PalArch's Journal of Archaeology of Egypt / Egyptology

THE IMPACT OF CASH FLOW ON SHARE PRICE OF FIRMS: A CASE STUDY ON GAS & OIL MARKETING INDUSTRY OF PAKISTAN

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ABSTRACT

Financial performance of any organization is the ultimate goal. This study scrutinizes the impact of cash flows on share price for the oil sector of Pakistan.The variables that have been used in this research are operational cash flows, investment cash flows and financial cash flows. However, share price is a dependent variable. To test the impact on dependent variable share price on independent variables regression analysis is castoff to check the impact. 14 years' data has been taken from the reliable sources like State bank of Pakistan, Federal bureau of statistics

and securities exchange commission Pakistan. to and regression analysis, correlation and descriptive statistics are used. However, all the independent shows the significant relationship.

1. INTRODUCTION

Different financial information is derived from financial statements like profit and loss account, balance sheet, and cash flowsstatement. Based on the information stakeholders make decisions that reflect the movement of stock. When an investor invests in the company it's his/her right to know how the investment is being utilized (Girish S and Dr. Kavitha Desai, Nov, 2017).After a numeral of studies,cash flow and share price still have research gap, and still this topic is to do further study. (Khanji and Siam, 2015) mentioned that cash has a major role while defining the need for cash availability while distributing dividend to shareholders, and its impact on share price in a technique that assurance the concentrations of shareholders. Cash flows are in three forms: operating, investing and financing. Management is very much concern about cash flows elements in defining share price, forecasting, cost-effective liquidity and financing. (Khanji and Siam, 2015).By many factors share price is determined like a company's financial condition, economic movement, market news and etc. share price goes high as cash flow taken into consideration, as cash is very much significant for the investors and give it more worth. Cash flow a most essential factor for determining stock price for the purpose that the dividend is influenced by on the conditions of cash flow of the firm (Mundia, 2016). Investment and cash flow are certainly associated, while both have the connection and the strength of the relation and its cause much more debates and studies (Lewellen and Lewellen, Aug, 2016).For a firm its essential goal is to increase its shareholder wealth and Enhancing its success will rely upon whether a firm will have the ability to accomplish ideal performance. Many methods used to measure a firm's performance and cash flow is one of them. (Mundia, 2016). An investor prefers cash flows to predict dividend than the earnings, the reason is because flows have the low accounting manipulations than the earnings. Cash flows are very much essential for the earnings which is the source of dividends (Havranek, 2011).

LITRETURE REVIEW

Efficient Market Hypothesis: Efficient Market Hypothesis (EMH) was firstly introduce by Eugene Fama who said the shares always trade on their fair value, an investor can purchase it one or the other less than its par value or above than its book value. An investor can obtain gain from his/her investment by chance or taking higher risky investment. There are three hypotheses "weak", "semi-strong" and "strong". The fragilesystem of hypothesis says that the price of stock reflects all past information freelyaccessible. The semi-strong of EMF state that the price of stock is reflected by both past and future information publicly available and the last form of EMF 'strong' claims that price and

change directly with even information which is a hidden secret (Burton G. Malkiel Eugene F. Fama, May, 1970).

Signaling Theory: Signaling theory is that management flow information about the firm in the market or management of the firm takes measureto provide guidance to the investor to predict about the firm and plan investment decision(Morris, 1987).

Prospect Theory (Loss-Aversion Theory): Prospect Theory (Loss-Aversion Theory) is about that investors view for the gain and loss is biased. The fear for the loss is greater than the interest of gain, if they get two choices to one from two different scenarios they will select the one which is less chance than the loss over the higher gain. For example, if an investor is offered two investments one with 6% gain each year and other one has 9% return with risk of 2% the investor will pick up the 5% return investment because the investor places up more importance on less loss on more gain with more risk,(Tversky and Kahneman, 1992).

Rational Expectations Theory: This theory articulates that the investor in the market will react in a pattern where they ensure that what will occur in the future. The investors invest accordingly what they reasonably believe will happen in the next future. By doing so they are fulfill their prediction regarding the future event effect to their investments(Muth, 1961).

2. PROBLEM STATEMENT

Cash flows are essential factors for investors however, the role of cash flows from different actions are not yet fully defined. Livnat and Zarowin in their study confirmed a constructiveassociationamong share price return and cash flows from operational activities.

The Study of Miller, K Rock(1985) and Ross (1977) resulted differently in the case of cash flow from financing activities effect on stock.Likewise, the conclusion of the study of cash is debatable in the US market (Chu, 1997).

Study should be done more about the other factors of share price and the researcher should study on the different country, firm and industry variables so that they can come up with new variables which affect the share price of firms (Muhammad Ahsan Chhipa and Agha Amad Nabi, 2016).
The study of Penman et L, (2009), differ from the study of Moradazade et al (2010). The reason could be that other factors effecting share price highly or due to selecting different nature companies (Hamid Reza Vakilifard and Nassim Shahmoradi, 2014).

In the study done by (Khanji and Siam, 2005) they concluded with that cash flow of operating, investing and financing individually or jointly is not enough

while determining theJordanian commercial banks price of the share. But the result could differ from the nature of the business and sectors(Khanji and Siam, 2015).

For a publicly traded company, its stock price can frequently be an indicator for the organization's wellbeing. There are special cases to this administer however, an organization's stock price reflects a financial specialist view of its capacity to win and develop its benefits later on. Regularly, the higher the stock value, the better faith about the organization's prospects. So it's very much important for a firm to know the parameters which can or will affect its share price. Many studies done to check the relationship and the impact on share price with different variables. This researchis conducted to discover out the association of cash flows from operational, investment and financial activities towards share price of firms.

3. RESEARCH QUESTION:

- What is the impact of cash flow from operating activities on share price of Oil and Gas Marketing industry of Pakistan?
- What is the impact of cash flow from investment activities on share price of Oil and Gas Marketing industry of Pakistan?
- What is the impact of cash flow from financing activities on share price of Oil and Gas Marketing industry of Pakistan?

4. RESEARCH METHODOLOGY

Research methodology represents the explanations of the research procedures, research design, and simple size, techniques used to test the hypothesis and the applied and used by the researchers in the study.

Study Design

The research design characterizes the theoretical gateway within which research is conducted.As obvious, the information about these factors comprise on secondary instead of primary information. In this study the aim is to find the connection between share price and cash flow from operating, financing and investing events and the variables are secondary so the approach will be exploratory quantitative approach to explore the relation between the variables.

Sample Size

In this study the secondary data for cash flow activities (operating, investment, and financing activities) are collected from the financial/annual reports of selected industry firms of Oil and Gas Marketing industry of Pakistan, and the data for share prices of those selected companies are collected from

financial/annual reports or from the formal website of Pakistan Stock Exchange. The data are collected from 2004 to 2017 (14) years.

Regression:

In this study panel data or longitudinal data technique is used to test the hypothesis. And Hausman test to check that from fixed effect model and random effected model which one is most applicable for the study to run the data.

$$\text{Share Price}_{ti} = \alpha + \beta\ \text{CFOA}_{ti} + \beta\ \text{CFIA}_{ti} + \beta\ \text{CFFA}_{ti} + \mu$$

Panel data normally denotes to the data comprising time series interpretations of aamount of characters. There are two dimensions in panel data: cross sectional which is donated by i and time series donated by t. Panel data is used to break down error term which incurs by the size of the firms in the industry and the time series of the data. The variables that cannot be controlled panel data allows to have control on them. Panel data helps the researcher to find out the heterogeneity of the firms.

Data Collection & Analysis

In looking to build up the connection between the cash flow from operations. Investment and financial activities and share prices of Oil and gas companies of Pakistan. The study gathered secondary information utilizing the methodology set out in chapter three. In this chapter, the study speaks to data analysis and results. To analysis the data the software Eviews was and the data were run through panel data. Lag was used on independent variables to generating significant result which were shown as LCFO, LCFI and LCFF. List of the companies included in study.

Table 1:List of Companies

S. No	Symbol	Company
1	APL	Attock Petroleum Limited
2	PSO	Pakistan State Oil Company Limited
3	SHEL	Shell Pakistan Limited
4	SNGP	Sui Northern Gas Pipelines Limited
5	SSGC	Sui Southern Gas Company Limited

Descriptive Statistics

To comprehend the result of variables of the Oil and gas companies of Pakistan in respect to the variables of the study, descriptive statistics in the forms of means, standard deviations, maximum and minimum values were generated

and represented in the form of tables both for the whole sample (5 firms) for 14years.

Table 2: Statistic Descriptive

	Share Price	**CFO**		**CFI**		**CFF**	
Mean	225.4458	Mean	4014060	Mean	-5615846	Mean	1249915
Median	227.21	Median	4213709	Median	-1292785	Median	-831742
Std. Dev.	193.1529	Std. Dev.	15138513	Std. Dev.	9622324	Std. Dev.	10416980
Maximum	792	Maximum	79444093	Maximum	4281000	Maximum	6368200
Minimum	10.51	Minimum	-62367000	Minimum	-46106604	Minimum	-22618803

The dependent variable Share price has the average of 225.4 with 193.15 standard deviation, operating cash flow activities average is 4014060 and the standard deviation of 15138513, the mean of cash flow from investing activities is -5615846 with the standard deviation 9622324 and the last independent variable cash flow from financing activities mean in 1249915 with the standard deviation of 10416980.

Table 3: Correlation Analysis

Covariance Analysis: Ordinary				
Covariance				
Correlation	**SHARE_PRICE**	**CFO**	**CFI**	**CFF**
SHARE_PRICE	36767.35 1.000000			
CFO	-6.03E+08 -0.209182	2.26E+14 1.000000		
CFI	8.47E+08 0.462590	-9.77E+13 -0.680465	9.12E+13 1.000000	
CFF	-1.89E+08 -0.095297	-7.64E+13 -0.491826	-1.03E+13 -0.104397	1.07E+14 1.000000
*** N = 69**				

Above tablethreedemonstrates the correlation among the variables (share price, CFO, CFF, and CFF) are correlated to each other. After evaluating correlation analysis, the result shows that operating cash flow activities has a negative association with share price. There is a positive correlation between investing cash flow activities and share price. And there is an adverse connection between financing cash flow activities and share price.

Hausman Test

Hausman test is used to reflect the random effect model and the fixed effect model which will be most applicable for the study to get the most significant results.

Table 4: Correlated Random Effects - Hausman Test

Test Summary		**Chi-Sq. Statistic**	**Chi-Sq. d.f**	**Prob.**
Cross-section random		25.085350	3	0.0000
Cross-section random effects test comparisons:				
Variable	**Fixed**	**Random**	**Var(Diff.)**	**Prob.**
LCFF	14.253578	16.268416	1.666687	0.0285**
LCFI	21.088148	8.313022	8.063691	0.0207**
LCFO	-36.060263	-40.912571	6.013747	0.0020***

H_0,Random effect model is applicable.
H_1, Random effect model is not applicable.
In the above table four the probability value is less than 0.05 so here we reject Ho and accept H_1. So for the study the fixed effect model (Random effect model is not applicable)will be bestapplicable to generate effective result.

Table 5: Panel data regression

Dependent Variable: SHARE_PRICE Method: Panel Least Squares				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	271.4856	192.1486	1.412894	0.1628
LCFF	14.25358	6.350945	2.244324	0.0285
LCFI	21.08815	8.878648	2.375153	0.0207
LCFO	-36.06026	11.17158	-3.227856	0.0020
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.798034	Mean dependent var	225.4458	
Adjusted R-squared	0.774858	S.D. dependent var	193.1529	
S.E. of regression	91.64940	Akaike info criterion	11.98247	
Sum squared resid	512376.3	Schwarz criterion	12.24150	
Log likelihood	-405.3952	Hannan-Quinn criter.	12.08523	
F-statistic	34.43306	Durbin-Watson stat	1.542398	
Prob(F-statistic)	0.000000			
*** N = 69**				

Share Price $_{ti}$ = $\alpha + \beta_1$ CFOA $_{ti}$+ β_2 CFIA $_{ti}$+ β_3 CFFA $_{ti}$ + μ

Table five top shows the results of panel data regression acquired from the FEM the result show that the overall model is fit as the F-statistic is less than 0.05 and the effect of all dependent variables is explained by 77.4% and the remaining is the effect of other variable which were not measured in the study like EPS, dividend and etc. Dependent variable LCFF indicated the lag of Cash flow from financing activities and the CFF has a positive coefficient which is 14.25 and CFI has a positive coefficient which is 21.08 and cash flow from operating activities has a negative coefficient which is -36.06. The probability value of all the independent variables are not more than 0.05 so the study accepts the hypothesis which is expressed in chapter two.

Share Price $_{ti}$ = $\alpha + \beta_1$ -36.06026 $_{ti}$+ β_2 21.08815 $_{ti}$+ β_3 14.2558 $_{ti}$ + μ

If cash flow from operating increased by 1 unit share price reduces by -360.6 units, if cash flow from investing activities increased by 1 unit share price will increase by 21.08815 units and if cash flow from financing activities increases by 1 unit share price increases by 14.2558 units.

The constant (Alpha) has been calculated as 271.4856. It means if all the independent variables become zero, the dependent variable will show 271.4856as its constant value.

Table 6: Hypotheses Assessment Summary

S.No	Hypotheses	Beta	Sig Value	Empirical Conclusion
H_1	Cash flows from operational activities have significant positive influence on share price.	-36.06	0.0020	Accepted
H_2	Cash flows from investment activities have significant negative influence on share price.	21.08	0.0207	Accepted
H_3	Cash flows from financing activities have significant positive influence on share price.	14.25	0.0285	Accepted

Conclusionand Discussion

Grounded on panel data regression result, it ought to be said that cash flow from (operating, investing, financing) activities overalldistresses the share price. The variables that are reliablyimportant on share price are cash flow from (operating, investing, financing) activities. It specifiesthat from stakeholders'opinionas cash flows are appropriate in making a conclusion on investment. This researchsimilarlydiscovers that the difference in share price is too affected by aspects other than business'smonetary flows. From the analysis it has been exhibit that, the utmost R2 is merely 77.4%. It endorses that there are extrafacts other than corecrucial dynamics that also distress the measures of the firm's share price. In certainperiods, dissimilarities in share price do not imitate the company'seconomicpresentation. Macroeconomic situation, the administrativecondition, managementbusinessstrategy, and proceduralfeaturesinthe organizations are reasons other than monetarypresentation that can dismayed the differences in share price (Purnomo, 2009). (Hadi and Azmi, 2005) also claimed that other characteristics such as interest rate, inflation rate, and rate of exchange can influence the differences in share value significantly.

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