ABSTRACT

This study has been conducted to find out the impact of firm diversification and cash flow volatility on investment cash flow sensitivity, ICFS of non-financial 102 firms. Data has been analyzed for the period of 2011 to 2015. We have used panel data of Pakistani firms listed at Pakistan Stock Exchange to explain the relationship. Common, Fixed, Random Effect Model and Hausman regression Model has been applied as a research tool and the results have shown that diversified firms exhibit no cash flow sensitivity. Whereas, the cash flow volatility has negative and significant effect on ICFS. However, it was seen that low cash flow volatile firms hold more significance rather than high volatile firms. The results are consistent with Fazzari et al. (1988) results.

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DECLARATION

I declare the following: -

1. That the material contained in this dissertation is the end result of my own work and that due acknowledgment has been given in the references to all sources be they printed, electronic or personal.

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3. I agree to my dissertation being submitted to a plagiarism detection service, where it will be stored in a database.

Fawad Zafar

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LIST OF ACRONYMS

Abbreviation	Description
PSX	Pakistan Stock Exchange
ICFS	Investment Cash Flow Sensitivity
Fe	Fixed Effect Model
Re	Random Effect Model
SBP	State Bank of Pakistan
BSA	Balance Sheet Analysis
FHP	Fazzari, Hubbard and Peterson
KZ	Kaplan and Zangales
GDP	Gross Domestic Product
IMF	International Monetary Fund
CFO	Chief Financial Officer

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CHAPTER 1

INTRODUCTION

The important areas of research in corporate finance are the effects of financial limitations on organizations behavior and the way in which such organizations carry out their financial management function. One of the major advantage of a firm's liquid balance sheet is that it allows the organizations to execute valuable and profitable business investment opportunities whenever they arise (Keynes, 1936). He further argued that the liquidity of the firm's balance sheet is also dependent on the extent to which such firms have access to external capital markets for the availability of the funds. Many organizations require more cash in order to enhance their liquidity and mitigate the economic problems being faced these firms (Economist, 2008). These days, it is strongly argued whether the investment decisions of the firms are affected by the availability of funds, however what needs to be addressed is that whether affirmative and statistically significant association between cash flow and investment can be considered as a symbol of financial constraints (Hubbard, 1998; Bond & Van Reenen, 2005). Investment cash flow sensitivity, ICFS, means the ability of firm to utilize its internal cash flows for financing investment endeavors.

By examining 31 large U.S based firms and correlating their market value (MV) with their cash flow value, Copeland et al. (2001) discovered the importance of cash in his findings because of the robust correlation between both variables. The interpretation suggests that investors' for investment purpose are more inclined towards those firms' which possess high cash reserves and thus consider traditional earnings per share indicator as outdated measure.

As per findings of the research of Modigilliani & Miller (1958) theorem says it is argued that it is not needed to hold cash reserves in the perfect world, where cash is readily available. Such cash have no as such impact on the shareholder wealth. As such cash can be utilized somewhere else to increase the profitability of the frim and as a result this profitability can be able to increase the shareholders wealth. Similarly there is no as such difference between external and internal finance, however, certain factors and barriers influence external sources of factors.

Fazzari, Hubbard and Peterson (now reffered as FHP 1998) studied the shift in the assumption of a perfect market. They found out that information asymmetries exist in the market which limit the external and internal finance to be used as each other's substitutes.They coined a new phrase "Financial Constraints". Their sample includes firms and entities categorizing in to constraint and unconstrained firms hanging on dividend payout ratios. Stiglitz & Weiss (1981) considered such factors (hostile selection, information irregularities or sometimes incentives to determine the constraints that actually differentiate companies into good and bad borrowers. On the basis of this, Fazzari et al (1988) recognized that financially constraint firms will tend to go for internal cash for their investment endeavors, meaning that financially constraint firms will exhibit high ICFS than the ones that are free of such constraints. This opened the area of cash flow investment sensitivities for the furture researches. The findings of the research of FHP are also validated by (Guariglia , 2007; Vogt, 1997).

The work of FHP (1988) was challenged or negated on theoretical grounds by Kaplan and Zangales, hereafter KZ, (KZ, 1997). They questioned the findings of FHP (1988) by concluding financially unconstrained firms depict added ICFS than financially constrained firms. They were of the view that the companies that are not constrained finance their investment endeavors mainly from their internal sources of finance which escalates or increases the ICFS. The opinion of KZ was validated by Cleary (1999). Cleary further added that internal or external constraints play differently in case of ICFS. However, the findings of FHP (1988) were accepted by majority of researchers.

The impact of corporate governance can also be studied on investment cash flows sensitivities (ICFS). Countries with high focus on corporate governance code and conduct are less sensitive to cash flows. It is suggested that the adherence to corporate governance laws lessen disproportionateness of information which helps the firm to get cheaper credit and to make investments in profitable ventures. Shareholders rights (Dittmar et al., 2003, Harford et al., 2004), Ownership structure (Ozkan & Ozkan, 2004), Institutional security (Pinkowitz et al. 2003) and over all legal system (Francis et al., 2010) has monotonous connection and association with investment cash flow sensitivity (ICFS).

ICFS has also been studied in context of financial development. In her research, Love (2003) explained that investment cash flow sensitivity lessens with the continuous financial development. The underline assumption or reason behind the above mentioned fact is that financial development helps in efficient allocation of capital and reserves. Moreover, the developed legal system decrease information asymmetries, it also improves by lowering the cost of external finance. She was also of the opinion that firms operating in less developed economies are more sensitive to ICFS than the firms in more developed economies.

The findings of Love (2003) have been validated by Islam & Mozumdar, (2006); Khurana et al., (2006); Becker & Sivadasan, (2010). As per the research of above researchers, the gap between funds (External and Internal) is lessen by financial development, and because of this firms tends to rely on comparatively cheaper external sources of funds than internal sources of funds for the investment expenditures.

Financial development plays an important contribution in the diversification strategies of the firms or entities. As per the findings of Fauver et.al., (2003), value of diversification is influenced by the financial, legal and regulatory environments in which these firms are operating. Diversification is one of the most important parameter that needs to be considered in terms of investment cash flow sensitivity (ICFS). It is being observed that diversified firms tend to hold less internal funds than single segment firms – which are not diversified. Venkat Subramaniam et. al., (2011) found that single segmented firms hold more cash than the diversified firms. The logic behind diversification supports the fact that diversified firms can take cash/funds from other sister organizations for investments in projects having positive NPV.

Hyun-Han Shin et. al., (1998) also suggested that diversified firm's investment depends on sister firms cash flows but to less extent. than their own cash flows. He studied that firms that are single headed use more cash flows to make investments rather than the highly diversified firms that are less sensitive to their cash flows for investments.

The value of cash in diversified firms is low than in single headed firms. Further, the cash bears lower value in both financially constrained and unconstrained firms in diversified firms (Zhenxu Tong, 2011). Moreover, diversified firms have a negative effect on the cash worth where there is lower level of corporate governance and similarly the diversified firms hold zero impact on cash in firms having high level of corporate governance. In this study, same variable (diversification) is taken in context of Pakistani diversified firms to see the impact on investment cash flow sensitivity (ICFS).

In the era of financial liberalization, the banks advance loans on soft terms and this lead to insolvency of institution. The biggest financial disaster thus lead to reverse all what gains was expected from the financial liberalization (Tornell and Westermann, 2002). In such crises scenario of 2008, the researchers are now studying crisis impact on impact on investment cash flow sensitivity (ICFS).

The major reasons of financial crises arises when there are fluctuations in exchange rate, investors going out, high cash flow uncertainty, unease in getting external credit, less production and dwindling investment get rampant within economy. The reason that the recent literature is focusing its attention mostly in analyzing the impact of these crisis in developed and under developed settings.

According to many researchers, firms tends to increase their focus on their cash management policies. For this purpose, firms hold cash for precautionary motive rather than speculative purposes to protect themselves in times of financial crisis. Firms tends to hold huge balances of cash rather than investing as a precautionary move for any unforeseen situations. According to KZ (1997, 1998) firms would not go for the investment from the internal funds whenever there is downturn in the economy, they tend to hold cash for precautionary measure.

Financially constraints firms tend to possess cash holding which are sensitive to cash flow volatility to counter inter temporal compromise between present and future investments. When this forthcoming risk cannot be fully diversified, this inter temporal compromise vitalizes financially constrained firm with the inducement of cautionary savings. Therefore, they increase their cash holdings in regard to their cash flow volatility (Seungjin Han, & Jiaping Qiu, 2007).

From the above discussion, this research tends to study the impact of cash flow volatility and firm diversification on investment cash flow sensitivities (ICFS) in crisis situation.

1.1 Economy of Pakistan

At the time of independence 1947, Pakistan was gifted with down trodden economy. Majority of the businesses, even the banks and other financial institutions went into Indian dominion (Khan, Shahrukh Rafi, 2000).

The economy of Pakistan has not been stable since its inception, due to many ups and downs in the economy in various decades. Economy of Pakistan has seen many shifts during the last seven decades. If in 1960's, 1980's, and 1990's the GDP rose to 6% because of high inflow of foreign aid whereas, the very GDP was dropped to 5% in 1950's, 1970's, mid 2003. This shift was mainly due to the fact of political turmoil, international sanctions, limitations, wars and no as such foreign aid to boost the gross domestic product of the country.

In 2001, the incident of 9/11 happened in USA. This incident had fetched various sorrows and miseries to globe. Overall economic situations had seen some radical changes. As for as the Pakistan is concerned, lots of Pakistani emigrants have to transfer their funds, investment or money to Pakistan-their home country from United States of America. Similarly, due to alliance with the foreign security forces in the war against terrorism, and debts structuring and financial aid release, it results in high capital reserves within the economy. This is the reason to boost the economy in the years between 2003 and 2007. There was a major rise in the production and investments in the above mentioned phase. Further, there is a rise in the employment creation in the region which results in increased per capita income to $1,000 during that time. GDP of the Pakistan, had witnessed a remarkable growth, even rose above six percent during 2004, 2005 and 2006. An IMF study (2005) on economy of Pakistan for 1960-2004 confirmed the importance of investment and rainfall as key determining factor of growth in country.

However, there was a perception that this boom is a major transference of society to stable and vibrant economy. However this perception was negated majority by the political turmoil and poor planning by the economists of the state. There are certain factors behind the down run of the economy of Pakistan after the earlier boom in the economy of Pakistan. The utilization of the inbound funds towards deluxe elements (like consumer financing cars etc.) coupled with main emphasis on elections and disregard to the major development projects like heavy industry, infrastructure, dams and other energy projects etc. (Irfan, 2009). Other factors include incompetence towards adjusting mounting oil & food prices (Zahoor ul Haq et.al. 2008). Increasing inflation and deepening energy crisis further dipped the economy of Pakistan. There were many other factors behind the decline of the economy. In 2008, Pakistan economy was again at the lowest levels because of lower foreign aid and other foreign direct investments in the coming years (Irfan, 2009). This was the period when the relation with United States of America and other allies were tense in the wake of war on terror. In the year 2008, Pakistan was in the middle of economic and political turmoil due to ever increasing energy, unemployment, food crisis along with internal instability and law & order situations.

During the years 2007 & 2008, oil & lubricants imports were climbed by about 43 percent and hiked up to about $10.5 billion. The major reason was the increasing trade deficit. This trade deficit was increased by 57.4 percent to $15.3 billion. This was even increased in the first quarter of the fiscal year 2009.

At this time, government of Pakistan intervened and had to go for the bailout plan. GOP placed a floor to than KSE (now PSX) at 9,200 points in the first quarter, previously at 15,000 points. The major reason behind all this was the global economic collapse and uncertainty in the country which increased concerns for the investor, during the period from July 2008 till December 2008.

There is no doubt that the year 2007-08 was a problematic year for the economy of Pakistan.

Pakistan has indeed inherited a difficult financial position from the past. Additionally, the pace of economic growth has slowed down as well. Further, macroeconomic stability was not on track. Furthermore, investor confidence also shattered. External environment is not promising as well. Raging financial markets, worldwide deficiencies of food, mounting prices of oil and commodities make the task of economic management even tougher. Internally political uncertainty, recalcitrant bureaucracy, fractious terrorists and rent seeking businesses have deteriorated the condition.

In the current period, the China Pakistan Economic Corridor (CPEC) is a major boost for the Pakistan Economy. Although it will take certain years to mature , yet it can be the turning point of the economy of Pakistan if and only if the policy makers can devise the economies which are in line with the development and growth of Pakistan Economy.

1.2 Objectives of the research

The primary and core objective of the research is mainly to explore the role of cash reserves in determining corporate investment expenditures. This study also explore the impact of cash flows volatility on the investment cash flow sensitivity (ICFS). Further, the investment behavior of diversified entities / firms will also be considered. The above mentioned areas are specifically studied as per the perspective of emerging market of Pakistan.

1.3 Significance of the research

The study is significant in below mentioned ways:

- This study or research will help in understanding the impact of cash flows on investment expense in a developing country.
- As the period of the study and the period of all input values (data) is a time in which the economy of Pakistan is not as such stable, so this research will help the policy makers to understand and distinguish the behavior of the firms towards capital expenditure (CAPEX) in the time of cash flow certainty when they are diversified.
- This study will further help to understand the approach of non-financial firms of Pakistan for external sources of funds in relative to internal financing.

1.4 Scheme of the research

There are five chapters in total in this research. Chapter one, Introduction, mainly explains the objectives that are fulfilled with help of research along with explaining and introduction of topic of the research. Second Chapter relates to the literature review and