European Journal of Business and Management
ISSN 2222-1905 (Paper) ISSN 2222-2839 (Online)
Vol.6, No.37, 2014

The Impact of Financial Leverage on Firm Performance in Fuel and Energy Sector, Pakistan

Aqsa Inam
Department of Banking and Finance, University Of Gujrat, Pakistan (lalqila80@yahoo.com)

Ghulam Mustafa Mir
Faculty member (University Of Gujrat) (Mustafa.mir@uog.edu.pk)

Abstract:
Fuel and Energy are playing a vital role in the economy of developing and developed countries. It provides support for the economic development of the country by viewing positive trends towards the sector's growth, over and above serving as a control for the growth of firms different departments like; manufacturing, trading and service. It offers considerable participation for production, trade and service. General perceptions are happening that the financial leverage is supportive to increase the financial performance of the firms. For calculating the impact of financial leverage on the firm financial performance, it is necessary to understand that whether there is a positive relationship lies between the financial leverage and financial performance or not? So, in this study, I'm going to test the hypothesis and to see the impact of financial leverage on the firm financial performance of the Fuel and Energy sector in Pakistan. The main aim of this study is to examine the simplification that the firms get work with high profits may choice high leverage by using different statistical tools. The analysis of this study shows that financial leverage positively affects the firm financial performance by accepting the alternate hypothesis H_1 and H_o is rejected. The study confirms that those firms who having high profits must improve their financial performance because of having high liquidity conditions. It also expose that the participant (investor/owners) of the fuel and energy in Pakistan can improve their financial performance by occupying the financial leverage and can achieve a sustainable future growth by making proper decisions about the selection of their most favorable capital structure.
Keywords: Financial leverage, Firm Performance, Energy crisis, Financial Ratios, Fuel and Energy Sector in Pakistan

1. INTRODUCTION:

A general perception shows that there is a relation between financial leverage, political policies and firm performance. Hypotheses are going to be tested in this study. By using 12 listed public limited firms out of 18 form fuel and energy sector listed at Karachi Stock Exchange (KSE). The main aim of this study is to explore that how firm financial leverage and politic effect on performance. To test the hypothesis, firm performance used as dependent variable where as financial leverage is independent variable of fuel and energy sector in Pakistan. Six key performance indicators are used in this study are return on asset (ROA, %), return on equity (ROE, %), and return on capital employed (%), net profit margin (%), earning per share before tax (%) and earnings per share after tax (%). Financial leverage of the firm is measured by gearing ratio (%), debt equity ratio (%) and debt equity ratio. It is expected that results show the real picture of this study.

1.2 Background

Fuel and Energy are playing a vital role of the country's economy towards sustainable economic growth. In December 2006, a survey conducted about statistics and analysis of energy data, shows small expansion in energy sector in spite a major disaster of earthquake in 2005. The economy of Pakistan improved by slow growth because lack and failure of success in various sectors. The World Bank and International Monetary Fund (IMF) are two major donors in Pakistan for doing a positive growth and increase the performance of country's economy. In Pakistan 50% of energy utilization is covered by natural gas reserves. The fuel and energy problems are deep and complex in Pakistan; one can effect through the shortages of governance and political will than of pure supply. This comes from:**1)** the lack of a inclusive and incorporated strategy that resulting a lack of coordination, **2)** unsatisfactory revenues to maintain energy generation and infrastructure, unsettled to get low liquidity in Pakistan's struggling economy, **3)** the leadership's refusal to execute politically unpopular changes to tackle the situation.

An Economic survey that was conducted in Pakistan 2006-2007 shows that countries economy is signify 7.6% growth per year for the era of previous three year and observe that government trying to balance this growth in future. The government understands that economic growth of energy and fuel and its demand are strongly interlinked and so that government worked on new projects like nuclear power plant, reappearing of existing power plants for improving their capacity, try to increase the import of CNG, increase oil and gas

discovery in Pakistan and also working to import the natural gas pipe line from Iran and Turkmenistan's utilization in affordable energy resources.

Resolving the Pakistan's energy crisis will require political will, additional funding, and new power sources. Country lacks considerable internal sources of revenue; opportunities exist there for international donors to finance its energy recovery. The United States already provides a considerable amount of energy assistance to Pakistan. However, original energy solutions should not simply be throwing away, and the Pakistani government explores the Thar coalfields and other remarkable energy sources.

Country like Pakistan is badly face energy crisis. There is a vast implication for equally the developing economy and its unstable security situation. By conducted different surveys, energy crisis have cost the country equal to 4% of GDP over the past few years. They have forced the closing of hundreds of factories; stop production and make worse unemployment. Furthermore, they put at risk on much-needed investments in development and infrastructure. Temporarily, the nation has been shaking by energy disturbance. The people, who protest against unscheduled outages, have frequently resort their aggression. They block roads and burnt the motor vehicles of people and also attacked the homes and offices of members of the ruling Pakistan People's Party and the Pakistan Muslim League, the chief opposition party. In February 2013, the minister for water and power warned that the energy crisis now become a national security issue. For all these reasons, energy creates one of Pakistan's most critical challenges.

2. OBJECTIVES:

It is obvious that fuel and energy serving as steering wheel of the economic growth of a country. There are some objectives of this research. It includes:

- To gain practical knowledge of financial leverage and financial performance.
- To understand the importance of financial leverage in performance of a company.
- To compare financial leverage with financial performance

3. LITERATURE REVIEW:

Sunderkötter (2011) explore the impact that how expected stock return affected by the fuel mix structure in power generation portfolios for European power companies. The samples of 22 biggest public listed European power producers were selected for the period January 2005 to December 2010. The capital asset pricing model (CAPM) and multi-factor market models were used to capture the systematic risk (β) of the power companies relative to the overall market performance and also the other typical energy and macroeconomic risk factors. The full - information approach was used to determine technology - specific betas and risk factor from the selected sample. The result indicates that the fuel mix generation significantly impact on the stock returns of the investigated companies. Particularly, the sample of selected companies reveal that it creates significant differences in the systematic risk (β) of gas and nuclear generation technologies compared with renewable technologies measured by technology - specific, delivered beta factors. (Sunderkötter 2011)

Rampling, Mir & Eddie (2008) investigates the impact of energy companies on environment and subsequent effect on financial performance of the companies in New Zealand and Australia. Financial and environmental data of electricity companies were collected for the financial period 1996-2006. Both the financial and environmental variables were used in this study like Carbon Dioxide, Nitrous Oxide and Sulpur Dioxide, Return on capital equity, Return on equity, Return on sales. Two tail test used for analyzing the data. It was initiate that the cluster, multivariate and descriptive statistics showed good economic performance, doesn't drive the company's environmental performance but create effect on it. The cluster, multivariate and descriptive statistics had ratified international regulation doesn't make any difference in reregulated ratified and non ratified countries (Rampling, Mir & Eddie 2008).

Bohl, Kaufmann & Stephan (2013) analyze the common risk factor of the companies that combine the performance of German renewable energy stock. The samples of 23 companies were selected from ÖkoDAX and the DAXsubsector index. The period of investigation coves the eight year data from 2004 to 2011. Multi-factor performance measurement, Sup ADF test and Markov regime-switching ADF test were used as research methodology. Four-factor model was used to adjust monthly excess returns for exposure to the market, size, book-to-market and momentum factor. As a result, the previous trends of stock turned into losers, show negative impact on price momentum and delivering significantly negative Carhart four-factor alphas. It showed that German renewable energy stocks earned considerable risk-adjusted returns from 2004 to 2007 but completely reverse in 2008 to 2011 (outer perform), when renewable energy stock bring significantly negative Carhart alphas and showed a negative loading on price momentum. (Bohl, Kaufmann & Stephan 2013)

Lameira et al (2012) investigate the impact of location and sector of activity of Energy Company's location in Euro-zone on firm's performance. The samples of 18 largest energy firms were selected in the Euro-zone for the period 2005-2009. Taking performance of firm as dependent variable and return on asset ROA,

return on equity ROE, return on capital employee RCE and profit margin PM as independent variables. Dummy variables are also used by the researcher. Linear regression model used OLS technique as research methodology. The result shows that oil and gas gives highest return. On the other hand location doesn't matter in economic and financial performance of energy companies. (Lameira et al 2012)

Garbuzova & Madlener (2012) studied to explore the emerging Russian Energy Service companies (ESCO) markets. The study sample of 161 companies was selected for the period 2009 from Russian Federation. Data was collected through questionnaire, based on survey of 161 energy companies and organization. Descriptive statistics, Fischer's exact test and two-tail test was applied in this paper. The results showed that contractual form of guarantee saving generalize more applicable in ESCO market and increase gain while shared saving rare in use. It also showed that the direct loan financing for energy projects rarely provided by Russian banks but they offer financial leasing contracts. (Garbuzova & Madlener 2012)

Burnnschweiler (2006) examine the determinants of credit allocation to renewable energy firms in developing and transition countries. Simple equilibrium approach was used in three sectors: final and primary energy production and in banking sector. Reshare and geoshare was dependent variable while other variable include credit by financial institute to the private sector, commercial banks, financial understanding and foreign direct investment. This study was based for the period 1980 to 2003. Results encourage four variables that measure the financial intermediary showed expected signs. It also ravels that energy sector reforms significantly positive effect. Additionally examine that control variables including oil prices have no impact on RE sector development (Burnnschweiler 2006).

Cao & Gorba (2013) examine the renewable energy technology in the context of policy, innovation and market in China. Panel data of 43 developing and developed countries were selected that import the solar PV and WETCs (wind energy technology component) from china during 1996 to 2008. They also describe the policies that made by the government for renewal of energy plans and how it success effect the performance. Gravity trade model was used to analyze the results. The findings of the paper showed that solar PV has small market and this industry successfully enter into foreign market. The performance, as exporter of producing WETC increase but relatively small when compared to developed country's home market. High income countries with large energy market and high demand support policies were increasingly import solar PV components from china. They also find that trade cost show negative impact on export of solar PV rather than WETC and positively affected on research and development (R&D) and growth (Cao & Gorba, 2013).

Akhtar et al (2012) studied the relationship between financial leverage and financial performance of fuel and energy sector in Pakistan. Using the sample of 20 listed companies from fuel and energy sector were selected for the year 2000-2005. Financial performance was taken as dependent variable and measured by ten key indicators: return on assets, return on equity, dividend cover ratio, and dividend ratio to equity, net profit margin, earning per share before tax, earning per share after tax, sales as % of total assets, earning per share before tax growth sales growth. Taking financial leverage as independent variables and measured by debt equity ratio and gearing ratio. Results indicate that financial leverage has positive relationship with financial performance. The companies that engage with fuel and energy sector enhance their performance and growth of economy if the optimal capital structure will improve (Akhtar et al, 2012).

4. HYPOTHESIS:

The hypothesis that set for this paper is:

Ho: Financial leverage has no positive relationship with firm financial performance operation in fuel and energy sector.

H_1: Financial leverage has positive relationship with firm financial performance operation in fuel and energy sector.

5. RESEARCH DATA AND METHODOLOGY:

This research is based on quantitative data that involve empirical evidence between different variables. The 12 listed companies selected as sample from Fuel and Energy sector listed at Karachi Stock Exchange (KSE). The data for this research collected from relevant annual reports of the companies and also state bank issued financial statements. It would help in gaining reliable results. For the collection of relevant data several websites, Research Journals & articles will provide a major guideline for studying the literature and previous studies being carried out on the relevant topics.

It is generally expected that financial leverage affects the performance of the firm. This study will explore the impact of financial leverage on the financial performance of the firms in fuel and energy sector in Pakistan. To test the hypothesis, the main variables used in the study consist of a dependent variable which is financial performance of fuel and energy sector on the other hand independent variable financial leverage in fuel and energy sector. Basically, the study aims at measuring the impact of two stated variables. The financial performance will be measured by employing the six key indicators. That are: return on asset (ROA, %), return on

equity (ROE, %), return on capital employed (%), net profit margin (%), earning per share before tax (%) and earnings per share after tax (%). On the other hand the independent variable, financial leverage will employ the key leverage indicators commonly used including the gearing ratio (%), debt equity ratio (%) and debt equity ratio. The results will estimate whether a positive association exists between the financial leverage on firm financial performance or not?

For establishing relationships between the fuel and energy sectors, the method of linear regressions by using Ordinary Least Squares (OLS), I applied. It is essential that dependent variable of this study are normally distributed. For this purpose Jarque-Bera test has been used.

Gearing Ratio = $\beta_o+\beta_1$*ROA+β_2*ROE+β_3*ROCA+β_4*net profit margin+β_5*EPS before tax+β_6*EPS after tax + ε

Debt to Equity Ratio = $\beta_o+\beta_1$*ROA+β_2*ROE+β_3*ROCA+β_4*net profit margin+β_5*EPS before tax+β_6*EPS after tax + ε

Table 1: Variables and their measurements

Variables	Measurements
Dependent	
ROA	Net profit before taxes/ Average of (Non-Current Assets + Current Assets)
ROE	Net profit before taxes/ Average of Shareholder's equity
ROCE	Net profit before taxes/ Average of Total capital employed
Net profit margin	Net profit before taxes/ sales
Earnings per share before tax	Net profit before taxes/ Number of ordinary shares
Earnings per share after tax	(Net profit before taxes - Tax provision)/ Number of ordinary shares
Independent	
Debt equity ratio %	(Current Liabilities+Non-Current Liabilities)/ Shareholder's equity * 100
Debt equity ratio	(Current Liabilities+Non-Current Liabilities)/ Shareholder's equity
Gearing ratio	long term debt / shareholders equity

6. DATA ANALYSIS AND RESULT DISCUSSION:

The analysis shows the statistical results concerning with financial leverage on financial performance. Normally researcher used measure of financial leverage through financial ratios, in which capital gearing ratio and debt to equity ratio are being considered. Firstly, gearing ratio reveals the level of financing offered by the owners to investors (external financer funds). The well geared firms with high leverage ratio are more elastically respond in adverse situation as risk of fixed payment even in decline are exposed. A high level of shareholders equity provides a margin and it can be viewed as a firm of financial strength.

Table 2: Statistical Analysis of Leverage Indicators

Financial Leverage among the companies	Maximum	Minimum	Average	Variance	Standard Deviation
Gearing ratio %	10.9187	-872.1185	-11.99	10589.54	102.9055
Debt Equity ratio %	3.0796	-16.0452	-0.171	3.7348	1.932575
Debt equity ratio	307.96	-1604.52	-17.15	37348.48	193.2575

According to our data analysis maximum gearing ratio is 10.9187% in Pakistan's Fuel and Energy sector and minimum is -872.1185%. Almost Firms are using leverage with the combination of equity. Average of is -11.99% and its variance is 10589.54, therefore standard deviation of 102.90% almost as shown in **Table 2**.

Debt to equity ratio calculates the firm's financial leverage by dividing its total liabilities by stockholders' equity. It designates that which proportion of equity and debt the firm is using to finance its own assets. Energy sector's maximum debt/equity ratio is 3.08%, with a minimum of -16.04% and average is -0.171%; showing 3.73% variations from mean and a standard deviation of 1.932%.

Table 3: Statistical Analysis of Performance Indicators

Financial Leverage among the companies	Maximum	Minimum	Average	Variance	Standard Deviation
Return on asset %	55.95	-21.05	5.236	291.63	17.08
Return on equity %	157.27	-451.97	-3.212	7077.22	84.13
Return on capital employed	79.63	-127.41	4.559	1072.04	32.77
Net profit margin	62.11	-204.27	-2.1515	1517.32	38.95
Earnings per share before tax	1077.63	-249.6	57.234	29633.36	172.14
Earnings per share after tax	65.29	-27.32	3.646	133.65	11.56

In **Table 3**, I talk about various financial performance indicators. Return on assets (ROA) maximum and minimum ratios of the firm is 55.95% and -21.05%, while average is 5.23.Variance of 291.63 clarify the inconsistency of earning on assets investment by using firms recommended financial leverage structure. Return on equity (ROE) of this sector is high of 157.27% as maximum, while average of -3.212%, variability is 7077.22 much greater when earning on equity operates for financing decision of by using leverage or equity financing. Return on capital employed of the firm average is 4.56, while highest is 79.63%, standard deviation 32.77 which comparatively lesser than other performance indicators .It shows the firms sensitivity for keeping shareholders dissatisfaction, earning bad industry perception. Net profit margin, results indicate -2.15% margin for fuel and energy sector firms and shows the maximum returns of 62.11% after tax and a minimum of -204.27%. The earnings per share before taxes for the firms reach to the hit the highest point at 1077.63. On the other hand, it represents a minimum of -249.6. Earnings per share after tax tend to lie its highest point 65.29 and minimum at -27.32.

Table 4: Correlations of Financial Performance Indicators with Leverage Ratios

Financial indicators	Gearing ratio %	Debt to equity ratio %	Debt to equity ratio
Return on asset %	0.07466	0.055505	5.55
Return on equity %	0.065022	0.049646	4.96
Return on capital employed	0.050421	0.050296	5.03
Net profit margin	0.148905	0.053837	5.38
Earnings per share before tax	0.135285	0.09702	9.07
Earnings per share after tax	0.653125	0.585395	58.54

Table 4 describes the relation among various leverage and the firm financial performance indicators. The correlations lies between leverage and financial performance showed a positive relationship among leverage and the financial performance of the firm when I compare the debt to equity ratio with most of the financial performance indicators. According to data analysis, the gearing ratio shows positive relationships with the leverage indicators. The justification in this way is that there is no possibility of having preferred stock in the capital structure of some industries double-dealing in the firms which is not being the part of capital with fixed return. The gearing ratio creates the effect of capital with return which not only provides accommodation about the debt but also give information the outstanding shares of preferred stock. The results may differ from debt to equity ratio when gearing ratio is measured by "dividing the capital with fixed return to the capital with variable return" (which includes equity).

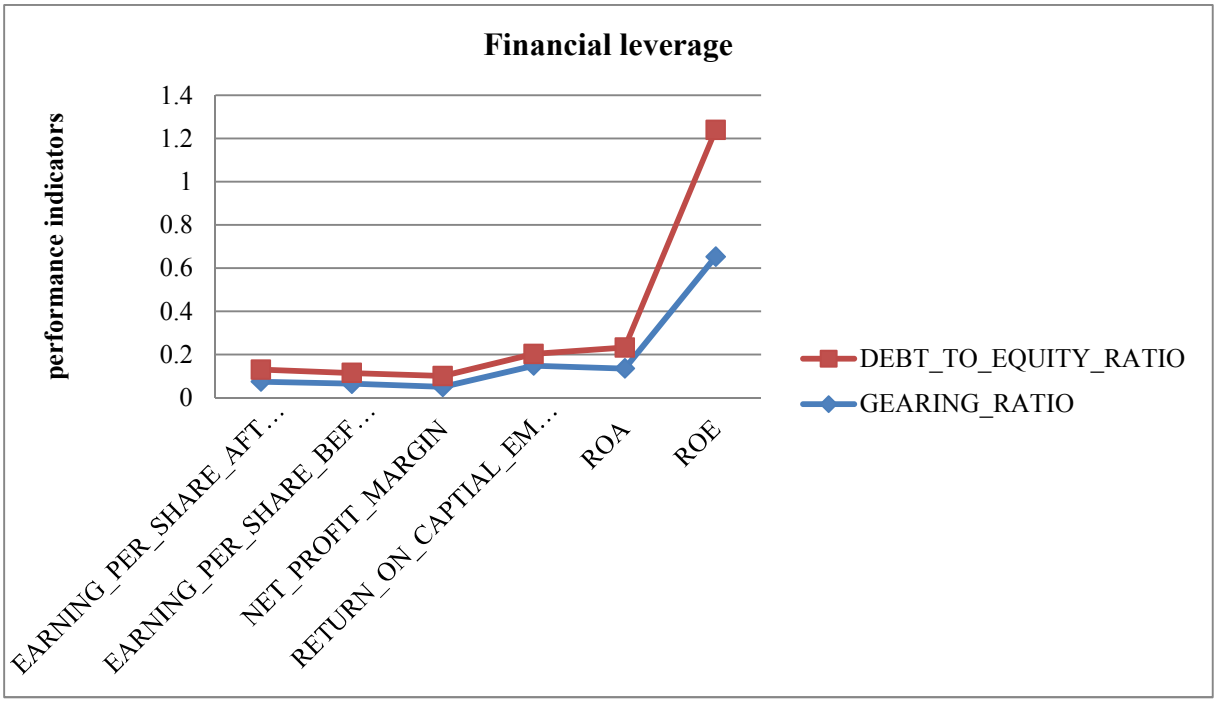

Figure 1: Relationship of various performance indicators with financial leverage

The trend and relationship of performance indicators with the leverage shows positive relationship shown in Figure 1. It proves the H_1 hypothesis of the study that is constructed a positive relationship among the leverage and financial performance and rejects the H_0 hypothesis of the research. The companies engage with fuel and energy sector in Pakistan can advance their financial performance by picking the best possible level of leverage for their firms.

Table 5: correlation of gearing ratio with performance indicators

	GEARING RATIO	ROA	ROE	ROCE	NPM	EPSBT	EPSAT
GEARING RATIO	1	0.13	0.65	0.15	0.05	0.065	0.075
ROA	0.13	1	0.47	0.89	0.64	0.58	0.61
ROE	0.65	0.47	1	0.53	0.23	0.31	0.32
ROCE	0.15	0.89	0.53	1	0.49	0.60	0.63
NPM	0.05	0.64	0.23	0.49	1	0.39	0.42
EPSBT	0.065	0.58	0.31	0.60	0.39	1	0.96
EPSAT	0.075	0.61	0.32	0.63	0.42	0.96	1

In table 5, financial leverage indicator gearing ratio takes as individually check the correlation between performance indicators ROA, ROE, ROCE, net profit margin, earning per share before tax and earnings per share after tax and it shows that all variables are positively affect the financial leverage of fuel and energy sector in Pakistan according to data analysis. ROE and ROCE are highly correlated with leverage. EPS after tax and EPS before tax show 96% correlation. It creates huge affect in a positive way on firm financial leverage. On the other hand ROA, ROCE and net PM gives miner values 0.13, 0.15 and 0.05 respectively.

In table 6, all the firm financial performance indicators are positively related with firm financial performance. This analysis shows that EPSBT and NPM affect the firm financial leverage a little. Both are showing same values that is 0.050. Whereas, ROE highly responsible to debt to equity ratio.

Table 6: Relationship between Debts to Equity ratio with performance indicators

	DEBT TO EQUITY RATIO	ROA	ROE	ROCE	NPM	BPSBT	EPSAT
DEBT TO EQUITY RATIO	1	0.097	0.58	0.054	0.050	0.050	0.056
ROA	0.097	1	0.48	0.89	0.64	0.58	0.61
ROE	0.58	0.48	1	0.53	0.23	0.31	0.33
ROCE	0.054	0.89	0.53	1	0.49	0.60	0.63
NPM	0.050	0.64	0.23	0.49	1	0.39	0.42
EPSBT	0.050	0.58	0.31	0.60	0.39	1	0.96
EPSAT	0.056	0.61	0.33	0.63	0.42	0.96	1

7. SIGNIFICANCE OF RESEARCH PAPER

The major consideration of this study is on fuel and energy sector because this growing rapidly and provide input to other industries. Ups and down in oil and gas prices can pull to increase the cost of production and so that consumer can suffer a lot. This can cause of inflation and reduce purchasing power. This study is conducted for observing that how financial leverage of a firm effect the firm performance and help out the firms to know about good and bad effect and increase profits if financial leverage significantly impact on firm financial performance. This study carries a huge significance not just for the fuel and energy sector also for the dependent bodies. It creates considerable meaning even if I said that trade activities relate to fuel and energy sector in the global world.

8. CONCLUSION

Fuel and Energy prices in a global economy cannot be cover the market reality, because changes can produce serious impact in the development of this country. It is understood that the long-term fuel and energy prices reflect economic conditions of each country.

The conclusion this study shows that the financial leverage positively affected with financial performance and so that the alternate hypothesis is accepted. The results do not support the null hypothesis and so that it is rejected by analyzing the results of the study. Therefore, the companies that engage with the fuel and energy sector should improve their financial performance and show their responsibility towards the growth of the economy while civilizing at their optimal capital structures. Leverage may interpret the profitability, liquidity and value maximization of the firms in fuel and energy sector in Pakistan. The fuel and energy sector industry can help to support of the economy by evaluating its capital structure's main concern. The pay of debt in the capital structure of the firms should make a positive impact on the performance. With the intention of maximizing the return on investment that may be used as indicator of leverage "the variable" while making considerations to improve at financial shape of the companies by raising their financial performance.

9. DIRECTION FOR FUTURE RESEARCH:

For future research, one can follow these steps:

- To increase the period of investigation and add more variables for strong support of results.
- To take an individual firm as bench mark and compare it with the whole sector performance. Analysis the data and interpret the results.
- How politically involved people affect the firm performance. The political intervention positively improves the industries performance or not?
- The change in prices of fuel and energy increase or decrease the manufacturing, producing and trading activities.

Appendix: Different Researches conducted in developing and developed countries on fuel and energy sector.

Author	Country	Sample	Conclusion	Model
Sunderkötter (2011)	European	22 public listed European firms, 2005-2010	Fuel mix generation significantly impact on the stock returns. It reveals significant differences in the systematic risk (β) of gas and nuclear generation technologies compared with renewable technologies measured by technology‐specific, delivered beta factors.	CAPM & multi factor market model
Rampling, Mir & Eddie (2008)	New Zealand and Australia	energy sector firms from New Zealand and Australia 1996-2006	cluster, multivariate and descriptive statistics had ratified international regulation doesn't make any difference in reregulated ratified and non ratified countries.	cluster, multivariate and descriptive statistics
Bohl, Kaufmann & Stephan (2013)	German	23 frims from ÖkoDAX and the DAXsubsector index. 2004 to 2011	the previous trends of stock turned into lower, show negative impact on price momentum and delivering significantly negative Carhart four-factor alphas	Multi-factor performance measurement, Sup ADF test and Markov regime-switching ADF test
Lameira et al (2012)	European	18 largest energy firms Euro-zone for the period 2005-2009	Oil and gas gives highest return. On the other hand location doesn't matter in economic and financial performance of energy companies.	regression model used OLS technique
Garbuzova & Madlener (2012)	Russia	161 companies for2009 from Russian Federation	contractual form of guarantee saving generalize more applicable in ESCO market and increase gain while shared saving rare in use	Descriptive statistics, Fischer's exact test and two-tail test
Burnnschweiler (2006)	developing and tranisition countries	private sector, commercial banks, financial understanding and foreign direct investment. 1980 to 2003	Energy sector reforms significantly positive effect. control variables including oil prices have no impact on RE sector development	Simple equilibrium approach
Cao & Gorba (2013)	China	43 firms from china during 1996 to 2008	Solar PV has small market and this industry successfully enter into foreign market. The performance, as exporter of producing WETC increase but relatively small when compared to developed country's home market	Gravity trade model
Akhtar et al (2012)	Pakistan	20 listed in KSE for the year 2000-2005	Financial leverage has positive relationship with financial performance. The companies that engage with fuel and energy sector enhance their performance and growth of economy if the optimal capital structure will improve.	Descriptive statistics

Reference

1. Balance sheet analysis of Joint stock companies Listed on the Karachi stock exchange 2006-2011.State Bank of Pakistan issued balance sheet.
2. *Sunderkötter. M* 2011, Fuel Mix Characteristics And Expected Stock Returns Of European Power Companies. *EWL* Working Paper No. 06/2011
3. Coa.J and Groba.F 2013, Chinese Renewable Energy Technology Exports: The Role of Policy, Innovation and Markets. *Deutsches Institut für Wirtschaftsforschung* 2013
4. Brunnschweiler.N.C 2006, Financing the alternative: renewable energy in developing and transition countries. *WIF - Institute of Economic Research*, Working Paper 06/49
5. Akhtar.S, Javed.B, Maryam.A, Sadia.H 2012, Relationship between Financial Leverage and Financial Performance: Evidence from Fuel & Energy Sector of Pakistan. *European Journal of Business and Management*,4(11)
6. Lameira.V.J, Vergura..S, Quelhas O.L.G., Pereira.R.G. 2012, Performance analysis of Euro-zone energy companies. *International Conference on Renewable Energies and Power Quality (ICREPQ'12) Santiago de Compostela (Spain)*
7. Garbuzova.M and Madlener.R 2012, Russia's Emerging ESCO Market: Prospects and Barriers for Energy Efficiency Investments. *Institute for Future Energy Consumer Needs and Behavior (FCN),* FCN Working Paper No. 6/2012
8. Bohl.M.T., Kaufmann.P. and Stephan.M.P. 2013, From Hero to Zero: Evidence of Performance Reversal and Speculative Bubbles in German Renewable Energy Stocks.
9. Rampling.P, Mir.M and Eddie.L, The Association between Environmental Performance and Financial Performance: An Empirical Examination of Energy Industry in Australia and New Zealand.Altern energy ltd, Financial reports, Retrieved MAY 20,2012,from http://www.altern-energy.com/
10. Ideal Energy Ltd. , Financial reports, Retrieved MAY 20,2012,from http://www.idealenergyinc.com/
11. Burshane LPG (Pakistan) Ltd, Financial reports, Retrieved MAY 20,2012,from http://www.burshane.com/index.php?option=com_content&view=article&id=12&Itemid=45
12. Japan Power Generation Ltd. Financial reports, Retrieved MAY 20,2012,from http://www.jpglpk.com/financialstatements.htm
13. Karachi Electric Supply Co. Ltd. Financial reports, Retrieved MAY 20,2012,from http://www.kesc.com.pk/en/section/investorrelations/financialdata
14. Kohinoor Energy Ltd. Financial reports, Retrieved MAY 20,2012,from http://www.kel.com.pk/Financial_report.asp?x=Annual%20Audited
15. Kohinoor Power Co. Ltd. Financial reports, Retrieved MAY 20,2012,from http://www.kel.com.pk/Financial_report.asp?x=Annual%20Audited
16. Kot Addu Power Co. Ltd Financial reports, Retrieved MAY 20,2012,from http://www.kapco.com.pk/financials.htm
17. Mari Gas Co. Ltd. Financial reports, Retrieved MAY 20,2012,from http://www.mpcl.com.pk/FinancialHighlights.html
18. Oil & Gas Development Co. Ltd. (OGDC) Financial reports, Retrieved MAY 20,2012,from http://www.ogdcl.com/inverstor/Reports/investor-Reports.asp
19. S.G. Power Ltd. Financial reports, Retrieved MAY 20,2012,from http://www.sgpower.com/
20. Sitara Energy Ltd. Financial reports, Retrieved MAY 20,2012,from http://sitara.pk/Financial%20Reports.h Oil & Gas Development Co. Ltd. (OGDC) tml

The IISTE is a pioneer in the Open-Access hosting service and academic event management. The aim of the firm is Accelerating Global Knowledge Sharing.

More information about the firm can be found on the homepage:
http://www.iiste.org

CALL FOR JOURNAL PAPERS

There are more than 30 peer-reviewed academic journals hosted under the hosting platform.

Prospective authors of journals can find the submission instruction on the following page: http://www.iiste.org/journals/ All the journals articles are available online to the readers all over the world without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. Paper version of the journals is also available upon request of readers and authors.

MORE RESOURCES

Book publication information: http://www.iiste.org/book/

Academic conference: http://www.iiste.org/conference/upcoming-conferences-call-for-paper/

IISTE Knowledge Sharing Partners

EBSCO, Index Copernicus, Ulrich's Periodicals Directory, JournalTOCS, PKP Open Archives Harvester, Bielefeld Academic Search Engine, Elektronische Zeitschriftenbibliothek EZB, Open J-Gate, OCLC WorldCat, Universe Digtial Library , NewJour, Google Scholar