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Free Cash Flow Impact on Firm's Profitability: An Empirical Indication of Firms listed in KSE, Pakistan

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Abstract

This study determines the significance of free cash flows on the profitability of firms listed at the Karachi Stock Exchange. Descriptive statistics was used to analyze the impact of free cash flow on the profitability of firms listed at the KSE. The population consisted of 580 companies listed in KSE as on March 7th, 2015. Data were obtained from audited annual reports and financial statements of firms sourced from KSE for a period of five years (2010 –2014). Regression model was used to analyze the quantitative data. Research indicates that free cash flow is significantly and positively correlated with profitability of firms on the basis of obtained data. This is evidence that free cash flow is a crucial prerequisite for a firm's profitability. The study concludes that free cash flows enhance the firm performance but excess free cash flows create the agency problem due to this the conflict of interest increased between owner and management and because of such conflict firm performance decreases.

Keywords: Size of films, Capital liquidity, Free Cash flow, Firms profitability, Karachi Stock Exchange.

Introduction

The idea of free cash flow initiated by Jensen (1986), and describe that free cash flow is the sum of the surplus funds available after profitable investments. The positive relation between abundance of cash flows and lack of good growth opportunities is often referred to Lehn and Poulsen (1989), Pindado and Miguel (2001) and Pindado and Torre (2009). Subsequently, the existence of a substantial level of FCF might lead managers to choose for viable investment policies. To conceal their projects counter-performance, managers may engage in aggressive earnings management practices (Chung et al., 2005a; Chung et al., 2005b; Jaggi and Gul, 2006; Bukit and Iskandar, 2009; Rusmin et al., 2014).

Free cash flows is the volume of cash that an entity retains after paying off money for all the capital type and current type of expenses of the firm (Habib, 2011). This idea of free cash stream can have more than one explanation; Hackel, Livnat, & Rai (2000) proposed following two explanations for free cash flows (1) the conventional definition is that the funds paid for company's investment are deducted from operating cash flow. (2) a newer formula for Free Cash Flow calculation equals to the addition of discretionary cash outlays (DCO) and discretionary capital expenditure (DCAPEX) to the traditional free cash flows FCF.

Richardson (2006) defined FCF as the net cash the firm earns from operating activities after making deduction from development costs; this cost is then added to R&D expenditures and finally investment expenditures in new projects is deducted from that. Another definition of FCF states that

FCF is the cash acquired through firm's operating activities deducted from cash components of investment (Zerniet al., 2010).

Non-cash expenses after deducting the expenditures for property, working capital, plant, equipment and other capital assets plus after-tax cash from operations can be called as free cash flow for the firm (Copeland, 1995). Dechow and Ge (2006) said that cash flows from operations together with the cash flows from investment activities are in actual fact the free cash flows.

It's mandatory for any firm to maintain a sufficient amount of liquidity to ensure smooth operations of firms. Managers are often quite inclined and tempted to hold large proportion of firm assets as cash and cash equivalents so that they can invest them to purchase some other Capital assets, give away dividends to stockholders and keep cash retained in the firm (Hann, Ogneva&Ozbas, 2010).A firm's policies about the need for working capital, composition of capital structure, supervision of cash flow, dividend disbursements and investment in new ventures and management of assets play a decisive role about the amount of free cash a firm maintains. Free cash flow is the spare cash flow that firm puts aside to undertake projects having positive NPV (Jensen, 1988). Free cash flow can also depict that some sort of agency problems exist within a firm since the surplus cash might not be used by the managers to pay shareholders' dividends.

Recent research by Hubbard (1998) shows that relationship between free cash flows and profitability is positive as well as significant, a surge in the level of cash flow of a firm leads to a corresponding increase in profits of the firm. This is achieved through investing. The firm should consider making key investment decisions to make use of additional cash flows. For example, the firms that hold excess cash might use it in buying overpriced firms rather than paying out dividends to the shareholders. This is possible even when the firms have a low financial capacity after making acquisitions since they invest in non-profitable investment projects (Griffith & Carroll, 2001).

Recently on June 19th, 2015, 581 companies are there that are listed at Karachi Stock Exchange (KSE) and the total of their market capitalization is Rs.7326.286 billion. The listing of companies is solely based on strict instructions and protocols which are set up by Securities and Exchange Commission of Pakistan (SECP) and Karachi Stock Exchange (Guarantee) Limited (KSE). There are several key business sectors in which all the listed companies of KSE are classified. Karachi Stock Exchange consists of total 36 listed sectors. Out of these 36 sectors, 33 sectors make the contribution towards capitalization of market. All of the KSE listed companies (except for the future contracts of these listed companies) are categorized into 33 market capitalization sectors. The remaining three sectors are assigned for, futures, indexes, bonds etc.

Research Problem

The actual problem is in the very fact that how managers can be inspired to disperse the FCF instead of making an investment of FCF at an interest rate less than the cost of financing their business or losing it on business ineptitudes. This study strives to solve the research problem by trying to investigate the relationship between firm's profitability and its free cash flow. It also attempts to explore the probable influence of free cash flow on the profitability of the firm.

Research Question

Very less research is done to investigate the relationship between firm's profitability and its free cash flow; therefore this study attempts to reply this research query.

Q1: What is relationship between size of firm and profitability?
Q2: What is relationship between capital investment and profitability?
Q3: What is relationship between free cash flow and profitability?
Q4: What will be the impact of size firm on profitability?
Q5: What will be the effect of capital liquidity on profitability?
Q6: What will be the impact of free cash flow on profitability?

Research Objective

The purpose of this research will be to gauge the influence of surplus cash flow on the profitability of firms that are listed at the Karachi stock Exchange.

Literature review

High growth opportunities combined with higher investment-cash flow sensitivity is believed to be a symptom of under investment (Audretsch and Elston, 2002; Bond et al., 2003), while a decrease in cash flow sensitivity should point to problems of free cash flow (Deloof, 1998; Gugler, 2003). Del Brio et al. (2003) show for example on Spanish data that the level of free cash flow as well as the investment opportunities influences the market reaction to investment announcements. Degryse and de Jong, (2006) find a combination of effect.

Mong'o (2010) analyzed the impact of cash flow on profitability among commercial banks in Kenya over a period of five years from 2005- 2009. The objective of the study was to establish the causality that exists between the profitability and cash flow. The findings for the study indicated that profits among commercial banks improved tremendously during the last five years. Cash flow from operating activities experienced the same trend which was occasioned by the improved performance which translated to financing and investing cash flow which have shown consistent increase over the five years.

Cash flow sensitivity result mainly from the agency cost of free cash flow. Jensen. M. (1986) free cash flow hypothesis implies a positive relationship between cash flow and investment. In particular, the asymmetric information problem of Myers and Majluf (1984) suggests that firms may suffer from under investment when the acquisition of external financing is costly. In that case, investment outlays will depend on the availability of internally generated resources, resulting in positive investment-cash flow sensitivity.

Practical research has made some attempts to explain the nature of problems relating to FCF Free cash flow by providing certain non-refutable proofs. Blanchard, Lopez-de-Silanes and Shleifer (1994) have quoted the case of 11 companies who have undertaken too much of the speculations and acquisition commitments and finally these companies end up losing a hefty amount of cash to settle their legal matters. Harford (1999) finds that the corporations with surplus cash are most inclined to engage in acquiring other firms and after wards they are liable to suffer the grieve consequences by losing up all their operational efficiency in quite an unpredictable manner. Bates, Thomas, Kathleen, Kahle, Rene, &Stulz (2005) while quoting the instance of selling activities by four hundred subsidiaries, draw the conclusion that businesses with surplus cash over-indulge in investment ventures as compared to their market competitors. The higher the level of free cash flows in a firm, the more will be the speculative ventures undertaken by that firm (Richardson, 2006).

According to Findlay & Hamilton (1979), the theory of modern Portfolio (MPT) takes into consideration the whole market and the entire economy of a country in order to explain the investing activities. This philosophy is actually seen as a substitute to the earlier approach used to make an analysis of each investment's individual merits. Investors explore individual merits of each investment; they are more inclined to analyze one venture without taking into consideration how well or bad the other portfolio will perform in relation to one another. Contrary to that, MPT largely emphasizes the way investments are correlated to each other.

ZHI Xiaoqiang (2009), there is an inverse relationship of internal cash flow with investment expenditure among banks in China; a study was conducted in China in relation to internal cash flow and investment expenditure

Kotut, S. (2012), suggest that the benefits of fiscal restraints are not immediately realized. The implication was that previous year investment has had a significant effect on current

investment. Surprisingly, government consumption expenditure has positive effects on investment. The study confirms the importance of investment as the most important determinant of economic growth.

According to Habib (2011), multinationals with more opportunities for growth & expansion and with an escalating free cash flow will have a higher value price, and additionally free cash flow is positively related to stock return while profitability is short-term.

Ahmed and Javid (2009) carried out a descriptive survey upon the effect of free cash flow on the ratio of dividend payout firms with larger free cash flow pay larger dividends.

Theoretical framework

Determinants of the Profitability

Profitability, calculated as the ratio of EBIT to firm's total assets, is a variable which reveals the companies' capacity to procure income of all its assets. The variables which are considered for inclusion while calculating the firm's profitability comprise of investment, firm's size, growth of sales, leverage, and liquid assets (Stern, 2002).

Profitability = EBIT/ total assets

Determinants of free cash flows

The free cash flow is impacted by:

1. Sales Revenue
a. Current level
b. Short term growth rate of sales.
c. Long term sustainable growth rate in sales
2. Operating cost (raw materials, labor, etc.) and taxes.
3. Required investments in operations (buildings, machines, operations etc).

Analytical Model

To achieve the objective of the research, the researcher utilized a multiple regression model to establish the association of free cash flows with the profitability as shown below:

$Y = a + b1X1 + b2X2 + b3X3 + e$

Y= Profitability which will be measured using return on capital employed ROCE. ROCE can be calculated using earnings before interest and tax divided by capital employed. EBIT itself can also be used as a measure of profitability.

X1 = Capital Liquidity will be measured using liquid assets divided by the total assets held by the listed firm.

X2= the size of the firm which will be measured using natural logarithm of total assets.

X3=Free cash flows will be determined using operating cash flow minus capital expenditures.

b= Slope of the regression measuring the amount of the variation in Y linked to a unit change in X

e =Error term.

Hypothesis

This research has attempted toverify the following hypotheses in order to achieve the objective of the study.

$\mathbf{H_1}$: There is significant impact of free cash flow on profitability of the firm.

$\mathbf{H_2}$: There is significant impact of capital liquidity on profitability of the firm.

$\mathbf{H_3}$:There is significant impact of size of the firm on profitability of the firm.

Research methodology

Research Design

In this research descriptive design used to analyze the effect of free cash flow on the profitability of firms listed at the KSE.

Population of the Study

The population for this study consisted of 580 companies listed in KSE as on March 7th, 2015.

Sample

A stratified sampling technique was used to select a study sample of 30 companies listed at KSE. This was used because the population (580 companies) is heterogeneous but certain similar or homogeneous subpopulations (company sectors) can be isolated. A sample size of 30 is usually considered statistically significant. This study was conducted for a period of five year (2010 – 2014) using a sample of 30 KSE listed companies.

Variables

Four variables were used in this study. There were three independent variables: free cash flows, capital liquidity and the size of the firm and profitability used as a dependent variable.

Data Collection

Secondary data were extracted from audited annual reports and financial statements of companies listed at KSE for a time span of five years (2010 –2014).The annually prepared financial report includes: income statement (or profit and loss statement), balance sheet (the statement of financial position) and the statement of cash flows.

Data Analysis

As data used were of quantitative nature, regression model was used for data analysis. Financial statements and published accounts were used to extract the data to be used in this study.

Free Cash flow was measured from the formula given below:

After-Tax Profit– [Changes in capital expenditure + Depreciations and Amortization – changes in working capital]

• Profit after tax was obtained from the Income statement.

• Changes in Capital expenditure and Capital liquidity were obtained from Balance Sheets and Cash Flow Statements.

• Logarithm of total assets and Depreciation & Amortization was obtained from Previous & present Balance Sheets: Current Liability account and Current Assets accounts.

• The profitability was measured using return on capital employed in each year.

ROCE is perceived as a more accurate and comprehensive measure of profitability as compared to ROE as it estimates the management's efficiency of generating returns from a firm's sum total of available resources (capital). Investors and financial analysts can appraise how well managers of the firms are utilizing the debt-equity combination at their disposal.

Regression Analysis

To establish the association between independent and dependent variables, a multiple regression was conducted. The analysis applied the statistical package for social sciences (SPSS) to calculate the quantities for the multiple regressions for this research.

ANOVA

Analysis of Variance (ANOVA) is a statistical method that was used to test differences between free cash flows and profitability of listed firms

Diagnostic Tests

T-test was used to test the hypothesis about free cash flows can have a significant impact on the profitability of firms listed on the Karachi Stock Exchange. Whether a particular coefficient is different significantly from zero or whether estimated coefficient value occurred by chance in equation. The tests were performed at 95% degrees of confidence.

Empirical results

This unit is concerned with findings and analysis of the research as put forth in the research objective and research methodology. The research conclusions reflect the effect of free cash flow on the profitability on firms listed at the KSE. The study used secondary data that was obtained from financial statements of stratified firms from a sample of 30 companies listed at KSE. Firms under finance and investment sector were not considered because they use different mechanism in financing their operations.

Table 1: Descriptive Statistics

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
FCF (Billion Rs.)	30	00000.00	30068965.0	3641598.27	6293039.09
CAPITAL LIQUIDITY	30	0.0159	91.197	3.350	16.593
SIZE OF FIRM	30	3.958	8.652	7.006	0.954
Profitability	30	-0.087	3.619	0.297	0.652

The above table reveals the statistical analysis of variables. The minimum value for profitability is -0.087 while the maximum value of profitability is 3.619. The mean value of profitability for the listed firms of KSE is 0.297 with a standard deviation of 0.652.

The free cash flows have a minimum score of 0000.00 billion rupees and its maximum score is 30068965.00 billion rupees. Likewise, the mean score of free cash flows for listed firms of KSE is 3641598.27 billion rupees with a standard deviation of 6293039.09.When it comes to capital liquidity, the maximum value is 91.197 and its minimum value is 0.0159. The standard deviation for capital liquidity is 16.593while the average capital liquidity for the KSE listed firms is 3.350.With respect to size of the firm, the minimum score is 3.958 and the maximum score is 8.652. The average size for the listed firms is 7.006 with a standard deviation of 0 .954.

Table 2: Correlation Matrixes

Correlations				
	FCF	CAPITAL LIQUIDITY	SIZEOF FIRM	Profitability
FCF	1			
CAPITAL LIQUIDITY	0.244	1		
SIZE OF FIRM	0.299	-0.182	1	
Profitability	0.809**	-0.041	0.514**	1
**. Correlation is significant at the 0.01 level (2-tailed).				

The sample for this study consisted of 30 firms for whom the annual observations for the period 2010-2014 were taken. Pearson correlation scale is used to describe the strength or degree of association between two variables. It can range between the values of -1 to +1. The researchers in Psychology prefer to use Cohen's (1988) classifications to infer the size of effect. An effect size (Cohen’s correlation coefficient) of 0.10 is believed to signify a small or weak correlation; a Cohen’s coefficient of 0.30 is perceived to symbolize a moderate association; and a Cohen’s coefficient of 0.50 or more is supposed to denote a large or strong association.

The results revealed the existence of a significant and positive relationship between the free cash flows and profitability of KSE listed firms. We can conclude that when the amount of FCF increases (our first variable), the profitability of listed firms of KSE (our second variable) also increases (r=0.809). Profitability is negatively correlated with capital liquidity having a correlation of -0.041. Profitability is quite positively correlated with size of the firm having a correlation of 0.514. Size of the firm is negatively related to capital liquidity with a correlation of -0.182. Size of the firm is positively related to both Free cash flow (r= 0.299) and profitability (r=0.514). Free cash Flow is positively correlated to capital liquidity with a correlation of 0.244.

Regression

To establish the association between independent and dependent variables, a multiple regression was conducted. The analysis applied the statistical package for social sciences (SPSS) to calculate the quantities for the multiple regressions of the research. The findings were as shown in the table below.

The model summary was used to summarize the association of free cash flows to profitability of listed firms by determining the correlation and R2, the coefficient of determination for the regression model as shown:

Table 3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.875[a]	0.766	0.739	0.608

a. Predictors: (Constant), SIZEOF FIRM, CAPITAL LIQUIDITY, FCF

The R-square (coefficient of determination) for the model was 0.766, meaning that the regression model used for this study is a very good predictor. The independent variables explained 76.6% of the variation in profitability of listed firms. 23.4 % of variation in profitability of listed firms is not explained by the regression model.

Table 4: ANOVA Statistics

ANOVA[a]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	571.9	3	190.6	28.386	.000[b]
	Residual	174.6	26	6.716		
	Total	746.5	29			

a. Dependent Variable: Profitability

b. Predictors: (Constant), SIZEOF FIRM, CAPITAL LIQUIDITY, FCF

From the ANOVA's results, F-test outcome tells us about the absolute fit of the regression model to the data analyzed. Here, the outcome of F-test is lower than .001, as seen in the very last column of the table. The model fits the data very well as the F-value is statistically significant. The probability value or p value of 0.000 implies that the regression model significantly predicts the association of independent variables with the dependent variable. The significance between the variables less than α=0.05. By use of the F-table, the F (5%, 3, 26) tabulated was 2.98 which was less than F= ±28.386 which reinforced that fact that the model was statistically significant. This result indicates that the overall regression model is statistically significant and is useful for prediction purposes at 5% significance level.

Test for Coefficients

Regression coefficients reflect the mean value of change in the regression or dependent variable (profitability) for a unit change in the regression or independent variable while all other

regression in the model are held constant. Such kind of statistical control is compulsory in a regression model because the role of one variable is isolated from the rest of the variables in the statistical model.

Table 5: Coefficients Statistics

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	-8213674.46	3806569.41		-2.158	.040
	FCF	0.630	0.085	0.781	7.449	.000
	CAPITAL LIQUIDITY	-57090.383	31102.940	-0.187	-1.836	0.078
	SIZE OF FIRM	1311311.11	549282.732	0.247	2.387	0.025

This study carried out a regression analysis in order to determine the effect of free cash flows upon profitability (dependent variable) of KSE listed firms. The following regression equation was obtained:

PROFITABILITY= -8213674.466-57090.383X1+1311311.118X2+0.630X3

Taking log of the size of the firm and capital liquidity, we get

PROFITABILITY= - 6.914537- 4.756563X1+ 12.23541149X20.630X3

Using the above model, it is possible to determine the association of free cash flows to profitability for KSE listed firms via the following independent variables: free cash flows, capital liquidity and size of the firm. Holding all other factors constant, for every increase of one unit offree cash flows, profitability of firms is expected to be higher by 0.630 units. This differs significantly from 0. This means that a direct relationship exists between free cash flows and profitability of Karachi Stock Exchange listed firms. The independent variable for capital liquidity in the above model is insignificant since it has the p-value of more than 5%. While the independent variables for free cash flow and size of the firm in the above model are significant since they have the p-values of less than 5%.The coefficient of FCF (0.603) has a p-value of 0.000, which is much less than 0.05 and differs significantly from 0 using alpha of 0.05.The hypothesis H1 is verified by the study as the p-value is 0.000; so there is significant impact of free cash flow on profitability of the firm. The hypothesis H2 is not supported by this study as it p value is 0.078, so, there is no significant impact of capital liquidity on profitability of the firm. The hypothesis H3 is verified by the study as the p-value is 0.025; thus there is significant impact of size of the firm on profitability of the firm.

Results and Discussions

One of the most important financial measures is free cash flow since it reveals whether a firm is financially healthy or not and whether or not it is able to undertake new investment opportunities. Investors also take interest in knowing about firm's free cash flow so that they can have an idea of the gains they will be able to procure in the dividend form Surplus cash flows are attractive not only for the firms themselves but also for the potential investors. The firms with free cash flows are able to secure the loans and debts quite easily from their investors

The study was carried out to establish the effect of free cash flow on profitability of KSE listed firms. Numerical data of 30 listed firms was collected that reflected 100% response rate. Secondary data were assorted and used for the listed firms at Karachi Stock Exchange. As per the results, the descriptive statistics results revealed that the maximum value for profitability is 3.619 and the minimum score for profitability is -0.087 and the mean for profitability for the listed firms is 0.297. The Free cash flows have a maximum score of 30068965.00 billion rupees while its

minimum value is 0000.00billion rupees as shown above. Similarly; the mean for free cash flows for the listed firms' is 3641598.272 billion rupees with a standard deviation of 6293039.092.

The sample comprises 30 firms' year observations for the period 2010-2014. It was further observed that the presence of positive association of free cash flows to profitability of listed firms. The findings further reveal that there is a positive relationship between free cash flows and profitability of KSE listed firms as provided in the table above as follows (r= 0.809).According to the findings the r-squared for the model was 0.766, meaning that the regression model used for this study is a good predictor. The independent variables explained 76.6% of the variation in profitability of listed firms. Only 23.4% of variation in profitability of listed firms is not explained by the regression model. The correlation between the variables is explained by (R=8.75) which reflects that two variables are strongly and positively correlated to each other.

As per the ANOVA's results, the p-value (probability value) of 0.000 implies that the regression model significantly predicts the relationship of independent variables with dependent variable. The significance between variables less than α=0.05. Using the above model, it is possible to determine the association of free cash flows and profitability of listed firms the following independent variables free cash flows, capital liquidity and size of firm. Holding all other factors constant, for every increase of one point on the free cash flows, profitability of firms is forecasted to be more by 0.630 points. It means that a direct relationship exists between free cash flows and profitability of listed firms in the Karachi Stock Exchange. The independent variable for capital liquidity in the above model is insignificant since it has the p-value of more than 5%. While the independent variables for free Cash flow and size of the firm in the above model are significant since they have the p-values of less than 5%.The coefficient of FCF (0.603) has a p-value of 0.000, which is much less than 0.05 and differs significantly from 0 using alpha of 0.05.

Free cash flow is not the same as profitability. Profitability may be regarded as a relative term measurable in terms of profit and its relation with other elements that can directly influence the profit (Barad 2010). Profitability of a firm is based upon accrual basis of accounting while free cash flow is based upon cash basis of accounting. Even a profitable company can be bankrupt at the same time because of its cash flow problems. Being profitable doesn't always means that you are conducting business well.

As is evident from table 5, the results reveal that the hypothesis H1 and H2 are fully supported by the findings of this study. The hypothesis H1 is verified by the study as the p-value is 0.000; this means that study provides evidence that there is significant impact of free cash flow on profitability of the firm. The hypothesis H2 is not supported by this study as it p value is 0.078. So we cannot accept the hypothesis H2. So, there is no significant impact of capital liquidity on profitability of the firm. The hypothesis H3 is verified by the study as the p-value is 0.025; this means that that there is reasonable evidence to believe that there is significant impact of size of the firm on profitability of the firm.

Moreover, the model was good enough to explain the variability of dependent variables. The regression model used for this study is a very good predictor since more than seventy five percent of the variation in profitability of listed firms is explained by independent variable of the model.

Conclusions

The conclusion of the study is that there exists a direct and positive relationship between free cash flows and profitability. The aim of this study was to explore the association of firm's profitability with its free cash flow. This research was also targeted to probe the potential influence of free cash flow on the profitability of the firm. The research successfully met all these objectives

since a meaningful relationship between firm's profitability and its free cash flows is successfully established.

The association of free cash flow to the profitability of KSE listed firms is attempted to be explored in this study. The ultimate verdict of this research is that free cash flow is significantly and positively correlated with profitability of KSE listed firms on the basis of obtained secondary data. Hence free cash flow is evidenced as a crucial prerequisite for a firm's profitability.

According to this study, a strong positive association between profits and cash flow becomes clear. Cash flows are always seen as the most prominent sign of the success for any business. Data collected from KSE listed firms is indicative of this very fact that if any firm incurs losses, this may thrust it out of business in the long run competition as the stockholders will see either little or no worth attached to that corporate entity. Stakeholders will not be convinced to get any benefits for being part of such firm. This finally leads to the stakeholder to quit that entity since he considers it a better option.

This study can be seen as a demonstration of the fact that in order to achieve profitability, a firm needs to rely directly upon its free cash flows. Although, there are other factors as well that contribute to any firm's profitability. This conclusion in turn is supplemented by the findings of Kessides, (1990) who stated that a firm's profitability should be seen as an outcome of its income and expense combination reported in the profit and loss statement. Profit and loss statement is a comprehensive record of all the income and expenses incurred by a firm during an accounting period. The existence of a direct positive relationship between free cash flow and profits is therefore verified in the sense that profits are calculated by deducting the cost of sales from sales revenue. The resulting gross profit is generated as a result of the firm's operating activities. Thus the importance of free cash for profitability becomes very clear.

Limitations of the research

A major limitation of this study is it was solely based upon secondary data, which could be historical. Although the researcher exercised a lot of caution when using dated information from the previous years. The study was conducted for a period of five years (2010-2014). These findings might not hold true in the next five years since there are many macro-economic factors in play that have the probable effect upon the profitability of the listed firms in Karachi Stock Exchange.

Suggestions for Further Study

Researchers and academicians in the future can explore the same variables of the finance sector used in this study with a much greater emphasis on finance and investment sectors since they were not considered for inclusion for this research since their mechanism of financing their operations is quite different.

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