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IMPACT OF CAPITAL MARKET IMPERFECTION ON INVESTMENT-CASH FLOW SENSITIVITY: EVIDENCE FROM PAKISTANI LISTED MANUFACTURING FIRMS

Muhammad Kashif
Government Degree College Khurrianwala Faisalabad, Pakistan
MS Finance NUML Islamabad, Faisalabad Campus, Pakistan
mkashifgc@gmail.Com

Muhammad Kashif Khurshid
National University of Modern Languages (NUML) Islamabad, Faisalabad Campus, Pakistan
kashif041@gmail.com (Corresponding Author)

Muhammad Waqas
BZU Multan, Sahiwal Campus, Pakistan
chxummar777@gmail.com

Muhammad Sajid
Government Post Graduate College Toba Tek Singh, Pakistan
MS Finance NUML Islamabad, Faisalabad Campus, Pakistan
sajidhas9@gmail.com

Imtaz Zahid
Government Islamia College Faisalabad, Pakistan
imtiazmcom@yahoo.com

Abstract

This study is related to test the impact of capital market imperfection on investment-cash flow sensitivity of 137 Pakistani non-financial manufacturing firms listed in the Karachi Stock Exchange (KSE) during the span 2005-2014. Such impact is examined twice, firstly without capital market imperfection and secondly in the presence of capital market imprecation. Market imperfection is measured through the use of three proxies such as firm size, firm liquidity and number of shares held by institutions. Cash flow and Tobin's Q are taken as predictors. A panel data regression is used to investigate the relation of capital market imperfection on investment-cash flow sensitivity. In case of without capital market imperfection, the impact of cash flow on investment is affirmative and significant while the presence of market imperfection such impact of cash flow on investment is also affirmative and momentous with higher sensitivity under all three proxies used for measurement of capital market imperfection. These results indicate that when market is imperfect a large number of firms rely mostly on internally generated cash flow.

Keywords: Cash Flow, Tobin's Q, Investment, Market Imperfection Under Proxy Of (Firm Size, Firm Liquidity and Institutional Ownership.

1. Introduction

In order to fulfill the needs of stakeholders it is indispensable for a firm to put in the amount available in those projects having positive net present value and cost effective activities, invest the amount in present day which is bound to bring growth in near future. The payment attain will be definitely greater than the present amount. For future survival and better flourishing chance, it's inevitable to invest today to reap fruitful monetary and the activities whose costs are comparatively low.

In the whole world, if the growth of investment and rate of growth of production is high and rapid moving, it brings in its wake a many positive aspects. Eventually, it enhances our foreign reserves which strengthens and stabilize the currency value and rate and this rate of currency guarantees the prestige of a country at world level and provides it a vigorous financial and economic substance. Keeping in view the importance and value of investment, various researchers have opted time and again the investment as a vital factor and endeavored to capture in different spectrum and content, the various areas of finance and economic. Modigliani and Miller (1958) argued that funds, whether internal and external, have no effect at all on investment decisions of a firm in perfect investment market. The investing decisions of a firm are self-regulating to its financing decisions. Its reason is that the capital market is free from asymmetric information, bankruptcy, agency problems, and transaction cost and tax implementation.

Myers and Majluf (1984) concluded that information asymmetries among a firm and the investment market imperfections may consequence in the refusal of well again investment opportunities because the supplier of external finance includes the risk premium into the cost of funds that represented the risk of common investment projects. So the supplies of funds flow for the investment decisions are not perfectly elastic for the firms that faced the issues to access the information about the investment.

Transaction cost has two main parts. Its first part is the cost which is paid to brokers to introduce and issuance of security. Its second part consists of the amount of money which is required to be incurred as lawful expenses. It includes the cost of printing as well as registering and taxes on issuing of new securities. Miller (1977) building their argument on the analysis of (Black & Scholes, 1973) opined that the tax shield benefit of money owing is offset by individual tax rate on investor's money owing income. Kraus and Litzenberger (1973) argued that the benefit of tax reduction can be eliminated due to bankruptcy cost. It is particular according to context of optimal capital structure theory. They opined the crucial situation is, therefore, the agent either to work in his own interest to maximize the profit in order to get benefit in shape of rewords, bounces and good repute in laborer and investment market or the best interest of stakeholders to maximize the market value of organization and maximize the wealth of stakeholders.

Myers and Majluf (1984) opposed the theory of (Modigliani & Miller, 1958) by stating that it is impossible to find a perfect market in real situation. They also concluded that due to the availability of asymmetric information, transaction cost, cost of taxes, bankruptcy cost and agency cost preferences changes as per needs of finance and situation of decision.

1.1 Capital Market Imperfection

Although it was opined by (Modigliani & Miller, 1958) that the financing decisions in perfect investment market do not affect at all the investment decisions of firms. But, the above mentioned facts and figures have proved that it amply that capital market is not perfect and present imperfections brings before as a great differentiation among the cost of inside and external capital. The firms which are having asymmetric information face a large gap, therefore, they are in grip of more financial restraints. According to the Kaplan and Zingales (1997a) due to financial constraints the companies are classified into three categories, the organizations that facing the problems of financial constraints, the organizations possibly facing the problems of financial constraints and the organizations without the problems of financial constraints. According to the first group the influential work of (Fazzari *et al.*, 1988) opined that the relationship among the investment and internal sources was very severe in the organizations which are facing the problems of financial constraints at the time of their investing decisions. The other school of thought (Modigliani & Miller, 1958) opined that the association among the sources of firm to investment is lesser for the organizations facing the problems of financial constraints. (Koo & Maeng, 2005) concluded that many studies proposed the investment of

the firm depends upon the accessibility of inside funds. Because the firm faced constraints of finance due to the higher cost of outside resources as compared to internal finances in investment market that is imperfect.

1.2 Relationship of Investment Among the Cash Flow in Imperfect Capital Market

In presence of imperfection of capital markets, larger differential costs are facing by firms between external and internal funds should more rigorously affect by problems of underinvestment when practicing negative stuns to internal cash. Therefore, firms that are more constrained demonstrates greater sensitivity of cash flow in investment (Allayannis & Mozumdar, 2004). Fazzari *et al.* (1988) explained that the firms which have a high level of monetary, association among the investment to cash flow is more sensitive. But Kaplan and Zingales (1997b) and (Cleary, 1999) have another view point, they believe that investment relationship among the cash flow can be greater in those firms which are not restricted. Along with it, (Alti, 2003; Gilchrist & Himmelberg, 1995) opined that the sensitivity of investment problem associated with Tobin's Q. According to Gomes (2001) and Alti (2003) there is a vital possibility that even in the non-existence of financial frictions, investment relationship among the cash flow can be existed. Alti (2003) is of the view that in the nonexistence of financial restrictions, the firms which are small and comparatively new faced higher degree of sensitivity among investment and cash flow. Froot and Stein (1991) proposed the association between the swap rates and foreign direct investment that occurred when worldwide incorporated market of capital was matter to imperfections in information. The presence of these imperfections the financing from external sources to be more expensive as compared to financing from internal sources. In that situation it is concluded that the association among the investment to cash flow was elevated as compared to normal situation.

1.3 Problem Statement

The firm's investment decisions are not prejudiced by their decisions of financing in a perfect capital market, which is a theory propounded by (Modigliani & Miller, 1958). The factors becoming cause of imperfection existing in the market are asymmetric information, agency cost, and transaction cost, according to (Myers & Majluf, 1984). These imperfections produced financial restrictions and introduced a wedge among the costs of outer and inner resources. Now, the question arises either these imperfections have any influence on the investment relationship among the cash flow. The main question arising leads to the point how do the institutional ownership, size of firm and liquidity of firm influence the investment-cash flow relationship among the listed manufacturing firms in Karachi Stock Exchange.

1.4 Research Questions

- Do capital market imperfections have any impact on the relationship among the investment to cash flow under the proxy of size of firm?
- Do capital market imperfections have any impact on the relationship among the investment to cash flow under the proxy of liquidity of firm?
- Do capital market imperfections have any impact on the relationship among the investment to cash flow under the proxy of institutional ownership?

2. Literature Review

In US manufacturing firm, with relation to market imperfection, five factors i.e. institutional ownership, bonds rating, analyst following, funds flow and index of antitakeover amendments were examined. It was evaluated that in the estimated sensitivity over time, there was a steady decline. It was also scrutinized that with the increase of institutional ownership, funds flow, bonds rating, index of antitakeover amendments and analyst following, there is a turn down in investment sensitivity to cash flow (Ağca & Mozumdar, 2008). According to the (Fazzari *et al.*, 1988) for the profitability of an organization, cash flow play an imperative function in this regards. So, they argued the position of funds flow in the organization's investment decisions is very vital even in the perfect capital market.

According to Adelegan and Ariyo (2008) in general small size firms faces more compassion among the insider funds to investment because their managers have low creditworthiness as a results these firms were charged higher cost of external funds. So, the small size firm's investments decisions are extra responsive to the cash flow as compared to large size organizations. The other school of thought (Adelegan & Ariyo, 2008) argued that the firm size has no impact on the firm's investing decisions. It was evaluated that possession of cash was positively connected with investment opportunities. Furthermore, cash ratio was positively affiliated with manufacturing cash flow precariousness while negatively influenced by capital expenditure, net working capital, leverage, age size and tax expenses (Μαγεράκης, 2015).

Findings illustrate that between investment sensitivity to cash flow and debt have inverse relationship. While, it is scrutinized that there is momentous relationship between the firm size and investment is positive if cash flow is there. Furthermore, the liquidity of company and investment relationship to cash flow is affirmative and significant (Jafari *et al.*, 2015). It is examined that there is significant cash flow investment sensitivity. Other factors that affect the cash flow sensitivity positively and significantly are size, investment opportunity, tangibility of firm, dividend and debt level (Chyi & Tien, 2014).

Association among the investment and funds flow of firms listed in China was reexamined in this study with the error measure of being controlled Tobin's Q. The result expresses that investment is responsive to the flow of cash still when error measure of Tobin's Q is controlled. But, it was scrutinized that firms that less constrained firms financially demonstrate elevated relationship of investment and inside sources of the firm than those categorized as more embarrassed firms financially. Aggarwal and Zong (2006) described complete and efficient financial markets, and state that cash flows from internal sources should have no effect on levels of investment; but in incomplete and inefficient markets, theory of pecking order argues that there should affirmative association exist. Hu and Schiantarelli (1998) have developed switching investment regression model in which firm's probability facing high external finance premium is endogenously examined. Hu and Schiantarelli (1998) have developed switching investment regression model in which firm's probability facing high external finance premium is endogenously examined. This approach permits one to deal with potential problem of dynamic and static encountered misclassification where firms are arranged employing criteria chosen priori. U.S. firm level data was employed to scrutinize impacts of variables that capture credit worthiness of each firm, information asymmetry and conflicts of interest between agent and principal on probability of being in the low- or highly paid administration. The macroeconomic conditions role and monetary policy is also determined. Results have confirmed the hypothesis.

Senbet and Taggart (1984) have generalized Miller's equilibrium of supply-side discussion to other imperfections of investment market forms and incompleteness. If organizations hold comparative benefit in taking into consideration these imperfections, they have encouragement to proceed as mediators of finance. Attempts to corporations to yield from these activities of intermediation state optimal capital structure for sector of corporate completely but in capital structure's equilibrium of any particular firm is indifference matter. Moreover, positive position that corporate finance acts in implementation market restores perfect standard market consequences on pricing of asset and linked separation properties of portfolio. Koo and Maeng (2005) demonstrated that many studies proposed that investments of firms depend upon the internal funds availability. Firms' countenance constraints of finance due to external funds are pricier than internal funds in capital markets that are imperfect. Nucci and Pozzolo (2001), investigated the association between decisions of investment and fluctuations of exchange rate in the manufacturing firms of Italy. The results supported the view that exchange rate depreciation has positive influence on investment through channel of returns, and pessimistic influence through channel of cost.

3. Research Methodology

This study is based on different phases which included assembling of data and then arrangement of such data in order to conduct proper analysis. At the beginning 150 firms have chosen for this study and after the process perusal and filtration, the data was confined and finalized to 137 manufacturing firms. In the period of 2005 to 2014, many

manufacturing firms are de-listed, combined and wind up. These firms are put out from the focus of study and only the firms are chosen, whose ten year's data from 2005 to 2014 was available. The data which is used in this study for the calculation of variables, which is obtained from a firm one by one present at BSA, the equity of market value is derived from business recorder. The numbers of share held by institutions are available at open doors for all. The model which is used in this study had already been used by (Athey & Reeser, 2000; Degryse *et al.*, 2005; Kadapakkam *et al.*, 1998). Panel data which is used, related 137 manufacturing firms, for a span of ten years.

Econometric Model

General Model

1) $\boldsymbol{I_{it} = \alpha_i + \beta_1 Q_{it-1} + \beta_2 CF_{it} + \varepsilon_{it}}$

$$I_{it} = \frac{NFA_{it} + DEP_{it} - NFA_{it-1}}{NFA_{it-1}}$$

$$Q_{it-1} = \frac{MVE_{it-1} + BVD_{it-1}}{BVTA_{it-1}}$$

$$CF_{it} = \frac{NI_{it} + DEP_{it}}{NFA_{it-1}}$$

Where

I_{it}= Investment in fixed assets.

CF_{it}= Cash flow

Q_{it} = Tobin's Q.

MV_{it} = Market value of business.

BV_{it} = Book value of the business.

NFA_{it} = Net Fixed Assets.

NI_{it} = Net Income

DEP_{it} = Depreciation on fixed assets during current period.

α_i= Alpha.

β_1= Coefficient of Tobin's Q

β_2 = Coefficient of cash flow

i = Represents firm i, i= 137

t = the current time period at the closing of year.

t_{-1}= The start of the present year.

ε_{it} = Unexplained portion of model

Specific Model with Capital Market Imperfection

2) $\boldsymbol{I_{it} = \alpha_i + \beta_1 Q_{it-1} + \beta_2 (CF_{it} \times Factors) + \varepsilon_{it}}$

$$I_{it} = \frac{NFA_{it} + DEP_{it} - NFA_{it-1}}{NFA_{it-1}}$$

$$Q_{it-1} = \frac{MVE_{it-1} + BVD_{it-1}}{BVTA_{it-1}}$$

$$CF_{it} = \frac{NI_{it} + DEP_{it}}{NFA_{it-1}}$$

Where

I_{it}= Investment in fixed assets.

CF_{it}= Cash flow
Q_{it} = Tobin's Q.
MV_{it} = Market value of business.
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NFA_{it} = Net Fixed Assets.
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DEP_{it} = Depreciation on fixed assets during current period.
α_i= Alpha.
β_1= Coefficient of Tobin's Q
β_2 = Coefficient of cash flow
i = Represents firm i, i= 137
t = the current time period at the closing of the year.
t_{-1}= The start of the current year.
ε_{it} = Unexplained portion of model

Where I_{it} represent investment CF_{it} represent cash flow during period t, correspondingly; ($\boldsymbol{CF_{it}} *$ Factors) are the interactions the factors with cash flow connected to investment market imperfections. The factors measured are: firm size (CF * Size), firm liquidity (CF * firm liquidity), institutional ownership (CF * IO).

$\boldsymbol{I_{it}}$ = Represent the amount of investment of a firm on permanent assets just like machinery and equipment, furniture and fixture, land and building firm i during time t. It is calculated with the help of net fixed assets at the end of year add depreciation after that deduct the amount of book value of permanent assets at start of the year and then divided by net permanent assets at the start of the year.

$\boldsymbol{Q_{it-1}}$= It is the Q (Tobin's Q) at the start of the year shows the investment opportunities. The Q (Tobin's Q) is measured by taken the market value of equity after that add book value of debt and divided by book value of total assets (book value of firm). Its effect is captured through β_1.

$\boldsymbol{CF_{it}}$= represent the Cash flow of present year. It is calculated as net profit after tax addition of depreciation after that it was divided by net fixed assets at the start of the year.

$\boldsymbol{CF_{it} \times Factor}$ = represents the interactions of factors with cash flow. The factors are considered as firm size, firm liquidity, and institutional ownership. Its effect is captured through β_2.

Firm Size: It is measured through the natural log of total assets possessed by the firms.

Firm Liquidity: It is measured through the natural log of firm liquidity (cash, cash at bank, marketable securities and short term notes receivable).

Institutional Ownership: It is premeditated as the natural log of the total shares held by the institutions.

3.1 Hypotheses of the Study

Hypothesis 1
H_0: There is no significant association of capital market imperfection on investment-cash flow sensitivity under the proxy of firm size.
H_1: There is significant association of capital market imperfection on investment-cash flow sensitivity under the proxy of firm size.

Hypothesis 2
H_0: There is no significant association of capital market imperfection on investment-cash flow sensitivity under the proxy of firm liquidity.
H_1: There is significant association of capital market imperfection on investment-cash flow sensitivity under the proxy of firm liquidity.
Hypothesis 3
H_0: There is no significant association of capital market imperfection on investment-cash flow sensitivity under the proxy of institutional ownership.
H_1: There is significant association of capital market imperfection on investment-cash flow sensitivity under the proxy of institutional ownership.

4. Results and Discussion

4.1 Data Analysis

Descriptive statistics, Correlation and Panel data techniques are utilized in this study to investigate the relationship b the between the set of relationship i.e. cash flow and Tobin's Q on investment under imperfect capital market.

4.2 Descriptive Statistics and Panel Data Dnalysis

In current study descriptive statistics provides information about average, standard deviation and the minimum and maximum amount of every study set of relationship and predictors. These longitudinal data have interpretation on the same units in a number of dissimilar time periods. A panel data has numerous firms; every one of them has repeated calculations at dissimilar time span. It may have individual (group) effect, time effect or both, after that it can be further analyzed by common and fixed effect models. Theses panel data analyses are conducted to analyze the individual and the overall impact of all the predictors on the study variables. In present study balanced panel is used in order to make calculations of all firms for all periods.

Table 1: Descriptive Statistics

Variables	N	Minimum	Maximum	Mean	Std. Deviation
Investment	1370	-0.0669	2.1659	0.6818	0.5490
Cash Flow	1370	-0.8680	5.2140	0.4321	0.8436
Tobin`s Q	1370	0.2738	2.4794	1.0808	0.3283

The Table 1 contains of 1370 observations relating to the mean amount of Investment is 0.6818 and -0.0669, 2.1659 as lowest and highest amount of investment respectively the standard deviation of investment is 0.5490. The average amount of cash flow is 0.4321 with standard deviation of 0.8436 and -0.8680, 5.2140 as a lowest and highest amount of cash flow. The average value of Tobin's Q is 1.0808 and 0.2738, 2.4794 association as a lowest and highest value of Tobin's Q and the standard deviation of Tobin's Q is 0.3283.

4.3 Correlation Analysis

In order to investigate the relationship between cash flow, Tobin's Q and investment correlation matrix is used as a statistical tool.

Table 2: Correlation Matrix

Variables	Investment	Cash Flow	Tobin's Q
Investment	1.000		

Cash Flow	0.3528	1.000	
	(0.000)		
Tobin's Q	0.1722	0.2417	1.000
	(0.000)	(0.000)	

From Table 2 shows the degree of relationship among investment and cash flow is very much interrelated with investment and this correlation is positive and significant 0.3528. The correlation between investment and Tobin's Q is 0.1722 which is also positive. A number of investigators in this field highlighted that when the level of Co-relation among the variables is so high. Anderson *et al.* (1999) showed when dependency level among variables is 0.70 and 0.80. At the same time Anderson *et al.* (1999) highlighted the cause of multicollinearity among independent variables when the dependency level between these variables is excess from 0.8.

Table 3: Model 1

$$I_{it} = \alpha_i + \beta_1 Q_{it-1} + \beta_2 CF_{it} + \varepsilon_{it}$$

Variable	Co-efficient	t-value	P-value
Tobin`s Q	0.1742	3.6443	0.0002
Cash flow	0.3269	4.8002	0.0000
Constant	0.1924	3.6928	0.0001
R^2	0.3625	F-stat	20.5135
Adjusted R^2	0.3413	Probability (F-stat)	0.0000

In the Table 3 the results of fixed effect model relating to 1370 observations listed on Karachi Stock Exchange during the period 2005 to 2014 for a period of 10 years shows that 0.1924 is the least value of investment that remains at Karachi Stock Exchange all time when all independent variables considered to be zero and such value is significant because the P-value of constant is less than α =0.05. The co-efficient of cash flow of all firms stated 0.3269 positive relationship with investment that shows one unit's variation in cash brings 0.3269 unit's variation in average investment) and this association is momentous because its P-value is less than α =0.05. At the same time the co-efficient of Tobin's Q is 0.1742 which indicates positive relationship with investment that average one unit's variation in Tobin's Q brings 0.1742 unit's variation in average investment and this association is also significant because its P-value is less than α =0.05. The value of R-square 0.3625 and Adjusted R-square 0.3413 respectively that shows 36.25% change in average investment explained by cash flow and Tobin's q and this shows strong impact on investment due to these three independent variables. F-statistics shows F (3, 1366) 20.5135 with a P value 0.0000 which is less than α =0.05 shows significant and it is strong evidence of success of overall model. So, the relationship among the cash flow and investment for all firms is affirmative and momentous.

Table 4: Model 2

$$I_{it} = \alpha_i + \beta_1 Q_{it-1} + \beta_2 CF_{it} * IO + \varepsilon_{it}$$

Variable	Co-efficient	t-value	P-value
Tobin`s Q	0.3229	4.4744	0.0000
CF*IO	0.4528	6.1872	0.0000
Constant	0.4736	5.7267	0.0000
R^2	0.5625	F-statistics	24.345
Adjusted R^2	0. 5243	Prob (F-statistics)	0.0000

In the Table 4 the outcomes of 1370 observations related to listed firms of Karachi Stock Exchange. The time span from 2005 to 2014 for a period of 10 years shows that 0.4736 is the least value of investment that remains at Karachi Stock Exchange all time when all independent variables considered to be zero and such values strongly impacted due to value of P of minimum level of investment is below as compare to Alpha value which is 0.05. The Beta of cash flow internally generated funds with interaction of institutional ownership stated 0.4528 affirmative connection with level of investment that shows a single unit variation in cash funds effected 0.4528 unit's variation in mean value of investment) and such dependency is prominent due to value of P is lower as compare to Alpha which is 0.05. The beta of Tobin's Q shows a value of 0.3229 that indicates affirmative relation among the level of investment, the single unit variation of Tobin's Q effects that 0.3229 unit's variation in mean value of the level of investment and such interdependency is also prominent due to value of P is lower as compare to Alpha which is 0.05. The value of R^2 0.5625 and Adjusted R^2 0.5243 respectively that shows 56.25% change in mean value of the level of investment is being elaborated by the movement of cash fund and Tobin's q and its explained a powerful impact on the level of investment effected by two independent variables. F-stat shows F (3, 1366) 24.3452 with a value of P is lower as compare to Alpha which is 0.05 shows prominent effect by stating strongly confirmation of success of complete model.

Table 5: Model 3

$$I_{it} = \alpha_i + \beta_1 Q_{it-1} + \beta_2 CF_{it} * size + \varepsilon_{it}$$

Variable	Co-efficient	t-value	P-value
Tobin`s Q	0.2868	3.6632	0.0002
CF*Size	0.4491	4.6744	0.0000
Constant	0.3436	3.2323	0.0003
R^2	0.5325	F-statistics	21.7135
Adjusted R^2	0.5123	Prob(F-statistics)	0.0000

In the above context Table 5 the outcomes of 1370 observations related to listed firms of Karachi Stock Exchange. The time span 2005 to 2014 for a period of 10 years shows that 0.3436 is the least value of investment that remains at Karachi Stock Exchange all time when all independent variables considered to be zero and such values strongly impacted due to value of P of minimum level of investment is below as compare to Alpha value which is 0.05. The Beta of cash flow internally generated funds with interaction size stated 0.44907 affirmative connection with level of investment that shows a single unit variation in cash funds effected 0.44907 unit's variation in mean value of investment) and such dependency is prominent due to value of P is lower as compare to Alpha which is 0.05. The beta of Tobin's Q shows a value of 0.28683 that indicates affirmative relation among the level of investment, the single unit variation of Tobin's Q effects that 0.28683 unit's variation in mean value of the level of investment and such interdependency is also prominent due to value of P is lower as compare to Alpha which is 0.05. The value of R^2 0.5325 and Adjusted R^2 0.5123 respectively that shows 53.25% change in mean value of the level of investment is being elaborated by the movement of cash fund and Tobin's q and its explained a powerful impact on the level of investment effected by two independent variables. F-stat shows F (1, 1369) 24.345 with a value of P is lower as compare to Alpha which is 0.05 shows prominent effect by stating strongly confirmation of success of complete model.

Table 6: Model 4

$$I_{it} = \alpha_i + \beta_1 Q_{it-1} + \beta_2 CF_{it} * Liq + \varepsilon_{it}$$

Variables	Co-efficient	t-value	P-value
Tobin`s Q	0.1552	3.7343	0.0002
CF*liq	0.4299	5.6012	0.0000

Constant	0.2926	3.6303	0.0003
R^2	0.5382	F-statistics	21.856
Adjusted R^2	0.5161	Prob(F-statistics)	0.0000

The Table 6 the outcomes of 1370 observations related to listed firms of Karachi Stock Exchange. Time period from 2005 to 2014 for a period of 10 years shows that 0.2926 is the least value of investment that remains at Karachi Stock Exchange all time when all independent variables considered to be zero and such values strongly impacted due to value of P of minimum level of investment is below as compare to Alpha value which is 0.05. The Beta of cash flow internally generated funds with interaction of liquidity stated 0.4299 affirmative connection with level of investment that shows a single unit variation in cash funds effected 0.4299481units variation in mean value of investment) and such dependency is prominent due to value of P is lower as compare to Alpha which is 0.05. The beta of Tobin's Q shows a value of 0.1551 that indicates affirmative relation among the level of investment, the single unit variation of Tobin's Q effects that 0.1552 unit's variation in mean value of the level of investment and such interdependency is also prominent due to value of P is lower as compare to Alpha which is 0.05. The value of R^2 0.5382 and Adjusted R^2 0.5161 respectively that shows 53.82% change in mean value of the level of investment is being elaborated by the movement of cash funds and Tobin's q and its explained a powerful impact on the level of investment effected by two independent variables. F-stat shows F (3, 1366) 21.856 with a value of P is lower as compare to Alpha which is 0.05 shows prominent effect by stating strongly confirmation of success of complete model.

5. Conclusion and Recommendations

The findings indicate that the association among the investment and internally generated funds is elevated in case of institutional ownership and such dependency is lesser in case of firm size and firm liquidity. The results of general model indicated that the that the dependency of investment on internally generated funds was lower as compared to the results of specific model in which firms facing the problem of capital market imperfections. The factors that create Capital market imperfections if reduced and as a result decreased the difference between the cost of internally generated funds and the amount from the outsider of firms, go in front to lesser dependency of investment on firms own sources. Findings confirm one fact that Pakistani firms are heavily dependent on cash for their investment and precautionary needs.

5.1 Implications of the Study

This perusal brought into prominence varied significant implications along with the fact that the corporate decision makers as well as makers of policy in Pakistan should acquire the result of this study, in order to have effective decisions.

Strategic developer in Pakistan can implement the outcomes of this work to take efficient decisions. One thing is very apparent that the exploit of outcomes of present work in Karachi Stock Exchange (KSE) is extremely minute. This study will also supply with the assistance, needed to decide the amount of capital investment, available with cash, while the firms have the problem of capital market imperfections.

At the same time, the corporate managers are in the need of information to make decisions regarding the rationing of capital.

5.2 Limitations and Future Research Recommendations

This study has faced a limitation which is unavailability of even a single source in developing countries, which can be a root of information. Along with it, in this study the influence of age, energy disaster, managerial diplomacy, and asymmetric information, government taxes on earning and in the long run on investment is excluded and researcher of the future can increase the value of financial market by joining these set of relationship. In addition to it, a substitute method to take into custody the investment opportunities Euler equation can be used instead of Tobin's Q. Future researchers may take into consideration the two different sectors of Pakistani listed financial and non-financial firm`s additions further more comparison should be made to Pakistani financial firms with others Asian countries manufacturing firms can also be made in future. So, leave that study for future researchers. Future researcher may check the impact of capital market imperfection on firm performance, capital structure, dividend payout ratio and impact of capital market imperfection on working capital management. In addition, different set of relationship can be used to capture the impact of capital market imperfection such as amount of debt, age of firm and return of equity so leave that study for future researchers.

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