A Comprehensive Financial Analysis of Fuel and Energy Sector in Pakistan

M Imran Baber, Umreen Akhter, Amir Manzoor, Dr Syed Aziz Haider

Abstract — Financial Analysis is a very useful technique to analyze the financial stability and sustainability of a firm in the long run. The fuel and energy sector are very major sector which contributes towards the economy of a country. The growth and development in fuel and energy sector means that other related sectors such as manufacturing, trading and services sector are also doing well. The study provides the insights about the financial performance of five companies of Pakistan energy and fuel sector which are major contributors towards economy. These companies include Hubco Hub Power Plant, Kohinoor Energy Limited, Kot Addu Power Company, Pak Arab Refinery and Pakistan State Oil. The financial analysis of these selected companies is made through different ratio analysis to analyze their profitability, efficiency and liquidity. The results shows the real insights about the real performance of these selected company that how well they are performing in their industry and what financial risks and associated with these companies. The financial analysis is followed by a brief conclusion and recommendations for improvement for better performance of fuel and energy sector in Pakistan.

Key Words: Ratio Analysis, profitability, liquidity, efficiency, Fuel and Energy sector, Financial performance.

1. Introduction

The Fuel and Energy sector always have a great importance in the economy of every country. In Pakistan, Fuel and Energy sector not only contributes towards the economic development but also act as driver for other industries like manufacturing sector, services sector and trading sector. The demand of Fuel and Energy sector has risen tremendously in the last few years due to increase in population. The increase in demand results in shortfall and energy crisis in many areas of Pakistan. Still there is a need to manage the fuel and energy resources in a more efficient way to fulfill the needs of the consumers and betterment of economy (S Akhtar, 2012).

The research is aimed to provide insights about the financial analysis of fuel and energy sector of Pakistan. For this purpose five companies were selected which are the major contributors in their respective industry. The financial information of these companies was taken from their financial statements which are available on company's website. The ratio analysis technique is used to analyze the profitability, efficiency and liquidity of above mentioned companies for the year 2014 to 2018 (T Afza, 2013). The results after making the analysis show that these companies are performing well in terms of profitability, financial management and growth. They have sufficient funds available to manage their operational and financing needs. Still there are areas of improvement that are highlighted in the conclusion part. The recommendations part provided some suitable suggestions for the betterment of their financial efficiency, financial risk management and improving return on investment (Z Maroof, 2017).

1.1 Research Aim & Objectives:

The research aim is to make a financial analysis of fuel and energy sector in Pakistan for the year 2014-2018.

The research objectives are

- To make a financial analysis of fuel and energy sector in Pakistan
- To check the financial ratio of fuel and energy sector companies and their financial performance.
- To understand the financial performance, efficiency and liquidity of fuel and energy sector firms with the help of ratio analysis.

1.2 Research Questions:

Is the performance of fuel and energy sector in Pakistan is up to the mark?

Is the fuel and energy sector in Pakistan is performing well in terms of profitability and growth as compared to previous years?

Is the fuel and energy sector is contributing towards betterment of economy of Pakistan?

2. LITERATURE REVIEW

The literature review section starts with overview of fuel and energy sector of Pakistan and its major contribution towards the economy of Pakistan. The later part includes the overview of companies, their existence and financial performance in industry. Further there is a detail from the previous literature about the same topic i.e. a comprehensive financial analysis of fuel and energy sector in Pakistan.

2.1 An Overview of Fuel and Energy Sector in Pakistan

The fuel and energy sector of Pakistan has shown a growth rate of approximately 5.4% in the fiscal year 2017-2018 according to economic survey of Pakistan. The Major contributors towards growth are government policies, flexibility in pricing and role of regulatory authorities. Similarly the two major donors of providing funds to the economy, i.e. World Bank and IMF (International Monetary Fund), have also recognized the

positive growth and performance in due to restructuring of economy due to CPEC. The CPEC, in fact, is creating lot of opportunities especially in oil, gas, fuel and energy sector and will become a game changer for Pakistan economy (Anwar, 2016).

The oil and gas imports graph has also risen in the recent years. For example since 2014 to 2018, the imports of oil and gas with an increase of 3.6% per annum. The rise in the demand results in more important especially from Middle East and Saudi Arabia (GD Valasai, 2017). Another reason is the flat production of oil by national companies and lacks of refinery capacity and related resources. Similarly, the natural gas resources also need to export, which indeed, is a burden for the economy in terms of huge payment due to high exchange of dollar. The demand of electricity has also increase due to increase in population, urban culture and demand for manufacturing sector. The research from economic department of Pakistan, also estimate that almost 50% more growth is required to manage the overall short fall of the energy (I Liaqat, 2017).

2.2 Overview of Selected Companies

There are five companies selected which act as representative of fuel and energy sector representatives. These five companies from fuel and energy sector represent the capital structure, assets, liabilities and profitability factors such as net income, earning per share and dividends. The brief introduction of these companies is given in the following paragraph.

Hubco Hub Power Company is an independent power generation company located in Lasbela, Balochistan. The company was established in 1994, and is now producing 1,292 Mega Watt of energy and act as major contributor in energy sector of Pakistan. The company is listed in all theree stock exchanges of Pakistan and has very strong financial position due to strong management and regulatory framework of financial management (SA Qureshi, 2018).

Kohinoor Energy Limited is an independent private sector energy company which was incorporated in April 1994. The basic objective of the company is to generate the power for the betterment of economy of Pakistan. The company is a joint venture with Saigol Group of Companies which is a well known multi-industrial group in Pakistan, and Toyota Corporation, which is industrial consortium from Japan. The power generation capacity of Kohinoor energy Limited is 132 Mega Watt (Mallick, 2016).

Kot Addu Power Company is located in Muzaffarabad, Pakistan and was incorporated in 1996. The company has a capacity to produce electricity of 1600 MW. Company was listed in all three stock exchanges and comes under the management and regulation of Water and Power Development Authority (WAPDA).

Pak Arab Refinery Corporation established due to the joint venture of Pakistani Government and Emirate of Abu Dhabi in the field of fuel sector in 1974. Since its inception, company has grown itself as a fully integrated energy company in Pakistan corporate sector. Pak Arab Refinery Corporation has a network of pipelines starting from Karachi to Machike, Distt. Sheikhupura covering almost 2000 KM. The company has a

latest refinery in Pakistan with a capacity to refine 10,000 Barrels of fuel of per day (M Mubin, 2017).

Pakistan State Oil is the nation's largest energy company engaged in the distribution of multiple types of fuels to cater the needs of individuals and industries. The fuels that company supplies ranges from Motor Gasoline, High Speed Diesel, Furnance & Jet Fuel and Kerosine Oil, petrochemical and lubricants. The company was established in 1974 with the merger of Pakistan National Oil Company and Dawood Petrolium Limited as Premium Oil Company Limited. After two year the Premium Oil Company and State Oil Company results in the formation of Pakistan State Oil in 1976 (M Hasan, 2017).

2.3 Overview of Previous Studies

The comprehensive financial analysis of fuel and energy sector in Pakistan is a very important topic but there is a very research is conducted on this topic so far. Most of the researches studies about finding the relationship between financial leverage and financial performance, analyzing the working capital approaches and asset management of fuel and energy sector firm. In the following paragraphs, let's discuss these studies in a brief manner:

According to (A Ghosh, 2018), financial leverage and financial performance has a positive relationship. They studied the twenty companies from fuel and energy sector of Pakistan and financial performance was calculated with the help of ratio analysis. The studies revealed that financial risk of fuel and energy sector firms increase when the increase their leverage that leads the firm towards liquidation or take over. There is a general perception that high risk will eventually leads towards high return, such as return on investment, net income and increase in market share.

Another research on determinants of capital structure of textile, chemical, and Fuel & Energy Sector of Pakistan by (R Komal, 2015), shows that those companies which have high fixed assets have higher leverage ratios. According to the research, the tangibility has a direct relationship with the debt ratio, as the company has a strong financial position, and can take huge financing against their tangible assets and achieve more growth and profitability.

Another research made by (Malik, 2015), provides an overview and deeper insights about the asset management and return on investment of fuel and energy sector of Pakistan. The studies show that most of the fuel and energy sector companies have more fixed assets as compared to other organizations in different industries. The banks and financial institutions offer them a range of financing facilities such as overdraft, mortgage loans and loan against property, plant and equipment. The fuel and energy sector organization can utilize these loans to manage their ongoing project as well as for investment purpose to get suitable return on investment. Their research also concludes that fuel and energy sector organizations should make their investment in diversified portfolio in order to gain a better profitability and return on assets.

3. Significance of Study

The fuel and energy sector is the major contributor of the economy of Pakistan and financial analysis will provide real insights how these companies are performing in terms of their financial management. The ratio analysis will also provide

information about of fuel and energy sector firms as well as company's financial decision making to mitigate the financial risk and liabilities.

4. RESEARCH METHODOLOGY

The research methodology means the techniques and procedures that a researcher uses to analyze and interpret the information related to given research. The methodology provides a framework to the user of research about the quality of the information provided in the research and methods to interpret the results. Similar to other researches, methodology of financial analysis of fuel and energy sector of Pakistan includes the sample size, population and data collection methods. The details of these topics are given in the following headings in detail:

4.1 Sample Size

There were total five companies selected from fuel and energy sector of Pakistan which are Hubco Hub Power Plant, Kohinoor Energy Limited, Kot Addu Power Company, Pak Arab Refinery and Pakistan State Oil. These five companies act as representative of the sector and are major contributors towards economy of Pakistan (M Farooq, 2018).

4.2 Population

The population of this research is fuel and energy sector companies of Pakistan.

4.3 Data Collection Method

The data for that particular research is taken from the financial statements of the selected companies for the year 2014 to 2018. The financial statements of selected firms can be easily downloaded from company's websites. The other sources of research are online books and journals, library, financial magazines and textbooks.

4.4 Ratio Analysis:

The ratio analysis provides the insights about various aspects of a company's operating and financial performance in terms of profitability, efficiency, liquidity of the selected firms. For the financial analysis, these ratios are quite important and provide information that how well an organization is performing in terms of financial management (M Kanwal, 2017).

4.4.1 Profitability Ratios:

Profitability ratios are used to measure the overall profitability of the firms. There are different and various types of profitability ratios but the most famous are Return on Equity and Return on Assets. Return of asset determines how much a bank earn against one dollar spent against is assets (A Mukhtar, 2017). They describe how well an organization is utilizing its financial assets and owner's equity to manage its current and long-term liabilities. The following tables show the return on assets and return on shareholder's equity for the year 2014 to 2018 of the five selected companies from fuel and energy sector of Pakistan (U Qazi, 2018).

Table 1: Return on Assets of fuel and energy sector firms

Details	2014	2015	2016	2017	2018
Hubco Hub Power Plant	1.8%	1.4%	2.1%	1.7 %	1.6%
Kohinoor Energy Limited	2.2%		1.6%	1.3%	1.5%
Kot Addu Power Company		2.9%	3.4%	1.8%	1.9%
Pak Arab Refinery Corporation	1.1%	1.4%	1.5%	1.8%	1.3%
Pakistan State Oil	2.2%	3.1%	2.4%	2.6%	1.7%

Table 2: Return on Equity of fuel and energy sector firms

Details	2014	2015	2016	2017	2018
Hubco Hub	31.8%	24.4%	26.1%	32.5	36.2%
Power Plant				%	
Kohinoor	28.2%	32.8%	29.6%	36.2%	37.4%
Energy Lim-					
ited					
Kot Addu	21.4%	23.9%	26.8%	28.2	26.4%
Power				%	
Company					
Pak Arab	32.4%	35.6%	29.4%	32.5%	36.4%
Refinery					
Corporation					
Pakistan	28.6%	31.5%	33.5%	38.4%	41.3%
State Oil					

4.4.2 *Liquidity Ratios:*

Liquidity ratios used to measure the organizational performance in terms of managing their short term liabilities with its current assets. For this purpose current ratio and debt to equity ratio is used. The current ratio refers to firm's capability to manage its current liabilities with current assets. The debt to equity ratio measure understand the company's leverage to financial risk in terms of its liabilities with perspective of shareholder's equity both of these ratios are real indicators of financial strength of organizations and draw a clear picture of effective financial management of the firm (SR Naqvi, 2018).

Table 3: Current Ratios of fuel and energy sector firms

Details	2014	2015	2016	2017	2018
Hubco Hub Power Plant	4.1%	3.4%	2.9%	3.3	1.8%
Kohinoor Energy Limited	3.1%	3.6%	3.4%	3.8%	2.2%
Kot Addu Power Company	2.8%	3.2%	3.3%	2.5 %	3.6%
Pak Arab Refinery Corporation	5.2%	4.5%	2.9%	4.3%	4.9%
Pakistan State Oil	3.4%	2.9%	4.6%	2.2%	4.2%

Table 4: Debt to Equity Ratio of fuel and energy sector firms

Hubco Hub	224.25%	229.36%	228.34%	223.63	226.	14imit	ed					
Power Plant				%		Kot	Addu	23.7%	25.8%	21.6%	22.4	23.5%
Kohinoor	162.23%	169.52%	169.46%	172.36%	173.	Powe	er				%	
Energy						Comp	pany					
Limited						Pak	Arab	19.5%	18.9%	20.5%	19.6%	21.2%
Kot Addu	143.26%	138.36%	139.56%	145.63	144.	81896fin	ery					
Power				%		Corp	oration					
Company						Pakis	tan	24.2%	22.8%	21.6%	23.8%	25.9%
Pak Arab	221.23%	224.12%	228.63%	232.56%	223.	State	Oil					
Refinery												
Corporation												
Pakistan	216.22%	221.23%	233.89%	231.78%	226.	46% μ	RESEAR	CH FIND	INGS			
State Oil						_						

4.4.3 Efficiency Ratios:

The efficiency ratios indicate about the efficiency of the organization and effective management of their cash flows, operating expenses and income and current and long term liabilities. In short it provides overall effectiveness of the firm to utilize their assets and financial resources in such a manner that they can produce optimal returns for the organization. In fuel and energy sector, most of the organization do not investment much that's why they are unable the achieve return on investment and their cash and capital remained unutilized in their accounts. The higher value of efficiency means that financial resources are utilizing efficient manner (AHMED, 2017).

Following are the two major ratios that indicate the efficiency of firms in fuel and energy sector of Pakistan:

Table 5: Income to expense ratio of fuel and energy sector firms

Details	2014	2015	2016	2017	2018
Hubco Hub	18.4%	16.8%	15.4%	13.6	16.8%
Power Plant				%	
Kohinoor	14.4%	13.6%	12.4%	14.2%	13.2%
Energy Lim-					
ited					
Kot Addu	16.5%	18.4%	17.5%	15.3	13.4%
Power				%	
Company					
Pak Arab	18.3%	16.7%	17.3%	16.4%	18.2%
Refinery					
Corporation					
Pakistan	17.3%	18.2%	13.6%	16.2%	16.9%
State Oil					

Table 6: Asset utilization ratio of fuel and energy sector firms

Details	2014	2015	2016	2017	2018
Hubco Hub	25.4%	21.2.%	22.3%	26.4	24.2%
Power Plant				%	
Kohinoor	17.4%	15.6%	16.2%	18.3%	19.6%
Energy					

The ratio analysis is conducted to analyze the financial performance and efficiency of firms belongs to fuel and energy sector of Pakistan. The findings revealed that these firms are doing well in terms of profitability, efficiency and effective utilization of their financial resources. The ratio analysis is a very reasonable approach to measure the financial stability of the firms and to analyze their financial management, which is major reason for the success of an organization. There is increase in profitability and growth of fuel and energy sector firms in the year 2014 to 2018, still there is a need to manage the gaps of production to match the consumer needs (MS Javed, 2016).

6 CONCLUSION

Financial analysis of fuel and energy sector of Pakistan was conducted during the research. For this purpose five companies were selected from this sector and ratio analysis was used as measure to analyze the financial performance, stability and growth of these firms. The results revealed that firms are performing well and have tendency to grow in the upcoming years. Similarly, there is a need to effective utilization of resources to get better return on investment and to meet the requirement of the users.

7 **RECOMMENDATIONS**

On the basis of above conclusion, there are some recommendations against the areas of improvement of fuel and energy sector financial performance:

- 1- The fuel and energy sector firms should increase the production capacity to cater the needs of the users.
- 2- The companies can make use of their financial assets such as capital and fixed assets for financing their ongoing and new projects to earn more profit and market share.
- 3- There should a need of effective fund managers in fuel and energy sector firm, who can make investment in diversified portfolio to minimize the risk and gain maximum return on investment.

4- Most of the organizations in fuel and energy sector are utilizing the old machinery and equipment that results in the low production capacity and huge repair and maintenance expenses. The need of the hour to import latest plant and equipments to minimize the cost of repair and maintenance and enhance production of fuel and energy sector firms in Pakistan.

8. REFERENCES

A Ghosh, D. G. (2018). Investments in clean energy in South Asia: Visiting barriers and gaps from the perspective of policies and politics. *Sustainable Energy and Transportation*, 335-348.

A Mukhtar, I. K. (2017). Major Trends and Policies in Pakistan's Energy Sector Management. *Journal of Political Studies*, 168-175.

AHMED, M. (2017). CHINA PAKISTAN ECONOMIC CORRIDOR: THE ECONOMIC IMPLICATIONS FOR BALOCHISTAN. *Regional Studies*, 139-156.

Anwar, J. (2016). Analysis of energy security, environmental emission and fuel import costs under energy import reduction targets: A case of Pakistan. *Renewable and Sustainable Energy Reviews*, 123-136

GD Valasai, M. U. (2017). Overcoming electricity crisis in Pakistan: A review of sustainable electricity options. *Renewable and Sustainable Energy Review*, 123-145.

I Liaqat, S. S. (2017). Capital Structure as Driving Force of Financial Performance: Case of Energy and Fuel Sector of Pakistan. *International Management Review Journal*, 163-175.

M Farooq, M. A. (2018). Mapping past, current and future energy research trend in Pakistan: a scientometric assessment. *Scientometrics, Springer*, 33-48.

M Hasan, M. A. (2017). Dividend payout ratio and firm's profitability. Evidence from Pakistan. *Theoretical Economics Review*, 163-176.

M Kanwal, S. S. (2017). IMPACT OF CAPITAL STRUCTURE ON PERFORMANCE OF NON-FINANCIAL LISTED COMPANIES IN PAKISTAN. *Pakistan Business & Financial Review*, 121-136.

M Mubin, M. H. (2017). Sustainable Growth of Nonfinancial Firms: Microeconometric Evidence from Pakistan. *Pakistan Business Review*, 125-136.

Malik, A. (2015). Tackling the Energy Crisis. *International Journal of Business & Finance*, 66-78. Mallick, S. (2016). Financial Mechanism for Renewable Energy Technologies-Designing Climate Change Investment Bank for Pakistan. *Journal of*

Social and Organizational Analysis, v2, 169-174. MS Javed, R. R. (2016). The energy crisis in Pakistan: A possible solution via biomass-based waste. *Journal of Sustainable Energy*, 122-138.

R Komal, F. A. (2015). Linking financial development, economic growth and energy consumption in Pakistan. *Renewable and Sustainable Energy Reviews*, 178-188.

S Akhtar, B. J. (2012). Relationship between financial leverage and financial performance: Evidence from fuel & energy sector of Pakistan. *European Journal of Financial Managemen*, 61-75.

SA Qureshi, S. S. (2018). An Investigation of Pakistan's Manufacturing Sector Corporate Investment Under Financial Liberalization. *Journal of Social Sciences & Finance*, 33-48.

SR Naqvi, S. J. (2018). Potential of biomass for bioenergy in Pakistan based on present case and future perspectives. *Renewable and Sustainable Energy Review*, 116-135.

T Afza, M. N. (2013). Working capital approaches and firm's returns in Pakistan. *Pakistan Journal of Commerce and Social Sciences*, 23-30.

U Qazi, M. J. (2018). An integrated sectoral framework for the development of sustainable power sector in Pakistan. *Energy Reports*, 336-378.

Z Maroof, H. A. (2017). Impact Of Leverage Or Debt Management On Stock Returns: Empirical Evidence From Fuel & Energy & Textile Sector Of Pakistan. *Asian Management Research Journal*, 161-173.

IJSER