas industry for better position than before and increased the demand of bottled liquid gas.

As per the objectives of the study, the following hypothesis was developed for testing:

**H<sub>1</sub>:** There is no significance difference between sales (in m. tons) of LP Gas Ltd before & after Govt. restriction on new piped gas connection to households.

## 8. FINDINGS AND ANALYSIS

This section has three parts. In the first part financial position of the sample company has been analyzed through descriptive analysis and in the second part linear trend by the method of least square has been drawn and finally t-test has been developed to examine the significance of sales (M. Ton) before and after the Government announcement of proscribing piped gas connections to households.

### 8.1 Financial Ratios Analysis:

In this section an attempt has been made to analyze the company's overall financial performance for the given period through descriptive analysis of all the above mentioned ratios.

Table 1: Descriptive Analysis of all ratios

N	CR	QR	WC	IT R	AT R	D/E	GP (%)	NP (%)	OIR	RO A	ROE	EPS
Valid	23	23	23	23	23	23	23	23	23	23	23	23
Missing	0	0	0	0	0	0	0	0	0	0	0	0
Mean	1.10 39	.7957	849957. 3478	40. 153 0	.893 9	3.77 96	7.57 52	11. 282 6	6.70 22	8.35 61	30.6 887	57.0 826
Median	1.10 00	.6900	419839 8.0000	35. 800 0	.640 0	2.81 00	7.49 00	9.8 000	3.52 00	7.80 00	22.9 300	45.1 200
Std. Deviation	.173 20	.2392 0	180449 32.1478 4	27. 521 76	.484 23	2.76 876	2.92 468	7.7 745 9	8.23 894	5.05 585	19.1 0437	64.2 772 0
Minimum	.75	.48	- 688996 52.0	11. 10	.36	.45	3.27	1.0 0	- 8.57	1.42	3.87	.43
Maximum	1.40	1.28	281823 96.00	147 .53	1.89	11.1 8	13.3 8	36. 55	23.6 0	19.1 4	84.6 2	282. 77

Source: Computed by authors through SPSS 16.0

### Liquidity Ratios:

#### Current Ratio (CR):

It is revealed from the above findings that CR of the sample company is not in satisfactory level. The above table demonstrates that CR's minimum value is 0.75 whereas its maximum value is 1.40. With comparing to the standard level of 2:1, CR also falls in backward position. Its SD is less than one that is only 0.17320; its average value is 1.1039 which show that the minimum and maximum values lie more closely with their mean value, but far behind from standard value.

#### Quick Ratio (QR):

It is evident from the above table that QR of the sample company is at moderately level. The above table demonstrates that QR's minimum value is 0.48 times whereas its maximum value is 1.28 times. With comparing to the standard level of 1:1, QR also falls in right position. Its SD is less than one that is only 0.23920; its average value is 0.7957 which show that the minimum and maximum values lie more closely with their mean value. As well as it shows that in the study period QR management on an average, closely related with the standard level.

### **Working Capital (WC):**

It is seen from the above table that the working capital management is in bumpy position. The above table shows WC has the minimum value of - 68899652.00 whereas its maximum value is 28182396.00. Moreover, its SD is 18044932.14784; its average value is 849957.3478 which show that the minimum and maximum values lie more far away from their mean value.

### **Activity ratios:**

#### **Inventory Turnover Ratio (ITR):**

A low inventory turnover may indicate an excessive investment in inventories, whereas a high ratio often means that the firm is running out of stock, resulting in poor service to customers. It assists the financial manager in evaluating inventory policy to avoid any danger of over stocking as a prelude to the effective utilization of the resources of the firm. Higher the ratio the better it is since it shows that stock is rapidly turned over. The table-01 shows that the average inventory turnover is 40.1530 days. It is seen from the table that the minimum and maximum values range from 11.10 days and 147.53 days respectively. Moreover its S.D. is 27.52176. The calculated ratios indicate that the performance of sales management of the sector over the years is not satisfactory with regard sales of its product.

#### **Asset Turnover Ratio (ATR):**

Another activity ratio is asset turnover. This is a measure of the extent of generating sales in terms of the total assets. A standard norm of 200% (i.e. 2 times) of this ratio is considered norm by some authors for an industrial enterprise. The above table shows that the average asset turnover is only 0.8939 times which is very lower than standard norm. Its maximum and minimum values range from 1.89 and 0.36 respectively and its S.D. is only 0.48423 which show that variation over the years is stable.

### **Leverage ratio:**

#### **Debt-Equity ratio (D/E):**

Equity represents a "cushion" for shareholders. This ratio is calculated to measure the relative proportions of outsiders' funds and shareholders' funds invested in the company. The standard ratio is 2:1. The table shows that the average debt-equity ratio for the study period is 3.7796:1. The ratio ranges from 0.45 to 11.18. Its S.D. is 2.76876 which is an indication of inefficient financial management.

### **Profitability Ratios:**

#### **Gross Profit Margin (GP):**

The earnings in terms of sales can be judged through the profit margin. The gross profit margin reflects the effectiveness of pricing policy and of production efficiency. Some authors consider that a profit margin ratio ranging from 20% to 30% may be considered as the standard norm for any industrial enterprise. The table-01 shows that the gross profit ratio is not in satisfactory level. From the study it is found that the average gross

profit ratio is 7.5752% and with S.D. of 2.92468. Moreover its maximum value and minimum value range from 13.38 and 3.27 respectively. Variation of gross profit over the years is significant, which speaks about the instability of gross profit earning of this sector.

**Net Profit Margin (NP):**

The ratio of net profit margin reveals the overall profitability of the concern, that's why it is very useful to the users. It also indicates management efficiency in manufacturing, administrating and selling of the products. Some authors consider that a profit margin ratio ranging from 10% to 15% may be considered as the standard norm for any industrial enterprise. The table-01 shows that the net profit ratio is in somewhat satisfactory level. From the study it is found that the average net profit ratio is 11.2826% and with S.D. of 7.77459. Moreover its maximum value and minimum value range from 36.55 and 1.00 respectively. Variation of net profit over the years is volatile, which speaks about the volatility of net profit earning of this sector.

**Operating Profit /Income Ratio (OIR):**

It represents the overall earnings of an enterprise and one can get a clear idea about the efficiency of an enterprise from its operating profit ratio. The higher the ratio, the better is the overall efficiency of the enterprise. Operating profit ratio ranging 4% to 6% is considered norm for the purpose of comparison and control by some authors. The table-01 shows that the average operating profit ratio is 6.7022 %. It appears that the average operating profit is satisfactory in terms of the standard norm. This ratio ranges from – 8.57% to 23.60%.its S.D. is 8.23894%. Variations in operating profit over the years indicate inconsistency in the overall earnings.

**Return on Total Assets (ROA):**

This ratio is calculated to measure the profit after the tax against the amount invested in total assets to ascertain whether assets are being utilized properly or not. Some authors consider 10% to 12% rate of return on total assets as reasonable norm for a profitable firms and this may be considered as reasonable norm for the selected sample. The above Table shows that the average return on total assets is 8.3561%. It is seen from the table that the ratio ranges from 1.42% to 19.14 %. Its S.D. is 5.05585 %. The lower ratios indicate the assets were not being utilized properly during the period, and the higher ratios indicate the assets were being utilized properly during the period. In the context of variation of this ratio over the years, it is found that the variation is significant.

**Return on Equity (ROE):**

It reflects the overall efficiency of the firm in managing its total investment in assets and in generating return to shareholders. A rate of return ranging from 11% to 12% on Equity may be considered as reasonable for a selected enterprise. The table-01 shows that the average return on equity is 30.6887%. It appears that the average return on equity is satisfactory in terms of the standard norm. This ratio ranges from 3.87% to 84.62%. The lower ratios dictate that management should be more efficient in

managing its total investment in assets. Its S.D. is 19.10437% which shows that the variation in managing assets over the study period is significant.

### Market value/ Growth ratio:

#### Earnings per Share (EPS):

It is observed from the above table that EPS management is not in a uniform fashion. EPS shows the minimum value is only 0.43 whereas its maximum value is 282.77. Besides, its SD is 64.27720; its average value is 57.0826 which show that the minimum and maximum values lie far away from their mean value. One very notable thing is that, the sharp change in EPS should be the changing of the number of shares during the study period. For example, In the year 1987 total number of share was 1,00,000@ Tk.100 each, again in the year 1993 total number of share was 2,00,000 @ Tk. 100 each but this share split-off in the year 2009 at the ratio of 1: 10 along with this share the company issue another 80,00,000 share as a bonus share & in total number of share became 1,00,00,000 @ Tk.10 each.

### Sales (M. Ton) of LP Gas Ltd before & Govt. restriction on new piped gas connection to households:

#### Sales Trend (m. tons):

In this section an attempt has been made to evaluate the sales trend of LP Gas ltd. after the Govt. restriction on piped gas connection to households. This will indicate as to whether the Govt. announcement has influenced the sales trend or not.

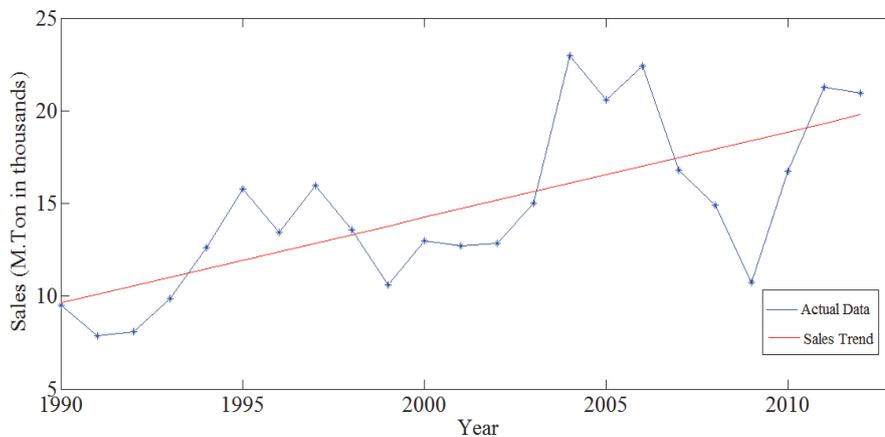


Figure 1: Linear sales (m. tons) trend by the method of least square

Using the sales (m. tons) over the period of 23 years it is observed that sales trend are increasing & from the year 2009 it shows a sharp change which intersect the trend line. Now, it's time to analysis whether the change of sales after 2009 is statistically significant or not.

**Hypotheses testing:**

Usually, in quantitative study, tests of significance are used to decide whether certain inferences can be drawn regarding any differences or relationships between variables. In this section, an attempt has been made to examine whether the sales trend previously done are statistically significant or not.

Hypothesis 1 H<sub>0</sub>: There is no significant difference between sales (m. ton) of LP Gas Ltd before and after Govt. restriction on new piped gas connection to households.

$$\mu_1 = \mu_2$$

$$\mu_1 \neq \mu_2$$

**Paired Samples Statistics**

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Actual	19650.6667	3	2525.07947	1457.85531
	Trend	19019.3333	3	439.50009	253.74550

**Paired Samples Correlations**

		N	Correlation	Sig.
Pair	Actual & Trend	3	.832	.375

**Paired Samples Test**

	Paired Differences			95% Confidence Interval of the		t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	Difference				
				Lower	Upper			
Pair 1 Actual - Trend	631.33333	2173.29619	1254.75314	-4767.43369	6030.10036	.503	2	.665

To test the above hypothesis, paired-samples t-test was run with SPSS. Before t-test, trend value of Sales (m. ton) was calculated to compare with actual sales (m. ton). This was deemed necessary to compare the trend value of sales & actual sales to get the proper idea about whether the Govt. restriction on new piped gas connection to households impact on LP Gas Sales (m. tons). It was found that the difference between sales (m. ton) of LP Gas Ltd before and after the Govt. announcement of stopping Gas connection to the households was statistically insignificant. ( $t = .503$ ,  $P > .10$ ).

Hence, the null hypothesis was accepted and it can be concluded that the difference between sales (m. ton) of LP Gas Ltd before and after the Govt. announcement of stopping Gas connection to the households is insignificant i.e. LP Gas Ltd fail to avail the opportunities of Govt. restriction.

## **9. CONCLUSION**

It can be concluded from the above discussion that the financial position and operational performance of LP Gas Ltd. in most cases were not satisfactory. The inefficiency of financial management may be major cause to such a poor position of the state of affairs. The main reasons reportedly attributed to such a situation are the scarcity of raw materials, high competition, management inattention, lack of realistic goals, political instability, increased price of raw materials and others. Sales trend shows huge fluctuations over the 23 years period. Even, after the Govt. announcement of restricting on gas connection to household in the year 2009, sales (m. tons) of the LP Gas Ltd. are not significantly increased in comparison to the time before restriction. In view of the above findings, the following suggestions are given for increasing efficiency in overall financial performance and as well as earnings:

The financial management particularly purchase, sales and inventory management be strengthened and motivated, so that they act efficiently and effectively.

Necessary attention be given to recruit and maintain qualified, trained and experienced management personnel with required incentives.

Operational efficiency should be increased by reducing cost and wastage and improving operating and management performance.

Liquidity position of the company should be improved by reducing current liabilities.

Accountability system be installed with provisions for reward for better performance and penalization for non- achievement of the same.

Cost audit should be done continuously so as to pinpoint inefficiency and ineffectiveness and provide opportunities to reduce wastage which in turn ensures better use of resources and helps improve performances.

## **10. LIMITATIONS AND DIRECTIONS FOR FURTHER RESEARCH**

No study in social sciences can be error free (Huq, 2005). Accordingly, the present study also has a number of limitations. The main limitation of the present study is that statistical inference is based on only three years of sales after Government restriction.

There are a number of areas where future studies can be directed. Future studies may be carried out in larger extent in other private LP Gas companies. The financial

performances of LP Gas Ltd. may be compared with other LP Gas companies in Bangladesh.

## REFERENCES

- Abdulrasheed, A. (2004). Ratio analysis as a measure of performance in the banking industry - a case study of selected banks. *advances in management. A Journal of Department of Business Administration, University of Ilorin, Ilorin Nigeria*, 4(1), 130 – 140.
- Chandra, P. (1995). *The Investment Game*. New Delhi: McGraw Hill Ltd.
- Dutta, D. D. K., & Bhattacharjee, D. M. K. (2001). The Assessment of Financial and Operating Performance of the Cement Industry: A Case Study of Confidence Cement Limited. *The Chittagong University Journal of Commerce*, 16, 1 – 16.
- Hannan, A., & Miah, M. A. (1998). Financial Position and Performance analysis of Bangladesh Shilpa Bank. *Islamic University Studies*, 1(2), 207 – 225.
- Huq, B. I. A. (2005). Corporate Capital structure decision in private sector industrial enterprises in Bangladesh. Unpublished doctoral dissertation, University of Chittagong, Bangladesh.
- Hye, D. M. A., & Rahman, A. M. (1997). Performance of Selected Private Sector General Insurance Companies in Bangladesh. *The Chittagong University Journal of Commerce*, 13, 137 – 160.
- Jahur, S. M., & Uddin, M. M. (1995). Measurement of Operational Performance through Ratio Analysis- A case study of Usmania Glass Sheet Factory Ltd. Chittagong. *The Chittagong University Journal of Commerce*, 11, 245 – 255.
- Leedy, P. D., & Ormrod, J. E. (2005). *Practical research*. NY: Pearson Education Ltd..
- Lin, W. C., Liu, C. F., & Chu, C.W. (2005). Performance Efficiency Evaluation of the Taiwan's shipping Industry: An application of DEA. *Proceeding of the Transportation Studies*, 5, 467 – 476.
- Ohlson, J. A. (1980). Financial ratios and the Probabilistic Prediction of Bankruptcy. *Journal of Accounting Research*, 19(1), 61 – 80.
- Pandey, I. M. (1991). *Financial Management*. Vikas Publishing House Pvt. Ltd., New Delhi.
- Rahman, A. M. (2013). Bangladesh resumes piped gas connection to households after 3 years. Retrieved June 20, 2013, from <http://www.platts.com/latest-news/natural-gas/Dhaka/Bangladesh-resumes-piped-gas-connections-to-households-27950237>.
- Rahman, M. M. (2009). Financial Analysis of Selected Textile Firms in Bangladesh. *Southeast University Journal of Business Studies*, 5(2), 89 – 108.
- Salauddin, D. A. (2001). Profitability of Pharmaceutical Companies of Bangladesh. *The Chittagong University Journal of Commerce*, 16, 54.
- Sina, M.A., & Matubber, M. A. A. (1998). Financial Statement Analysis of Khulna Newsprint Mills Ltd. *Islamic University Studies*, 1(2), 179 – 189.
- Thevraj, M. J. K., (1978). *Financial Management of Government*, New Delhi, S. Chand & Sons.

- Uddin, S. M., & Kabir, M. A. (1996). Financial Performance of Bangladesh Shipping Corporation - A Case Study. *Journal of Chittagong University*, 12, 25 – 36.
- Welcome to LP Gas Ltd (2013). Retrieved July 5, 2013, from <http://www.bpc.gov.bd/contactus.php>
- Welcome to LP Gas Ltd. (2013). Retrieved July 5, 2013, from <http://www.lpgbangladesh.com>