THE IMPACT OF FREE CASH FLOWSAND AGENCY COST ON FIRM PERFORMANCE

By
Aqsa Hanif

NATIONALUNIVERSITY OF MODERN LANGUAGES
ISLAMABAD
June 2019

TABLE OF CONTENTS

LIST OF TABLE

ABSTRACT

Title: The impact of Free Cash Flow and Agency Cost on Firm Performance

The firm performance play an important role in an organization value. The recent study examined the impact of free cash flows and agency cost on firm performance. The objectives of the study to investigate the impact of free cash flow and agency cost on firm performance and investigate the relationship among free cash flow, agency cost and firm performance. The study was selected chemical sector firms listed at Pakistan stock exchange (PSX). The study was selected chemical sector as a population which comprises 29 companies listed at Pakistan stock exchange (PSX).but 19 companies selected as a sample because of unavailability of data. Secondary data was used and collected from official website of state bank of Pakistan. Panel data was used for 2008 to 2017. Regression and pooled OLS model was used to determine the relationship among dependent and independent variables. Firm size and leverage was used as control variables in this study. In this study dependent variable was firm performance and the independent variables of the study was agency cost and free cash flow. The findings of this study indicated that free cash flow and agency cost have positive and significant impact on firm performance.

Keywords: Free cash flow, Agency cost, Return on asset, Return on equity, Firm value, Stock return,

CHAPTER NO 1

INTRODUCTION

The first chapter describe definitions and explanation of all variables used in study. In this section introduction of every single variable explained. After that, problem statement of study discussed in this this chapter, objectives of study mentioned in this section. Scope of study, research questions, significance of study mentioned in this section. Next the research scheme of study mentioned in this section which present the whole study structure with sub -sections.

1.1 Background of the Study:

1.1.1 Free Cash Flows:

In any firm FCF play a role to boost financial performance of firm. Jensen (1986) state theory of agency cost of free cash flow.The theory of free cash flow. Excess cash in firms creates clash between management and shareholders (Brook ,1984). Sometimes firms used debt to minimize free cash flow because due to free cash flow agency problems arise in firm (Jensen ,1976). Free cash flow play an important role in firms and useful for managers and shareholders of firm. The main problem of FCF in firms is agency problem

FCFs = Operating cash flow-Capital expenditures

Modigliani & Merton (1958) state that free cash flow and the level of spending in a perfect market has no relationship. Internally financing is cheap than externally

financing that's why managers try to hold internally cash.(Jensen,1993) suggested that sometimes managers not maximize shareholders wealth and invest in negative NPV projects. Agency theory define(Brush, Bromiley, Hendricks) on basis of some limits. The objective of managers to maximize own benefit not to maximize shareholders wealth.. Secondly, if firms has free cash flow so they motivate self interest. Free cash flow defineis net cash flows of operating cash flows less capital expenditure, inventory cost, and dividend payment (Jensen). He argued that management utilized cash in for their own benefit. FCFhypothesis define that management may be doubtful about to pay dividend to shareholders or debt financing to decrease free cash flow. In previous study make an argument that if management not pay FCF to shareholders so agency cost create between principal and management. The fact about FCF not clear in many previous literature. (Rozeff, 1982; Easterbrook, 1984;DeAngelo, 2000) have making outcome to promoting free cash flow hypothesis. Reimbursement of dividend is beneficial for FCF in companies, as well as increase agency cost Christie &Zimmerman,1991. Firm with low FCF and manager of company have skill to decrease TATO and boost value of firm (Park & Jang, 2013). Managers control play an important role in firm so sometimes manager utilize cash in unprofitable investment to take dreadful decision which impact on stock prices and they are unable to control negative influence on firm financial performance. On the basis of FCF hypothesis, the effect of FCF on value of firm is negative. By Chung et al (2005) initiate that FCF induce that TATO have inverse impact on short term operating cash flows. Free cash flow hypothesis associate firm's agency problems with the firm enough cash. According to thisassociation the hypothesis contends that managers (as agents) have trend to accompany their interests whenever these interest create strife with the firm interests. The extra cash originate by a firm will be used by the managers to accompany their selfish interest impairment of the owners. Jensen (1986) the presence of FCF inside

the firm generate clash among the partners, since each one of them pursue to use these cash flows for own wealth maximization or used for own benefit. Jensen recommended that inside the firm cannot create conflict or agency problems in absence of FCF since they can be shared among shareholders as dividends or certainly redemptions of securities.

1.1.2 Agency Costs

Jensen &Meckling (1976) state that managers heir agent to fulfill their needs to pay fees as agency cost to agent. In agency relationship every party allows to maximize their wealth for their own benefit. Since managers and owner's functions are not same the reason will create interest conflict. Managers of firm not interested to boost the value of shareholders (Abor, 2008).

Noravesh(2009) argued that firm management allow shareholders to take decision to maximize value of asset of firms but it creates agency problem in company. Agency theory define that agency cost in firms creates due to goal of management and shareholders are not same which arise conflict of interest between management and shareholders. (Ang et al.,2000) has used net operating expenses ratio total asset turnover (TATO)to measure the agency costs.(Crutchley& Hensen,1989) has used proxies to calculate agency cost i.e net operating volatility and net income volatility. Agency cost is main factor of conflicts among managers of firm and shareholders. The independent variables of study is TATO and FCF to examine the effect on firm performance. The agency problems arise when managers goals differ from the shareholders. If firm controlling mechanism is not effective it also arisesagency problem. If management involved in wasteful activities and maximize their own wealth for their benefit so it also creates agency problem. If managers has not able to utilize cash to maximize shareholders wealth it provide opportunity to outsiders to hold firm because there is agency problem in firm.

1.1.3 Agency Theory

The agency problem was proposed by Berle& Means (1932). The weak relationship among the principal (shareholders) and the managers might create agency problem. In firms agency problem exists because managers try to minimize shareholders wealth . First, the management from the manner of self-interest intention would raise gratuity desolation diminution act, which cause to raise agency cost. Second, firm management have able to make investment in NPV projects. but the one that exaggerate his own wealth which would disport shareholders to worthless investment risk. (Jensen, 1986) relate the agency problems with free cash flow such that managers might exploit free cash flows at their hands when investment contingency were not convenient for company. Therefore, shareholders faced agency cost because managers used free cash flow for their own benefit.

To implement agency problems, (Gul,Tsui,1998) proposed two approaches, the refraining approach and encouraging approach, The refraining approach contend that if firm maximize financial leverage would minimize agency problems since managers instinctive to legally bonding to compensate debt and interest which impact to minimize free cash flows. The main attribute of the agency theory is adverse relation among stockholders and managers. This agency affiliation creates agency costs: Therefore, the resolution make by managers might creates the company loss value. Although previous study has analyzed the agency theory yet the assessment of agency was not certainly determined, thus calculate on the basis of proxy variables. Previous study define different proxies to measure agency cost. According to (Singh & Davidson, 2003) TATO, (Ang et al.., 2000), operating expense to sales ratio, (Singh & Davidson, 2003) administrative expense to sales ratio, By (Crutchley& Hansen, 1989) earnings volatility, advertising and R & D expenses to sale ratio, flotation cost and (Chung et al., 2005) free cash flows. (Jensen, 1986) contends that there were three types of agency costs: monitoring cost of

management's actions, bonding cost of restrictive covenants, and residual loss due to insignificant management agreement.

Monitoring cost : These cost are sustained by principal to check and motivate the agent and also motivate the agent and boost the wealth of firm, such as fees of audit company. (Jensen & Meckling,1976) conclude that it comprises struggle in the part of principal to supervise the attitude of agent through budget constraint, beneficial approach, conducting laws.

Bonding cost : It will compensate by agent to consume resources(Bonding cost) to ensure that he will not adopt such type of behavior which would unsafe the principal or to guarantee that the principal will be indemnify if he adopt such type of behavior.

Residual cost : It is the contingency cost or even what would have been gain by any of the parties not to commitment with each other e.g. dreadful allotment of resources.

1.1.4 Pecking Order Theory

The pecking order theory was stated (Myers,1984) which explain that firm firstly finance their investment opportunities by retain profit and second option is leverage and last level of investment is equity. Management play a role to grasp the excess cash to refrain financing of new investment by using debt and equity. Management should have preferred to gain earnings finance the investment. If companies have lack of gain earnings to invest or utilized cash holdings to issue debt if the firm requirement not fulfill the need. This theory aware people about the performance.if managements utilize internal finance they display a good reputation. otherwise if firm used debt to make new investment so company obligate to pay debt. When company used own internal finance it shows reputation that company overvalues its shares and gain earnings before its value fall.

1.1.5 Firm Performance

Every organization goal is to enhance their performance. (Hombly,2000) performance is an activity towards organization that how to achieve goals of company. Every firm wants to enhance performance and maximize firm wealth. In different studies firm performance measured or calculated by using different variables. Many study perception that firm performance is key of achievement (Jamil& Mohamed,2012).According to (Garrigos, Simon, Marques, Narangajvana, 2005) proposed four calculations for firm performance (1) profit which include: (ROA),return on sales and return on investment (2) Growth in term of sales, market share and wealth creation (3) Shareholders satisfaction which include consumer satisfaction and employees satisfaction (4) competition with other companies to come in market with new product and new innovation. Performance of companies give authentic outcomes(Richard et al.,2009) firm performance enclose three special range of firm result these are financials performance, product market performance and stockholders return.

1.1.6 Proxies of firm Performance

Firm performance can be calculated by "ROA return on equity ROE ,stock return and firm value".

1.1.6.1 Return on asset

Firm performance can be calculated by using different indicators. Firm performance can calculated by using ROA On the other hand, return on asset ratio or ROA measure how firm utilize their asset to generate profit during a time period. ROA calculate the firm operating performance on total asset. Return on asset is measured by dividing net income with the total asset.

1.1.6.2 Return on Equity:

Firm performance is calculated by using proxy ROE .Return on equity calculate the firm operating performance on equity (Titma, Wessels,1998; Bayless, Diltz, 1994; Howakimian, Kane 2000). ROE measured by dividing net income by total equity.

1.1.6.3 Tobin Q,s

Firm performance can be calculated by using Tobin Q,s. Proxy used to calculate firm value is Tobin Q,s (Lang et al., 1991). Firm have more opportunities if value of firm boost than 1 but if value of firm decline than firm need to be exploit their sources The formula used to calculate Tobin Q,s is as follows.

$$Tobin\ Q,s = \frac{Market\ Value\ of\ Equity}{Book\ Value\ of\ \ Equity}$$

$$Q_t = \frac{MVE_t}{BEV}$$

Where $Q_t$shows Tobin value, MVE_t shows the market value of equity, and BVE Shows the book value of equity.

1.1.6.4 Stock Return

The period of earning is stock return. it calculate return on stock. The formula is used to calculate is as follows by (Brush et al., 2000).

$$Ri_t = \frac{\text{Current Share Price-Previous Share Price}}{\text{Previous Share Price}}$$

$$Ri_t = \frac{(P_t - P_{t-1})}{P_{t-1}}$$

Where R_{it} symbolize stock return , P_t is current year,s stock price while P_{t-1} is previous year stock price

1.1.7 Measure to calculate free cash flow:

Previous study used different proxies to calculate FCF , but FCF can be measured by subtracting corporate income tax, interest expense and cash dividends from operating cash flows. This measure was used (Lehn &Poulsen, 1998) and (Lang et al.,1991). The formula is used to calculate FCF is as follows.

$$FCFS = \frac{OCF_t - TAX_t - IEXP_t - Cdiv_t - Pdiv_t}{Sales_t}$$

OCFt stand for operating cash flow at time t, The formula used to measure OCFt as OCF= (Net Income+ Depreciation)-(Change in Current asset)+ (Change in Current liability)

Taxt stand for corporate Tax at time t, IExpt stand for interest expense for time t, s for where Cdivt stand for common stocks dividends at time t, PDIvt stand for preferred stock dividend at time t, Sales stand for net sales at time t,

1.1.8 Agency Cost

Agency cost is measured in same manner as measured by Wang (2010). The formula used to measure agency cost as follows;

$$TATO = \frac{Sales}{Total\ Asset}$$

Where agency cost calculated by TATO, Salest denotes total sales, and T.At denotes

1.2 Problem Statement

Free cash flow is an important term for any firm which may effect firm performance. (Ali at al).The relationship among the FCFs and agency costs study are done in foreign (Wang 2010) but it given little attention in past in Pakistan. Many literatures give evidence that TATO impact on firm performance. Some studies done to check the effect of agency cost on dividend policies (Rostamlu,2016) ownership structure and management control. This study has been criticized the effect of TATO and FCFon firm

performance. This study has been used data listed firms in Pakistan Stock Exchange (chemical sector). The aim of study has been clarify the relation of agency theory and FCF. FCF are not consistent in previous researches, so this research has given attention to problem of agency cost in listed companies (Chemical Sector) this research has been address the effect of free cash flow on firm performance.

1.3 Research Questions

Q1. What is the impact of FCF on ROA.

Q2. What is the impact of agency cost on ROA.

Q3. What is the influence of FCF on ROE.

Q4. What is the effect of agency cost on ROE

Q5. What is the impact of FCF on Tobin Q,s

Q6. What is the effect of agency cost on Tobin Q,s

Q7. What is the effect of FCF on stock return.

Q8. What is the effect of TATO on stock return

1.4 Objectives of the study

The objectives of the study are given as follows:

To clarify the effect of FCF and TATO on firm performance.

To check relation of FCF and TATO with firm performance.

1.5 Scope of the study

To analyze the FCF hypothesis and theory of agency in Pakistan. The study has given attention on firm financial facts of 29 firms listed in Pakistan stock exchange (PSX) from 2008 to 2017.

1.6 Significance of the study:

This study will provide more information to investors to decisions related to investment for financial progress.

This study has provide more reticence procedures and encouragements for both managers and shareholders to avoid conflicts arise due to agency problems. The study provide literature to future research.

1.7 Research Scheme

The research has 5 different sections

1 Introduction: This section displays detailed of study. i.e definition of variables explain in this section. In this section problem of study has been mentioned. Questions are arise in this chapter, objectives of study and research scope all the content display in this chapter.

2 Literature Review: The chapter display previous concept/ theories and on the basis of these theories and concept to analyze the study

3: Research Methodology: The methodology chapter reviews the mechanism to organize the study and display. Research design, population of study, sample, models and methods used to analyze the data and variables and their measurement also presented

4: Findings and Suggestions: The chapter present the results and discussion of variables used in this study also explain the values of results

5: Conclusions and Recommendations. This chapter provide conclusion of all research and give recommendations for further study to readers in future and also display research limitations.

CHAPTER NO 2

LIERATURE REVIEW

2.1 Literature Review

In this section previous relevant studies are mentioned. This section divided into sub section, first part of this section displays previous studies of relation of FCF and theory of agency. The second section provides studies association of TATO and firm performance. After that the literature on FCF and firm performance on a global scale. The last part display studied done in Pakistan about FCF and TATO.After that, hypotheses of study mentioned in this chapter. Next, theoretical framework of variables also mentioned in this chapter.

2.1.1 Free cash flow and agency theory

Agency theory introduced Jensen & Macklin (1976). FCF hypothesis was first proposed Jensen (1986). The study argued that if agency problems go on in firm so other parties enter in firm to take advantage. The managers of firm are inefficient to utilize free cash flow in profitable investment.it provide opportunity to outsiders to in and to clamp the firm and make best use of shareholders wealth. The study was taken oil industry for the period 1970 – 1973. The study found that increase in FCFthe TATO is also increase

Excess cash flow in firm sometimes impact on firm profitability. Because managers utilize excess cash in their own investment, so it impacts on firm performance also and create agency problems reasons is this clash of interest among stockholders and managers

and due to this clash firm profitability. Kamran, Zhao, Ambreen (2017) resolute the impact of excess cash flow on firm performance. The study was target companies listed in Pakistan stock exchange (PSX) for the year 2010 – 2014. The study evaluates that correlation of firm performance and excess cash flow was positive significant. The study displays clear picture of relation of FCF and firm performance. FCFis vital part of any firm or any organization This study suggested that if company suffer in low earnings this may effect shareholders because low earning or no benefit fascinate to that company existence. Stockholders will not be forced to gain any profit or become member of that firm. The study stated that if any firm want to improve their firm performance they should invest their excess cash flow in profitable projects. Jensen (1986) state FCFhypothesis. This study was taken oil industry data for the period 1970 – 1973. The study found that increase in agency costs is due to increase in excess cash in firm

In much previous literature explains agency problems. (Jensen &Meckling 1976) proposed agency theory. But agency theory originated by (Berle& Means 1932). Agency problems arise when goals of managers and shareholders are different. In firm's managers hire agent to fulfill their needs but managers didn't pay fee to agent, so conflict arise among agent and managers, so it create agency problems or agency cost. Ngoc (2014) conducted a study the effect of TATO on firm performance. Because TATO reduces firm performance. The aim of conducted study to test the agency theory, to took data from Hochiminh City Stock Exchange (HOSE). This study has been used two proxies to calculate agency cost. After analyzing the data the results are not consistent to agency theory. The study proposed that it create ambiguity among the association of agency cost and FCF. The paper eliminates insignificant proxies of agency cost and used only two variables which were (TATO) and operating expenses. The study has been concluded the results and cover up agency theory. The results of study declared that impact of TATO on

firm performance was significant but negative. The aim of study to check the relation of TATO and FCF.The study target 107 firms randomly listed in Hochiminh City Stock Exchange (HOSE). The study also concluded that relationship of FCF firm profitability was positive. The results are not support FCF hypothesis that FCF is related with TATO. Wang (2010) proposed seven proxies to measure agency cost but the study only two proxies. And the study give evidence from his findings that two proxies (TATO) and operating expenses are support the agency theory. The study also pretends that other proxies not support or not disprove the agency theory. The study also concluded that if results is same manner as Ang et al (2000), Singh Davidson (2003) about TATO has negative influence on firm profitability.

Yero&Hamman (2014) conducted the study to test the FCF hypothesis to evaluate the impact of FCF and leverage on agency cost. The study targeted food tobacco and Beverages companies listed the stock exchange of Nigeria. The study has been selected data for the time 2005 to 2010. The study main objective to address the inconsistency between theory and practiced by FCF hypothesis to be check to different perspective. The theory proposed that firm with high cash flow it create agency costs in firms. Many previous studies has been agree to support the hypothesis. The study used FCF approach to calculate agency cost and FCF was measured by using asset as a proxy. Firm size was taking log of total asset while debt to equity used to measure leverage. The study used panel clustered regression model and wald equality of coefficient test was used to analyze the results. The findings of study present that the impact of (FCF) on TATO was significant and positive. Conversely leverage was significant but negatively impact on TATO. The study also examined if companies have large amount of debt, so it has significantly change of FCF towards TATO. So, the study suggested that companies should take enough debt in capital structure. After analyzing the data it results was

consistent to agency theory and FCF. The study concluded that FCF decreased in firms so it impact on asset of firms and TATO increased in firm . And debt have significant influence on agency cost.

2.1.2 Agency cost and firm performance

Wang (2010) defined six proxies to find the agency cost. The study was taken data firms listed in Taiwan stock exchange. The paper determined that the originating of FCF proceed inside operating performance could make better firm performance. The study used operating expense ratio and (TATO) to calculate agency cost. The findings of study shows that agency cost has significant but negativeimpact on operating performance of firm and finds that relationship between FCF and firm performance are positive and significant.

Nobanee& Abraham (2017) conducted a study to explore that how agency cost is associated with FCFand equity impact on firm performance. The study was taken insurance listed companies in Saudi Stock Market. The study was taken data for the period 2010 – 2013 to analyze the data. The findings of study shows that FCF has no impact on agency cost, equity concentration has no impact on agency cost, while impact of agency cost on firm performance was not significant. The results of study was not consistent to agency theory. This study has been used different proxies to calculate the FCF which are "operating cash flow minus cash flow from investing activities". The study was measure firm performance by using proxy return on equity. Control variables of study was leverage and firm size. The results of study not supported agency theory.

In different firm's managers heir agents to fulfill their needs but sometimes managers not fulfill the requirements of agent and create a conflict among agent and managers and create agency problems which incur as an agency costs. Agency costs directly influence on firm performance. Min, Fai, Yoong, Nee, Hong, (2017) conducted a study to investigate impact of capital structure and agency costs on performance of firm.

The paper proposed that debt financing or equity financing boost the firm performance. Besides, agency cost is a cost incur by firm which may decrease the firm's profitability. Yet, there most of companies not violate or regulate agency costs. The impact of agency costs performance of firm was analyzed in study. The sample size of study was 168 out of 302 listed firms Bursa Malaysia. The study took data for the period of 2004 to 2009. The study has been used different proxies to calculate the capital structure which are equity ratio, (STD) and (LTB). The agency cost was measured by seven proxy variables was used by Wang (2010) but in this study was used total operating expenses divided by total sales. While to calculate the firm performance, the study was used (ROA)and (ROE).The debt in firm and size of firm also influence firm profitability so control variables of study was debt and size of firm. The study was used E-views 8, to analyze the data. The outcomes of study shows that (LTD) and equity are significantly positive correlated to ROA and ROE. While agency costs are significant negatively associated to only ROE. The short-term debt was negative but insignificant impact on performance of firm.The study concluded that changes could be done to boost the firm performance and even the economy of country is also improving.

Xiao (2009) resolved the effect of the agency costs on Tobin Q,s.Thisstudy was selected 156 Chinese publicly, listed companies. The study was selected data for the period is 2002-2007. All these firms have individual ultimate owners. This study results shows the alteration of control rights and cash flow rights may decrease Tobin Q,s by Claessens et al (2002). There was different proxy used to measure agency cost, but this study used diversity among control right and cash flow rights which shows negative and significant influence on Tobin Q,s. To measure the Tobin Q,s used market to book ratio of asset. Debt and size of firm was used as control variables in study. The size of firm was calculated by log(asset) and debt was calculated by total debt divided by total asset. This study

concludedthat if agency problems increase in firms the stock return decrease. In china 2002 to 2007 some firms listed in Chinese publicly listed companies with individual owners has made better demonstrate a slowly deterioration in the proportion of those companies with the edifice structure. This movement is expected to decrease those company's agency cost and boost Tobin Q,s. so good corporate governance and strong monitoring in firm also boost the value of firm.

Rostamlu, Pirayesh, Hasani,(2016) conducted study to investigate the influence of FCFbased agency costs on dividends. Dividends are reward to pay shareholders so if shareholders of firm perform well they increase the value of firm. The study was taken sample of 73 companies listed in the stock exchange of Tehran. The study was taken data from 2007 to 2011. There were different proxies used to measure free cash flow these proxies were stock risk, growth profitability, financial leverage, The paper was used multiple regression and panel for data analysis. This paper was used "SPSS and E- views" to determine the inverse impact dividend corporate growth and (FCF) on dividend. otherwise the outcomes of study also concluded that financial leverage, profitability, firm size and stock return have direct influence on dividend. There is relationship between agency cost and FCF.because due to lavish cash in firm used by managers create conflict among managers and shareholders. The study argued that if firms has decrease agency cost so clash between shareholders and managers of interest also decrease in companies.

Atumwa, (2013) examine the relationship among leverage of firms and agency cost. The paper was taken firms listed in Nairobi Stock Exchange. Every organization faced agency problems due to conflicts arise among managers and shareholders. The aim of study to determine the relation of leverage with agency cost. The study was taken 60 listed companies at Nairobi Stock Exchange (NSE) as a population. But 34 companies was taken as a sample. The data used for the period 2008 to 2011. Secondary data has been used to

analyze the results. Regression model was used to evaluate the correlation of “dependent variables with independent variables”. (ROA) firm size and size of firm was control variables of study.The findings of the study concluded that FCF and agency cost was significantly related. Agency cost measure by Angel et al (2000). But the study was used leverage and sales to total asset was dependent variable of study is measured by debt ratio for the year and total debt plus equity for the year. Size of firm was used as control variable because firm size related with agency cost and leverage because increase in firm size increase in agency cost increase in leverage and calculated as log (total asset) for every year. Sales growth was used as a control variable and calculated change in sales for year and total sales for year. Return on asset also used as a control variable of study and calculated as net profit for year by total asset for the year. The study outcomes concluded agency cost effect size of firm also

Lachheb& slim, (2017) was taken French stock exchange listed companies. This study examined theimpact of agency cost and FCF on firm performance. Indeed, the study want to modernize the agency theory and FCFhypothesis. The study concluded that there was positive impact of agency cost and FCF on performance of firm. Because excess FCF in any firm led inducement for managers utilize cash in nonprofitable projects to increase agency cost in firms. The study took sample to all French companies listed on Euronext from (2003 to 2007).The study used six proxy variables used by Wang(2010) to measure agency cost. To calculate FCF the study used those variables used by Miguel and Pindado (2001), Pindado La Torre (2005) andNekhili (2009). The study was taken size of company and debt ratio as a control variable. By Jensen (1986) managers used excess cash in useless activities to increment the size of company rather than they should reward as a dividend to shareholders. The study suggested that to calculate agency cost used “operating income volatility and R&D”.

Jiang &Habib (2012) examine the influence of ownership concentration to check free cash flow agency problems in New Zealand. The study makes an argument that in many firm's managers used free cash flow for their own benefit. The study aimed to examine that ownership concentration mitigate agency problem arise in firms or make it intensify. Sometimes agency problems arise due to overinvestment or other management inability which influence the firm free performance. The second aim of study to examined the relationship of agency problem of FCF on ownership concentration on firm performance. This study was used to calculate FCF agency problem as the output of FCF. Tobin Q,s is used to growth chances and find that financial organization controlled ownership concentration was positively related with FCF agency problem. The study concluded that free cash flow agency problem conditional ownership structure negatively influences free firm performance. According to study of Berger &Hann (2007) to calculate the influence of agency cost and proprietary costs on performance of firm. The firm performance suffers due to increase in agency cost and lower propriety cost. The reasons behind the statement is because propriety cost provide information to managers and motivate managers to create earnings for firm. The study proposed that agency cost and performance of firm was negatively related is initiate particularly when agency cost is greater than the proprietary costs in firm. The outcomes of study shows that there was increase in agency cost in firm will suffer firm profitability.

Powell & Rapp (2016) used novel approach to investigate agency cost of family firms. The study targeted family firms and examined the agency cost inherent in finds in family effects on the governance of firms. Different research done on family performance but indicate worst founding family performance and or good founding family performance, but it depends on sampling and criteria to analyze the firm performance. In this study performance of family examine and examine how agency cost are effect family

performance. This study used novel approach to test the agency costs in family firms. The study investigates both operating or market-based calculation of firm performance. The study concludes changes in cash holdings in among family and nonfamily firms. The results was compel positive association among family founding firms and (marginal) cash holdings. The study also analyzed the free firm performance that family firms invest more cash in free operating outcome

Jabbary, Hajiha, Labeshka (2013) studied the impact of agency cost on performance firm. The study was taken data for the period 2006 to 2010. The study was selected 73 listed firms in Tehran stock exchange for analysis. To measure agency cost the study was used asset turnover, operating expense and Tobin Q,s.. The calculate firm performance of firm the study was used proxies i.e"return on equity and return on asset". The outcomes of paper was shows that TATO significantly related to performance of firm.

Osman (2014) studied association of agency cost with company performance. The study was taken data of top bottom 50 and top 50 listed at Bursa Malaysia. The population of study was 814 companies listed at Bursa Malaysia. But the study was taken 100 companies as a sample. The study was taken data for the period 2008 to 2012.The study was used to measure agency cost by using firm size and growth, expenses and efficiency and debt ratio. "Return on equity and return on asset" used as factor to calculate firm performance. The study determined that how management of firms show efficiency towards firm asset to increase earnings of firm and also disclose that how management increase earnings of firm towards shareholders invested in firm. The findings of study present every firm has agency problem and it associate to firm performance. The outcomes of study also determine that performance of firm has significantly related to expense and efficiency, firm size and debt, while firm performance has no significantly related with debt and growth.

2.1.3 Free cash flow and firm performance.

Heydari, Mirzaeifar, Javadghayedi, (2014)used four factor to measure the operating firm performance i.e“stock return, (ROA), Tobin Q,s and (ROE)”.The study was used FCF hypothesis. The study was foundnegative association of using proxies in study and free cash flow. The study was selected data from “Tehran stock exchange” 2006 - 2010. The study concluded that FCF in firms increase clash between shareholders and managers and property owners increased which impact performance of firm. The study found that FCF has negative relationship with company performance.

Lin & Lin, (2014) was used“cash holdings and excess accounting cash flow” to measure FCF and measure the correlation between lavish cash and bidders long- run post-acquisition performance. The study was selected Australia market. The study was taken data for the period 1993-2000.The study results shows that the aligned of excess cash influence does not give a significant interpretation for the fluctuation in long run post acquisition performance. The study also concluded in that the execution from flow measure of cash point out that the acquisition accomplish by bidders with lavish accounting cash flow are not value reduce. This result opposed to the FCF hypothesis. The study examined that FCF has an effect on bidders long run post acquisition performance. because amount of lavish cash is awed by managers to lead acquisitions at their attention. The paper also examined influence of excess cash FCFand excess accounting cash flow acquire action of firms is value appreciate or value reducing from shareholders perspective. The study also concluded that acquisition give opportunity to managers that expend excess cash flow so that they have little efficiency to misuse the free cash flow FCF

Alzharani ,Ahmad, Aljaaidi, (2012) examines factors related with firm performance. The study examined the affiliation among agency theory variables (auditor type, firm size and leverage,)firm performance. The paper was taken 392 listed companies

in Saudi Stock Exchange (Tadawul)2007 - 2010. The study was used to calculate firm performance by using “return on asset and return asset”. This study examined that performance of company (ROA)) significantly effectwith increase in firm size. On the other sideauditors type and leverage has no impact on (ROA). The analytical influence of company performance (ROE) model is huge. Somewhat, surprisingly model (2), s analytical influence is insignificant hint to the incompetency of the present variables (leverage, auditor type and firm size) clarify the impact on (ROE). The objective of study was to investigate the relationship among leverage, firm size and auditor type with firm performance by using (ROA) and (ROE). “Multiple regression” was used in study. In this paper relationship of firm size with (ROA) was negative but significant .However, relation among leverage and auditor type with firm performance was significant. In this study there are two models was used in which one is significant to firm performance(ROA)while on other hand the second model have insignificant to firm performance(ROE).

Muthusi (2013) done studied effect of FCF on firm performance. Every firm trying to enhance their performance.Thus, managers trying to maximize their firm performance and firm profitability. Different literature has criticized which factors effect firm performance or what factors are used to enhance firm performance. The studywasused FCF hypothesis as a proxy using to examine firm performance. To check the effect of (FCF) in five- star hotels of Kenya . The study was taken 32 hotels data in Nairobi from 2011 to 2013. This study was census because study target all population as a sample. The study was used secondary source, the study was collected data from financial statements of the Hotels. The study analyzed that that leverage(debt) and FCFimpact company performance of hotels of Kenya. While other factors like “firm size, foreign ownership, firm age” has no impact on firm profitability. The paper suggested that every firm used excess cash to maximize firm profitability. The outcomes of this study present the effect of FCF on firm

performance was positive and significant. Thisstudypresent FCF impact firm performance Hotels in Kenya. The study also investigates effect of foreign ownership on performance of company. But its not effect company performance. The study also used leverage to test the effect on company performance of "hotels in Kenya" it outcomes shows that there was positive and insignificance effect on company performance. In this study test the impact of firm age on firm performance in "Hotels of Kenya"

Every organization aim to enhance their Tobin Q,s. Accordingly, investor, s Tobin Q,s may key of success of organization. Therefore, many earlier literatures show that free cash flow effect Tobin Q,s. Because managers used (FCF) in non profitable projects.or used for its personal use. Which create agency problem in firm and effect Tobin Q,s. Accordingly some studies if excess cash is present in firm it boost Tobin Q,s, some studies initiate that Tobin Q,s decrease due to high (FCF) in company. But still there was doubt that FCF effect Tobin Q,sor not. The study focused on "Manufacturing listed firms in Indonesia Stock Exchange". The study was taken 303 companies data from 2012 to 2014. Profita&Ratnaningsihconcluded that FCF has no positive impact on Tobin Q,s. If free cash flow utilized for profitable activities may be free cash flow not influence Tobin Q,s In every organization need competent managers who have ability to used excess cash in value enhancement operations and not used excess cash flow in unprofitable operations which effect Tobin Q,s. Tobin Q,s is important factor and managers need to enhance because its associate with company. Managers play important role to increase firm value so used(FCF)in valuable projects and also sincere towards shareholders and give free cash flow as a awards to shareholders and boost their worth to enhance Tobin Q,s.

Managers tend to make investment in different activities. It may effects firm financial performance as well as Tobin Q,s. The management cannot properly utilize FCF to boost company financials position. Sometime FCF decline company financial position,

therefore investors, managers utilize FCF to enhance firm financials performance. Hong, Shuting, Meng, (2012) conducted a study to examine thecorrelation of FCF to company financial performance. The study was taken all real estate listed company's data in China from 2006 to 2010.The study evaluate the relation of FCF and company financial performance of those companies to improve and enhance managers decision relevant to investment and managers. Because sometimes managers and investors have lack of decision making for their firm and they have no idea that when and where make investment and how to utilize FCF. The findings of study shows there was negative but significant association firm financial performance and FCF. In contrast, firm size negative related with leveragewhile positive relationship with firm size. The firm managers consider to free cash flow, control capital expenditure level to provide feasible ratio among capital expenditures and operating cash flow.

Excess cash in firm sometimes may influence firm profitability. Because managers didn't utilize it for shareholders benefit they sometimes used it for own personal benefit which may arise agency problems in firm and arise conflict among managers and shareholders. Hau, (2017) disclosed the impact of agency cost and FCF on profitability of firm. The study targeted manufacture, trade and real estate's sectors. The results of study shows of overall sectors positive impact on firm profitability. This study was conducted to analyze the effect of FCF on firm performance diversity among firms with and without investment contingency.

Ali, Ormal, Ahmad,(2018) studied to analyze the influence of FCF on "firm performance". This study was descriptive mode to analyzed the impact. The study taken data of automotive sector of Germany. The study targets large firms within the automotive industry. The study was used random sampling technique. The study was used secondary data to evaluate the influence of FCF on company profitability. The study was selected

large firms of Germany for the period 2007 - 2016. The results of study shows that there FCF and firm profitability was significantly and positive related. The study findings shows the effect of debt on (ROA) was inverse and insignificant. Firm performance was calculated by using (ROA). “Regression model” was used in study. Panel data was used and many statistical test was used to analyze the results.. The paper also tests different proxies i.e sales growth, firm size, debt, current asset, capital liquidity and FCF”

FCF is indicator to measure the company performance. FCF is cash present in company and used by managers and sometimes utilized in asset or other profitable projects. Manian&Fathi (2017) examine the association of FCF and firm performance. The study pretends firms with positive FCF have good performance. But companies hide the profit earn slowly due to political costs. Because the high profitability of the firms draws attentions of public organization. (tax office). The study used to manage their earnings and decrease the performance of firms. Sometimes firms have low amount of excess cash present in firm which may influence the progress of earning and profit. A deficient amount of cash in firm may led the level of debt high. So that’s why managers should use free cash flow in profitable projects to manage their profit. The objective of study was evaluate association of ((ROA) with free cash flow. The study was taken 102 companies data listed firms in “Tehran Stock Exchange” from 2011- 2015. The study analyzed the results and state that (ROE), FCF ,firm value and (ROA) was significantly related. To analyze the results of variables “multiple regression model” was used. The findings of paper present the relationship between (ROA), (ROE) and (stock return) was positive and significant.

Aiyegbusi&Akinlo (2016) conducted study in Nigeria to test the effect of cash holdings on firm performance. The study was target companies data 2001 - 2012. The paper targeted 60 nonfinancial listed companies in Nigeria Stock Exchange (NSE). The sample of study was 15 listed companies in Nigeria Stock Exchange (NSE). To analyze

the results study was used generalized method. The study examine if firm holds cash flow in large amount it will boost firm financial performance. The findings of study present that relationship between cash holdings and company performance was positive significant. The study also compels that the impact of cash flows, growth, size and net working capital on company performance was negative. It shows that if managers have lack of management to invest in negative projects, so it caused cash deficit and created difficulties in paying obligations it has negatively affects company performance. The findings of study declared that the correlation of debt was negative with profitability, but repayment of debt has positive relation with firm performance.

FCF is excess cash denotes the financial health of firms. The companies with high amount of (FCF) have high Tobin Q,s. By Zararee&Azzawi (2014) contribute to examine the fre (FCFE) and firm market value. The study targeted pharmaceutical sector of Jordan. "Panel data" was used from 2004 - 2010. The findings of study shows that market value and (FCFE) was positive related. The outcomes proposed that the FCFE hypothesis control the firm stock return and they also conclude the association among FCFE and market value of Hikma

Karpavicius& Yu (2011) was taken other proxy i.e"the effect of institutional ownership on firm characteristics" to analyze FCF hypothesis. The study has been used large amount data as a sample and period was 30 years. The results of study shows that increase in institutional ownership due to agency cost of FCF was decreased.. The study examined the debt of decrease and payout ratios. The good performance of managers in firm lead to reduce level of debt and payout ratios managers used free cash flow utilize in profitable projects. so the excess cash holds by managers minimize the overinvestment opportunities and reduce risk and boost firm value. The test of study supports these outcomes. In addition the result concluded participation of institutional investors in

progress of company management to maximize shareholders wealth. The findings also support free cash flow hypothesis

Mong (2010) conducted study in Kenya to evaluate the "impact of FCF on firm performance". Commercial bankswas target in Kenya. The study was taken data from 2005 -2009. The study examined the infelicity that present among and FCF and firm performance. The study outcomes concluded earnings of commercial banks become better during last five years. Operating activities of firm play an important role to boost financial position of firm which shows financing and investing cash flow which regular improvement in five years. Investment of cash and FCF positive related (Jensen&Meckling, 1976). Because company have excess FCF managers make investment in different projects and increase firm value higher the cash flow higher the investments. By Myers &Majluf (1984) proposed that firms deteriorate from overinvestment the acquisition of internal financing is costly. In that situations investment of firm depends on presence of internally achievable resources. so it give outcomes of positive investment cash flow infelicity.

Maksy studied to explain the definition of FCF. FCF is essential part for management of company and shareholders. The study selected consumer staples companies. the study was selected 25 years data from 1988 – 2012. "Correlation and multiple regression" model was used to analyze the results. The study outcomes concluded that stock return and FCF was significantly related vary consumer staples firms that means FCF may impact stock return. The study explained that some (CF) for capital expenditure, some out (CF) for preferred stock dividend and some (CF) from operations. It means that if firms having excess free cash flow the utilize in capital expenditure and some cash flow pay as a dividend to shareholders to maximize shareholders wealth and firm value also so it will attract external investors to invest in firm. the study proposed that investors make

investing in those whose FCF is higher. The study concluded that free cash flow are significantly related with vary stock prices. The relationship between FCF and total asset and total sales was significant.

Minton &Schrand (1999) determined that decrease in "R&D and advertising, investment in capital expenditures" due to high (CF) in firms. Firm invest in different projects recover shortage of cash in firm other than not using external market. Capital with high cost was relevant to cash flow volatility. To measure higher costs used different proxies indicate higher affectability of "investment to cash flow volatility". The sample of study was to 2 digits SIC industries which have availability of operating cash flow data of only 10 firms. The study was taken data quarterly from 1989 to 1994. The findings of study present (CF) volatility was negative but significant, it measure the "cost of external capital". (CF) volatility was related to increase in investment the firm will require to assess capital market cost is also increased. The study findings concluded that the influence of volatility shows that firm should speculate in its risk management decision. The study proposed that firm take decision to compensate the than negative effect of "volatility on investment levels"in contrast to impact of manage volatility

Beigbaghlu, Aslani, Khodabakhshi,(2014) conducted study to test the impact of firm "growth opportunities and earning permanence" on free cash flow return. The study was taken petroleum listed firm at "Iran Stock Exchange". The data was used from 2007 to 2013. The sample of the study was 47 firm listed at Iran Stock Exchange. The data collected by using simple random sampling technique. The study was used deductive and descriptive statistical techniques. The study used Multi -regression was used to analyze the hypothesis of study. The outcomes of study concluded that growth opportunities influence FCF returns while earning permanence has no influence on FCF returns.

Habib (2011) studied to evaluate impact of "firm growth opportunities on the market valuation" of (FCF) and also explain the dissimilarity among (CF) from operations and capital expenditures. The theory of equity valuation proposed that stock return not related with FCF because stock return not increase the value of firm. Moreover, FCF play role to increase the value in some ways. The study examined two contents to increase the value that is growth opportunities and transitory earnings and evaluate the free cash flow valuation. The study develops a accounting based valuation where stock return are deteriorate on free cash flow related with growth and earnings to control book value, dividends and current profit. The results of study concluded high FCF in company and firm have more opportunities to make position in market to direct "valuation premium". The relationship between FCF and stock return was positive.The outcomes of study explain both growth opportunities and FCF. Penman &Yahuda (2009) proposed reason to evaluate the FCF. The study given an evidence that free cash flow valuation not relevant the dividend from the company decrease value without influence of dividend value. The study expands Penman &Yahuda (2009) by seeking two factors which represent the importance FCFvariables to "stock return, firm growth opportunity and the earnings quality". The findings of study shows that in the presence of lavish growth opportunities then valuation multiplier and FCF was positive significant. The positive coefficient signifies the stock market the investment of future FCF in beneficial activities it insert premium on FCF. The study give evidence that FCF is most vital informative variable for stock return when profit transient.

Gregory A (2005) conducted a study in UK and US to test the "long run abnormal performance and FCF hypothesis". Jensen (1986) stated FCF hypothesis. The study proposed if firms have excess cash and managers used in nonprofitable project so it will take- over. The study used proxies used by Lang, Stulz and Walking (1991). The results of

study was not consistent to (FCFhypothesis. The study argued that FCF hypothesis state that firm with higher amount cash flow in firm so performance of better than the firm with low FCF. The results not supported free cash flow hypothesis.

Salawu (2009) determined the impact of capital structure on firm performance. The study used selected firs listed at Nigeria Stock Exchange. The study has been selected non-financial sector of 50 listed companies in Nigeria Stock Exchange. The study was taken data for 1990 to 2004. Moreover pooled OLS method was used in this study to test the relationship of capital structure and firm performance, "Fixed effect model and random effect model" was used. The paper concluded there is positive but insignificant impact of capital structure on firm performance. The findings shows the relationship between debt and profitability was positive. The findings also examine the relationship among "total equity, capital expenditure and firm performance" was positive.

Muchugia (2013) conducted study to evaluate the effect of debt on firm performance. The study selected 38 commercials in Kenya. The study has been selected data for the year 2008 to 2012. The study concluded that short run debt has positive relation with firm performance. Because short run debt is less costly as compare to long run debt thus the rate of interest increase so it increase in earning. Debt is correlated with performance of firm and it quiet influence firm profitability. The relationship between firm performancewas significant but negative with long run debt, because high cost paying to on issuing long run debt. Many banks not taking risk to issue long term debt because they sometimes face low profitability

Tifow&Savilir (2015) has been done study to evaluate the association of "capital structure and firm performance". The paper was selected "manufacturing listed at Turkey". The data has been selected for the year 2008 to 2013. The outcomes of examine relationship of short run debt with firm performance was significant but negative.

Moreover, long run debt negatively related with ROE while positively associated with ROA. The study suggested that by using debt financing other than equity financing impact firm performance. The study suggested firm used short run debt to enhance the firm performance as compared to long run debt.

Abor (2005) studied in Ghana to resolvedthe association of debt and firm profitability. The study has been selected all firms listed at Ghana. The study was taken data for the 1998 to 2002. The results indicated that association between (TD) and firm profitability was positive significant. because (STD) is increase profit because interest is pay to boost earning. So the positive association shows that if debt increase the value of firm increase but for short term debt because its less costly as compared to (LTD)which decrease the firm value and influence firm profitability. In contrast by Shubita&Alsawalhah (2012) also conducted a study to evaluate the relationship of debt and firm profitability. The paper was selected 39 industrial shareholding firms listed at Jordan. The study taken data for the year is 2004 to 2009. The study concluded when industrial shareholdings firm in Jordan use high amount of debt in their firms utilize it in firm operation it will influence firm profitability because debt financing incurs high cost as compared to equity financing. So the study identify that firm should use equity financing as essential capital source.

Akinleye, Olarewaju, Fajuyagebe (2018) disclosed the effect of FCF on the firm growth. The study has been selected nonfinancial firm listed at Nigeria. The study was used different nonfinancial firms to check the influence of FCF based on percentage change in a total asset of selected firms. The study has been selected data for the year 2012 to 2016. The study used different statistical model and methods to analyze the result. i.e“correlation , restricted F-test Hausman test, Pooled OLS method, fixed effect model, random effect model” was used to test the data. The findings of study concluded the effect of (FCF) on

firm growth rate was negative. This study concluded that firms growth in"Nigeria" effected because FCF has negative effect on firm growth rate .The findings of study suggest that listed firms in the country free cash flow decreased, debt increment turnover, positive NPV projects and decreased operational costs. So if firm enhance their growth rate they should so percentage change in total asset.

Cheng,Cullinan,Zhang, (2014) disclosed the effect free cash on dividends. Dividends also enhance firm performance because when managers maximize shareholders wealth it increased firm performance. Sometimes managers not pay dividend to shareholders and used free cash flow for their own benefit to create conflict among shareholders and managers which face in firms in form of agency cost which effect the firm value. the study has been selected random sampling techniques and selected 1105 firms listed at China. The study taken data for the 2012 to 2016. The study has been used cross listing firms listed at China. The findings stated that FCF has negative impact on dividends of cross listed firms in China but dividends of non-cross listed companies not effected.

Frank & James (2014) has been done study to examine the impact of FCF on "corporate performance". The study selected food and beverage firms listed at Nigeria. The study has been selected six food and beverage firms listed at Nigeria. The study was used multiple regression method. The relationship among cash from operations and from financing was positive significant with corporate performance in firms in Nigeria.

Twairesh (2014) studied effect of "capital structure on firm performance".The study has been taken nonfinancial firms listed in Saudi Arabia. The data was taken for the year 2004 to 2012. The sample of study was 74 companies. To analyze the results of data the study was used "fixed effect model". The study main objective was to examine the association among short term debt (STD), total debt (TD), Long term debt (LTD) and

operating performance. The study was used to calculate free cash flow two indicators "(ROA) and (ROE)". In many literature firm size an effect on firm operating performance. Control variable of study was firm size. The study results of study shows that (ROA) significantly impact by "long term debt, short term debt and total debt". In contrast , (ROE) significantly influence by long term debt . Firm size has significantly impact on firm performance when return on asset was taken as dependent variable

CHEPKWONY (2014) studied the Nigerian stock market to determine the association of FCF and stock return. The study was taken 62 listed companies at the (NSE). The data was taken for 2009 to 2013. The study was used multiple linier regressions and correlation .The outcomes of study evaluate that free cash flow has positively correlated with stock return at the NSE market in four out of nine sectors evaluate FCF theory. The paper suggests that level of FCF in firm increase it has positive association with performance and stock returns.

Akumu (2014) has done study in Nairobi securities market to determine the impact of FCF on firm profitability. The study was used sample from the Stock Exchange of Nairobi from 2009 - 2013. The study was used to calculate the FCF, "Profit after tax – Change in capital expenditure, Depreciation and Amortization -Change in working capital." The study disclose the relationship of FCF and agency cost on firm profitability was negative. The study also concluded if other factors keep constant a keep change in one unit of "FCF, Capital liquidity and firm size" lead to change in firm profitability. so, the study examined that agency cost and FCF was inversely related.

Brush, Bromiley, Hendrickx, (2000) debated agency that companies have FCF and with poor authority effects firm sales growth with no FCF.The study was taken data from 1988 - 1995.The study also determine firms have strong governance position enhance firm performance with FCF or confines investment in idle sales growth. Persistent with agency

theory firms with FCF earn less than companies have now FCF. The result showers that FCF enhances sales growth and sales growth enhance firm performance in some manners (companies have free cash flow, less free cash flow and companies have free cash flow and absence of corporate authority . The theory contend that companies with good authority of decision making about free cash flow so it impact decision. The findings in favor of high free cash flow in companies and sales growth.

Nozari (2016) investigate the influence of "financial leverage on agency cost of FCF". The study was selected Manufacturing listed companies in Stock Exchange of Tehran (Iran). The study was target of 80 companies for the period 2007-2012 to analyze the result. To measure the financial leverage the study was used to measure two proxies ratio of "debt to shareholders equity and ratio of long run debt". To calculate the FCF as calculated Utami et al(2011). The study was used calculation to measure financial leverage used by Khan et al (2012). "Firm size, growth opportunity, firm size and profitability was control variables of study. FCF theory (Jensen) proposed that companies have high FCF value of companies decreased due to increase in agency cost. The outcomes of study show that significant and negative effect of "ratio of debt to shareholders equity and ratio of long run debt"on agency cost of FCF. Financial leverage effect Tobin Q,s because high amount of debt influence firm performance

Karger&Ahmadi (2013) conducted the study to determine the correlation of FCF and agency cost. Agency cost arises due to more cash in firms and managers used it for personal benefit and invest in non profitable projects create agency problems because managers should also maximize shareholders wealth and pay dividend to maximize the value of firms and reduce conflicts to reduce in agency costs in firms. The study also examined the influence of dividend and leverage on FCF. The study also examined the agency costs variation in among companies and growth of companies not effect due to

agency cost. To measure the standard of agency cost different indicators used “profit, growth, leverage, firm size and FCF. The study was taken listed companies in Iran Stock Exchange .The population of study was 343 firms, but firms taken 59 listed firms at a Iran Stock Exchange as a sample. The data has been selected for the time 2006 to 2010. To analyze the results of variables study was used “regression model”. The study results concluded that the influence of dividend positive but insignificant while leverage was positive significant influence on FCF. The findings of study concluded “FCF, firm size, growth and debt” was used to determine the standard of agency cost that impact on dividend. The results suggested that FCF has insignificant but positive influence on dividend. Regression outcomes shows that leverage has insignificant but negative impact on dividend. While influence of growth opportunity on dividend is negative but insignificant. Size and profit has positive significant impact on dividend. The results of study concluded that if firms have low growth opportunity, so the influence of leverage was positive significant on dividend while companies with high growth opportunity the impact of leverage is positive insignificant on dividend. The findings of study examined the impact of dividends on free cash flow for both firms proved positive but the influence of dividends on free cash flow was insignificant.

Betzer (2006) conducted study to examine the LBO transactions if firm have excess cash and not pay to shareholders with low growth opportunities reduce agency problems. Agency problem create due to free cash flow because managers not distributed excess cash to shareholders, so it will create conflict among owners and managers of firms which create agency costs in firms. The study main objective to give proof to support Jensen free cash flow hypothesis (1986) to leverage buyouts. The study 176 firms listed in Stock Exchange of Europe from year 1996 to2002. The study was used multivariate and univariateanalysis.The study also concluded from results that if firms invest in different

projects and also having high FCF before pay to shareholders whose per earnings ratio is significant low than firm peer group are just like LBO. The study findings proposed that there is no proof achieve that European LBO targets deteriorate from agency problems. The findings of study not supported FCF hypothesis and also concluded that the payment of excess (variables used in recent study) nor other variables reduction of agency problem have significant impact on LBO.

Kadioglu, Kilie, Ylimaz (2017) studied Bursa to determine the effect of FCF on performance of firm in the context of FCF hypothesis. The study has been taken data of 370 companies listed in Bursa Istanbul for the period 2009 to 2015. The study was used Tobin Q,s ratio to measure firm performance. The findings of study shows the relationship of FCF and firm performance was negative but significant. The study also suggested excess FCF in companies decrease the performance of firm and presence of low FCF in company increase performance of firm. The outcomes of study also test that debt and dividend payment has positive influence performance of firm. The outcomes of paper was consistent to FCF hypothesis in Turkey

2.1.4 Literature from Pakistan

Rehman&Khidmat (2014) introduced measure for FCFas Poulsen (1993) and Lang et al(1991). The study was used four proxy variables by wang (2010) determine the correlation among variables and on company performance. The study was target sectors in the Stock Exchange of Pakistan. The study took sample from (PSX) listed firms. This study was used “ROA and ROE” and to calculate the firm performance. The study was taken data from 2003 to 2009. The study holds FCF hypothesis by Jensen (1986) that the impact of FCF was negative on firm performance. The outcomes of study conclude the relationship between (TATO) and firm performance is reevaluating. In study not only seen relationship of TATO with firm performance but also the other three proxy’s relationship with firm

performance. so, findings of study present that the correlation of agency cost and firm performance was negative

Zaheer (2017) evaluate the effect of excess cash flow and agency costs on firm value and stock return of firm. In many literature researchers proposed that agency problems excess cash reduce the value of firm. The study examine the influence of excess CF on company value and company stock .The study was taken manufacturing listed firms in (PSX). The study targets data manufacturing companies from 2005 -2015.The study was used "Regression and correlation" to analyze the effect of FCF on Tobin Q,s and stock return. The findings of study concluded that the relationship between company value and FCF was significant but negative .This negative relationship between excess CF holding and value of company support FCF theory of agency cost by Jensen. Also, FCF holding was significant and negatively associated to stock return. This study outcomes also help managers the effect of FCF on Tobin Q,s and stock return. This negative association is uncertain corporate governance in firms may inspire the managers to used cash in wasteful project that significantly impact the company performance. The conflict arises among agent and managers due to debt in firm by Jensen (1986). Thus, decline in agency costs in firms it may positive effect on Tobin Q,s. This study proposed existence of agency costs in firms is main problem for increasing in free cash flow holding because managers used excess cash for their own interest and minimize the risk. Sometimes managers utilize excess cash in nonprofitable investments which influence enterprise value. The study also determined that some companies have huge amount of free cash holdings, but they have not good reputation in market. If the value of excess cash flow not good, it gives awareness to shareholders to think and notice stocks from the perspective of free cash flow holdings and to reduce any investment risk. According to packing order theory firms holds free cash and used internally to boost the firm for the growth purpose to aware the market that firm

perform well. In some firm's managers not pay retained earning among shareholders but used it for their own benefits. In some situations, stockholders have enough finance in their hand but not in business because managers pay low dividends which may cause the decrease in share price of firm. Due to this reason the association of excess cash holdings and the shareholders return was negative. If firm have good corporate governance so it will minimize conflicts among shareholders and managers and reduce agency problems within the firms.

In firm excess cash flows sometimes used by managers for their own benefit. Cash hold by managers in firms may affect firm performance and Tobin Q,s also. According to Iftikhar(2017) if firms increment their excess cash holdings because of more cash flow unpredictability. The study also proposed that if managers or firms make or invest excess cash so the relation of cash holdings and company performance(ROA). So, if managers do so the external investors or shareholders are also attracted due to increase in Tobin Q,s. The study makes an argument that sudden decline in economy, in contrast excess cash hold by managers increment firm market value for the time being but in long term increase in liquidity management strategy would decrease firm profitability on asset. This study taken nonfinancial listed companies at the Stock Exchange of Pakistan for the year 2004 - 2010. The study examined that the cash holdings in 2000 is much high because the price of funds is low. According to impact of cash holdings the paper also proposed that before decline in economy when investment chances were huge, so cash holding have positive influence on Tobin Q,s. So, this association of cash holdings and Tobin Q,s diversify after 2008 when the decrease in economy so it also impacts the Tobin Q,s for the long term. The study also examines that size of firm is also matter. Small firms challenged external funds borrowings as compared to large firms. The unbalance report among shareholders and firm boost the price of outward funds. The unbalance knowledge is risky for firm.

Ambreen&Aftab (2016) studied Pakistan Stock market to examine the effect of FCF on profitability company. The population of study was 580 listed firms on the Stock Exchange of Pakistan.(PSX). But the study used stratified sampling techniques to targets 30 listed firms in (PSX). The study was used secondary data from 2010 to 2014. "Correlation and regression model" was used to analyze results. The study argued that size of firm and FCF impact firm performance, The study also evaluate the effect of liquidity of capital on firm performance and declare that capital liquidity not effect performance of company. To measure FCF study was used different proxies "EBIT, Tax, Depreciation, change in Working Capital and capital Expenditure" used by Wang (2010). The study was used (EBIT and Capital Employed) to measure the firm profitability. The results of study was declare that FCF and firm profitability was positive significantly related listed at Pakistan Stock Exchange (PSX). It shows that if firm have excess cash flow and it utilize in profitable projects it will better for firm and for external shareholders. The study was also compels that if firm wants to increase their profitability, so managers should invest excess cash in profitable projects to achieve the attention of external shareholders to increase firm profitability. In firm managers should keep balance among profitability of company and excess cash flow positive both firm profitability and excess cash flow it necessary to survival of firm. If firm both FCF and profitability of company low or weak so it is difficult for firm to survive the competition to other companies. Therefore, firm should aware about their profitability and excess flow status if they want to get higher position and grow in long period.

Iqbal et al (2013) disclosed the relation of firm size and firm performance. The study was selected financial services sectors. The outcomes of study concluded that firm size and firm performance are correlated and has effect on firm performance because large

firm have high value in the firm than firm with small in size. The study argued that size of firm was positively correlated to profitability of company

Abdullah, Shah, Khan, debated the impact of ownership structure on firm performance. The study examines market place of arrogation on stock of such companies where insiders are available. Moreover, to market perform poorly and due to different types of arrogations the firm perform poorly. The study was used data of 183 listed firms on the Stock Exchange of Pakistan (PSX). The data selected from 2003-2008. The study was used OLS and 2OLS regression method. The study outcomes the concluded relationship of compelling managers and ownership structure was negatively correlated performance of company. Tobin Q,s ,growth opportunities and tangibility of assets are used as control variables in study. The value of firm measure by using Tobin Q,s and it increase in "growth opportunities and asset tangibility" , "reduce with firm size , market risk , firm-specific risk and ownership of institutional shareholders". The study also concluded that larger firms having high Tobin Q,s and also higher sales turnover ratios.

Bhatti&Sajid (2018) conducted study to examined the influence of FCF and TATO on performance of company . The objectives of study also test effect of FCF on TATO. The study has been used data financial and nonfinancial listed companies on the stock exchange of Pakistan (PSX) 2008 -2013. The dependent variable of study was firm performance which was measure by using four indicators, "stock return, firm value ROA, ROE" . The study was used five proxies to measure agency cost which were "total asset turn over (TATO). Operating cost ratio, administrative and selling expense ratio, operating income volatility and net income volatility".Control variables of study was company size and debt. The study was used "panel regression and Hausman test" to determine the results of variables. The study findings concluded the effect of FCF on company performance was positive and significant. The existence of FCF in firm creates agency problems so this

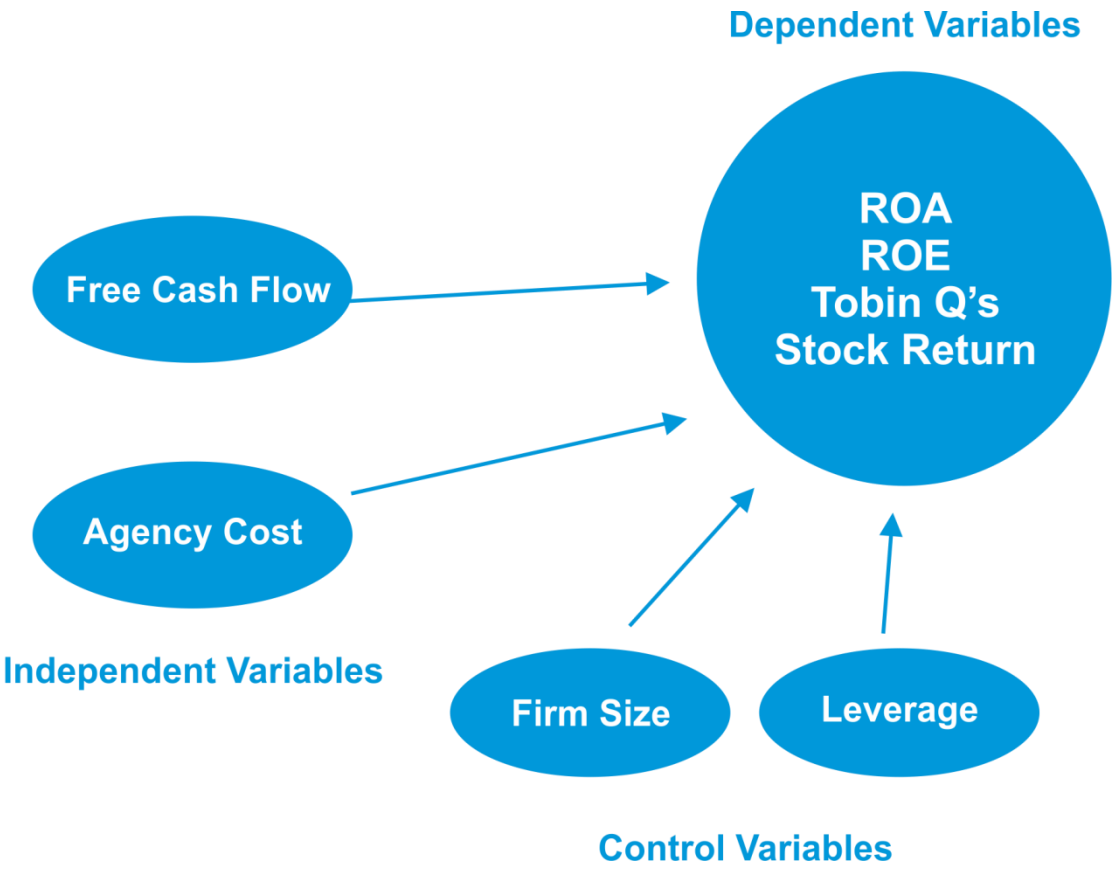
study concluded effect of FCF on firm performance was significant. Agency problems in firms arise conflict so this study argued the impact of TATO on company performance was significant but negative. The outcomes of study was supported agency theory (Jensen &Meckling 1976) and FCF theory (Jensen 1976). So the study examined that FCF influence performance of company but if FCF increased in firm so it creates agency problems and clash among agent and principal which impact performance of firm and also suffer firm performance.

Khwaja, Asif, Wali (2015) disclosed the effect of FCF on company performance. The aim of study to test the effect of agency cost on company performance. The study was taken data for period 2003 to 2012. This paper was used "regression model" to analyze the data and used E-views software to conclude the results of variables. To measure company performance study was taken two proxies i.e "return on asset(ROA) and return on equity (ROE)". The findings of results shows that only net income volatility was significant by using "ROA and ROE". The outcomes of study also determined effect of FCF was insignificant on ROA, while FCF was significant on ROE. Agency problem arise agency cost in firm so study test the impact of agency cost on performance of company. The results of study shows that agency cost was insignificantly influence on ROA while agency cost was significant effect on ROE.

2.2 Theoretical Framework of the study

The dependent variable of this study was firm performance which is measured by (ROA),(ROE), Tobin Q,s and stock return and independent variable of study was (FCF) and TATO.Control variables of study was firm size and debt.

The schematic diagram of figure 1 illustrates the dependent and independent variable and control variables. The diagram shows relationship of variables of study.



2.3 Hypotheses of the study

Thus, the hypothesis of study is

H_1 a: Impact on ROA.

H_1: There is significant impact of (FCF)on ROA

H_2: There is significant impact of TATO on ROA

H_2 b: Impact on ROE

H_1: There is significant impact of free cash flow on ROE

H_2: There is significant impact of agency coast on ROE

H_3 c: Impact on Tobin Q,s

H_1: There is significant impact on FCF on Tobin Q,s

H_2: There is significant impact of agency cost on Tobin Q,s.

H_4 d: Impact on Stock return

H_1: There is significant impact of FCF on stock returns

H_2: There is significant impact of agency cost on stock return

CHAPTER NO 3

RESEARCH METHODOLOGY

In this chapter, techniques and tools are stated. After that, population of research, research sample, data source and statistical techniques are mentioned. The next part of this chapter displays research model. After that the dependent variables, independent variables, control variables and equations of these variables are mentioned. Next technical measurement of variables mentioned in this section. List of companies display in this chapter whose data used in this study. The list of sample of 19 companies mentioned in this chapter

3.1 Introduction

Methodology of research is very important part of all type of research. In research methodology researcher critically evaluates the overall validity and reliability of the study. In methodology, the researcher used theoretical models, quantitative or qualitative techniques. In research methodology researcher provides a detail of research gap, data collection methods and evaluates research sample and population of the study.

3.2 Activities of research

This chapter includes research methodology, research design, population of study and sampling techniques which are used in this study. In methodology chapter the dependent and independent variables all techniques and methods of data collection and statistical tools used in this study are explained.

3.3 Research Design

Research design is set of approaches and measures used in collecting and evaluating measures of variables stated in research problem. Research design is a background that has been formed to find answers to research interrogations. Research design provide researcher a proper arrangements or framework. This study is empirical study. “Descriptive statistics, Pearson correlation and Hausman Test, (Fixed effect)”were used to analyzed the results. The study was used secondary data and collected for the period of 10 years 2008 to 2017

3.4 Type of Research

Research may be quantitative research or qualitative research. By nature, this was quantitative research and the data used in this research is quantitatively investigated. In this study the impact of dependent and independent variables examined and also relation of independent and dependent variable of study. Firm performance can be calculated by using proxies

3.5 Population of study

There are different nonfinancial sectors in Pakistan stock exchange (PSX). Among these sectors, the study focused on chemical sector which comprises of 29 listed firms in stock exchange of Pakistan (PSX). The study was taken data from 2008 to 2017.

3.6 Sample

The sample of study was 19 firms selected from chemical sector of (PSX). Population of study is 29 listed firms but those companies were included for analysis whose data was available the sample period of the study, which are enlisted in (PSX) for the period from 2008 to 2017.

Table 3.1 Listed Companies

Symbol	Companies Name
BAPL	Bawany Air Products Pak Ltd
BERG	Beger paints Pak Ltd
BIFO	Biafo Industries Pak Ltd
BUXL	Buxly paints Pak Ltd
DOL	DesconOxychem Pak Ltd
DYNO	Dynea Pak Xd Pak Ltd
EPCL	Engro Polymer Pak Ltd
GGL	Ghani Gases Pak Ltd
ICI	ICI Pak Ltd
ICL	Ittehad Chemical Industries Ltd
LPCL	Leiner Pak Gelatine Ltd
LCPL	Lotte Chemical Pak Ltd
NICL	Nimir Industries Chemicals Ltd
PGCL	Pak Gum and Chem Ltd
PPVC	Pak Pvc Ltd
SARC	Sardar Chemical Industries Ltd
SITC	Sitara Chemical Industries Ltd
SPL	Sitara Peroxide Chemical Industry Ltd
WAHN	Wahn Nobel Industry Ltd

3.7 Data Collection

Data is important part of research. Data plays an important role in every study. Data can be collected by using two methodsi.e"primary data and secondary data". The study has

been used secondary data. The study selected chemical sector listed in Pakistan stock exchange. Different studies used different sources to collect data. This study collected data from official website of (SBP) and annual reports of listed firms from their websites for the period 2008 to 2017.

3.8 Statistical Techniques, Models and Tools for Data Analysis:

Different statistical tools was used in previous study. For analysis "Descriptive statistics, multiple regression, Pearson correlation and Hausman Test Fixed effect or Random effect" have been used in order to reach the results to support the hypothesis of study. Gretel software was used to analyze the results of data

3.8.1 Descriptive Statistics

Descriptive statistics calculate central tendency or measure the variability in data set. Descriptive statistics evaluate the frequency of each data point and descriptive statistic measure the "mean, median, mode, maximum, minimum, standard deviation of variables used in this study".

3.8.2 Pearson Correlation

In this study correlation was used to analyze the relationship of dependent variables i.e firm performance (ROA, ROE, Tobin Q,s, Stock return) and independent variable i.eFCF and agency cost (TATO). In this study, Pearson correlation was used to evaluate relationship of variables used in study.

3.8.3 Regression Analysis

Regression shows the relation of dependent and independent variables. The study was used multiple linier regression model was used.

$$y = \beta_0 + \beta_1 x_1 + \beta_2 x_1 + \beta_3 x_3 + \beta_4 x_4 + \mathbf{e_i}$$

3.9 Model Specification/ Regression model

The study was taken data from the chemical sector listed companies in the Stock Exchange of Pakistan for the period 2008 - 2017. Regression model was used in study. In this study dependent and independent variablehave been used which were FCF and TATOand dependent variables was firm performance which have four proxies to measure such as are Return on asset(ROA) return on equity(ROE), Tobin Q,s and stock return

On the basis of model hypothesis has been developed to estimate the betas (β_1 and β_2). The β_1 has been measure changes in firm performance "ROA, ROE, Tobin Q,s and Stock Return**"** due to change in (FCF) β_2 was measure sensitivity of (ROA, ROE, Tobin Q,s and Stock return) towards Agency cost. The study was used control variables i.e firm size and leverage. So β_3 and $\beta 4$ estimate the control variables. The β_3 has been used to control firm size because large firms has more FCF to increase TATO in firm. The β_4 was used to control debt in firm because sometimes debt decrease FCF and agency cost towards firm performance (ROA, Tobin Q,s, stock return, ROE). Because firm used deb to level of FCF and reduce agency cost in firm.

3.9.1 Hausman Test

Hausman Test was used to model estimation. Hanuman test applied in panel data. Hausman test suggest either "fixed effects model or random effects model" was appropriate for the study. For this study, "fixed effect model was suggested by Hausman test"Husman test was conducted every single proxy used to measure firm performance. It recommended that fixed effects model was appropriate for this syudy.

3.9.2 Fixed Effect Model

Fixed effects model is tool used in this study. The independent variables consider to be fixed and dependent variable vary over the time fixed effect model. In this study fixed effect model was used.

3.9.3 Random Effect Model

Random effect model is a model to suggest by Hausman test.Random effect model used in panel data. In random effect model variables used in study randomly display.Multicollinearity is decreased by using random effect model. Multicollinearityreduce in variables by using random effect variables.

3.9.4 Regression Model

The regression model for the study is as follows

$$ROA = \beta_0 + \beta_1(FCF) + \beta_2(TATO) + \beta_3 Size + \beta_4 LEV \qquad (4.1)$$

3.9.5 Pooled OLS Model

Pooled ordinary least square (POLS) model is used in this study. Pooled OLS model used to estimate the regression model. (Awuah-Agyeman 2016). The using of model help to researcher to identify effects that could not have been simply identify by using time series data. There is low collinearity among the selected independent variables. In this study, pooled OLS has been used because the advantage of pooled OLS to apply on data is more efficient and reliable.

3.10 Operational definitions and Measurement

This study have dependent ,independent variables and control variables.

Dependent Variables	Calculation
(ROA)	Net Income/ Average Total AssetTitma&Wessels (1988)
(ROE)	Net Income/ Shareholder,s EquityBayless&Diltz(1994)
Tobin Q,s	TobinQ,s=Market Value of Equity/Book value of equity by Lang at el (1991)
Stock Return	Current share price-Previous Share Price/ Previous Share Price Brush at el (2000)

Independent Variables	
(FCF)	FCF= OCF-Tax-Common Stock/ SalesLahn&Poulsen (1998)
Agency Cost	TATO= Sales/ Total Asset Wang(2010)
Control Variables	
Firm size	Size=In(Total Asset)Dogan (2013)
Debt	Debt Ratio=Debt/Asset Easterbrook (1984)

3.10.1 Dependent Variable

This study used dependent variable which is firm performance, but the study used different proxies or factors to measure the firm performance which are as follows

3.10.2 Proxies of Firm Performance

To measure firm performance, this study used four proxies or factors. These proxies are "Return on Asset (ROA), Return on Equity (ROE), Tobin Q,s and stock Return".

3.10.2.1 Return on Asset (ROA)

Firm performance can be calculated by ROA. (ROA) measure how firm utilize their asset and generate profit during a time period. (ROA) is measure by dividing net income on total asset. The formulae used to calculate Return on asset (ROA) was used by Titma&Wessels (1998).

$$ROA = \frac{Net\ Income}{Average\ Total\ Asset}$$

$$ROA = \beta_0 + \beta_1 (FCF) + \beta_2 (TATO) + \beta_3 Size + \beta_4 LEV \ldots\ldots\ldots\ldots\ldots\ldots (3.1)$$

3.10.2.2 Return on Equity (ROE)

Return on Equity(ROE) is also determinant of firm performance. Return on Equity calculates the firm operating performance on equity (Bayless and Diltz, 1994; Howakimian and Kane 2000). ROE is measure by dividing net income on Shareholders Equity. The formulae used to calculate Return on Equity(ROE) is as follows

$$ROE = \frac{Net\ Income}{Shaerholders\ Equity}$$

$$ROE = \beta_0 + \beta_1\left(FCF\right) + \beta_2\left(TATO\right) + \beta_3 Size + \beta_4 LEV \text{ .....(3.2)}$$

3.10.2.3 Tobin Q,s

Tobin Q,s is used to measure the firm value. Firm performance can be measured by using Tobin Q,s. In previous studies different calculations was used to calculate Tobin Q,s but this study used to calculate firm value by Lang et al (1991) if firm Q,s value increase than have positive more investment opportunities available if firm Q,s value is decrease than 1 than firm has t exploit their asset. The formulae used to calculate Tobin Q,s is as follows.

$$Tobin\ Q,s = \frac{Book\ Value\ of\ Equity}{Market\ Value\ of\ Equity}$$

$$Q_t = \beta_0 + \beta_1\left(FCF\right) + \beta_2\left(TATO\right) + \beta_3 Size + \beta_4 LEV \text{ .....(3.3)}$$

3.10.1.4 Stock Return

Stock return is also used proxy to measure firm performance. It calculates return on stock. The formulae used to measure the stock return was used by Brush at el (2000) as follows

$$Ri_t = \frac{\text{Current Share Price-Previous Share Price}}{\text{Previous Share Price}}$$

$$Ri_t = \beta_0 + \beta_1\left(FCF\right) + \beta_2\left(TATO\right) + \beta_3 Size + \beta_4 LEV \text{ .....(3.4)}$$

3.11 Independent Variables

FCF and TATO was independent variables of study.

3.11.1 Free Cash Flow(FCF)

The independent variable of this study is FCF. FCF excess cash available in firm.Jensen (1989) state FCF hypothesis. Management used FCF in different business plan. In previous studies different measure was used to calculate FCF. But the use subtracting corporate Income tax, Interest Expense and cash dividends from operating cash flows to measure FCF. This measure was used by Lehn (1998) and Lang et al (1991).The formulae was used to measure FCF is as follows

$$FCF = \frac{OCF_t - Tax_t - IExp_t - Cdiv_t}{Sales_t}$$

Where OCFt stands for Operating cash flow at time t.The formulae used to calculate Operating cash flows is as follows

$OCF_{t=}$(Net Income +depreciation)-(Change in current asset)+(Change in current liability)

Tax_tstand for corporate tax at time t, $IExp_t$stand for interest expense for time t, where $Cdiv_t$stand for common dividend at time t and sales stand for net sales at time t.

3.11.2 Agency Cost

Agency theory is suggested Berle and Means (1932). Managers hire agents to fulfill their needs and pay fee to agents. But sometimes incorporation the goal of shareholders and managers are different which arise conflict among shareholders and managers and agency problem create. Wang (2010) proposed seven proxies variables for agency cost: (TATO), “operating expense to sales ratio, administrative expense to sales ratio, volatility of net operating income, Volatility of net income and flotation cost ratio”. To calculate flotation cost need to calculate advertising and R&D expenses to sales ratio in data. In previous literature different proxies used to calculate agency cost but in this study to calculate

agency cost used (TATO). The formulae used to calculate agency cost was used by Wang (2010)

$$TATO = \frac{Net\ Sales}{Average\ Total\ Asset}$$

3.12 Control Variables

Debt and firm size was taken control variables in this study.because firm size is also related with firm performance sometimes size of firm also impact firm performance. Debt in firm also related with firm performance sometimes increase in debt also impact firm performance.

3.12.1 Firm Size

Firm size is related with performance and previous study firm size was used control variables like (Fama and French 2007) (Gul and Tsui 1998), Grullon and Michaely (2002), and Singh and Davidson(2003). If the size of firm increase firm performance also increased because firm size and performance have positive association. But agency problems faced less by small companies but it vary to firm size. In large firms management invest free cash flow in right way because they have ability to adjust their resources in right way. By (Lang et al 1985) firm size was measured by taking log of (asset)and sometimes taken log total (sales)of firm. The study was measured firs size by taking log of (asset). The formulae used to calculate the firm size is calculated by Dogan (2013) as follows.

$$Size_t = In\left(Total\ Asset\right)$$

Where size show size of firm at time t and total asset shows total asset of firm.

3.12.2 Financial Leverage (debt)

Debt was used control variable in previous study. Sometimes presence of debt firm also effect performance and increase debt in firms may decrease the profitability of firm. Many researches contend that debt in firm may bind shareholders to reduce the

shareholders interest. Debt was used control variable in this study. The formulae was used to measure financial leverage was used by Easterbrooke, (1984).

$$DA_t = \frac{Debt}{Asset}$$

Where DA shows debt ratio while debt as total debt and asset as total asset of firms.

CHAPTER NO 4

RESULTS AND DISCUSSIONS

4.1 Introduction

This chapter present the outcomes of variables used in study. Descriptive statistics and correlation results display in this chapter. The results and discussion of regression analysis are stated in next part. In this chapter every variable results and discussion is mention. After that fixed effect model for individual variables also mentioned in this section.

4.2 Descriptive Statistics

Descriptive statistics shows the results of variables used in this study. Descriptive statistics shows the results of mean, median, mode and standard deviation of each variable.

Table 4.1 Descriptive Statistics

Variable	Mean	Median	Minimum	Maximum	Std. Dev.
FCF	-212662.	-272.292	-1.42160e+007	2.54551e+006	1.42540e+006
TATO	7.34778	1.02006	0.000000	103.418	17.5603
ROA	2.66358	2.21500	-16.7000	74.9400	9.58935
ROE	-10.9240	5.62000	-12.48	159.560	113.164
Tobin Q,s	38.3609	9.35500	0.000000	514.500	76.1906
Stock Return	88.3345	29.5450	-35.0200	1096.16	177.598
Size	6.08315	6.02178	4.48031	7.82089	0.649079

Leverage	3.65595	2.03500	6.8200	63.660	1.2026

The above table shows the descriptive statistics which has been used to check the feature of data. According to above results the mean value of independent variable FCF is -212662 with minimum -1.42160e+007, maximum 2.54551e+006 and standard deviation 1.42540e. The mean of agency cost showed 7.3, minimum .000, maximum 103.4 and standard deviation 17.56. The mean of ROA showed 2.66, minimum -16.7, maximum 74.94 and standard deviation 9.5. The mean of ROE showed -10.9, minimum -12.48, maximum 159.56 and standard deviation 113.1. The mean of FV showed 38.3, minimum .000, maximum 514.5 and standard deviation 76.19. The mean of SR showed 88.33, minimum -35.02, maximum 1096.16 and standard deviation 177.598. The mean of size showed 6.08, minimum 4.48, maximum 7.82 and standard deviation 0.64. The mean of leverage showed 3.65, minimum 6.82, maximum 63.66 and standard deviation 1.20.

4.3 Return on Asset

ROA is one of the independent variable of this study whose significant can be examined through inferential statistics.

Table 4.2Pearson Correlation

Variable	ROA	FCF	AC	SZ	LEV
ROA	1.0000				
FCF	0.1508	1			
AC	0.1755	0.0516	1		
SZ	-0.3350	-0.6128	-0.3155	1	
LEV	-0.0032	-0.0831	0.1500	0.0808	1

The above table is the result of Pearson Correlation model which has been selected for the estimation of relationship between the study variables. The findings suggested that return on assets was related positively with FCF, positively related with TATO negative correlated with firm size and have negative correlated with leverage.

4.4 Pooled OLS

Table 4.3Pooled OLS

ROA	*Coefficient*	*Std. Error*	*t-ratio*	*p-value*	
Const	31.2061	8.6534	3.6062	0.00040	***
FCF	3.00304e-07	4.99782e-07	0.6009	0.54866	
TATO	-0.00447578	0.0484	-0.0925	0.92642	
Size	-4.72382	1.38807	-3.4032	0.00082	***
Lev	0.079297	0.0311052	2.5493	0.01160	**

Dependent variable: ROA

R-squared	0.132482	Adjusted R-squared	0.113725
F(4, 185)	7.062999	P-value(F)	0.000026

*** p<0.01, ** p<0.05, * p<0.1

The above table shows pooled OLS model which has been to evaluate the impact of FCF and TATO on ROA. The model has been found significant because it is important to estimate the variance explained by the free cash flow, agency cost, firm size and leverage in the Tobin ROA of the sample firms taken in the study. The value of R-square can be used to measure the variation explained in dependentvariable due to independent variable. The value of R-square .132 which concluded that FCF, TATO , firm size and debt has

explained 13 percent effects on the ROA. The value determines that the FCF, TATO, firm size and leverage are having 13 percent impact on the ROA. Another significant estimation was made by the f-value which was measure the statistical significance of the model. The standard value in the regression estimation is 4. The f-value in the model is 7.06 which has been found increased the standard and suggested that the preferred model has been found statistically significant. The p value in model is .0013 which was also less than the standard which confirms the overall model was significant.

The coefficient value of FCF in above table present that the FCF has positively associated with the ROA. The study suggested that when the firm having more FCF then the firm has more funds to invest in the market and which increased the ROA which was used to calculate the firm performance.it means that when firm have more FCF so they have more chances to invest in market as more investors has been attracted to the firm which has been increase the firm share price. The positive relation of FCF with the ROA can be seen in the positive value of beta 3.00304e-07 which means that the ROA of the sample firms increased by 3.00304e-07 units when the FCF has been increased. This means that when the FCFhas been increased then it has increase the ROA. The t-value in the table can be used for the acceptance or rejection of the hypotheses associated with the variable. The t-value of FCF was 0.6009, less than standard value i.e. absolute 2. The lower standard value of FCF show the FCFhas insignificant effects on ROA.

The coefficient value of agency cost in the above table shows that the agency cost has positively related with ROA. The results find out when firm having higher values of sales then the firm have more funds to invest and also have more revenues in the market and which has been increased the ROA in the market as more investors has beenattracted to the firm which has increased the firm share price and reduce agency cost because if firm have more revenues they pay dividend to shareholders and reduce conflict which arise due

to agency problems. The positive association of agency cost with the ROA can be seen in the positive value of beta 0.00447578 which means that the ROA of the sample firms will be increased by 0.00447578 units when the agency cost has been increased. This means that when the agency cost has been increased then it increased the ROA. The t-value in the table can be used for the acceptance or rejection of the hypotheses associated with the variable. The t-value of agency costis 0.0925 which is less than the standard value i.e. absolute 2. The lower value of agency cost shows that it has insignificant effects on the ROA.

The coefficient value of firm size in the above table present that firm size has positively related with ROA. The above table findings concluded that when the size of firm increase the firm valueis also increased because they have higher assets in the firm then managers have more funds to invest and also has more revenues in the market and which has been increase the ROA. The positive association of firm size with the ROA can be seen in the positive value of beta 4.72382 which means that the ROA of the sample firms has been increased by 4.72382 units when the firm size has been increased. This means that when the agency cost has been increased then it increased the ROA. The t-value in the table can be used for the acceptance or rejection of the hypotheses associated with the variable. The t-value of firm size was 3.4032 more than standard value i.e. absolute 2. The lower value of firm size shows that it has significant effects on the ROA.

The coefficient value of the leverage in the table exhibit that the leverage has negative association with the ROA. The results examine that when the firm is having higher debt in firm it was decrease the performance of firm (ROA) then it has been more payment in the interest which can have negative effects on the shareholders in the market which has been lead to divert the investorsfunds to another firm which has negative effects on the ROA. The negative relationship of debt with ROA can be seen in the negative value

of beta -0.079297 which means that the ROA of the sample firms was decreased by -0.079297 units when the leverage has been increased. This means that when the leverage has been increased then it decreased the ROA. The t-value in the table can be used for the acceptance or rejection of the hypotheses associated with the variable. The t-value of leverage was -2.5493 more than standard value i.e. 2. The increase in value of leverage shows that it has significantly effects on the ROA.

4.5 Fixed Effect Model

Table 4.4Fixed Effect Model

ROA	*Coefficient*	*Std. Error*	*t-ratio*	*p-value*	
Const	4.74498	11.3254	0.4190	0.67578	
FCF	2.64724e-07	1.70636e-07	1.5514	0.12270	
TATO	0.0741173	0.0261381	2.8356	0.00514	***
Size	0.456855	1.85416	0.2464	0.80568	
Lev	-0.0572823	0.00751126	-7.6262	<0.00001	***

Dependent variable: ROA

R-squared	0.273023	Adjusted R-squared	0.177254
F(22, 167)	5.850839	P-value(F)	0.000077

*** p<0.01, ** p<0.05, * p<0.1

The above table result shows fixed effect model which has been used to evaluate the results of FCF and TATO on ROA. The model has been found significant because it is essential to estimate the variance explained by the FCF, TATO, firm size and leverage in the Tobin Q,s of the sample firms taken in the study. The value of R-square which can be used to calculate the variations explained on t dependent variable due to independent variable. The value of R-square .273 which concluded that FCF, TATO, firm size and

leverage have explained 27 percent impact on ROA. Another significant estimation was made by the f-value which was used to measure the statistical significance of the model. The standard value of regression estimation is 4. The f-value in the model is 5.85 which has been found greater the standard and examined that the preferred model has been found significant. The p value in model is .00 which is also less than the standard which confirms that the overall model is significant.

The coefficient value of FCF in the table lie to present positive relationship of FCF with ROA. Because when companies have free cash flow and managers utilized it profitable projects it has increased the (ROA).The results also declared when firm is having positive free cash flow then the firm have more funds to invest in the market and which has increased the ROA in the market as more investors has been attracted to the firm which has increased the firm share price. The positive relation of FCF with ROA can be seen in the positive value of beta 2.64724e-07 which means that the ROA of the sample firms has been increased by 2.64724e-07 units when FCF has been increased. This means that when FCF has been increased then it has increased the ROA. The t-value in the table can be used for the acceptance or rejection of the hypotheses associated with the variable. The t-value of FCF was 1.5514 less than the standard value i.e. absolute 2. The lower standard value of FCF show that the FCFhas insignificant effects on ROA.

The coefficient value of the agency cost in the above table finds that the agency cost has positively associated with the ROA. The results suggested that when the firm is having higher values of sales then the firm have more funds to invest and also have more revenues in the market and which increased the ROA in the market as more investorsattracted to the firm which increased the firm share price. The positive association of agency cost with the ROA can be seen in the positive value of beta 0.0741173 which means that the ROA of the sample firms increased by 0.0741173 units when the agency

cost has been increased. This means that when the agency cost has been increased then it increased the ROA. The t-value in the table can be used for the acceptance or rejection of the hypotheses associated with the variable. The t-value of agency costs was 2.8356 morethan the standard value i.e. absolute 2. The lower value of agency cost shows that it has significant effects on the ROA.

The coefficient value of firm size in the table exhibit that the size of firm can be positively related to ROA. The findings suggested that when the firm is having higher assets then they have more funds to invest and more revenues in the market and which has increase the ROA. The positive association of firm size with the ROA can be seen in the positive value of beta 0.456855 which means that the ROA of the sample firms has been increased by 0.456855 units when the firm size has been increased. This means that when the agency cost has been increased then it increased the ROA. The t-value in the table can be used for the acceptance or rejection of the hypotheses associated with the variable. The t-value of firm size was 0.2464 was less than the standard value i.e. absolute 2. The lower value of firm size shows that it has insignificant effects on the ROA.

The coefficient value of debt in above table exhibit leverage can be negative associated with the ROA. The findings suggested that when the firm is having higher debt financing then they have more payment in the interest which can have negative effects on the shareholders in the market which has lead to divert the investors attention to another firm which have negative effects on the ROA. The negative association of leverage with the ROA can be seen in the negative value of beta -0.0572823 which means that the ROA of the sample firms decreased by -0.0572823 units when the leverage has been increased. This means that when the leverage has been increased then i decreased the ROA. The t-value in the table can be used for the acceptance or rejection of the hypotheses associated

with the variable. The t-value of debt was-7.6262 more than the standard value i.e. 2. The greater value of leverage shows that it has significantly effects on the ROA.

4.6 Return on Equity

ROE is another dependent variable of this study whose significance can be examined through inferential statistics.

Table 4.5Pearson Correlation

Variable	ROE	FCF	AC	SZ	LEV
ROE	1.0000				
FCF	0.0523	1			
AC	0.0471	0.0516	1		
SZ	0.0459	-0.3350	-0.6128	1	
LEV	-0.2286	-0.0032	-0.0831	0.0808	1

The above table is the result of Pearson Correlation model which has been selected for the estimation of association of dependent and independent variables of study. The findings suggest that ROE was related positively with FCF, positively correlated with TATO, positive correlated with firm size and debt was positively related.

4.7 Pooled OLS

Table 4.6Pooled OLS

ROE	*Coefficient*	*Std. Error*	*t-ratio*	*p-value*	
Const	-204.11	105.55	-1.9338	0.05467	*
FCF	8.38716e-06	6.09607e-06	1.3758	0.17054	
TATO	0.863259	0.590357	1.4623	0.14536	
Size	31.7519	16.931	1.8754	0.06232	*
Lev	-1.23762	0.379405	-3.2620	0.00132	**

Dependent variable: ROE

R-squared	0.073207	Adjusted R-squared	0.053169
F(4, 185)	6.653292	P-value(F)	0.006861

*** p<0.01, ** p<0.05, * p<0.1

The table of pooled OLS model which has been used in the present study to evaluate the effect of FCF and TATO on ROE. The model has been found significant because it is important to estimate the variance explained by the FCF, TATO, firm size and leverage on ROE of the sample firms taken in the study. The value of R-square was used to determine the variations explained in dependent variable due to independent variable. The value of R-square .073 which suggested that FCF, TATO, firm size and leverage have explained 7 percent impact on the ROE.Another significant estimation was made by the f-value which was used to measure the significance of the model. The standard of this value in the regression estimation is 4. The f-value in the model is 6.65 which has been found more than the standard and examined that the preferred model has been found statistically

significant. The p value in model was .0013 which was also less than the standard which confirms that the overall model is significant.

The coefficient of FCF in table shows that FCF has positively associated with the ROE. The results concluded that when company is having more free cash then the firm have more funds to invest in the market and which has increased the ROE in the market as more investors has been attracted to the firm which will increase the firm share price. The relationship of FCF with ROE can be seen in the positive value of beta 8.38716e-06 which means that the ROE of the sample firms has been increased by 8.38716e-06 units when FCF has been increased. This means that when FCF has been increased then it has increase the ROE. The t-value in the table can be used for the acceptance or rejection of the hypotheses associated with the variable. The t-value of FCF was1.3758 which was less than standard value i.e. absolute 2. The lower standard value of FCF show that the FCFhas insignificant effects on ROE.

The value of coefficient for the agency cost in the table exhibit that the agency cost can be positively associated with the ROE. The findings suggested that when the firm is having higher values of sales then the firm will have more funds to invest and have more revenues in the market and which increase the ROE in the market as more investors has beenattracted to the firm which increased the firm share price. The positive association of agency cost with the ROE can be seen in the positive value of beta 0.863259 which means that the ROE of the sample firms increased by 0.863259 units when the agency costhas been increased. This means that when the agency costhas been increased then it will increase the ROE. The t-value in the table can be used for the acceptance or rejection of the hypotheses associated with the variable. The t-value of agency costis 1.4623 which is less than the standard value i.e. absolute 2.The lower value of agency costshows that it has insignificant effects on the ROE.The results same as Waqas&Khidmat (2014).

The coefficient value of the firm size in table exhibit that the firm has positively related with ROE. The above table results suggested that when the firm size is increase the firm performance (ROE) is also increased. The positive association of firm size with the ROE can be seen in the positive value of beta 31.7519 which means that the ROE of the sample firms increased by 31.7519 units when the firm size has been increased. This means that when the agency cost has been increased then it increased the ROE. The t-value in the table can be used for the acceptance or rejection of the hypotheses associated with the variable. The t-value of firm size was1.8754 was less than the standard value i.e. absolute 2. The lower value of firm size shows that it has insignificant effects on the ROE.

The coefficient value of the leverage in the table find that the leverage has negative association with the ROE. The findings examined that when the firm is having higher debt financing then they have more payment in the interest which can have negative effects on the shareholders in the market which lead to divert the investors' funds to another firm which have negative effects on the ROE. The negative association of leverage with the ROE can be seen in the negative value of beta -1.23762 which means that the ROE of the sample firms will be decreased by -1.23762 units when the leverage has been increased. This means that when the leverage has been increased then it decreased the ROE. The t-value in the table can be used for the acceptance or rejection of the hypotheses associated with the variable. The t-value of debt was -3.2620 wasmore than the standard value i.e. 2. The greater value of leverage shows that it has significant effects on the ROE.

4.8 Fixed Effect Model

Table 4.7Fixed-Effect Model

ROE	Coefficient	Std. Error	t-ratio	p-value	
Const	-56.4634	75.0125	-0.7527	0.45268	
FCF	3.89754e-06	1.16539e-06	3.3444	0.00102	***
TATO	0.987307	1.32525	0.7450	0.45732	
Size	7.14064	11.7022	0.6102	0.54256	
Lev	-1.18267	1.18585	-0.9973	0.32005	

Dependent variable: ROE

R-squared	0.173521	Adjusted R-squared	0.064644
F(22, 167)	11.593729	P-value(F)	0.000015

*** p<0.01, ** p<0.05, * p<0.1

The above table shows fixed effect model outcomes to declared the findings of FCF and TATO on ROE. The model has been found significant because it is important to estimate the variance explained by the FCF, TATO,firm size and leverage on ROE of the sample firms taken in the study. The value of R-square which was used to calculate the variations explained in the dependent variable due to the independent variable. The value of R-square .173 which suggested that FCF, TATO, firm size and leverage have explained 17 percent effects on ROE. The value explained that the FCF, TATo, firm size and leverage are having 17 percent effects on the ROE. Another significant estimation was made by the f-value which was used to measure the significance of the model. The standard value in the regression estimation is 4. The f-value in the model was 11.59 which has been found more than the standard and concluded that the selected model has been found

statistically significant. The value of p -the in the model is .00 which is also less than the standard which confirms that the overall model was significant.

The value of coefficient of FCF in table exhibit that the FCF has positively associated with the ROE. The findings investigate that when the firm is having positive free cash then the firm have more funds to invest in the market and which has increased the ROE in the market as more investors has been attracted to the firm which has increased the firm share price. The positive association of FCF with the ROE can be seen in the positive value of beta 3.89754e-06 which means that the ROE of the sample firms has been increased by 3.89754e-06 units when the FCF has been increased. This means that when the FCF has been increased then it increased the ROE. The t-value in the table can be used for the acceptance or rejection of the hypotheses associated with the variable. The t-value of FCF was 3.3444 which was more than the standard value i.e. absolute 2. The higher standard value of FCF show that the FCF has significant effects on ROE.

The coefficient value of agency cost in the table exhibit that the agency cost has positively associated with the ROE. The findings suggested that when the firm is having higher values of sales then the firm have more funds to invest and also have more revenues in the market and which increased the ROE in the market as more investors has been attracted to the firm which increased the firm share price. The positive association of agency cost with the ROE can be seen in the positive value of beta 0.987307 which means that the ROE of the sample firms will be increased by 0.987307 units when the agency costhas been increased. This means that when the agency cost has been increased then it increased the ROE. The t-value in the table can be used for the acceptance or rejection of the hypotheses associated with the variable. The t-value of agency costis 0.7450 which is less than the standard value i.e. absolute 2.The lower value of agency costshows that it has insignificant effects on the ROE.

The coefficient valueof firm size in the above table shows that that the relationship between firm size and ROE was positive. The results shows out that when the firm is having higher assets then firm have more funds to invest and also have more revenues in the market and which has increased the ROE. The positive association of firm size with the ROE can be seen in the positive value of beta 7.14064 which means that the ROE of the sample firms increased by 7.14064 units when the firm size has been increased. This means that when the firm size has been increased then it has increased the ROE. The t-value in the table can be used for the acceptance or rejection of the hypotheses associated with the variable. The t-value of firm size was 0.6102 was less than the standard value i.e. absolute 2. The lower value of firm size shows that it has insignificant effects on the ROE.

The coefficient value of debt in table shows that the debt has negative related with ROE. The outcomes of the study concluded that when the firm is having higher debt financing then they have more payment in the interest which can have negative effects on the shareholders in the market which lead to divert the investorsfunds to another firm which has negative effects on the ROE. The negative association of leverage with the ROE can be seen in the negative value of beta -1.18267 which means that the ROE of the sample firms will be decreased by -1.18267 units when the leverage has been increased. This means that when the leverage has been increased then it decreased the ROE. The t-value in the table can be used for the acceptance or rejection of the hypotheses associated with the variable. The t-value of debt was -0.9973 which was less than the standard value i.e. absolute 2. The higher value of leverage shows that it has insignificant effects on the ROE

4.9 Stock Return

Stock return is one of the dependent variable of this study whose significance can be examined through inferential statistics.

Table 4.8Pearson Correlation

Variable	SR	FCF	AC	SZ	LEV
SR	1.0000				
FCF	0.1080	1			
AC	-0.1914	0.0516	1		
SZ	0.2110	-0.3350	-0.6128	1	
LEV	-0.0486	-0.0032	-0.0831	0.0808	1

The above table is the result of Pearson Correlation model which has been selected for the estimation of relationship between the study variables. The findings suggest that Tobin Q,s was positively related with FCF, negatively related with TATO, firm size has positively correlated with Tobin Q,s and have negatively correlated with leverage.

4.10 Pooled OLS

Table 4.9Pooled OLS

Stock Return	Coefficient	Std. Error	t-ratio	p-value	
Const	-312.246	164.381	-1.8995	0.05905	*
FCF	2.41204e-05	9.4939e-06	2.5406	0.01189	**
TATO	-0.563492	0.91941	-0.6129	0.54071	
Size	67.7403	26.3679	2.5690	0.01099	**
Lev	-0.608333	0.590877	-1.0295	0.30457	

Dependent variable: Stock Return

R-squared	0.087341	Adjusted R-squared	0.067608
F(4, 185)	4.426111	P-value(F)	0.001935

*** p<0.01, ** p<0.05, * p<0.1

The above table result shows pooled OLS model to estimate the results of FCF and TATO on stock return. The model has been found significant because it is essential to estimate the variance explained by the FCF, TATO, firm size and debt on stock return of the sample firms taken in the study. The value of R-square which can be used to measure the variations explained in dependent variable due to independent variable. The value of R-square .087 which concluded that FCF, TATO, firm size and leverage have explained 8 percent effects on firm performance. The value explained that the FCF, TATO, firm size and debt are having 8 percent effects on the stock return. Another significant estimation was made by the f-value which was used to measure the significance of the model. The standard value in the regression estimation is 4. The f-value in the model is 4.42 which has been found greater than the standard and examined that the preferred model has been

found statistically significant. The p value in model was .00 which was also less than the standard which confirms that the overall model was significant.

The coefficient value of free cash flow in the table exhibit that the free cash flow has positively associated with the stock return. The results suggested that when the firm is having positive FCF then the firm have more funds to invest in the market and which has increased the stock return in the market as more investors has been attracted to the firm which increased the firm share price. The positive association of FCF with the stock return can be seen in the positive value of beta 2.41204e-05 which means that the stock return of the sample firms increased by 2.41204e-05 units FCF has been increased. This means that when the FCF has been increased then increased the stock return. The t-value in the table can be used for the acceptance or rejection of the hypotheses associated with the variable. The t-value of FCF was 2.5406 which was more than standard value i.e. absolute 2. The higher standard value of FCF showsthat the FCF has significant effects on the stock return.

The coefficient value of agency cost in the table shows that the agency has be positively related with stock return. The results of above study suggested that when the firm is having higher values of sales then the firm have more funds to invest and also has more revenues in the market and which increased the SR in the market as more investors has been attracted to the firm which increased the firm share price. The positive association of agency cost with the stock return can be seen in the positive value of beta 0.563492 which means that the stock return of the sample firms increased by 0.563492 units when the agency cost has been increased. This means that when the agency cost has been increased then it increased the stock return. The t-value in the table can be used for the acceptance or rejection of the hypotheses associated with the variable. The t-value of agency costs 0.6129 which is less than the standard value i.e. absolute 2. The lower value of agency cost shows that it has insignificant effects on the stock return.

The coefficient value of firm size in the above table present that the firm size has positively related to stock return. The findings suggested when the firm size is increased the it has increased stock return because large firm have more cash and they invest in higher assets then they get more revenues and increased performance in the market which has increased the stock return. The positive association of firm size with the SR can be seen in the positive value of beta 67.7403 which means that the SR of the sample firms will be increased by 67.7403 units when the firm size has been increased. This means that when the firm size has been increased then it increased the SR. The t-value in the table can be used for the acceptance or rejection of the hypotheses associated with the variable. The t-value of firm size was 2.5690 which was more than the standard value i.e. absolute 2. The greater value of firm size shows that it has significant effects on the SR.

The coefficient value of the leverage in the table exhibit that the leverage has negative associated with the SR. The findings suggested that when the firm is having higher debt financing then they have more payment in the interest which can has negative effects on the shareholders in the market which lead to divert the investorsfunds to another firm which has negative effects on the SR. The negative association of leverage with the SR can be seen in the negative value of beta -0.608333 which means that the SR of the sample firms decreased by -0.608333 units when the leverage has been increased. This means that when the leverage has been increased then it decreased the SR. The t-value in the table can be used for the acceptance or rejection of the hypotheses associated with the variable. The t-value of debt was is -1.0295 which was less than the standard value i.e. absolute 2. The higher value of leverage shows that it has insignificant effects on the SR.

4.11 Fixed Effect Model

Table 4.10Fixed-Effect Model

Stock Return	Coefficient	Std. Error	t-ratio	p-value	
Const	-468.608	193.601	-2.4205	0.01657	**
FCF	5.50026e-06	7.26313e-06	0.7573	0.44995	
TATO	0.234572	1.03958	0.2256	0.82176	
Size	91.5796	31.4365	2.9132	0.00407	**
Lev	-0.192359	0.405973	-0.4738	0.63624	

Dependent variable: Stock Return

R-squared	0.651776	Adjusted R-squared	0.605903
F(22, 167)	14 .20804	P-value(F)	7.02e-28

*** p<0.01, ** p<0.05, * p<0.1

The results of above table disclose the results of FCF and TATO on stock return.. The model has been found significant because it essential to estimate the variance explained by the FCF, TATO, firm size and leverage in the Tobin Q,s of the sample companies taken in the study. The value of R-square which was calculated the variation explained in dependent variable due to independent variable. The value of R-square .651 which suggested that FCF, TATO, firm size and leverage have explained 65 percent effects stock return. The value explained that the FCF, TATO, firm size and leverage are having 65 percent effects on the SR. Another significant estimation was made by the f-value which was used to measure the statistical significance of the model. The standard value of regression estimation is 4. The f-value in the model was14.20 which has been found greater than standard and investigate that the preferred model has been found significant. The

value of p in the model is .00 which is also less than the standard which confirms that the overall model was significant.

The above table display the coefficient value of FCF to examined the relationship of FCF with stock return was positive. The findings suggested that firm is having positive FCF then the firm have more funds to invest in the market and which has increased the stock return in the market as more investorsattracted to the firm which has increase the firm share price. The positive relationship of FCF with the stock return can be seen in the positive value of beta 5.50026e-06 which means that the stock return of the sample firms has been increased by 5.50026e-06 units when the FCF has been increased. It means that when FCF has been increased then it has increased the stock return. The t-value in the table can be used for the acceptance or rejection of the hypotheses associated with the variable. The t-value of FCF was 0.7573 was lower than standard value i.e. absolute 2. The higher standard value of FCF show that the free cash flow has insignificant effects on SR.

The coefficient value of the agency cost in the table present that the agency cost can be positively associated with the stock return. The results shows that when the firm is having higher values of sales then the firm have more funds to invest and also will have more revenues in the market and which increased the stock return in the market as more investors has beenattracted to the firm which increased the firm share price. The positive association of agency cost with the stock return can be seen in the positive value of beta 0.234572 which means that stock return of the sample firms increased by 0.234572 units when the agency costhas been increased. This means that when the agency cost has been increased then it increased the SR. The t-value in the table can be used for the acceptance or rejection of the hypotheses associated with the variable. The t-value of agency costs was 0.2256 was less than the standard value i.e. absolute 2. The lower value of agency cost shows that it has insignificant effects on the SR.

The coefficient value of firm size in the table shows that firm has positively associated with the stock return. The findings suggested that when the firm is having higher assets then they have more funds to invest and have more revenues in the market and which increased the stock return. The positive association of firm size with the stock return can be seen in the positive value of beta 91.5796 which means that the stock return of the sample firms increased by 91.5796 units when the firm size has been increased. This means that when the agency costhas been increased then it will increase the SR. The t-value in the table can be used for the acceptance or rejection of the hypotheses associated with the variable. The t-value of firm size was 2.9132 was more than the standard value i.e. absolute 2. The lower value of firm size shows that it has significant effects on the SR. The findings of the above stated variable has been found consistent with the study of Sadaf, (2016).

The coefficient value of debt in above results present leverage can be negative associated with the SR. The findings suggested that when the firm is having higher debt financing then they will have more payment in the interest which can have negative effects on the shareholders in the market which lead to divert the investors funds to another firm which will have negative effects on the SR. The negative association of leverage with the SR can be seen in the negative value of beta -0.192359 which means that the SR of the sample firms decreased by -0.192359 units when the leverage has been increased. This means that when the leverage has been increased then it decreased the SR. The t-value in the table can be used for the acceptance or rejection of the hypotheses associated with the variable. The t-value of debt was -0.4738 was less than the standard value i.e. absolute 2. The higher value of leverage shows that it has insignificant effects on the SR.

4.12 Firm Value

Firm value is another dependent variable of this study whose significance can be determined through inferential statistics.

Table 4.11Pearson Correlation

Variable	FV	FCF	AC	SZ	LEV
FV	1.0000				
FCF	0.1355	1			
AC	-0.1467	0.0516	1		
SZ	0.1993	-0.3350	-0.6128	1	
LEV	-0.0487	-0.0032	-0.0831	0.0808	1

The above table result shows Pearson Correlation model which has been selected for the estimation of relationship between the study variables. The findings suggest that Tobin Q,s was related positively with FCF, negatively related with TATO, firm size has positively correlated with Tobin Q,s and debt was negatively correlated with Tobin Q,s.

4.13 Pooled OLS

Table 4.12Pooled OLS

Tobin Q,s	Coefficient	Std. Error	t-ratio	p-value	
Const	-166.651	70.3813	-2.3678	0.01892	**
FCF	1.24139e-05	4.06491e-06	3.0539	0.00259	***
TATO	0.0612303	0.393655	0.1555	0.87656	
Firm Size	34.2136	11.2897	3.0305	0.00279	***
Leverage	-0.252745	0.25299	-0.9990	0.31908	

Dependent variable: Firm Value

R-squared	0.090935	Adjusted R-squared	0.071280
F(4, 185)	4.626458	P-value(F)	0.001392

*** p<0.01, ** p<0.05, * p<0.1

The results of above table pooled OLS model was used to evaluate the influence of FCF and TATO on the Tobin Q,s. The model has been found significant because estimation of variancewas explained by the FCF, TATO, firm size and leverage on Tobin Q,s of the sample firms taken in the study. The value of R-square was used to calculate the variations explained in dependent variable due to independent variable. The value of R-square .0909 which suggested that FCF, TATO, firm size and leverage have explained 9 percent influence the Tobin Q,s. The value explained that the FCF, TATO, firm size and leverage are having 9 percent effects on the Tobin Q,s. Another significant estimation was made by the f-value which was used to measure the significance of the model. The standard value of regression estimation is 4. The f-value in the model was 4.626 which has been found more than the standard and concluded that the selected model has been found

statistically significant. The value of p in the model was .0013 was also less than the standard i.e less than 0.05 which confirms that the overall model was significant.

The coefficient value of FCF in table exhibit that the FCF have positively associated with the Tobin Q,s. The findings suggested the firm is having positive FCF then the firm have more funds to invest in the market and which has increase the Tobin Q,s in the market as more investors attracted to the firm which has increased the firm share price. FCF has positively related to Tobin Q,s can be seen in the positive value of beta 1.24139e-05 which means that the Tobin Q,s of the sample firms has increased by 1.24139e-05 units when the FCF has been increased. This means that when the FCF has been increased then it will increase the Tobin Q,s. The t-value in the table can be used for the acceptance or rejection of the hypotheses associated with the variable. The t-value of FCF was 3.0539 was more than the standard value i.e. absolute 2. The higher standard value of FCF shows that the FCF has significant effects on the Tobin Q,s.

The coefficient value of the agency cost in the table lie that the agency have positively associated with the Tobin Q,s. The findings suggested that when the firm is having higher values of asset then the firm have more funds to invest and also will have more revenues in the market and which increased the Tobin Q,s in the market as more investors will be attracted to the firm which increased the firm share price. The positive association of agency cost with the Tobin Q,s can be seen in the positive value of beta 0.0612303 which means that the Tobin Q,S of the sample firms increased by 0.0612303 units when the agency costhas been increased. This means that when the agency cost has been increased then it will increase the Tobin Q,s. The t-value in the table can be used for the acceptance or rejection of the hypotheses associated with the variable. The t-value of agency costs 0.1555 which is less than the standard value i.e. absolute 2. The lower value of agency cost shows that it has insignificant effects on the Tobin Q,s.

The coefficient value of firm size in the above table declared the positive relation of firm size with the Tobin Q,s. The outcomes of study find that when the size of firm was large so it have more opportunities to invest in different projects and value of firm increase and more external investors attracted. The positive association of firm size with the Tobin Q,s can be seen in the positive value of beta 34.21 which means that the Tobin Q,s of the sample firms has be increased by 34.21 units when the firm size has been increased. This means that when the firm size has been increased then it increased the Tobin Q,s. The t-value in the table can be used for the acceptance or rejection of the hypotheses associated with the variable. The t-value of firm size was 3.03 was more than the standard value i.e. absolute 2. The lower value of firm size shows that it has significant effects on the Tobin Q,s.

The coefficient of the leverage in the above table concluded that the leverage have negative associated with the Tobin Q,s. The findings suggested that when the firm is having higher debt financing then they have more payment in the interest which can have negative effects on the shareholders in the market which lead to divert the investorsfunds to another firm which has negative effects on the Tobin Q,s. The negative association of leverage with the Tobin Q,s can be seen in the negative value of beta -0.252745 which means that the Tobin Q,S of the sample firms decreased by -0.252745 units when the leverage has been increased. This means that when the leverage has been increased then it decreased the Tobin Q,s. The t-value in the table can be used for the acceptance or rejection of the hypotheses associated with the variable. The t-value of leverage was -.9990 was less than the standard value i.e. absolute 2. The lower value of leverage shows that it has insignificant effects on the Tobin Q,s.

4.14 Fixed Effect Model

Table 4.13Fixed Effect Model

Tobin Q,s	Coefficient	Std. Error	t-ratio	p-value	
Const	-65.0502	129.617	-0.5019	0.61642	
FCF	3.33156e-06	1.74618e-06	1.9079	0.05812	*
TATO	0.059581	0.114648	0.5197	0.60397	
Size	17.0695	21.2602	0.8029	0.42318	
Lev	-0.0423027	0.0421177	-1.0044	0.31664	

Dependent variable: Firm Value

R-squared	0.714178	Adjusted R-squared	0.676525
F (22, 167)	18.96729	P-value(F)	1.19e-34

*** p<0.01, ** p<0.05, * p<0.1

The above table present the results of fixed effect model to declared the influence FCF and TATOon the Tobin Q,s. The model has been found significant because the estimation of the variance explained by the FCC, TATO, firm size and leverage in the Tobin Q,s of the sample firms taken in the study. The value of R-square which can be used to measure the variations explained in dependent variable due to independent variable. The value of R-square .714 which suggested that FCF, TATO, firm size and leverage have explained 71 percent effects in the Tobin Q,s. The value explained that the free cash flow, agency cost, firm size and leverage are having 71 percent effects on the Tobin Q,s. Another significant estimation was made by the f-value which was used to measure the significance of the model. The standard of this value in the regression estimation is 4. The f-value in the model is 18.96 which has been found higher than standard and investigated that the

preferred model has been found significant. The p-value of the model was .0013 was also less than the standard which confirms that the overall model was significant.

The coefficient value FCF in table present that FCF have positively associated with the Tobin Q,s. The results determine that when the firm is having positive FCC then the firm have more funds to invest in the market and which has increase the Tobin Q,s in the market as more investors be attracted to the firm which has increase the firm share price. The positive relation of free cash flows with the Tobin Q,s can be seen in the positive value of beta 3.33156e-06 which means that the Tobin Q,s of the sample firms will be increased by 3.33156e-06 units when the free cash flow has been increased. when FCF of company has been increased then it has increase the Tobin Q,s. The t-value in the table can be used for the acceptance or rejection of the hypotheses associated with the variable. The t-value of FCF was 1.9079 was more than the standard value i.e. absolute 2. The higher standard value of FCF show that the FCF has significant effects on the Tobin Q,s.

The coefficient value of the agency cost in table present the relationship of agency cost was positive with Tobin Q,s .The outcomes of the study is that when the firm is having higher values of sales then the firm have more funds to invest and also will have more revenues in the market and which increased the Tobin Q,s in the market as more investors will be attracted to the firm which increased the firm share price. The positive association of agency cost with the Tobin Q,s can be seen in the positive value of beta 0.059581 which means that the Tobin Q,s of the sample firms increased by 0.059581 units when the agency costhas been increased. This means that when the agency costhas been increased then it will increase the Tobin Q,s. The t-value in the table can be used for the acceptance or rejection of the hypotheses associated with the variable. The t-value of agency costs 0.5197 which is less than the standard value i.e. absolute 2. The lower value of agency cost shows that it has insignificant effects on the Tobin Q,s.

The coefficient value of firm size in the table shows that the firm size has positively related the Tobin Q,s. According to results of above table show that firm size increases so the value of firm also increases. The positive association of firm size with the Tobin Q, can be seen in the positive value of beta 17.0695 which means that the Tobin Q,s of the sample firms has been increased by 17.0695 units when the firm size has been increased. This means that when the firm size has been increased then it increased the Tobin Q,s. The t-value in the table can be used for the acceptance or rejection of the hypotheses associated with the variable. The t-value of firm size was 0.8029 was less than the standard value i.e. absolute 2. The lower value of firm size shows that it has insignificant effects on the Tobin Q,s.

The coefficient value of debt in above table presents that leverage has negative associated with the Tobin Q,s. The results concluded that when the firm is having higher debt financing then they have more payment in the interest which can have negative effects on the shareholders in the market which lead to divert the investorsfunds to another firm which has negative effects on the Tobin Q,s and may led decrease the value of firm. The negative association of leverage with the Tobin Q,s can be seen in the negative value of beta -0.0423027 which means that the Tobin Q,s of the sample firms will be decreased by -0.0423027 units when the leverage has been increased. This means that when the leverage has been increased then it decreased the Tobin Q,s. The t-value in the table can be used for the acceptance or rejection of the hypotheses associated with the variable. The t-value of debt was -1.0044 was less than the standard value i.e. absolute 2. The lower value of leverage shows that it has insignificant effects on the Tobin Q,s.

4.15 Discussion

Minton and Schrand (1999) shows that higher cash flow volatility is associated with lower average levels of investment in capital expenditures(R&D and advertising), this

association suggests that the firms have not used external capital markets to fully cover cash flow shortfalls but rather permanently forgo investment. Gui and Tsui(1998) also examine the association between FCF and market identified by Jensen(1986) as sources of agency problems for low growth firms; FCF defined as the cash flow in excess of that required to fund positive-net-present-value project that is not paid out in dividends. According to Jensen (1986, 1989), managers of low growth/high FCF firms are involved in non-value-maximizing activities. More importantly, the interaction between FCF and debt was significant in the redirected direction.The recent study outcomes consistent as above discussion.

FCF is considered to be cash in excess of what is required to fund all of the firms' projects having positive net present values whereas such cash flow is supposed to be paid to the shareholders if the firm wishes to remain efficient for a longer time. On the contrary this type of payment can minimize the resources under the control of the managers. (Jensen M. , 1999). According to Emenyi (2013), agency costs could be occurred in the decline of productivities, loss of firms worth and free cash flow inefficiencies. Based on the agency theory which stated by Jensen and Meckling (1967), zero agency cost could be incurred only in the firm that is possessed solely by a single proprietor.The concept of agency costs is based on the premises of existence of conflict of interest between the management and stockholders. The divergence of the interests of the management and the shareholders may lead to inefficiency in management and, hence, it becomes necessary for the shareholders to find ways of monitoring and minimizing such divergence. It was argued that too much of FCF leads to agency cost due to internal wasteful use of corporate resources. Studies attributed the failure of the US companies to meet the return on investment criteria in 1986 mainly to FCF (Jensen, 1986; Jensen, 1993)

Further, researchers commented that abuse of FCF in the hands of managers influence stock valuation and corporate profitability negatively (Chung et al., 2005). However, all empirical research does not support the positive relation between FCF and agency costs. After the data of public listed companies on Taiwan Stock Exchange were examined, it was concluded that there is a significant effect of FCF on agency costs but the direction of the effect may vary (Wang, 2010). The results of study consistent to above study.

According to Jensen (1986, 1989), managers of low growth/high FCF firms are involved in non-value-maximizing activities. More importantly, the interaction between FCF and debt is significant in the redirected direction. Jensen (1986, 1989) also debated that some low growth/high FCF firms issue debt to restrict the FCF firm problem. Sadaf, (2016) demonstrated further, in the theory of the free cash flow hypothesis for the Sales Growth and Firm performance determined the relationship between free cash flows and sales growth of the companies' performance, it mentioned in particular that the companies with more free cash flows makes the management to have better adjustment and setting the negative effects of free cash flows on companies performance off. This altogether provides higher sales growth thus it shows that there is a positive relationship between free cash flow and sales growth contributing to profitability of the firm

According to the FCF hypothesis and the agency theory, FCF and agency costs had a negative impact on firm performance. Recent empirical studies also supported this argument Lang et al.,(2017) examined 101 merger cases and found that free cash flows might deteriorate the q ratio of a firm in mergers and acquisitions. As stated by Baker and Anderson (2010), moneychangers face the difficulties of agency issues in ensuring that the firm's funds are being used in proper ways and not spent on the worthless projects. This may strongly increase the agency costs in which would eventually lead to decrease in the firm's earnings. Since the firm's shareholders expect to earn higher financial returns from

the equity investments of its proprietary, agency costs could assist the shareholders in mitigating the agency issues.

On the one hand, there may be an increase in agency costs, while, on the other hand, there may be a decrease due to increases in the operational efficiency. Further, positive impact may be due to the increase in investment opportunities for the idle cash, which results in increased value for the firm. Similar results were reported by several other authors as well (Gregory, 2005). Also, the FCF calculation process is criticized for its lack of accounting precision. The results is same as above discussion.

Nozari (2016) investigate the influence of financial leverage on agency cost of free cash flow. The study was selected Manufacturing listed companies in Tehran Stock Exchange (Iran). The study was target of 80 companies for the period 2007-2012 to analyze the result. To measure the financial leverage the study was used to measure two proxies ratio of debt to shareholders equity and ratio of long run debt. To calculate the free cash flow as calculated by Utami et al(2011). The study was used calculation to measure financial leverage used by Khan et al (2012). The control variables of study was firm size and profitability and investment and growth opportunity. By Jensen free cash flow theory proposed that agency cost of firms in which free cash flow is in huge amount and due to agency cost the value of decrease. The outcomes of study show that significant and negative effect of ratio of debt to shareholders equity and ration of long run debt on agency cost of free cash flow. Financial leverage effect Tobin Q,s because high amount of debt influence firm performance. The results findings consistent to above study results.

Ali, Ormal, Ahmad,(2018) studied to analyze the influence of FCF on “firm performance”. This study was descriptive mode to analyzed the impact. The study taken data of automotive sector of Germany. The study targets large firms within the automotive industry. The study was used random sampling technique. The study was used secondary

data to evaluate the influence of FCF on company profitability. The study was selected large firms of Germany for the period 2007 - 2016. The results of study shows that there FCF and firm profitability was significantly and positive related. The study findings shows the effect of debt on (ROA) was inverse and insignificant. Firm performance was calculated by using (ROA). “Regression model” was used in study. Panel data was used and many statistical test was used to analyze the results.. The paper also tests different proxies i.e sales growth, firm size, debt, current asset, capital liquidity and FCF”

Every organization aim to enhance their Tobin Q,s. Accordingly, investor, s Tobin Q,s may key of success of organization. Therefore, many earlier literatures show that free cash flow effect Tobin Q,s. Because managers used (FCF) in non profitable projects.or used for its personal use. Which create agency problem in firm and effect Tobin Q,s. Accordingly some studies if excess cash is present in firm it boost Tobin Q,s, some studies initiate that Tobin Q,s decrease due to high (FCF) in company. But still there was doubt that FCF effect Tobin Q,sor not. The study focused on “Manufacturing listed firms in Indonesia Stock Exchange”. The study was taken 303 companies data from 2012 to 2014. Profita&Ratnaningsihconcluded that FCF has no positive impact on Tobin Q,s. If free cash flow utilized for profitable activities may be free cash flow not influence Tobin Q,s In every organization need competent managers who have ability to used excess cash in value enhancement operations and not used excess cash flow in unprofitable operations which effect Tobin Q,s. Tobin Q,s is important factor and managers need to enhance because its associate with company. Managers play important role to increase firm value so used(FCF)in valuable projects and also sincere towards shareholders and give free cash flow as a awards to shareholders and boost their worth to enhance Tobin Q,s. The recent study outcomes was consistent to above study.

CHAPTER NO 5

FINDINGS, CONCLUSION & FUTURE DIRECTIONS.

The final chapter of this study declared the conclusions of study the conclusion part present the whole study results, the recommendations of study for future study for those whose further check the effect of FCF and TATO by using different proxies. This chapter declared findings of the study and discuss outcomes of the study. The limitations of study also mention in this section.

5.1 Conclusion.

Every company wants to enhance their performance. The study examines the impact FCF and TATO on firm performance. The main objectives of study wasto examine the effect of FCF and TATO on firm performance and the relationship of FCF and TATO with firm performance. The study has been taken chemical sector companies listed in Stock Exchange of Pakistan (PSX). The study has been taken 29 listed companies as a population, but study selected only 19 companies as a sample listed in (PSX) because some variables data was not present in company annual reports. Secondary data has been used for the time 2008 to 2017. Panel data has been used to analyze the results. Gretel was used in this study. Regression and Pooled OLS was used to find the association of"dependent and independent variables". The independent variables of the study was FCF and TATO. FCF was calculated as by Lehn and Poulsen (1998). Agency cost measured by using seven proxies as by Wang (2010). But the study has been used total asset turnover by total sales

other proxy has not taken in this study because unavailability of data. Debt and firm size was control variables of study. Firm size was calculating by taking log of total sales while leverage measured total debt by total equity.

The findings of study concluded that FCF and TATOhave positive significant effect on firm performance. “ROA, ROE, Firm size and Stock return”. The findings of FCF variable was positive significant relationship with Tobin Q,s.(Minton &Schrand) while relationship of agency cost was insignificant but positive with Tobin Q,s. In contrast , FCF was positive but insignificant associated with ROA (Emenvi 2013)and agency cost was positive but insignificantly related with ROA. FCF was positive significantly associated with ROE(Lang et al 2017) and agency cost was positive but insignificant associated with ROE. The relationship of FCF on stock return was positive (Gregory 2005). But agency cost was positive but insignificant. Hence TATO has positive association with firm performance. The agency cost has must negative association with firm performance except TATO. The argument proposed by (Fama and French 2007). The study used total asset turnover(TATO) by total sales which determine positive relation with firm performance. The study recommend that agency cost measured by using other proxies expense to total asset or R&D and administrating expenses. The study also recommended that to calculate free cash flow used other approach or adopt other proxies.

5.2 Recommendations for Future Research

- The present paper has used a single proxy for the measurement of FCF. It is recommended that the study can also be conducted by adopting other proxies for the FCF.
- The agency cost has been measured by sales to assets ratio, the study suggested study can also be conducted by adopting other proxies i.e operating expenses to total assets etc.

- The present study has used the ROA, ROE, Stock return and Tobin Q,s as the proxy for the performance, it is recommended that the study can also check the other proxies of performance i.e. return on investment, share prices etc. Another study in future can also be conducted by taking the comparison of multiple sectors as well.
- The study has used limited number of companies from chemical sector while in free study can also be conducted by taking PSX-100 index.
- The management should try to invest in the projects which have low interest rate and having positive net present value so that the firm can get cash in positive circulations.
- The agency cost of company which can be related to firm's transactions and maintaining of the expenses must be controlled so that the firm should have enough sources with low cost to have lower agency cost.

5.3 Limitations of Study

The current study organized a very limited scale. The current study has worked in non-financial sector but cannot implemented in financial sector. In nonfinancial sector the study helped in chemical sector. The study scope was limited to only 19 companies in Pakistan stock exchange(PSX). In this study 19 company's data was collected to analyzed the data, some variables data was not available that's why research has certain limitations.

REFERENCES

Abdullah, F., Shah, A., & Khan, S. U. (2012). Firm performance and the nature of agency problems in insiders-controlled firms: Evidence from Pakistan. *The Pakistan Development Review*, 161-182.

Abor, J. (2005). The effect of capital structure on profitability: an empirical analysis of listed firms in Ghana. The Journal of Risk Finance, 6(5), 438-445.

Abor, J. (2008). Determinants of the capital structure of Ghanaian firms (No. RP_176). Nairobi: African Economic Research Consortium.

AchjenLachheb ,Chokri Slim , (2017) " The Impact of Free Cash Flow and Agency Costs on Firm Performance " , *International Journal of Management and Applied Science (IJMAS)* , pp. 94-101, Volume-3,Issue-7

Aiyegbusi, O. O., &Akinlo, A. E. The effect of cash holdings on the performance of firms in Nigeria: evidence from generalized method of moments (GMM).

Akinleye, G. T., Olarewaju, O. M., &Fajuyagbe, K. S. (2018). Free Cash Flow and Firms' Growth: An Empirical Investigation of Nigerian Quoted Non-Financial Firms. *Journal of Economics and Behavioral Studies*, *10*(3), 258-267.

Akinleye, G. T., Olarewaju, O. M., &Fajuyagbe, K. S. (2018). Free Cash Flow and Firms' Growth: An Empirical Investigation of Nigerian Quoted Non-Financial Firms. *Journal of Economics and Behavioral Studies*, *10*(3), 258-267.

Akumu, o. C. Effect of free cash flow on profitability of firms listed on the nairobi securities exchange.

Al Zararee, A. N., & Al-Azzawi, A. (2014).The impact of free cash flow on market value of firm. *Global Review of Accounting and Finance*, *5*(2), 56-63.

Ali, M. U., Ormal, M. L., & Ahmad, M. F. Impact of Free Cash Flow on Profitability of the Firms in Automobile Sector of Germany.

Alzharani, A. M., Che-Ahmad, A., &Aljaaidi, K. S. (2012). Factors associated with firm performance: empirical evidence from the Kingdom of Saudi Arabia. *Accounting & Taxation*, *4*(2), 49.

ATUMWA, E. C. (2013). *Relationship between agency cost and leverage for companies listed at the Nairobi Securities Exchange* (Doctoral dissertation, Doctoral Dissertation, School Of Business, University Of Nairobi).

Awuah-Agyeman, D. (2016). *Assessing the impact of capital structure on profitability of manufacturing industry in Ghana: A case study at selected firms* (Doctoral dissertation).

Beigbaghlu, L. G., Aslani, A., &Khodabakhshi, N. (2014).The Effect of Firm Growth Opportunities and Earnings Permanence on the Free Cash Flow Returns at Petroleum Industry in Iran. *International Journal of Accounting Research*, *42*(1484), 1-6.

Berger, P. G., &Hann, R. N. (2007).Segment profitability and the proprietary and agency costs of disclosure. The Accounting Review, 82(4), 869-906.

Betzer, A. (2006). Does Jensen's Free Cash Flow Hypothesis Explain European Lbos Today?.

Bhatti, I., &Sajid, M. (2014). The Impact of Free Cash Flows and Agency Costs on Firm Performance: Empirical Evidence from KSE 100 Index of Pakistan. *Available at SSRN 3008871*.

Brush, T. H., Philip B. and Margaretha H. (2000).The Free Cash Flow Hypothesis for Sales Growth and Firm Performance. Strategic Management Journal, 21, 455-472.

Cheng, Z., Cullinan, C. P., & Zhang, J. (2014). Free Cash Flow, Growth Opportunities, And Dividends: Does Cross-Listing Of Shares Matter?. *Journal of Applied Business Research*, *30*(2), 587.

Chepkwony, C. C. (2014). The relationship between free cash flows and stock returns of firms listed at the Nairobi securities exchange.

Crutchley, C. E., Jensen, M. R., Jahera, J. S., & Raymond, J. E. (1999). Agency problems and the simultaneity of financial decision making: The role of institutional ownership. International review of financial analysis, 8(2), 177-197

Doğan, M. (2013). Does firm size affect the firm profitability? Evidence from Turkey. *Research Journal of Finance and Accounting*, *4*(4), 53-59.

Fama, E. F., & French, K. R. (2007).Disagreement, tastes, and asset prices. *Journal of financial economics*, *83*(3), 667-689.

Frank, B. P., & James, O. K. (2014). Cash Flow and Corporate Performance: A Study of Selected Food and Beverages Companies in Nigeria. *European Journal of Accounting Auditing and Finance Research*, *2*(2), 77-87.

Gregory, G(2005). The Long run abnormal Performance of UK acquires and the free cash flow hypothesis, Journal of Business finance & Accounting 32,777-814

Guda, D. O. (2013). The Relationship Between Cash Flow and Profitability of Small and Medium Enterprises in Nairobi Country. *A Research Project Presented in Partial Fulfilment of The Requirement for The Award of The Degree of Master of Business Administration, University of Nairobi*.

Habib, A. (2011). Growth opportunities, earnings permanence and the valuation of free cash flow. *Australasian Accounting, Business and Finance Journal*, *5*(4), 101-122.

Hau, L. L. (2017). Free Cashflow and Firm Performance: Evidence from Sectoral levels for Vietnamese Listed Firms. *International Journal of Advanced Engineering, Management and Science*, *3*(4), 296-300.

Heydari, I., Milad, M., &Javadghayedi, M. (2014). Investigating the relationship between free cash flows and firm

Heydari, I., Milad, M., &Javadghayedi, M. (2014). Investigating the relationshipbetween free cash flowsandfirm performance: evidencefromtehran stock exchange. *Indian J. Sci. Res*, *4*(6), 269-279.

Hong, Z., Shuting, Y., &Meng, Z. (2012). Relationship between free cash flow and financial performance evidence from the listed real estate companies in China. *IPCSIT*, *36*, 331-335.

Hong, Z., Shuting, Y., &Meng, Z. (2012). Relationship between free cash flow and financial performance evidence from the listed real estate companies in China. *IPCSIT*, *36*, 331-335.

Iftikhar, R. M. Impact of cash holding on firm performance: A case study of non-financial listed firms of KSE.

Iqbal, A., Mulani, J., &Kabiraj, S. (2013). Leverage, Size of the Firm and Profitability: A Case of Pakistani Cement Industry. International Journal of Business Insights and Transformation, 7(1), 16-22.

Jabbary, H., Hajiha, Z., &Labeshka, R. H. (2013). Investigation of the effect of agency costs on firm performance of listed firms in Tehran Stock Exchange. *European Online Journal of Natural and Social Sciences*, *2*(3 (s)), pp-771.

Jensen, M. C. (1986). Agency costs of free cash flow, corporate finance, and takeovers. The American economic review, 76(2), 323-329.

Jensen, M. C., &Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of financial economics*, *3*(4), 305-360.

Jiang, H., Habib, A., &Smallman, C. (2009).The effect of ownership concentration on CEO compensation-firm performance relationship in New Zealand. *Pacific Accounting Review*, *21*(2), 104-131.

Kadioglu, E., Kilic, S., &Yilmaz, E. A. (2017). Testing the Relationship between Free Cash Flow and Company Performance in Borsa Istanbul. *International Business Research*, *10*(5), 148-158.

Kamran, M. R., Zhao, Z., &Ambreen, S. (2017). Free Cash Flow Impact on Firm's Profitability: An Empirical Indication of Firms listed in KSE, Pakistan. *European Online Journal of Natural and Social Sciences*, *6*(1), pp-146.Lau, K. F., Kuek, S. M., Lee, C. Y., Lim, S. N., & Tan, C. H. (2017). *The Impact of Capital Structure and Agency Costs on Firm's Profitability of Industrial Sector in Malaysia* (Doctoral dissertation, UTAR).

Kargar, E. F., &Ahmadi, G. R. (2013). The relationship between free cash flows and agency costs levels: Evidence from Tehran stock exchange. *Research Journal of Finance and Accounting*, *4*(14), 51-65.

Karpavicius, S., & Yu, F. (2012). A test of the free cash flow hypothesis: the impact of increased institutional holdings on firm characteristics. *Social Science Research Network (SSRN), http://www. ssrn. com*.

Khidmat, W. B., &Rehman, M. U. (2014). The impact of free cash flows and agency costs on firm performance—An empirical analysis of KSE listed companies of Pakistan. Journal of Financial Engineering, 1(03), 1450027.

KHWAJA, H., ASIF, M., & WALI, S. (2016). IMPACT OF FREE CASH FLOWS AND AGENCY COSTS ON FIRM'S PERFORMANCE: A CASE STUDY OF PAKISTAN'S CEMENT SECTOR. *Journal of Global Economics, Management and Business Research*, 24-31.

Lang, L., Poulsen, A., &Stulz, R. (1995).Asset sales, firm performance, and the agency costs of managerial discretion.Journal of financial economics, 37(1), 3-37. 13

Le Long Hau(2017).Free cashflow and firm performance: Evidence from sectoral levels for Vietnamese listed firms. *International Journal of Advanced Engineering, Management and Science(ISSN: 2454-1311)*,3(4), 296-300. http://dx.doi.org/10.24001/ijaems.3.4.2

Lin, L., & Lin, D. (2014).Agency Costs of Free Cash Flow and Bidders' Long-run Takeover Performance. Universal Journal of Accounting and Finance, 2(1), 1-8. Brush, T. H., Bromiley, P., &Hendrickx, M. (2000). The free cash flow hypothesis for sales growth and firm performance. Strategic Management Journal, 455-472

Maksy, M. M. is free cash flow value relevant? The case of the US consumer staples industry sector.

Manian, F., &Fathi, Z. (2017). Studying the relationship between free cash flows and performance prediction in the corporations of accepted in tehran stock exchange. *Revista QUID, 1*(1), 2274-2282.

Minton, B. A., &Schrand, C. (1999).The impact of cash flow volatility on discretionary investment and the costs of debt and equity financing. *Journal of Financial Economics, 54*(3), 423-460.

Modigliani, F., & Miller, M. H. (1958).The cost of capital, corporation finance and the theory of investment.The American economic review, 48(3), 261-297.Gul, F. A., &Tsui, J. S. (2001). Free cash flow, debt monitoring, and audit pricing: Further evidence on the role of director equity ownership. Auditing: A Journal of Practice & Theory, 20(2), 71-84.

Muchugia, L. M. (2013). The effect of debt financing on firm profitability of commercial banks in Kenya. *Unpublished MBA project, University of Nairobi*.

Muchugia, L. M. (2013). The effect of debt financing on firm profitability of commercial banks in Kenya. *Unpublished MBA project, University of Nairobi*.

Ngoc, N. B. (2014). *Impact of agency cost on firm performance: Case of listed firms on Ho Chi Minh city stock exchange (HOUSE)* (Doctoral dissertation, International University HCMC, Vietnam).

Nobanee, H., & Abraham, J. (2017).The Impact of Free Cash Flow, Equity Concentration and Agency Costs on Firm's Profitability.

Noravesh, I., Karami, G. R., &VafiSani, J. (2009). To study the relationship between Corporate Governance Mechanism and Agency Costs. Accounting Research Journal, (1), 4-27.

Nozari, a. (2016). The impact of financial leverage on agency cost of free cash flows in listed manufacturing firms of Tehran Stock Exchange. *Turkish online journal of design art and communication, 6*, 1920-1927.

NurSyuhadaWahida, O. (2014). *Agency costs and corporate performance: Analysis of public listed companies in Bursa Malaysia* (Doctoral dissertation, Universiti Utara Malaysia).

Palacios Marqués, D., & José GarrigósSimón, F. (2006). The effect of knowledge management practices on firm performance. *Journal of knowledge management*, *10*(3), 143-156.

Powella, D., &Rappb, M. S. Cash holdings, agency conflicts and the performance of listed family firms in Germany.

Profita, A. S. K., &Ratnaningsih, D. THE IMPACT OF FREE CASH FLOW ON THE FIRM VALUE.

Profita, A. S. K., &Ratnaningsih, D.The impact of free cash flow on the firm value.

Rostamlu, A., Pirayesh, R., &Hasani, K. (2016). The Effect of Free Cash Flow-based Agency Costs on Dividends in Companies Listed on the Tehran Stock Exchange (TSE). *Mediterranean Journal of Social Sciences*, *7*(4 S2), 131.

Salawu, R. O. (2009). The effect of capital structure on profitability: An empirical analysis of listed firms in Nigeria. International Journal of Business and Finance Research, 3(2), 16-18

Shubita, M. F., &Alsawalhah, J. M. (2012).The relationship between capital structure and profitability. *International Journal of Business and Social Science*, *3*(16).

Tifow, A. A., &Sayilir, O. (2015). Capital Structure and Firm Performance: An Analysis of Manufacturing Firms in Turkey. Eurasian Journal of Business and Management, 3(4), 13-22.

Titman, S., &Wessels, R. (1988). The determinants of capital structure choice. *The Journal of finance*, *43*(1), 1-19.

Twairesh, A. E. M. (2014). The Impact of Capital Structure on Firm's Performance Evidence from Saudi Arabia. *Journal of Applied Finance and Banking*, *4*(2), 183.

Wang, G. Y. (2010). The Impacts of Free Cash Flows and Agency Costs on Firm Performance.

Xiao, S., & Zhao, S. (2009). How do agency costs affect firm value? Evidence from China. *Journal of economic literature*.

Yero, J., &Hamman, A. M. (2017). Test Of Free Cash Flow Hypothesis: Evidence From Nigerian Quoted Food & Beverages Firms.

Zaheer, S. (2017).The Effect of Excess Cash Holding on the Value of the Firm and Stock Returns.