Impact of Ownership Structure on Cash Holding and Debt Maturity Structure

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Impact of Ownership Structure on Cash Holding and Debt Maturity Structure: Evidence from Pakistan Stock Exchange

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Dedication

I dedicate this thesis to my mother, father and wife, who have been supporting me throughout the session towards completion of my coursework followed by final research thesis, pertaining to my MS (Finance) from Capital University of Science and Technology (CUST), Islamabad, Pakistan.

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(Muhammad Nabeel Safdar)

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List of Abbreviations

CH	Cash Holding
DM	Debt Maturity
FS	Firm Size
NWC	Net Working Capital
DIV	Dividend
MBA	Market to Book Asset
FCF	Free Cash Flows
TANG	Tangibility
LVR	Leverage
LIQ	Liquidity
CE	Capital Expenditure
IND	Individuals Shareholding
INS	Institutional Shareholding
IC	Investment Companies
FC	Foreign Companies

Abstract

The study examines the impact of ownership structure on cash holding and debt maturity structure. The holding of cash and structure of debt maturity depends upon the ownership structure. Firms have different ownership structure which predicts that either firms hold more cash or less and either firms take more debt or not. For this purpose, this study consists of 74 companies listed at KSE 100 index Pakistan. Major findings of this study are based on two different hypotheses: 1: How the ownership structure has impact over the decision of the Cash Holding? 2: How the ownership structure has impact over the decision of Debt Maturity Structure? The findings imply that cash holding and debt maturity structure are a key elements of the firm's financial policy.

The techniques of Panel Data Regression Model is applied in this study to find out the outcomes of present research hypothesis. The data for the present study was collected from annual balance sheet analysis for the year 2006 to 2013.

Analysis of this study finds that ownership structure has significant and negative impact on the cash-holding whereas significant and positive effect on debt maturity structure. Larger firms hold less cash as compared to smaller firms and larger firms take more debts as compared to smaller firms.

Keywords: *Cash Holding, Debt Maturity, Net working capital, Firm Size, Dividend Payout, Capital Expenditure, Market to Book Assets, Tangibility, Liquidity, Free Cash Flow, Ownership Structure.*

CHAPTER 1

INTRODUCTION

Ownership structure is defined as the distribution of equity with regard to votes and capital and also by the identity of the equity owners. These structures are of major importance in corporate governance because they determine the incentives of managers and thereby the economic efficiency of the corporations (Jensen and Meckling, 1976). They also proved that concentration of ownership is beneficial to corporations because large shareholdings would allow for greater monitoring of managers. Ownership structure plays an important role in any firm because whole firm depends on the ownership structure. In the developing countries like Pakistan, there is a mix ownership structure e.g directors' shareholding, individuals' shareholding, institutional shareholding, investment companies' shareholding and foreign shareholding. Most of the firms controlled by the families or directors of the firms who have power to take the decision of the firm (La Porta, Lopez-De-Silanes and Shleifer, 1999). Claessens, Djankov and Lang (2000) also reported that more than nine East Asian countries including Malaysia have two third of the firms are controlled by single shareholders. About 60% of concentrated firms' top management related to the family of the controlling shareholder. Family ownership is defined as family members who own company shares and act as the executive directors in the company, (Ng, 2005; Andres, 2008; Chu, 2009; Lin & Chang, 2010). The absence of separation between ownership and control reduces the conflicts of interest between owners and managers which would in turn increase the shareholders' value (Morck, Shleifer & Vishny, 1988).

The ownership structure is also a primary determinant of the agency problems between controlling insiders and outside investors, which has important implications for the

valuation of the firm (Lemmons & Lins, 2003). Owners and managers both are playing their own role in every firm so that's why it creates agency problems between both of them. Both the manager and owner work for their own interest and benefits that may cause the agency problem. An agency relationship is one in which "one or more persons (the principal) engage another person (the agent) to perform some services on their behalf which involves delegating some decision making authority to the agent and perhaps the most recognizable form of agency relationship is that of employer and employee (Jensen and Meckling , 1976). Hence the previous studies also reported that the agency problem exists in all the firms.

The study of Jensen and Meckling (1976) also reported that when managerial ownership increases then there is a greater alignment of interests of managers and outside shareholders. They also reported that agency cost decreases when managerial ownership and firm performance increase. Mat-Nor and Sulong (2007) reported in their study that when managers own a smaller portion of the organization's share, they have greater incentive to pursue personal benefits and less incentive to maximize organization value. Thus, to reduce the agency costs is to increase the shares held by the managers. Holderness, Kroszner & Sheehan (1999) as well as Jensen & Meckling (1976) also supported the previous studies and reported the positive relationship between managerial ownership and firm performance. Hence the studies prove that the ownership structure and the determinants of the ownership structure may affect from the agency problem. Therefore, this study examined that either ownership structure effect the decisions of firms regarding the holding of cash and debt maturity structure.

1.1 Cash Holding

What is Cash? Cash is defined as the most liquid and the least profitable asset. It provides the firm with liquidity and it facilitates the payment of various types of obligations. Without sufficient liquid assets a company will not be able to meet those obligations and hence it will be forced to declare bankruptcy, sooner or later. It plays an important role in corporate finance. Corporate cash holding is one of the most essential issues and strategies of corporate financial management, which not only relates to corporate operation and development, but also relates to the corporate governance and the institutional environment (Ma Yifan, 2012).

According to the literature, cash holdings are commonly defined as cash and marketable securities or cash equivalents (Opler et al., 1999). Cash equivalents are current assets, which can be converted into cash in a very short term and are thus characterized by a high degree of liquidity. The studies of Opler et al. (1999) also provide a fundamental framework to study the determinants of cash holdings and find several influential factors that determine cash holdings, including corporate growth prospects, short-term working capital, leverage, volatility, and firm size.

There are indeed several benefits related with cash holding, but there are also disadvantages like costs that firms have to incur when they hold cash. In fact, there might be a large variety of reasons, which justifies the holding of cash, but from the literature there are two dominant motives, which presuppose certain behaviors related with the use of cash (Ozkan and Ozkan, 2004). The first one is the transaction cost motive and the second one is the precautionary motive. According to the transaction cost motive there are fixed and variable costs related with raising external capital, which gives rise to the assumption of an optimal

level of cash holdings and prompts firms to hold cash as a buffer (Ferreira and Vilela, 2004; Opler et al. 1999; Ozkan and Ozkan, 2004). In contrast there is the precautionary motive, which stresses the presence of asymmetric information, agency costs and the opportunity costs of forgone investments. Here, the notion is that if the costs of adverse selection of external finance are excessively high, firms tend to accumulate cash or other liquid assets as prevention mechanism in order to hedge against future shortfalls in cash and being forced to pass on positive net present value investments. So, from these two motives one can derive three main categories with distinct underlying theoretical assumptions. The first category represents the transaction cost model, the second deals with information asymmetries and the agency cost of debt and the third category comprises agency costs related to managerial discretion. On the other hand, the previous studies also dealt with these theoretical models, there is no clear consensus on the way the models are related to their respective theoretical foundations. This may be due to the fact that the theories overlap to a certain extent with regard to their model explanations. For instance, Ferreira and Vilela (2004) assumed a clear-cut distinction between three theoretical models: the trade-off model, the pecking order theory and the free cash flow theory. In contrast, Opler et al. (1999) categorized their theoretical section based on the factors: transaction costs, information asymmetries, agency costs and financing hierarchy, without explicitly allocating them to their respective theories. Moreover, Ozkan and Ozkan (2004) and Bates et al. (2009) applied yet another categorization. Thus, the absence of a clear direction regarding these theories, this study follow the theories of Ferreira and Vilela (2004) as well as Opler et al. (1999) for better findings about the determinants of cash holdings.

1.1.1 Ownership Structure and Cash Holding

The ownership structure matters not only in the sense how much the company insiders own, but also in the sense how concentrated the holdings of the outside shareholders are. Large shareholders are proved to monitor the management better than small shareholders as they internalize larger part of the monitoring costs and have sufficient voting power to influence corporate decisions (Jensen's and Meckling's, 1976).

Cash holding plays an important role in any firm, it shows the company's performance as Dittmar and Mahrt-Smith (2007) reported that the value of cash is much lower in poorly governed firms and the value of cash is much higher in good governed firms. They also reported that in poorly governed firms, cash is dissipated in ways that significantly reduce future operating performance.

There are two major benefits of holding liquid assets. First, firms can use their liquid assets to finance their operating and investing activities when other sources of financing are extremely expensive or not available. Second, a firm does not have to liquidate assets to finance and save the transaction costs to raise funds holdings (Opler, Pinkowitz, Stulz and Williamson, 1997). So that's why cash holding decision varies according to the ownership structures, some firms hold more cash and some firms hold less cash. The holding of cash is also an indication for outsider that either firm have good opportunity to invest or predicting defaulting risk as Harford et al. (2003), Haushalter et al. (2007), Acharya et al. (2007) and Denis and Sibilkov (2010) proved that cash acts as a hedge for firms against financing and predation risk.

Diversified firms having stronger and larger ownership structure are usually called larger firms and hold less cash as compared to smaller firms because diversified firms are more

likely to sell their assets to raise funds as Shleifer and Vishny (1992) proved that firms have lower borrowing cost if they have more assets that can be easily converted into cash. Furthermore, according to Jensen (1986), when the level of firm's cash holdings is really high, the agency problem between management and shareholders may become more severe. In conclusion, the trade-off theory states that there is an optimal amount of cash holdings and it should be the equitation of the marginal benefit of cash holdings and the marginal cost of those holdings. Therefore based on the previous studies, this study expects that firms' organizational ownership structure could significantly affect their optimal cash holdings.

1.2 Debt Maturity

Debt maturity is defined as the ratio of liabilities maturing in more than one year to total debt (Shah and khan, 2009). The debt maturity may be broadly defined as the composition of short-term and long-term debt in the debt capital structure of firms. The proportionate relation between debt instruments with varying maturities in the debt capital is called debt maturity (Venugoplan and Madhu, 2013). The definition of debt maturity is the most controversial issue in the debt maturity literature because there are significant differences among the researchers over the measurement of debt maturity. As there is no formal studies to empirically examine the determinants of debt maturity structure of Pakistani firms. However, the optimal capital structure theories relates to the debt maturity structure as Gay B. Hatfield et al. (1994); Haris and Raviv, (1991); Lewis and Sappington, (1995); Miao, (2005) reported that the optimal capital structure decision is not limited only to choosing what percentage of debt or equity should be used, but the decision also has to involve the choice of short-term or long-term debt (Leland and Toft, 1996; Myers, 1977; Yi, 2005).

Whereas, Modigliani and Miller (1958) examined the condition under which the firms would be largely indifferent to the source of its financing in an efficient capital structure. They also reported that the decision about debt maturity structure can never improve the firms' value in a real market, especially in developing countries like Pakistan where the capital markets are not efficient and choosing the debt maturity structure can affect the firm value.

In developed markets, firms can easily choose between short or long-term debts as per their requirements of optimal debt maturity structure. They are not constrained by the availability of either type of debt as the banking industry and capital markets are both developed and competitive. Unfortunately, firms operating in developing countries are not that lucky. Because of less developed capital markets and instable interest rates, firms in developing countries usually find it difficult to use long-term debt. Besides these obvious reasons, this study is to examine empirically what factors influence the debt maturity choice in developing countries like Pakistan. On the other hand, the short-term debt allows a reduction in the borrowing cost but increases the refinancing risk that depends upon the future credit ratings (Myers, 1977; Jensen and Meckling, 1976; and Stulz and Johnson, 1985). Thus, the short-term debt imposes certain constraints on the financing decisions because the liquidity risk due to the short-term debt exposes the firm to bankruptcy risk and subsequent premature liquidation. If the firm has less financial flexibility and the cost of liquidation outweighs the cost of agency problems, the liquidity risk may deter the firm from adopting a short debt strategy that is required to control the agency cost problems. Therefore, the economic relationship between growth options and debt maturity is

determined by a trade-off between the decreased agency cost and increased bankruptcy cost associated with short-term debt Johnson (2003).

The basic objective behind any capital structure decision is to optimize the cost of capital. Corporate finance literature suggests that maturity of debt can play a significant role in lowering the cost associated with debt financing. There are several theories that explain, why a firm will have a specific debt-maturity structure? These theories are the agency cost theory, the signaling and liquidity risk theory, the maturity matching and the tax based model but this study uses only three theories and that is agency cost theory, signaling theory and liquidity risk theory.

1.2.1 Ownership Structure and Debt Maturity

Ownership characteristics and structure affect financial decision including debt maturity structure. This may be due to the agency cost theory which explained that short term debt can reduce the conflict between management and ownership through more monitoring by lenders. However, the previous studies mainly focus on the impact of managerial ownership on the debt maturity decisions (Hajiha and Akhlaghi, 2011). They also proved that when managers are owners, whose interest become more aligned with stockholders, so the agency cost reduced. But, managers may or may not have the same incentive as owners. Hence the relationship between managerial ownership and debt maturity is ambiguous. On the other hand, institutional investors monitor managers by determining the debt maturity structure directly through corporate governance.

Different categories of shareholders may have different effects on debt maturity choice due to different incentives and abilities to monitor managers. This study mainly focuses on the

impact of ownership structure like individuals' ownership, institutional ownership, investment companies and foreign companies' ownership with debt maturity.

1.3 Problem statement

Analyzing the impact of ownership structure as a determinant of decision regarding cash holding and debt maturity structure on Non-Financial sector of Pakistan is the core issue to be addressed. The center of attention of the study is whether the impact of ownership structure on cash holding and debt maturity structure to define the financing decision or not. The nature of present research gap is quite difficult to understand as the said topic is critically analyzed by limited researchers in way of how the cash holding and debt maturity structure are going to define the financing decision for a business. In addition to the above problem, the said effect must be analyzed by controlling the effect of firm size, free cash flow, market to book asset, liquidity, networking capital, and divided payout.

1.4 Research Questions

The current study addresses the following questions:

- Does the ownership structures influence the decision of the Cash Holding?
- How the ownership structures effect the decision of the Debt Maturity Structure?

1.5 Objectives of the study

In this study, desired aim is to examine that how the ownership structure have impact over the decision of the cash holding. Moreover, it is being explored that how the ownership structure have impact over the decision of the debt maturity structure. So the desired aims which have been intended to gain are:

- To investigate the impact of ownership structure on Cash Holding.
- To investigate the impact of ownership structure on Debt Maturity.

1.6 Significance of the Study

This research contributes to the available body of literature in the area of Ownership structure and guidelines for Non-Financial sector in number of ways, from a theoretical standpoint and it imagines to convey a more comprehensive perspective in the area of ownership structure decision through cash holding and debt maturity structure. It will provide the additional information to the researches to take the decisions in this regard. The research also benefits the shareholders as they will equally get the returns on their made investment. In addition, the results of this research are of priceless importance to management of Pakistani companies in their choice process as well as their struggle to optimize their organizations' worth from a practical point of view. This study also provides help for the future researchers.

1.7 Plan of the Study

The rest part of the study is organized as: chapter two is review of the literature of the existing relationship between cash holding, debt maturity structure and ownership structure, and theoretical framework of the study. Chapter three includes the research methodology and development of hypothesis. Chapter four explains the empirical results and discussions. Chapter five consists of conclusion, recommendations and directions for the future studies.

CHAPTER 2

LITERATURE REVIEW

The assessment of literature is separated into three different segments. The first segment encompasses the elements of ownership structure, the second segment encompasses the detail of cash holding and the third section encompasses the detail of debt maturity structure.

2.1 Significance of Ownership Structure

The empirical literature reported different school of thoughts in which some firms with greater institutional ownership structure have high amount of cash holdings whereas the other school of thought is about higher the institutional ownership structure have lower amount of cash holding. On the other side, studies reported the negative relationship between managerial ownership structure and cash holdings. The more isolated and poorly governed firms which have poor ownership structure, direct to the financial managers to keep more cash in hand to reduce the probabilities of bankruptcy. The greater the amount of block holders hold lesser amount of cash retained by the firms due to superior and strong monitoring mechanism by the block holders. Meanwhile, the cash dividend is preferred by the foreign shareholders as compared to the capital gain. Therefore, cash holding has significant and negatively related to the foreign ownership holding and dividend payout.

Miller and Modigliani (1958) reported that capital structure decision is not related to firms' value. However, the previous studies proved that agency conflicts amongst shareholders and managers may affect financial decisions. They also proved that ownership

characteristics are important and these characteristics act as corporate governance mechanisms that may alleviate the agency conflicts amongst stakeholders and managers.

According to the La Porta, Lopez and Vishny (2000), the characteristics of ownership structure, the advancement in the stock exchange market, the nature of the decision taken by the government or state within the rules and regulation regarding the development and growth which effects the firms positively and these structures are relatively different across countries. Disseminated ownership structure is much more common in United State and United Kingdom listed firms, as compared to Europe, where controlled ownership structure is predominant. These studies reported that ownership structures varies according country to country and firms to firms and that have may also effect from the agency conflicts.

Fama and Jensen, (1983); Baysinger and Hoskisson, (1990) and Bathala & Rao, (1995) reported that larger stake holder such as banks, investment companies, mutual funds and families owned companies hold larger amount of direct control and therefore they function in a framework with rarer market-oriented instructions for disclosure, feebler managerial inducements or incentives, and superior supply of debt. The principal role of corporate governance redirected in the accounting and finance literature as the agency view while stockholders are apprehensive about maximizing returns at reasonable or less risk, managers may prefer growth to profits may be lazy or fraudulent ("shirk"), and may sustain expensive labor or product standards above the necessary competitive minimum.

Barbosa and Louri (2002) explained firm's perspective, ownership structure and firm's profitability. Particularly, ownership structure is an inducement device for decreasing the agency costs which is associated with the separation of ownership and management of the firm, which may be used to protect the possession rights of the firm. The ownership

structure plays a fundamental role in determining the best possible level of holding the cash by firm. The importance of cash holding is reflected in a firm that shows overall financial health in the business point of view that "cash is king". Resulting the previous studies and they conclude that, firm will be a bankrupt or insolvent if firm run, either firm have large amount of physical assets or accounts receivable on its balance sheet.

Grossman and Hart (1980) reported that when the number of shareholding increase, investors may take a more proactive decision in monitoring the managers, to the subject that they may even interchange the managers by mounting a takeover bid. However, there are also uncertainties that high concentrated ownership structured firms which have more controlling authority are monitored by shareholders, may cause to the other shareholders' disadvantage. The trade-off model hypothesizes that is an optimal level of cash holdings, which is determined by trading off the costs and benefits of holding cash. There are two costs connected with cash holding, the first one is the cost of carry (because cash earns inferior return than comparable investments) and the second one is the agency costs (because managers have the incentive to invest the excess cash in negative NPV projects).

Lang et al. (1991), reported that firms with higher operating cash flows and low profit ratios tend to involve in the firm value abolishing acquisitions, which are harmful to firm's value. The transactional costs motive of cash holding looks into the opportunity costs of cash shortfalls and expects that firms hold more cash when they have better profitable investment opportunities and more volatile cash flows. It also expects a positive relationship amongst capital expenditures and holding of cash. Meanwhile, dividend is reported to be inversely associated with cash holdings.

Demsetz and Lehn (1985) stated that ownership structure is related to firm size, firm specific uncertainty and systematic regulation. While smaller firms and those that do not belong to regulated industries are characterized with dispersed ownership, firms operating in riskier environments tend to have more concentrated ownership. They also test the Berle and Means prediction that concentrated ownership structure will have a positive effect on firm performance. Their results showed that there is no apparent evidence of a significant relationship between ownership structure and corporate performance (measured by accounting profit rate).

2.1.1 Ownership Structure and Agency Theory

Jensen and Ruback (1983) defined an "Entrenchment Hypothesis," which states that the opposition to minority shareholders and managers or board of directors may drive the mechanism to decrease firm value. Jensen et al. (1983) studied takeovers, finding that a higher concentration of ownership leads managers or boards of directors to select unfavorable proposals to protect their jobs and power. Accordingly, a level of managerial ownership that is concentrated enough to strengthen the manager's control rights may induce managers to pursue their interests instead of maximizing the firm's value.

La Porta, Lopez-de-Silanes and Shleifer (1999) stated that, constituent elements of ownership structure, focusing on the largest 20 firms in 27 wealthy economies by stock market capitalization at the end of 1995. Empirical results report the tendency of high concentrations of ownership structure and that most of these firms are typically controlled by families or the state. Moreover, 68.59%of these firms are identified as being controlled by ultimate controlling shareholders.

Claessens et al. (2000) examined the separation of ownership and control in 2,980 corporations in nine East Asian countries and demonstrated that over two thirds of firms were controlled by a single shareholder using pyramid structures, cross-holdings and exchange of board. Such structures allow controlling shareholders to have significant power over firms with relatively low stakes and often allow them to gain voting rights that exceed cash flow rights.

Claessens et al. (2000) also reported that 48.2% of all 382 listed firms in Taiwan are family controlled, indicating that most of the ultimate controlling interests are dominated by family groups. In its review of ownership structures in Taiwan, the voting rights are 18.96% compared to the cash-flow rights of 15.98% (ratio of cash flow to voting flow was 0.83). Moreover, 49% of ultimate owners used pyramids and 8.6% use cross-holdings to reinforce their power; these two approaches were ranked third and sixth place within all nine East Asian countries.

2.2 Theoretical View of Cash Holding

The determinants of cash holding have been discussed by numerous previous studies like Kim (1998), Maurer (1998) and Sheerman (1998), whereas Opler et al.; (1999) also reported the determinants of cash holding as well as Fereira & Vilele; (2004) and Ozkan & Ozkan; (2004), in the light of different theories and experimental representations (i) The Trade-Off Theory Model by Myerz; (1977), (ii) The Pecking Order Theory model by Myerz and Majlifz; (1984), and (iii) Free Cash Flow Theory Model by Jensen; (1986).

2.2.1 Trade off Theory

Myers, (1977) explained cash holding by using the trade-off theory model, which examined an optimum level of holding the cash which may achieved by balancing the fringe expenses

as well as fringe profits associated with the holding of cash. The firms profit represented as marginal incentives of holding the cash are directly associated with cash holding firms that may neglect or reduce the financial distress in the firms by using the instrument to execute an optimal financial investment decisions, and firms having larger amount of cash holdings may decrease the level of increasing in operating cost or borrowing cost which is increased due to the external funds and by selling the tangible assets or liquidating existing assets.

Opler et al. (1999) stated that incremental expenses or cost of cash holding is principally the opportunity cost associated with holding of cash. For example firm uses the holding of cash to invest in the short term projects which is taken as transactional or preventative motives so that's why firms hold more cash to grab the opportunities. Opler et al. (1999) named it transactional model because it illuminates transactional motives of cash holding.

2.2.2 Pecking order theory

Pecking order theory which is also known as the theory of financial hierarchy, cash is seen as a cushion amongst retained earnings and investment needs and there is no optimal cash level. In pecking order theory, information asymmetric is considered as a fundamental dispute of financing decision which is still needed to be addressed. The first and primary purpose for this fundamental dispute is associated with information asymmetry that generates difficult and expensive external funds so therefore firms have a preference to use retained earnings rather to go for an external financing.

Ferreira and vilela, (2004) explained that when a firms becomes an insolvent or going to be an insolvent then the debt issuing companies like banks have the first and foremost right to get back their money because while issuing the debt to the firms, there is a contract

between both the parties that if in case of insolvent or bankruptcy then the banks have the first right on the firm's total assets. At this level both the parties does not have the same level of information that may cause of the problem of asymmetry information. Hence, the determination of Pecking order theory is examined to lessening the cost of information asymmetry.

On the other hand, Opler et al. (1999) predicts the contradictory theory. He reported and presented that there is an optimum level of holding the cash in trade off model whereas he supported the higher level of cash holding rather to balancing the level in between the marginal profit and marginal cost. Whereas cash is a secondary element to meet the financing need in pecking order theory because business organizations uses outside funds when firm's retained earnings are not adequate to support the investment projects.

2.2.3 Cash flow theory

Jensen (1986), reported that cash flow theory suggest the large amount of cash holding, the controversy is that, greater firms with larger cash holdings may generate more funds easily and its fixed asset as well that ultimately increase the liquid investment of the firm. He also reported that there are two type of cash flows (i) free cash flow and (ii) operating cash flows. Operating cash flows financing the short term obligations or short term investment projects whereas free cash flows are unused cash, after supporting all projects and meeting all functioning requirements. So that it will be easy for firms to manage growth by having an adequate volume of cash for investment.

Ozkan and Ozkan (2004), used the sample size of 1029 firms from 1984 to 1999, which have been taken from the state of United Kingdom that are publically traded and examine the experimental determining factors of holding the cash and conclude that concentrated

ownership structure have an essential element of cash holding. They also concluded that there is no functional relation amongst concentrated ownership structure and holding of cash. In their research analysis operating cash flows and growth opportunities of firms have positive and significant relationship with the leverage (abilities of debt issuing capacities), and liquidity whereas banks has negative relationship amongst the holding of cash. Later the studies of Ferreira and Basheer Muhammad (2008) also proved that debt liquidity has inverse relationship while investment or growth opportunity has progressive relationship with cash holding. Furthermore, they also reported that, there is an inverse relationship amongst capital expenditure and holding of the cash.

Naguyen (2005), used the sample size of 9168 firms from 1992 to 2003, which have been taken from the stock exchange of Tokyo, and he reported that the preventative intentions of cash holding may be used to assuage functioning volatility. He also reported that the holding of cash has an inverse relation amongst firm size whereas the maturity of debt has direct and substantial relationship with retained earnings, development opportunities and ratio of dividend payouts.

Sadour; (2006), examined the previous studies and concluded the cash holding determinants. He took a sample size of 297 French firms from 1998 to 2002 for cash holding. His research is based upon two different theories (i) trade-off model theory and (ii) pecking order theory and he examined and reported on the base of above theories that leverage has an inverse relationship with holding of cash whereas developing firms with higher riskier activities embrace supplementary cash. Hence, the study proved that size of firm, firm's growth and investment opportunities as well as dividend payout ratio are directly associated to holding of cash.

Later on the study of Afza and Adnan; (2007) examined the sample size of 203 non-financial firms from 1998 to 2005, which are listed at Karachi stock exchange 100 index of Pakistani firms. They concluded the determinants of cash holding with the help of following variables which have been incorporated in their study i.e size of firm, growth variables (market to book asset), free operating cash flows, working capital, dividend payout ratio and leverage. After analyzing the results they reported that there is an inverse relation of cash holding with growth opportunities and firm size. Whereas free operating cash flows, working capital and debt issuing abilities also have the negative influence on holding of cash.

Now according to the recent study of Shah (2011), he used the sample size of 280 non-financial firms from 1996 to 2008 that are listed at Karachi stock exchange 100 index of Pakistan. He concluded that firm with growing opportunities that paid dividend to their shareholders hold extra cash for their future need and it also represents the rapid cash conversion cycle which indicated that firms with greater debt obligation structure hold a smaller amount of cash. Rizwan and Javed (2011) also examined a sample size of 300 non-financial firms listed at Karachi stock exchange 100 index of Pakistan. They reported that the holding of cash has positive and significant relationship amongst growth opportunities and has an inverse relation amongst working capital and debt issuing abilities.

Drobetz and Gruninger; (2007) examined the sample size of 156 non-financial firms from 1995 to 2004 listed at Swiss stock exchange. They reported the elements of cash holding which concluded that the ratio of tangible liquid assets and size of firm's are in an inverse relationship with holding of cash. Whereas, there is a significant and positive relationship amongst dividend payout ratio and free cash flows with cash holdings. They report in their

study that, there is a positive and substantial relationship amongst chief executive duality and corporate holding of cash, whereas there is an inverse and insignificant relationship amongst firm's board size and corporate holdings of cash.

HardIn et al. (2009), analyzed a sample size of 194 real estate firms from 198 to 2006 listed at stock exchange of United States of America. They concluded that the holding of cash has an inverse relationship amongst operating mutual funds and debt issuing abilities (term used as leverage) whereas the holding of cash has an indirect relationship with external borrowing cost of debt and investment opportunities. However, they reported that to mitigate the agency problems in real estate firms to hold less cash.

Ishaq, Bokhpin and Onmah (2009), concluded the result of 100 non-financial firms from 1993 to 2007 listed at Ghana stock exchange and they reported the elements of holding cash. Earning volatility, leverage and share price of the firm have substantial contributing factor of holding the cash.

Meginson and Wei (2010), concluded the sample size of non-financial firms from 1993 to 2007 of Chinese privatized firm listed at China stock exchange. They reported in their study that smaller firms hold less cash with more profit, whereas higher growth firms hold excess cash. This study confirmed an inverse relationship amongst working capital and holding the cash. Cheen and Mahajaan (2010), analyzed the sample size of 15 non-European firms from 1994 to 2004 listed at united countries. They incorporate the determinants of corporate liquidity with creditor's rights and anti-directors rights.

Kims et al. (2011), examined the sample size of 125 restaurant firms from 1997 to 2008 listed at United States which are publically traded. They reported that a firms with higher growth opportunities or having a better investment opportunities retains surplus cash in

hand to meet the obligations in near future. Whereas, Kim (2011) reported the contradictory conclusion regarding dividend paying policy i.e firms retains less amount of cash which pays dividend to their shareholders and they also favor the quarrel that preventative and operational motives has significant part in clarifying the contributing factor of holding the cash.

2.3 Cash Holding Determinants

This segment will explained the different characteristics, recommended by the different provisional theories of firm's cash holding and previous studies as well, which may add up in the literature of firm's decision regarding cash holding. These characteristics are represented as free cash flow, debt issuing capabilities (leverage), dividend payout ratio, size of firm, growth opportunities variables such as market to book asset, liquidity, individuals' shareholding ownership, institutional shareholding ownership, investment companies ownership and foreign companies ownership are few essential and significant element of corporate cash holding. Finance and accounting literature describes the free cash flows as retained earnings after tax (Ferreira et al., 2004) and (Ozkan et al., 2004). According to the theory of cash flow by Trade-off model, free cash flows is a common cause of liquidity i.e. that could be used as alternative to cash or equaling to cash (Kims et al., 1998) and they also reported an inverse relationship amongst operating cash flows or free cash flows with holdings of cash.

A large number of variables that influence potentially be connected or 'responsible' to the corporate holding of cash may be found in the empirical literature. In this research, the collection of descriptive variables are based upon substitute theories associated to net capital requirements, corporate firm governance, and some additional variables that were

considered as empirical work. The choice is sometimes limited, however, due to lack of relevant secondary information. Consequently, the ultimate sets of proxies variables are tangibility, liquidity ratio, leverage (debt issuing abilities), size of firms, dividend payout ratio, book to market assets (proxy for growth opportunities), free cash flow, percentage of ownership held by individuals' shareholding, ownership held by institutional shareholding, ownership held by investment companies and ownership held by foreign companies are few important determinant of corporate cash holding.

Ozkan & Ozkan (2004) examined the negative relationship amongst operating free cash flows and holdings of cash. Whereas, theory also predicted positive and substantial relationship amongst free cash flows and holding of the cash (Pecking order theory) for the reason that great cash flows is likelihood of smooth and running fundamental operations with supplementary investment opportunities so this is one of the foremost reason to the cash.

Wiliamson (2001), reported the positive relationship amongst the holding of cash and the capabilities of debt issuing abilities. In accounting and finance literature leverage is calculated as the sum of accumulative liabilities divided by sum of accumulative assets. Whereas in experiential research leverage is illuminated as a dummy of firm's debt issuing capabilities. The theory of trade off model as well as the theory of free cash flows are reported an inverse and substantial relationship amongst the leverage and the holding of cash except pecking order theory.

(Ozkan & Ozkan, 2004) reported an inverse and significant relationship amongst the holding of cash and debt issuing capabilities. Although it is very common and obvious observation that firms with extraordinary leverage level prefer to retain supplementary cash

to also reduce the bankruptcy risk. Studies also reported the indirect relationship amongst debt maturity and retain earnings (Fereira & Vileela, 2004). They also examined that the this relation develops with the growth of retained earnings and it decline with the decrease in retained earnings, and they supports an inverse and substantial relationship between holding the cash and debt issuing capabilities but they does not unable to provide any single justification against this reporting. There is another negative and indirect relationship amongst retain earnings or internal source of funds and debt issuing abilities (Opler et al., 1999) and they also reported that firms generally desire to have moderate level of cash to meet the financial short term obligations as compared to generating the equity which is lavish because of opposing selection. Term liquidity is defined as the ratio in which an asset or marketable securities can be purchased or sold out in the real market deprived of affecting the asset's value. Total assets having the belongings of liquidity or which may be easily purchased or sold out are known as cash equivalent or liquid assets. Liquid assets comprise account receivable, stock, inventory, marketable securities, cash in hand and cash at bank. Pecking order theory reported the existences of an inverse relation amongst holding the cash and liquidity.

According to the different researchers as, Oplar et al. (1999), Fereira & Vilila, and Ozkaan & Ozkaan, (2004) discussed the relationship amongst the holding of cash and leverage and now they also reported the relationship amongst the holding of cash and liquidity. All the researcher reported an inverse relationship amongst holding of cash and cash equaling factors and also analyzed that firm may fulfil their operational and transactional motives requirements with cash equivalent elements. Previous studies and finance literature used the proxy of liquid assets as cash.

Another determinant of the cash holding is about the size of the firm that examined by the help of, trade-off theory proved the negative relationship amongst the free cash flows and size of the firm, whereas the other theories, like "Pecking Order Theory" and "Free Cash Flow Theory" reported the positive relationship amongst the holding of cash and the size of the firm.

Fereria & Vilila (2004), reported that there is a great influence of net working capital on the profitability of the firm as well as the solvency threat. So therefore, as predicted by the Trade-off Theory, greater the amount of net working capital direct to less the chances of the company into the risk. The superior the net working capital leads to the more supplementary liquid assets is in the firm's hand and is less probable to become theoretically insolvent. Whereas the inferior level of net working capital is connected with higher level of insolvent risk. Asad and Qadeer (2014) reported a positive relationship amongst the holding of cash with networking capital.

Faul kendra (2002), examined the non-financial firms and reported an inverse relationship amongst the holding of cash and economies of scale. Fereira & Vilila (2004), proves that smaller firms retain more cash in hand to meet the current obligations whereas, some studies predicts that smaller firms do not hold more cash. Pinkowit and Williamsson (2001) and Baltes et al. (2009), reported an inverse relationship amongst free cash flows and the size of the firms for the sample size of United States firms and all these studies are in support of Trade-off Theory.

Rizwan and Javed (2011), used the sample size of 300 non-financial Pakistani firms listed at Karachi Stock Exchange (KSE) 100 index over the period from 1998 to 2007. They came to the point that, when free cash flows as well as operating cash flows and firm's growth

are increases, the holding of cash also increases. They also reported an inverse relation amongst net working capital and debt issuing abilities (leverage) with corporate cash holdings.

Opler et al. (2009) examined positive and substantial relationship amongst the size of firm and holding of cash. Whereas, Miller and Orr (1996), reported the purpose of holding less cash, larger firms may achieve the marginal benefits from economies of scale with respect to cash management. Therefore, greater firms retain low level of cash as compared to small firms. Whereas, Rajan and Zingale (1995) reported another logical statement which belongs to the firm's profitability that is larger firms has a less number of chances of financial distress because they have an advanced level of diversification which keeps them away from the solvency risk that ultimately reduced their costs of equity or cost of capital. On the other hand, Ferreira and Vilela, (2004) also reported in their studies that larger holding of cash is usually encouraged by the smaller size of the firms due to the high level of cost of borrowing while generating or raising the new capital or equity, whereas greater firms that have larger ownership structure may easily generate the capital with low borrowing cost and on easy basis. Harriss and Ravi (1990), reported the result in the light of Trade off theory and predicted an inverse relationship amongst the holding of the cash and firm size because greater firms invest in different growth opportunities instead of stockpiling.

Ozkan & Ozkan, (2004), Pasklian and Naguyen, (2010) and Wei, (2010) reported the positive and substantial relationship amongst firm's growth investment opportunities and the holdings of cash. All three major theories which are directly related to this study are predicted a positive and substantial relationship amongst firm's growth investment

opportunities. Dividend is calculated as the ratio of dividend payment to total asset by Ozkan & Ozkan (2004), and Ferreirra and Vilila, (2004). And they reported an inverse relationship amongst dividend payout ratio and the holding of cash. These results reported that firm's hold less cash while paying the dividend to their shareholder's which means that firm's finance their current obligations or finance their operational needs by reducing the level of dividend payout ratio. This result leads to the direction of firms that if a firm did not paying any dividend then it may generate funds by two different way, the first one is by using the retain earning, and the second one is by generating the funds from capital market or issuing more shares that may enhance the equity level.

Opler et al., (1999), examined the bank borrowing with the help of using the ratio of total borrowing or debt to total obligations or liabilities. The fundamental theories which are theoretically support to this study are reported that the holding of corporate cash proposed an inverse relationship with bank borrowing. The purpose of this inverse relationship is associated with capital structure or capital mix which means that those firms who takes more debt from banks represents the healthy and sound relationship amongst the firms and banks. It will also the indication of raising the funds for precautionary and operational motives, whenever they required. Meanwhile, the other potential motive for this inverse relation is that, the external monitoring policies imposed by the banks due to the issuance of large amount of debt which may cause the external financial monitoring, which is also known as institutional shareholding. Ozkan & Ozkan, (2004) and Fereira and Velila, (2004) reported an inverse relationship amongst leverage (debts) and the holding of cash.

Fereira and Velila, (2004) and Bigeli & Sanches-Vidalz, (2010), reported the positive relationship amongst variability of cash flow and the holding of cash. They reported the

cause of positive and significant relationship is that, firms with supplementary free cash flow and low amount of liquid asset may retain more liquid cash to fulfil the transactional and operational needs.

Harford, (2008) and Kuan et al. (2011) reported the correlation agency costs and also predicted the significant determinants which embedded the managers to find out the suitable platform for spending carefully for profit purpose rather than to retain too much cash holdings. Along with agency cost concept they also reported the types of ownership shareholding which had been used in their studies as determinants of ownership structure.

Shareholding hypothesis observed that mostly Pakistani firms are operating in imperfect or uncertain capital markets, where existence of information asymmetry may cause the external financing costly and difficult. To reduce the information asymmetry firms hold excess cash and that's why firms with concentrated shareholding grasp larger quantity of cash or cash equivalent for stockholders capital maximization.

Managerial Ownership Shareholding is defined as the ratio of ownership percentage held by company directors. A nonlinear relationship exist between managerial ownership and the holding of cash which means that inferior level of managerial ownership firms grasp lower level of holding cash, whereas greater level of managerial ownership firms grasp higher level of holding cash and the point came when very high level of managerial ownership structure leads toward the low level of cash holding (Ozkan & Ozkan 2004).

Institutional Shareholding is percentage of shareholding ownership held by the institutions like banks and insurance companies. Firms paying out more of the free cash flow to their owners instead of keeping it within the firms (Jensen, 1986). Agency theory also proved that there is a negative relationship between the percentage of institutional

shareholding held by the firms and cash holding. Ozkan & Ozkan (2004) also reported that the percentage of the firms ownership held by the institutional shareholding have superior monitoring abilities and think about their own interest. So that's why institutional shareholding has negative relationship with cash holding.

Foreign Shareholding is defined as the ownership percentage held by the foreign companies is known as foreign shareholding. Opler et al., (1999) and Harford & Maxwell, (2008) reported different determinants of firm cash holdings such as agency problem and financial policies with ownership structures and they found an inverse relationship amongst cash holding and foreign shareholdings. Hamidullah et al. (2014) also reported the negative relationship amongst foreign shareholding and cash holding because foreign shareholders prefer cash dividend as to capital gain. It also indicates that the percentage of ownership structure held by foreign companies have more hold on firms financial policies and forced the managers to take the aggressive decision to hold less cash.

2.4 Impact of Ownership Structure on Cash Holding

Dittmer et al., (2003) reported that larger cash holdings continue to exist in countries with strong shareholder protection, concluding that ownership structure remains a critical factor affecting cash holdings. The primary issue causing this contradiction concerns the soundness of a country's financial institutions.

To mitigate the ultimate required level of balancing the cash Nadiri, (1969) completed first examination to determine the holding of cash by gathering the data of 200 manufacturing companies listed at United Stock Exchange over the period from 1948 to 1964. The empirical finding indicated that the mandate for cash balancing is examined by internal and

external output, the rate of interest calculated on bank loans, the projected rate of change in predicted values, and affecting factor prices.

Campbell and Brendsel, (1977), examined an experimental study by collecting the sample size of 200 manufacturing companies listed at United Stock Exchange over the period from 1953 to 1963 in United States. They used the Ordinary Least Square regression (OLSR) analysis to determine the influence of balancing necessities on the holdings of cash and they reported that compensation balancing cash requirements are not binding at all.

According to Opler et al., (1999), reported their study with the sample size of 1048 non-financial firms listed at United Stock Exchange that are publically traded over the period from 1971 to 1993 panel data model along with fixed effect method model and random effect method model and reported that firms with great volatility in free cash flows and superior developing opportunities retain excess cash or cash equivalent. They also reported that well executing firms retained additional cash and it have substantial influence amongst holding of cash and structure of ownership.

Ozkan & Ozkan, (2004) used the sample size of 1029 non-financial firms which are publically traded and listed at United Kingdom Stock Exchange over the period from 1984 to 1999. They empirically inspected the determinants of cash holding and found that ownership structure has an significant influence on hoofing the cash, they also stated that there is no monotonic relation exist amongst managerial ownership and holding of cash .In their experimental research analysis free cash flows and firm's growth opportunities are associated with cash holding in positive relationship whereas leverage (debt issuing abilities), liquidity or liquid cash and investment companies has an inverse relationship with level of holding cash.

Harford and Maxwell, (2008) executed different determinants of firm's cash holdings such as solvency risk, agency problem, firm's growth and firm's financial policy. They reported that the results of these determinants are constant when external resources are expensive along with the low cash flows and have an investment planned. These firms hold liquid assets to make sure that firms would have been able to continue investment. However in short run smaller impact has been observed on capital expenditures, acquisition spending and payouts to shareholders by excess cash.

Brown, Chen and Shekhar (2001) considered institutional ownership as important determinant of corporate cash holdings. However, other types of ownership such as managerial ownership, foreign ownership, widely dispersed ownership and block holdings has not been considered so far.

Harford (1999) studied the relationship between corporate cash reserves and acquisitions and it has been determined that firms with high cash or high cash reserves have expected to attempt more acquisitions than less cash reserve firms.

Stulz et al. (1999) examined the determinants and implications of holdings of cash and marketable" securities. Their findings shows that firms that have stronger growth opportunities and uncertain cash flows relatively hold higher cash to total assets ratios but those firms that have maximum capital market access are likely to hold lower cash to total assets ratios.

Bayoumi, Tong, & Wei, (2012) explained that Market frictions are required to be removed from the representation of the huge shocks given to the firms by the governance system. This also tend to enhance the incentives for the larger shareholders to have concerns for

the share prices as they can realize the gain of the cash by selling of the shares and distribution of the cash for the payment made to the parties.

Tao (2006) stated that the implications in the share reforms can tend to induce the increase in the alignment of the incentives and the cash holdings for the corporate policies. The cash holdings can be reformed through two channels. First is the free cash flow channel, which is the direct way and the other from the financial constraints, which is indirect channel. It is suggested that the corporate insiders are holding the excessive amounts of the cash amounts for the benefits of the private companies. It is the common perception that parent company is having view to control the cash holdings for developing the source of financing for their use and they tend to oppose the existing benefits for all of the shareholders. The shareholders are not allowed to sell their shares freely for the obtainment of the cash.

Bayoumi, Tong, and Wei, (2012) argued that, the industrial cost is controlled by the outside investors in the indirect manner, through the agency cost. The bad decisions taken by the ownership structure tend to have impact over exacerbating of the current financial constraints that can be turned in to increase in the needs to hold the cash. Guney, Ozkan, & Ozkan, (2007) stated that the role of the ownership structure and the decision making structure depends upon the setting of the firms. Most of the public limited companies offer their shares to the managers and also given them opportunity to make the final decisions.

Kalcheva, and Lins, (2007) explained that controlling of the cash can be done by making the decisions about the investment, operations and the financing determinants. However the results of these factors are always robust. It is believed that each generation should have conducted debate over the ownership structure and the role to set its parameters for the corporatism.

Masulis, Wang, and Xie, (2007) reported that, the companies in which managers also have shares and have the power of making decision, they work in the better way. On the other side, in those companies where the management does not have shares in the profits, they tend to work calmly and do not really bother for the profit generation for the investors.

He, Li, Shi, and Twite, (2009) observed that the firms use free flow of the cash and the financing modes for the meeting of the needs done by the changing policies. The need is to re-form the arrangement and make the financial policies tighter. The examination of the reduction in the holdings of the cash by the firms and its monitoring the shareholders and the parties' transactions is need of time.

Bayoumi, Tong, and Wei, (2012) stated that there must be political and the social welfare objectives for the controlling of the shareholders in the private firms. The major focus is to get the maximum returns from the acts rather than just viewing the holding of the corporate cash to meet the personal needs. Findings shows consistency with the differences in the perception between the shareholders of private and the state owned firms. It is thereby analyzed that the reduction in the cash saving rates is being experienced by the groups. The policies of the dividend payouts and the investment by borrowing are being predicted with the investor valuation for the cash holdings. Empirical studies shows that the private firms have more dividend payouts rather than the capital investments. It is seen that the market valuation of the cash holdings tend to increase with the share reforms and decrease in the cash holding happens with the financial constraints increment.

2.5 Significance of Debt Maturity Structure

Almeida, Campello, Laranjeira and Weisbenner (2011) reported that the debt maturity is the component of the firm's financial policy that can have significant effects on real corporate behavior in the presence of credit and liquidity shocks .A firm that uses more short term debt faces more frequent renegotiations and, therefore, is more likely to be affected by a credit supply shock and to face financial constraints. The debt maturity structure had important real effects for industrial firms during the 2007–2008 financial crisis.

Myers (1977) reported that risky debt that matures in the future leads to underinvestment today. The insight is that part of the cash flows generated by investment goes to debt holders at maturity, and unfortunately the equity holders who make the investment decision will not internalize this benefit. The truncation of cash flows (and implied sharing of them) can distort investment incentives. Myers (1977) therefore suggested the solution of short-term debt to the debt overhang problem, because if all debt matures before the investment opportunity, the firm can make the investment decision as if an all-equity firm. Demirguc-Kunt and Maksimovic (1999) also added another point of view that is the aspect of asset maturity in relation to debt maturity. They suggested that fixed assets facilitate borrowing by serving as collateral.

2.6 Theoretical View of Debt Maturity

The theoretical explanation of debt maturity structure have been discussed by agency cost (Myers, 1977), Signaling Theory (Flannery, 1986) and Information Asymmetry (Pettit and singer, 1985).

2.6.1 Agency Cost

Myers (1977) have examined that determinant of the choice of firms' financial structure and the existence of significant agency costs. For example, firms with risky debt have an incentive to pass up some of the valuable investment opportunities when lenders get more of the benefits from undertaking these investments, known as the underinvestment problem. It is also reported that issuing short-term debt which matures before any opportunity to exercise the growth options can reduce the potential for underinvestment. Another example of the agency-related costs arises from what has become known as the asset substitution problem that describes a situation where firms financed with risky debt have an incentive to shift from low-risk to high-risk assets (Jensen and Meckling, 1976). Barnea et al. (1980) proved that short term debt can mitigate some of the adverse risk incentives of debt financing because short-term debt is less sensitive to shifts in risk of the firm's underlying assets. In a more recent study, Leland and Thoft (1996) reported that the optimal capital structure of a firm also depends on debt maturity and is lower when the firm is financed by short-term debt. Firms while issuing short-term debt do not exploit tax benefits as completely as firms with long-term debt, it is more likely that they will have less incentive to raise firm risk after the issue. This in turn reduces agency-related costs. The empirical prediction is that firms with more growth options employ a higher proportion of short-term debt in their capital structures.

Shah and khan (2009) reported that the agency cost model explained that smaller firms have higher agency costs because the potential conflict of risk shifting and claim dilution between shareholder and bondholders is more severe in these firms (Smith and Warner, 1979). This agency cost can be controlled with short-term debt (Barnea et al.1980).

2.6.2 Signaling Theory

Flannery (1986) reported a signaling model of debt maturity structure is based on the view that the firm's debt maturity structure is used by rational investors to infer private information held by insiders. For example, debt maturity structure can be used as a signaling device, when insiders are better informed than outside investors about the quality of the firm. He also reported that low-quality firms choose long-term debt whereas high-quality firms prefer short term debt because, with positive transaction costs, low quality firms cannot afford to roll over short-term debt. Also, with asymmetric information, high-quality firms will consider the market's required default premia to be excessive, which is most unreasonable on long-term debt due to the perception of a higher probability of credit quality deterioration than the firm's. Therefore, high-quality firms may choose to signal their quality by issuing short term debt. The signaling hypothesis is tested using the firm's abnormal future earnings as a proxy for the quality of firms, where higher-quality firms are assumed to have higher future abnormal earnings and vice versa. A negative relation between debt maturity and the measure of quality is reported.

Shah and khan (2009) also reported that firms generate signals to the outside world about their credit quality or their cash flows when they use a specific type of financing option. They also reported that debt maturity can reduce the costs of information asymmetry between firm managers and investors. They theoretically proved that if bond market investors cannot isolate good firms from bad ones, good firms will consider their long-term debt to be underpriced and will, therefore, issue short-term debt. Conversely in the same circumstances, bad firms will sell over-priced bonds.

2.6.3 Information Asymmetry

Pettit and singer, (1985) examined that information asymmetry problem is severe with small firms, as they find it costly to produce and distribute information about themselves because of information asymmetry, their access to capital market for long-term debt remains limited. The large fixed cost of flotation of fixed securities relative to the small size of the firm is another impediment that stops small firms approaching the capital market (Easterwood and Kadapakkam, 1994). Examining the maturity of firm's liabilities in thirty developed and developing countries during 1980-1991, (Demirguc-Kunt and Maksimovic, 1999) find that large firms have higher long-term debt ratios as compared to that of small firms.

2.7 Determinants of Debt Maturity Structure

Richard et al (2008) reported a negative relationship between liquidity and maturity that was prove after analysis of Chinese firms. Of course, this is related to a part of their research where ratio of current asset to current debt is considered for liquidity measurement. However, it is possible that overconfident managers weaken this logic positive relationship between debts and debt maturity. Since overconfident managers overestimate potential project success and profitability and they underestimate related risks, they may use more ratios of short-term debt to equity. Therefore, based on theoretical principles, it is expected that relationship between debt ratios and debt maturities in firms with overconfidence is negative.

Solano & Teruel (2007) reported that there is a significant relationship between leverage and debt maturity structure. They also reported that firms with higher leverage level prefer long-term debt to control their risk. Jen et al. (2003), in another research used considering

balanced approach toward debt maturity structure and found out that as they expected, there is a positive relationship between leverage and debt maturity. Whereas Dennis et al. (2000) and Richard et al. (2008) reported the negative relationship between leverage and debt maturity because agency cost of under investment may be limited by reducing leverage and debt maturity.

Hajiha & Akhlaghi (2012) reported that there is a positive relationship between firm size, tangible asset and growth opportunity and debt maturity structure. There was no relationship between financial leverage and debt maturity structure. Azad & Arian (2012) conducted a research on liquidity of assets and capital structure of firms listed in Tehran Stock Exchange and results indicated that there is a significant direct relationship between liquidity of assets and capital structure. Therefore firms can increase high-liquidity assets to rise their financial leverage. Using financial leverage is dependent on assets structure and borrowing power of the firms. Firms with high-liquidity assets can easily repay their debts. In addition, assets liquidity increases their collateral value.

Shah and Khan (2009) also reported a positive relationship between size firm and maturity structure of debt. The same positive relationship is suggested by information asymmetry hypothesis. Furthermore, fixed flotation costs of long-term securities make access to capital market difficult for small firms that again suggest a positive relationship between maturity of debt and size of the firm. Our proxy for the size of firm is the natural log of total asset.

Stohs and Mauer (1996) reported that when a firm has longer maturity of assets than the maturity of its debt, the cash flow from its assets will not be sufficient to meet the debt obligation. On the other hand, if a firm finances its short-term assets with longer maturity

debt, then the funds will remain useless in periods of low activity. This suggested that asset maturity has a positive relationship with debt maturity.

Marchica (2008) reported the effects of internal ownership and larger external shareholders on debt maturity in the UK and found a negative relationship between both of them. Arslan and Karan (2006) for Turkish firms also confirmed the negative relationship between debt maturity and ownership structure.

Federico Galizia and Dermot (2002) reported that firms with high capital expenditures are highly profitable and according to the pecking order theory firms do not distribute their profit as dividend, but rather use them to finance their capital expenditure and he reports the positive relationship between debt maturity and capital expenditure.

Shah and Khan (2009) reported the negative relationship between market to book asset and debt maturity and they used market to book asset variable as a growth variable and they reported that firms with higher growth rate have less debt maturity.

Hong and Jason (2006) reported that when tangible assets increase then these assets can be used as collateral and diminishing lender's risk of suffering such agency costs of debt. However, Abor (2008) reported the negative and significant relationship between tangibility and debt maturity whereas Terra (2011) reported that there is no significant relationship between both tangibility and debt maturity.

Brick & Liao (2013) explained that firms with excess cash flow do not use of long term debt because of information asymmetry. They also proved that debt maturity reduces the cost of information asymmetry between firms' managers and investors. They also reported that the cash flow volatility is negatively related to debt maturity and the firms with volatile

cash flows may be excluded from the long term market. This result is also similar to Johnson (2013) and Custodio, Ferreira and Laureano (2013).

Shleifer and Vishny (1986) reported that institutional shareholders are in the best position to initiate good governance in the company, they prefer the companies with regular payout policy for their shareholders and they also influence the companies to invest more in different projects. Hence due to increase in percentage of investment companies, debt maturity also increase. Hajiha and Akhloghi (2011) also reported the significant and positive relationship between debt maturity and percentage of ownership held by investment companies and institutional shareholding.

2.8 Impact of Ownership Structure on Debt Maturity

Barnea, et al. (1980) studied maturity of debt and managerial ownership and arguments that shortening the debt maturity structure to match the structure of assets can help to reduce the agency costs of institutional investors that ultimately have influence on the performance. Ownership structure affects financial decisions of Iranian firms specially, debt maturity structure, managerial ownership, large shareholder and institutional decision making.

Modigliani and Miller (1958) examined the stock ownership in US firms and debt maturity and report that there is a negative relationship between the capital structure decisions and shareholders. It also states that the managers with low equity ownership have agency conflicts between the shareholders and managers.

Guney and Ozkan (2005) also stated that there is a negative relationship between the shareholders and managers. Some theoretical relationship between managerial ownership and debt studies suggest that debt maturity can influence agency maturity for UK firms.

Myers (1977) also reported that there is a negative relationship between the shareholders and managers.

Garc and Mart (2010) focused on the relationship between ownership and short term debt in Iranian listed firms. Their results suggest a monotonic (concave) relationship between long term debt and managerial ownership.

Arslan and Karan (2006) investigated emerging market of Turkey with reference to the effects of investors act as a monitoring factor, directly through ownership structure and the presence of a large corporate governance and indirectly by affecting financial shareholder and discover a positive relationship.

Allen and Michaely (1994) stated that dividend policy is a complicated issue which has always been debatable. Not only the amount of money involved and the repetitive nature of dividend payout makes this topic important, payout policy has a close relation with most of the firm's investment and other financial

Vasicek and McQuown (1972) stated that a perfect market where all information is instantly available to investors for free and there are no taxes or transaction costs included is far out of reach. According to the irrelevance theory, under uncertainty, this is not the dividend policy that determines the market value, but the firm's investment policy is what that really matters.

Aretz and Bartram (2010) explained that, the companies which have low level of earnings but at the same time offer higher stock price gain their value from the future expansion opportunities. It is generally accepted that the main objective of all companies is maximizing the shareholders wealth (Brealey and Myers, 1996).

Fairchild (2010) reported that signaling theory asserts that dividends are a tool for managers to signal shareholders about the expected future performance and profitability of the corporation. However it is noted that dividends might also provide misleading signals to the shareholders. Investors might consider a dividends rise as a result of increase in the current income or elimination of cash flow problems or sense it as a negative sign of lack of investment opportunities or absence of growth options.

Allen and Michaely (2003) stated that companies can select repurchasing of the shares instead of paying dividends which would impose them less taxation costs but the reason why companies choose to pay dividends instead of repurchases lies in clientele effect (Allen et al. 2000).

According to Subramaniam et al. (2011) in tax clientele theory, the assumption is that the investors choose their portfolios according to marginal tax rate of the stocks. The investors in low tax brackets are more interested in stocks with high dividend payouts compared to the investors in high tax brackets.

De Angelo et al. (2000) explained refinancing risk is that type of the risk which is rolling on the firms for the taken debts and it is quite important source of generated risk for the firms. The firms which have shorter term maturity debts are at more refinancing risk than those who have longer term of the maturity. The firms with less maturity tend to mitigate the risk by keeping the cash in hand.

Ahn and Choi (2009) reported that during the time period of 1980 till 2008, the shortening of the debt maturity has been seen and this means that the firms are at more risk and thereby they have to hold more cash in their hands. With the increase in the corporate reserves of the cash, there is shortening of the maturity time from 28% to 34%, according.

Crespi-Cladera, and Renneboog (2003) reported that the cash serving plays valuable role for the mitigation of the refinancing risk and it has also put the greater value for the market. The refinancing risk and its significant becomes augmented with the every dollar increase over the cash. In addition, the organization establishes the reserves of the cash for the reduction of the underinvestment due to the difficulties arising from refinancing.

Jackson, and Hoepner, (2001) argued that, the lenders have to underestimate the value of contribution for the firms and must have to restrict the refinancing at the inefficient liquidation to the entire company.

Bolton, Chen, and Wang, (2011) explained that due to the established refinancing risk because of the shorter term maturity of the debts, companies may have to face the issue of liquidation and restrictions in the investment problems. Small boards tend to be more efficient and are associated with higher valuation. The market-to-book (which proxies for investment opportunities) and capital expenditures are positively related to cash holdings, which are similar to that found by previous studies. Board size (non-management block holder ownership) is positively (inversely) related to cash holdings.

Dittmar et al. (2003) findings confirmed the importance of corporate governance in the determination of corporate cash holdings and provide evidence that is consistent with the agency cost explanation as non-management block holders also help to alleviate the conflict of interest between managers and shareholders by acting as monitors.

Shepherd, Tung, and Yoon (2008) elaborated that the holding of this cash is not for the purpose of self-refinancing. This condition is rather generated to reduce the cash holdings for the potential under investment problems that will allow the partial refinancing for the poor credit conditions and for the increment of the credit worthiness for the refinancing of

the firms. The firms prefer to have the rates of the supplies with the short term duration of the credit taken and it tend to control the time of the debt maturity. It is the ability to make the choice for the making of the decision for the cash holdings and the debt maturity.

Ahn, and Choi (2009) explained that if the banks receive the loans with the shorter maturity for the financing of the shorter term duration of the corporate loans then the greater refinancing risk will be available at the SMD firms. However, it is suggested to these forms that they must take actions for the reduction of the refinancing risk. The companies will be weighing the benefits of the taken loans for the short term with the refinancing risk and simultaneously they will consider the holding of the larger cash which can reduce the refinancing risk, (Maher, and Andersson, 2000).

Shepherd, Tung, and Yoon, (2008) stated that while the debts are taken, the supply of the credit become tighter and it is becoming more difficult with the passage of time to receive the commercial loans and have the higher refinancing risk. This result in causing the SMD firms will have great propensities to hold the high reserves of the cash.

In addition, the discussion has extended the findings that the market value of the cash holdings depends upon the benefits and cost of the holding. Holding of the larger cash reserve enable the company to mitigate the risk of refinancing and this must be reflected in the valuation of the market for the cash reserves of the firms.

Bolton, Chen, and Wang, (2011) stated that the contribution of the holdings of cash tends to add higher value to the firms which has taken debt for the shorter maturity. It is thereby hypothesized that there is empirically predicted to have the positive association between the market valuation and the short maturity of the cash holdings, (Vitols, 2005). At the time

when the supply of the credit availability is tighter then the risk of the refinancing will be higher and it will have contribution over the cash holdings and the firm's value.

He, Li, Shi, and Twite, (2009) concluded that during the crisis of the credit, the companies which have taken more debts are facing huge trouble for the underinvestment. Presumably, the situation arises due to the use of limited cash reserves for paying off the debts with the higher rate of interest available with the less availability of the cash for the investment purpose. It also follows that the large SMDs hold large cash and use it for avoiding the problem of under investment.

Maher and Andersson, (2000) examined that the large cash holdings are adopted to mitigate the problem of the underinvestment for the companies which has shorter maturity date. It results in the prediction that positive cash holdings have positive impact over the investment for the firms that has shorter maturity dates.

On the basis of literature review, this study will examined the research questions by creating and examining the hypothesis.

2.9 Hypothesis

$H_{1:}$ Firm Size has significant influence on Cash Holding.

$H_{2:}$ Net Working Capital has significant influence on Cash Holding.

H_3: Market to Book Asset has significant influence on Cash Holding.

H_4: Liquidity has significant influence on Cash Holding.

H_5: Free Cash Flow has significant influence on Cash Holding.

H_6: Dividend Payout has significant influence on Cash Holding.

H_7: Leverage has significant influence on Cash Holding.

H_8: Percentage of Individual Shareholding has significant influence on Cash Holding.

H_9: Percentage of Institutional Shareholding has significant influence on Cash Holding.

H_{10}: Percentage of Investment Enterprises has significant influence on Cash Holding.

H_{11}: Percentage of Foreign Investment Enterprises has significant influence on Cash Holding.

H_{12}: Capital Expenditure has substantial influence on Debt Maturity Structure.

H_{13}: Size of firm has significant influence on Debt Maturity Structure.

H_{14}: Networking Capital has significant impact on Debt Maturity Structure.

H_{15}: Market to Book Asset has significant impact on Debt Maturity Structure.

H_{16}: Tangibility has significant impact on Debt Maturity Structure.

H_{17}: Liquidity has significant impact on Debt Maturity Structure.

H_{18}: Dividend Payout has substantial influence on Debt Maturity Structure.

H_{19}: Free Cash Flows has significant influence on Debt Maturity Structure.

H_{20}: Individual Shareholding has significant influence on Debt Maturity Structure.

H_{21}: Investment Shareholding has significant influence on Debt Maturity structure.

H_{22}: Foreign Companies has significant influence on Debt Maturity Structure.

CHAPTER 3

METHODOLOGY OF RESEARCH

This research is being conducted on Non-Financial organizations listed at Karachi Stock Exchange (KSE) 100 index of Pakistan. This chapter includes data and methodology, variables description, development of hypothesis, econometric model and the statistical description of the variables under study.

3.1 Source of Data Collection and Sampling

This research explains the association amongst ownership structure, debt maturity and cash holding. The study uses the data of different companies listed at Karachi Stock Exchange (KSE) during 2006-2013. The companies are selected on the basis of convenient sampling because most of the companies do not have the pattern of shareholding.

This research is limited to only non-financial classification whereas financial sector companies like insurance, banking, leasing and modarabas are not incorporated in this research because of particular nature of their activities and conduct of their business. These firms are selected from Textile sector, Sugar Industry, Cement Industry and Fuel and Energy sector.

3.2 Explanation of Variables

3.2.1 Debt Maturity

Previous studies focuses on the portion of a firm's total debt that is due in different time periods like after one year maturity, after two year maturity or the next three years maturity and this study contains debt that has a maturity of less than one year as Barclay and Smith (1995) used in their research work as well as Johnson (2003), and Mauer (2007).

Empirically, numerous proxies have been tested for debt-maturity and there are some studies that have been used as the long term debt maturing in (i) 5 years (ii) 2 years (iii) 1 year to total liabilities, Ozkan & Ozkan (2000). Whereas the other researchers have been used the ratio of debt maturing in more than 3 years to total debt (Barclay and Smith, 1995). This study uses the proxy for Debt Maturity as long term debt to total debt which is reported by DEMA, (Shah, Attaullah (2009)).

$$\text{DEMA} = \frac{\text{Long Term Debt}}{\text{Total Debt}}$$

3.2.2 Cash Holding

The described variable in this research is the cash holdings (CASH) which has been defined as the ratio of total liquid cash or cash equivalent and short term securities to total assets. Cash holding computed as liquid cash and short term securities divided by total assets, Opler et al. (1999).

$$\text{Cash Holding} = \frac{\text{Cash + Marketable Securities}}{\text{Total Assets – Marketable Securities}}$$

3.2.3 Firm Size

Firm size is usually determined as the natural log of the total assets. Different theories support the positive as well as the negative relationship between cash holdings and firm size. As trade off theory of cash flow proposed negative relationship between cash holding and firm size and on other hand there are also two theories (i) Pecking Order Theory and (ii) Free Cash Flow Theory that prophesies a positive relationship amongst cash holding and size of firm. Faul-kendra et al.; (2002) also observed the inverse relationship between cash holding and economies of scale.

Williaamson; (2001) and Batesl et al. (2009) observed the adverse relationship amongst cash holding and size of firm's for United States and their outcomes supports Trade Off Theory. Ozkan & Ozkan; (2004) observed a positive and significant relationship amongst cash holding and size of firm. Opler et al. (2009) also reported the positive relationship amongst firm size and holding of cash. Firm size is calculated by using the following formula.

Firm Size = Natural Log of Total Assets

3.2.4 Net Working Capital

Capital structure deals with the raising of funds along with the management of long term funds whereas "Working capital, including current assets minus current liabilities, is the source of short term capital." (Chiou et al. 2006).

The Net working capital (NWC) is measured by the proportion of current assets minus current liabilities to total assets.

$$NWC = \frac{\text{Total Current Assets} - \text{Total Current Liabilities}}{\text{Total Assets}}$$

3.2.5 Dividend Payout

There are several proxies used to calculate the dividend policy and for this purpose most of the previous studies used a proxy of dividend payout to determine the dividend policy of the firm as Rath (2005), Al-Malkawi (2007), Gugler (2003) and Attiya & Ahmed (2009) used in their own study whereas Kumar (2006) used dividend intensity as an alternative dummy for the dividend payout policy.

The formula used in this study to determine the dividend payout as total dividend paid divided by the earnings per share.

$$\text{Dividend Payout Ratio} = \frac{\text{Dividend Per Share}}{\text{Earnings Per Share}}$$

3.2.6 Market to Book Asset

This variable is used to measure the firm's growth and for this purpose market to book asset ratio is used as a proxy. Prior studies reported the negative and significant relationship amongst firm's growth and holding of cash as Ozkan & Ozkan; (2004), Nguyen; (2010) and Wei; (2010) reported positive relationship amongst firm's growth opportunities and holding of cash. All three theories proved a positive relationship amongst growth opportunities. Whereas Afza and Adnan, (2007), Rizwan and Javed, (2011) reports the negative and significant relationship amongst book to market asset and holding of cash. Market-to-Book asset is computed as the market value per share of the firm divided by the book value per share of the firm.

$$\text{Book to Market Asset} = \frac{\text{Market Value Per Share}}{\text{Book Value Per Share}}$$

3.2.7 Capital Expenditure

Capital expenditure is the variance amongst the present and prior year capital expenditure divided by total assets (Blanchard and Shleifer, 1994). Following proxies are used for capital expenditure in literature.

1. Capital expenditure / Change in PPE (Aggarwal and Samwick, 2006)
2. Capital expenditure / Fixed Asset Previous Year (Blanchard and Shleifer, 1994)
3. Capital expenditure / Total Sales (Anderson et al., 2006 & Titman et al., 2004)

4. Capital expenditure / Total Firms Value (Smith and Watts, 1992; Vogt, 1997).

5. Research & Development / Assets (Gaver, 1993)

6. Inventory Growth (Lamont and Stein, 1994)

7. Capital Expenditure Growth (Lev et al., 1993)

In this research study the proxy for capital expenditure proposed by Blanchard is used.

$$\text{Capital Expenditure} = \frac{\text{Fixed Assets current year} - \text{Fixed year previous year}}{\text{Fixed Asset Previous Year}}$$

3.2.8 Leverage

Financial empirical literature review proved that leverage is elaborated as a dummy of firm's debt issuing capabilities. For this purpose, total liabilities divided by total asset is used to measure the firm's debt issuing capability. Excluding trade off theory all other theories pecking order theory and free cash flow theory reported the negative relationship amongst leverage and holding of cash. Ozkan and Ozkan (2004) reported that experimental studies perceived a negative and significant relationship amongst leverage and holding of cash. However, it is collective observation that firms that have higher leverage choose to retain excess liquid cash. That's why in this research study leverage is determined by total liabilities divided to total asset.

$$\text{Leverage} = \text{Total Liabilities} / \text{Total Assets}$$

3.2.9 Liquidity

Liquidity or liquid assets is the state of art in which an asset or marketable securities can be taken on board or sold in the real or capital market without disturbing the asset's price. The assets which can be easily accepted to take into the board and can easily be sold out into the market is generally known as liquid assets, these assets comprise the account

receivable, stock, cash in hand and cash at bank as well. Pecking order theory suggested a inverse and significant relationship amongst liquidity and holding of cash holding. Opler et al. (1999) and Ferreira and Vilela, (2004) as well as Ozkan and Ozkan (2004) also observed an inverse relationship amongst liquidity and holing of cash with the argument that firm can fulfill its preventative and transactional necessities with liquid asset and it can also act as proxy for cash as reported in previous studies. In this study the cash in hand and short term inventories divided by current liabilities are used as the proxy for Liquidity.

Liquidity = Liquid Assets / Current Liabilities

3.2.10 Free Cash Flow

Cash flow is one the most essential element of financial corporate cash holding. Financial studies explained free cash flow as operating cash flows after tax and depreciation as used by the Ferreira and Ozkan & (2004). Model of trade-off theory stated that the free cash flow theory which reported that operating cash flows used as readymade source of liquidity that may be seen as an alternative to liquid cash. Therefore, Kim et al. (1998) reported the inverse relationship amongst operating free cash flow and holdings of cash. However, Ozkan and Ozkan (2004) also reported in their investigation that there is a inverse relationship amongst operating cash flows and holding of cash. Whereas, pecking order theory reported a positive and significant relationship amongst operating free cash flows and holding of cash because of higher operating cash flows is the prediction of smooth ruining operations in firms along with more investment opportunity, so that firms hold more cash.

3.2.11 Tangibility

In this study, Tangibility is calculated by the net fixed assets divided to total assets. (Shah, 2009).

Tangibility = Net Fixed Asset / Total Assets

3.2.12 Individuals Shareholding

Individual's shareholding means a person or an individual as a general public having shares of firm is known as individual shareholding. An individual may have portfolio of different firms where they can invest for the purpose of wealth maximization. It is one of the component of ownership structure. In this study data of individual shareholding is taken from the balance sheet of the companies as percentage of ownership held by the individual shareholding.

An individuals have the least amount of knowledge about the market and they mostly carried with the emotions and follow the market pattern to buy the shares whereas institutional investors are the most knowledgeable.

3.2.13 Institutional Shareholding

Institutional shareholding means a corporation such as a mutual investment funds, leasing banks and insurance companies that hold shares in a publicly operated corporations. In other words, the percentage of shares held by any mutual fund, bank or Insurance Company's is known as institutional shareholding. The data of institutional shareholding is taken from the balance sheet of the chosen companies as the percentage of the ownership structure held by the institutions.

3.2.14 Investment Companies

The companies whose major business is holding securities of different companies or firms for investment purpose to get the ultimate profit. These companies invest money or equivalent to money like marketable securities, mutual funds, bonds on the behalf of their customers who, in return, share the profit and loss equally. This is most often done either through a closed ended fund or open ended fund (also referred to as a mutual fund). The data of investment companies taken from the balance sheet of the chosen companies as percentage of ownership held by the investment companies.

3.2.15 Foreign Companies Investment

Foreign direct investment (FDI) or foreign investment companies' is an investment made by a corporations or individuals of one country to another country. In other words the companies acquire the establishing business operations or business assets in another countries, where the ownership or controlling interest is in the hands of foreign companies. Foreign investment companies or foreign direct investments (FDI) are renowned from portfolio investments in which an investor simply acquires all equities of foreign-based companies. The data of foreign investment is taken from the balance sheet of the chosen companies as percentage of ownership held by the foreign companies.

3.3 Data Analysis

The way to analyze the data for the extraction of the useful findings is done by using Panel Data Analysis. The Panel Data Analysis is the best way to reach towards the solution of the problem with the identification of the relationship present among the dependent and the independent variables.

In this study panel data models is used to estimate the hypothesis by applying different methods, which are common coefficient model (Least ordinary square model), fixed effect model and random effect model. All the three panel data models are changed on the basis of the assumptions. The whole model varies across the intercept and time series data. The intercept is constant along with the cross section and time series, whereas intercept is specific as well as cross section in fixed effects model and intercept is not specific in random effects model. This study uses the fixed effect model as it is proved that the model is fit.

Independent variables studied include Firm Size, Net Working Capital, Market-To-Book Assets, Dividend Payouts, Free Cash Flow, Liquidity, Tangibility, Capital Expenditure, Individuals shareholding, Institutional Shareholding, Investment companies, and Foreign Investment. The dependent variable is Cash Holding and Debt Maturity.

3.4 Econometric Model

The econometric representation model is given below

$$CH_{it} = \alpha + \beta_1 FS_{it} + \beta_2 NWC_{it} + \beta_3 MBA_{it} + \beta_4 LIQ_{it} + \beta_5 FCF_{it} + \beta_6 DPR_{it} + \beta_7 LVR_{it} + \beta_8 IND_{it} + \beta_9 INS_{it} + \beta_{10} IC_{it} + \beta_{11} FC_{it} + \epsilon_{it}$$

$$DM_{it} = \alpha + \beta_1 FS_{it} + \beta_2 MBA_{it} + \beta_3 CE_{it} + \beta_4 TANG_{it} + \beta_5 DPR_{it} + \beta_6 FCF_{it} + \beta_7 IND_{it} + \beta_8 INS_{it} + \beta_9 FC_{it} + \epsilon_{it}$$

Above equation uses CH and DM as the dependent variables, which are the representation of Cash Holding and Debt Maturity, whereas, FS report as an independent variable which is the used as the deputation for the Firm size, NWC report as an independent variable

which is used as the proxy for the Net Working Capital, LIQ reports as an independent variable which is used as the deputation for the Liquidity, FCF reports as an independent variable which is used as the proxy for Free Cash Flow, LVR reports as an independent variable which have been used as the deputation for the Leverage, TANG reports as an independent variable which is used as the deputation for the Tangibility, MBA also reports as an independent variable which is used as the deputation for the Market-To-Book Assets, DPR reports as an independent variable which is used as the deputation for the Dividend Payouts, CE reports as an independent variable which is used as the deputation for the Capital Expenditure, IND reports as an independent variable which is used as the deputation for the Individuals shareholding, INS reports as an independent variable which is used as the deputation for the Institutional shareholding, IC reports as an independent variable which is used as the deputation for the Investment Companies shareholding, FC reports as an independent variable which is used as the deputation for the Foreign Investment companies shareholding and € as the term of error.

Where,

i, Shows the number of firms used in the study i.e. here 74 firms.

t, Shows the time period used in the study i.e. here 8 years.

α, Shows the regression constant.

β, Shows the co-efficient for all explanatory variables.

ε, Corresponds to error term.

CHAPTER 4

DATA ANALYSIS

Chapter 4 is about the analysis and assessment of the data. This chapter explains the techniques, model and results with the help of data collected from sampled companies. The data has been collected from 2006 to 2013. This study used the different techniques like descriptive statistics, correlation matrix and unit root test to check the general track and stationarity of data. The Panel regression model technique is used for the analysis of the end result, which represents to the hypothesis of this study. Panel data technique is best technique where both time series and cross sectional data at same time can be estimated.

4.1 Descriptive Statistics

Descriptive statistics are brief descriptive coefficients that summarize a given data set, which can be either a representation of the entire population. Descriptive statistics are further categorized into two measures (i) central tendency (ii) variability. Measures of central tendency include the mean, median and mode, while measures of variability include the standard deviation or variance, the minimum and maximum variables, and the kurtosis and skewness. Therefore, descriptive statistics is used in this study to check the general trend of data and stationarity of data in which cash holding and debt maturity are the dependent variables and other explanatory variables are independent.

Table 4.1 Descriptive Statistics of Cash Holding and Debt Maturity Structure with Explanatory Variables

	CH	DM	FS	NWC	MBA	LIQ	LVR	DIV	TANG	FCF	IND	INS	IC	FC
Mean	0.053174	0.133332	14.87375	-0.002659	0.983468	0.741912	0.463665	0.538200	0.490877	10.66536	61.43905	7.859917	26.11197	3.302884
Median	0.016884	0.013991	14.79085	-0.007187	0.487106	0.674889	0.426681	1.000000	0.508878	12.23052	68.16000	4.310000	17.82000	0.000000
Maximum	0.543776	0.812931	18.52859	0.821803	24.85182	2.965503	2.866442	1.000000	0.968604	17.67133	99.94380	49.56000	95.27000	84.12000
Minimum	9.39E-06	0.000000	11.20534	-0.926187	-4.040404	0.004961	0.017076	0.000000	0.003809	0.000000	0.000000	0.000000	0.000000	0.000000
Std. Dev.	0.095785	0.180611	1.464881	0.227388	2.171485	0.396551	0.279632	0.498962	0.193968	4.791693	28.16425	9.182678	24.85491	13.39718
Skewness	0.932645	0.350913	0.070739	-0.429037	0.397464	1.566270	0.953232	-0.153249	-0.233786	-1.484301	-0.387166	1.435814	0.803569	0.502163
Kurtosis	3.33578	4.015770	3.557539	5.070732	3.02633	7.346848	3.20065	1.023485	2.586909	3.900411	1.897771	5.038861	2.437512	2.97714
Observations	589	589	589	589	589	589	589	589	589	589	589	589	589	589

Source: E-views 7 Descriptive Statistics

4.2 Correlation Matrix

The relationship between dependent and independent variables is examined by formulating a correlation matrix. Correlation matrix shows the relationship among variables. It has values from -1 to +1. Negative symbol shows that the relationship between both variables is negative, means that they both moves toward opposite sides. If one increases the other will decrease and vice versa.

As for positive symbol concerns, it shows that a positive relationship exists between both of them. If one increases the other will also increase and vice versa. Correlation shows the two way relationship, means that if one variable has negative association with other variable, the other one will also has the negative association with that one.

Table 4.2 reports that the correlation matrix between the variables which have been studied in this research, as the value of firm size (0.1771) shows that there is a positive correlation with cash holding and negatively correlate with debt maturity structure. However, liquidity (liq), leverage (lvr), Individual shareholding (ind), Foreign Shareholding (fc) are negatively correlated with cash holding (CH) whereas, Firms Size (fs), Networking capital (nwc), market to book (mba), Capital expenditure (ce), Institutional Shareholding (ins), Investment companies (ic) are positively correlated with cash holding. On the other hand market to book (mba), leverage (lvr), Individuals shareholding (ind) and Foreign Companies (fc) are negatively correlated with debt maturity structure whereas fs, nwc, Free cash flows (fcf), Capital expenditure (ce), Liquidity (liq), ins, ic and Dividend (div) are positively correlated with debt maturity structure.

Table 4.2 Correlation Matrix

	CH	DM	FS	NWC	MBA	FCF	LIQ	DIV	LVR	TANG	CE	IND	INS	IC	FC
CH	1.000000														
DM	-0.188859	1.000000													
FS	0.177164	0.269240	1.000000												
NWC	0.309002	0.043936	0.128231	1.000000											
MBA	0.148173	-0.159020	0.103977	0.114336	1.000000										
FCF	0.226763	0.217248	0.337620	0.231679	0.171891	1.000000									
LIQ	-0.049086	0.106510	-0.016646	0.651504	0.064674	0.116737	1.000000								
DIV	0.091164	0.076130	0.353801	0.360486	0.115936	0.536474	0.288771	1.000000							
LVR	-0.106134	-0.429205	-0.361047	-0.512909	0.014051	-0.425456	-0.409141	-0.257391	1.000000						
TANG	-0.242868	0.017325	-0.120552	-0.571434	-0.070202	-0.184966	-0.366396	-0.272884	-0.027150	1.000000					
CE	0.150742	0.100580	0.219937	0.089278	0.129376	0.216557	0.027359	0.151254	-0.124489	-0.200759	1.000000				
IND	-0.225079	-0.037472	-0.311201	-0.036428	-0.126136	-0.312986	0.027893	-0.095708	0.114515	0.055457	-0.120053	1.000000			
INS	0.051348	-0.179070	-0.179169	0.077249	0.082205	-0.144506	0.078398	-0.012127	0.189729	-0.211872	-0.004193	-0.219543	1.000000		
IC	0.209632	0.145830	0.374885	0.055452	0.058412	0.300990	-0.024715	0.077930	-0.195753	-0.000638	0.079150	-0.201316	-0.090415	1.000000	
FC	-0.009118	-0.042679	0.029952	-0.102654	0.008034	0.139185	-0.066644	0.045593	0.046121	0.015412	0.084346	-0.369816	-0.039503	-0.108575	1.000000

Source: E-Views 7, Correlation Output

4.3 Unit Root Test

Levin, Lin & Chu t* test at Level

Variable	Statistics	Prob
CH	-7.29217	0.0000
DM	-9.10420	0.0000
FS	-9.30506	0.0000
NWC	-24.5168	0.0000
FCF	-7.73605	0.0000
LIQ	-2.7605	0.0028
LVR	-11.3717	0.0000
TANG	-9.88546	0.0000
CE	-24.8190	0.0000
IND	-38.9860	0.0000
INS	-7.00637	0.0000
IC	-83.1479	0.0000
FC	-60.8106	0.0000

Above table shows that all the variables are stationary at level.

4.4 Model for Cash Holding

This model is based upon the assessment of relationship among the cash holdings and net working capital, market to book asset, dividend payout, firm size, liquidity, leverage, free cash flow, and ownership structure. Cash holding is treated as dependent variable while capital expenditure, market to book asset, dividend payout, firm size, percentage of individual's shareholding, percentage of institutional shareholding, percentage of foreign shareholdings and percentage of investment shareholdings are independent variables. This model is based on the following steps that are given below:-

1. Common Coefficient Method.
2. Fixed Effect Redundant Likelihood Method.
3. Fixed Effect Method.
4. Random Effect Method.

5. Hausman Test.
6. Explanation of the Fixed Effect Method.

Table 4.3 Impact of various company's specific variables on Cash Holding.

Common Coefficient Model

Variable	Coefficient	Prob.
C	0.003822	0.9491
FS	0.010445	0.0021
NWC	0.365292	0.0000
MBA	-0.002846	0.0831
LIQ	-0.108384	0.0000
FCF	5.76E-09	0.0000
DIV	-0.014478	0.0871
LVR	0.255750	0.0000
IND	-0.001407	0.0000
INS	-0.001255	0.0080
IC	-0.011102	0.0022
FC	-0.000632	0.0794
R^2	0.422933	
Adj R^2	0.411913	
F- stat	38.37743	
Probability Value	0.0000	

The main assumption of this model is that there is no distinction among the intercept of all cross sections, which means slope and intercept both are same for all cross sections. Let's assume that if the data is homogeneous, intercept will be same for all cross sections. The common coefficient model can be written as

$$Y_{it} = \beta_o + \beta_1 X_{it} + \ldots\ldots + \mu_{it}$$

Table 4.4 Fixed Effect Redundant Likelihood Test

Fixed effect redundant likelihood test is used to know that which model is best, either common coefficient model or fixed effect model or random effect model.

Test Effects	Statistic Value	D.F	Probability
F – Cross sections	9.869432	(73,503)	0.0000
Chi Square	522.646752	73	0.0000

The probability value reject the null hypothesis which clearly reports that this study used the alternative hypothesis.

Table 4.5 Impact of various company's specific variables on Cash Holding.

Fixed Effect Model

Variable	Coefficient	Prob.
C	0.737169	0.0000
FS	-0.039448	0.0000
NWC	0.489438	0.0000
MBA	-0.001340	0.0583
LIQ	-0.124157	0.0000
FCF	3.25E-09	0.0222
DIV	-0.013974	0.0840
LVR	0.332897	0.0000
IND	-0.001348	0.0003
INS	-0.001716	0.0193
IC	-0.013286	0.002
FC	-0.002396	0.000
R^2	0.762753	
Adj R^2	0.723133	
F-stat	19.25180	
Probability Value	0.000000	

This model proposes that intercept will not be the same for every cross section but quiet assume that the slope of coefficients are constant across the firms. This model can be written as

$$Y_{it} = \beta_{it} + \beta_1 X_{it} + \ldots\ldots + \mu_{it}$$

Table 4.6 Impact of various company's specific variables on Cash Holding.

Random Effect Model

Variable	Coefficient	Prob.
C	0.198808	0.0196
FS	-0.001618	0.7480
NWC	0.461808	0.0000
MBA	0.000720	0.7118
LIQ	-0.130659	0.0000
FCF	3.42E-09	0.0061
DIV	-0.015794	0.0362
LVR	0. 324098	0.0000
IND	-0.001648	0.0000
INS	-0.001805	0.0023
ICL	-0.013442	0.0005
FC	-0.001813	0.000
R^2	0.480009	
Adj R^2	0.470079	
F-stat	48.33740	
Probability Value	0.000000	

This model is same as fixed effect model, it is used when intercept is different for all cross sections and time period, but this model is used to check whether intercept follows a systematic pattern or not. It assumes that Beta is not meaningful here because it follows a random path. The model of the random effect can be written as

$$Y_{it} = (\beta_o + \mu) + \beta X_{1it}$$

Table 4.7 Hausman Test

This specific model is used to select that which model is finest in amongst the fixed effect redundant model or random effect model and the probability value reports that the fixed effect model is best fit for this study.

Particular	Chi Square	D.F Value.	Probability.
Cross Sections	67.531697	11	0.00

4.5 Explanation of Fixed Effect Method

By reporting the Hausman Test, model clearly reports that fixed effect method is best fit for this study. So that's why in this study all the variables are explained through fixed effect method.

Table 4.5 reports the significant and negative relationship between the firm size and cash holding. This means that when firm size increases, cash holding decreases. Which means that larger firms grasp less amount of cash as compared to smaller firms. Miller and Orr (1996) reports the reason of holding less cash by larger firms is that due to the larger ownership structure, firms may take the benefit by grabbing the opportunities and achieve the economies of scale with regard to holding the cash management strategies. Therefore, mostly larger firms get the benefits of holding less cash due to low borrowing cost. Studies also reported an alternative argument that is also supportive to this point of view is that larger firms have a minor possibility of bankruptcy or financial distress because they have an advanced level of diversification, and that is ultimately decreases their costs of capital (Raja and Zingale, 1995). Ferreira and Vilela, (2004) reported that raising of funds for smaller firms are more complicated and difficult as compared to larger firms. Trade off theory reported the inverse and significant relationship amongst holding of cash and firm size because of greater firms invest more in diverse growth opportunities instead of stockpiling (Haris and Ravi, 1990).

Table 4.5 reports the significant and positive relationship amongst the working capital and holding of cash. This means that when working capital increases, cash holding also increases. It indicates that working capital has an influenced on the productivity and solvency hazard. According to tradeoff theory (Ferreria and Vilela, 2004), higher the

amount of working capital, less the prone to risk of the companies. The higher the working capital, more the liquid cash is in the firm and is less chances to become an insolvent, whereas the lower level of working capital is connected with advanced level of danger (Asad and Qadeer, 2014).

The results indicate significant and inverse relationship amongst the market to book asset and holding of cash. This means that when market to book asset increases, cash holding decreases. This negative relationship indicates that companies with superior growth opportunity have superior valuations, hold lower cash elements. Afza and Adnan, (2007) and Rizwan and Javed (2011), also proved the inverse relationship amongst the cash holding and book to market assets.

This study also report the significant and inverse relationship amongst the liquidity and holding of cash. This means that when liquidity increases, cash holding decreases. It indicates that firms which have greater level of stock liquidity leads to additional cash liquidity, Drobetz and Gruninger (2007). It also indicates that financially constraint firms face higher cost to raise external capital whereas cash holding enables these firms to avoid higher cost for raising external funds, (Faulkender and Wang, 2006). It also reports that cash value is much higher for financially distressed organizations as parallel to those firms which can easily raise additional capital. Saddour k (2006) and Rizwan & Javed (2011) also reported the inverse relationship amongst holding of cash and liquidity. Pecking order theory (Myers & Mujluf, 1989) as well as Ozkan & Ozkan (2004), also reported the inverse relationship amongst the holding of cash and liquidity.

Table 4.5 reports the significant and positive relationship amongst free cash flow and holding of cash. This means that when operating cash flow increases, holding of cash also

increases. It indicates that high operating cash flows is the indication of smooth process with additional investment opportunity so therefore, firms hold additional cash (Pecking Order Theory). Ferreria & Vilela (2004) also reported the positive relation amongst the holding of cash and operating cash flows. It reports that holding of cash reduced the stress to perform well and permits to the managers to spend in profitable projects which is best suits for their own interest and not for the shareholders interest. Another theory of Jensen (1986) reports that directors have an encouragement to generate the cash to increase the amount of fixed assets and to gain the mandatory authority over the firm's investment conclusion.

Furthermore, results reports the inverse relationship amongst dividend and holding of cash. This means that, when dividend increases, the cash holding decreases. It also means that when firms declared the dividend, the ultimately cash holding of the firms are decreased because dividends are paid out of the cash holdings. Theories also reported the inverse relationship amongst the holding of cash and dividend payments as per Trade off theory. Al-Najjar (2012), reported that those firms which paid dividend to their block holders are supplementary capable to generate the funds at minor cost when desired by dropping their dividend payments.

There is also a positive and significant relationship amongst leverage and holding of cash. It means that when leverage increases, cash holding also increases. It indicates that newly developed firms grasp additional cash for the cautionary motives. According to trade off theory, it is commonly recognized that leverage increases the possibility of financial distress or bankruptcy. To reduce the likelihood of suffering financial distress, organizations with greater leverage are projected to hold more cash (Wenyao Li, 2003).

Results also report the significant and negative relationship between percentage of ownership held by individual shareholding and cash holdings. This means that when individual shareholding increases, cash holding decreases. Individual ownership symbolizes the proportion of ownership held by the persons or individuals. The negative relationship reports that firms tend to be more aggressive and maintain only necessary amount of cash for their transactional needs (Sheikh and Khan, 2015). According to agency theory there is an inverse relationship amongst the individual shareholding and cash holding.

Study also reports the significant and inverse relationship amongst percentage of ownership held by institutional shareholdings and holding of cash. This means that when institutional shareholding increases, cash holding decreases. It also indicates that firms paying out more of the free cash flow to their owners instead of keeping it within the firms (Jensen, 1986). Agency theory also proved that there is an inverse relationship amongst the percentage of institutional shareholding held by the firms and holding of cash. Ozkan & Ozkan (2004) also reported that the percentage of the organizations ownership held by the institutional shareholding have superior monitoring abilities and think about their own interest. So that's why institutional shareholding has negative relationship with cash holding.

Results also reports a significant and inverse relationship amongst percentage of ownership held by the investment companies and the holding of cash. This means that when the percentage of investment companies increases, cash holding decreases. Percentage of ownership held by investment companies are same as institutional shareholding because agency theory also supports to this result. It also indicates that firms pay to their

shareholders and increases shareholders' wealth so that's why cash holding decreases with the increase of investment ownership corporations.

Table 4.5 reports the significant and inverse relationship amongst the percentage of ownership held by the foreign companies and holding of the cash. This means that when foreign ownership companies' increases, cash holding decreases. It shows that the organizational capital investment is from the other state. Opler et al., (1999) and Harfoord and Maxwel (2008) reported altered determinants of organizational holding of cash for instance agency problems and financial policies with ownership structures and they found the negative relationship between them. Hamidullah et al. (2014) also reported the negative relationship between foreign shareholding and cash holding because foreign shareholders prefer cash dividend as to capital gain. It also indicates that the percentage of ownership structure held by foreign companies have more hold on firms financial policies and forced the managers to take the aggressive decision to hold less cash.

Table 4.5 explains the relationship between cash holding which is a dependent variable and independent variables like firm size, networking capital, market to book asset, liquidity, free cash flow, dividend, leverage, ownership percentage held by individuals' shareholding, ownership percentage held by institutional shareholding, ownership percentage held by investment companies and ownership percentage held by foreign companies. Table 4.3 reports the value of adjusted R^2 is 0.7231. It means that all independent variables explain 72.31% of variation in the cash holding. Table 4.5 also reports the F-statistics and probability value. F-statistics value attained is 19.25 with P-value 0.0000. As the probability is less than 5%, this means that firm size, networking capital, market to book asset, liquidity, free cash flow, dividend, leverage, ownership

percentage held by individual shareholding, percentage of ownership held by institutional shareholding, ownership percentage held by investment companies and ownership percentage held by foreign companies has adequately explained the cash holding. It also explains the accuracy and reliability of the independent variables to predict the dependent variable and model is fit.

4.6 Model for Debt Maturity

This model is based upon the assessment of relationship among the debt maturity and capital expenditure, firm size, net working capital, book to market assets, tangibility, liquidity, free cash flows, dividend, leverage and ownership structure. Debt maturity is treated as dependent variable while capital expenditure, firm size, net working capital, book to market assets, tangibility, liquidity, free cash flows, dividend, leverage and ownership structure are treated as independent variables. This model is based on following steps that are given below:-

1. Common Coefficient Method.
2. Fixed Effect Redundant Likelihood Method.
3. Fixed Effect Method.
4. Random Effect Method.
5. Hausman Test.
6. Explanation of Fixed Effect Method.

Table 4.8 Impact of various company's specific variables on Debt Maturity.

Common Coefficient Model

Variable	Coefficient	Prob.
C	0.288700	0.0129
CE	-0.000164	0.8246
FS	0.009306	0.1026
NWC	-0.618482	0.0000
MBAL	-0.025586	0.0000
TANG	-0.381029	0.0000
LIQ	0.050618	0.0089
FCF	-0.002651	0.1206
DIV	0.011976	0.4264
LVR	-0.729089	0.0000
IND	0.001918	0.0009
IC	0.002306	0.0002
FC	0.001215	0.0971
R^2	0.363157	
Adj R^2	0.349912	
F-Stat	27.41929	
Probability	0.00000	

The main assumption of this model is that there is no distinction among the intercept of all cross sections, which means slope and intercept both are same for all cross sections. Let's assume that if the data is homogeneous, intercept will be same for all cross sections. The common coefficient model can be written as

$$Y_{it} = \beta_o + \beta_1 X_{it} + \ldots\ldots + \mu_{it}$$

Table 4.9 Fixed Effect Redundant Likelihood Test

Fixed effect redundant likelihood test is used to know that which model is best, either common coefficient model or fixed effect method or random effect method.

Test Report	Statistic Value	D.F	Probability
F Cross Section	3.823257	(73,504)	0.000
Chi^2	260.001953	73	0.000

Probability value reject the null hypothesis which clearly reports that this study used the alternative hypothesis.

Table 4.10 Impact of various company's specific variables on Debt Maturity.

Fixed Effect Model

Variable	Coefficient	Prob.
C	-0.165358	0.5873
CE	-0.000458	0.5089
FS	0.036676	0.0556
NWC	-0.577160	0.0000
MBAL	-0.040183	0.0000
TANG	-0.289059	0.0000
LIQ	0.076170	0.0004
FCF	-0.005697	0.0021
DIV	0.043344	0.0104
LVR	-0.785460	0.0000
IND	0.001668	0.0621
IC	0.003173	0.0010
FC	0.003775	0.0015
R^2	0.590129	
Adj R^2	0.521004	
F Stat Value	8.537124	
Probability	0.0000	

This model proposes that intercept will not be the same for every cross section and assume that the slope of coefficients are perpetual across the firms. This model can be written as

$$Y_{it} = \beta_{it} + \beta_1 X_{it} + \ldots\ldots + \mu_{it}$$

Table 4.11 Impact of various company's specific variables on Debt Maturity

Random Effect Model

Variable	Coefficient	Prob.
C	0.230220	0.1106
CE	-0.000195	0.7692
FS	0.011289	0.1378
NWC	-0.610203	0.0000
MBAL	-0.035111	0.0000
TANG	-0.350768	0.0000
LIQ	0.071233	0.0002
FCF	-0.004300	0.0109
DIV	0.031392	0.0376
LVR	-0.757567	0.0000
IND	0.001964	0.0041
IC	0.002572	0.0005
FC	0.002237	0.0108
R^2	0.378893	
Adj R^2	0.365976	
F Stat	29.33223	
Probability	0.0000	

This model is same as fixed effect model, it is used when intercept is different for all cross sections and time period, but this model is used to check whether intercept follow a systematic pattern or not. It assumes that Beta is not meaningful here because it follows a random path. The model of the random effect can be written as

$$Y_{it} = (\beta_o + \mu) + \beta X_{1it}$$

Table 4.12 Hausman Test

Hausman test is analyses to choose the model which would be best fit amongst the fixed effect method or random effect method. Probability value reports that the fixed effect method is best fit for this study.

Summary	Chi-Sq. Stat	D.F	Probability
Cross-section	39.270672	12	0.0001

4.7 Explanation of Fixed Effect Method

The empirical results shown in table 4.10 reports the results of fixed effect method which is used to explain the influence of company specific variables on debt maturity structure. The above table 4.10 results report that there is negative and insignificant relationship between capital expenditure and debt maturity. This means that when capital expenditure increases, debt maturity decreases. It indicates that firms are highly profitable and according to pecking order theory, firms do not distribute their profit as dividend, but rather use them to finance their capital expenditure (Federico Galizia and Dermot, 2002).

Table 4.10 also reports the positive and significant relationship amongst size of firm and debt maturity structure. It indicates that as the size of the firm increases, the debt maturity structure also increases (Shah, and Khan, 2009). This means that superior firms have minor agency cost because these superior firms have supplementary access to capital market (Ozkan, 2002). Therefore it is proved that greater firm's issues additional long term debts to fulfil their requirements. The additional support to this study results agency theory and signaling theory also proved a positive relationship amongst size of firm and debt maturity structure (Terra, 2001).

Table 4.10 reports the significant and negative relationship between the net working capital and debt maturity. This means that when networking capital increases, debt maturity decreases. It also indicates that firm with short term loan has lesser interest cost and greater profitability whereas long term loans has greater interest cost and lesser profitability. It also means that working capital financed through short term debt. Protective covenant (working capital management) imposed by financial institutions also restrict the firms to

take long term debt as well. Flannery, (1986) and Noe, (1990) also reported the inverse relationship amongst debt maturity structure and networking capital.

Results also report the negative and significant relationship between market to book asset and debt maturity. This means that when market to book asset increases, debt maturity decreases. Shah and Khan (2009) also reported the inverse relationship amongst book to market assets and debt maturity structure, and they used market to book asset variable as a growth variable and they reported that firms with higher growth rate have less debt maturity. Flannery (1986) and Diamond (1991) also reported the inverse relationship amongst maturity structure and market to book asset.

There is also a substantial and inverse relationship amongst the tangibility and debt maturity structure. This means that when tangibility increases, debt maturity decreases. It indicates that if tangible or liquid assets increase then these liquid or tangible assets may be used as collateral and reducing lender's risk of bearing such agency costs of debt (Hong, and Jason, 2006). However, Abor (2008) also reported the negative and substantial relationship amongst tangibility and debt maturity whereas Terra (2011) proved that there is no significant relationship amongst both tangibility and maturity structure.

Table 4.10 reports that there is a substantial and positive relationship amongst liquidity and debt maturity. This means that when liquidity increases, debt maturity also increases. This means that current obligations of the firm met by its current resources. It also indicate that firms with higher liquidity get more long term loan to invest in fixed assets or any other investment. Barclay and Smith (1995) reported that there is a non-monotonic relation amongst liquidity and debt maturity as predicted by Diamond (1991). They also reported that firms with highest credit rating issue short term debt and the firms with lower credit

rating prefer long term debts to reduce the re-financing risk because of information asymmetry. Cai et al. (2008) also reported the positive relationship amongst liquidity and debt maturity.

Results also report the significant and negative relationship between free cash flow and debt maturity. This means that when free cash flow increases, debt maturity decreases. It indicates that firms with excess cash flow do not use of long term debt because of information asymmetry (Brick & Liao, 2013). They also proved that debt maturity reduces the cost of asymmetry information amongst firms' managing directors and investors. Brick and Liao, (2013), also reported that the cash flow volatility is negatively related to debt maturity structure and the firms with volatile cash flows may be excluded from the long term market. This result is also similar to Johnson (2013) and Ferreira and Laureano, (2013).

Dividend have significant and positive relationship with debt maturity. This means that when dividend increase, debt maturity also increases. Agency theory also support the positive correlation amongst debt maturity and dividend. Hajiha and Akhlaghi (2012) also reported the positive relationship amongst dividend and debt maturity structure based on the agency theory. It also states that firms pay more dividend to their shareholders when firms take more long term debt, according to signaling theory dividends are a tool for managers to signal shareholders about the expected future performance and profitability of the firm (Bhattacharya, 1979). McCabe (1979) also reported that when firms have more long term debt then firm pay more dividends.

Results also report the significant and negative relationship between leverage and debt maturity. This means that when leverage increases, debt maturity decreases. Dennis et al.

(2000) and Richard et al. (2008) also reported the negative relationship amongst debt issuing abilities and maturity structure of debt because agency cost of under investment may be restricted by reducing the abilities of issuing debt and the maturity structure of debt.

Percentage of ownership held by the investment companies reports the significant and positive relationship with debt maturity. It means that when the percentage of ownership held by investment companies increases, debt maturity also increases. According to the study of Shleifer and Vishny (1986), institutional shareholders are in the best position to initiate good governance in the company, they prefer the companies with regular payout policy for their shareholders and they also influence the companies to invest more in different projects. Hence due to increase in percentage of investment companies, debt maturity also increase. Hajiha and Akhloghi (2011) also reported the significant and positive relationship between debt maturity structure and ownership held by investment companies as well as institutional shareholding.

Ownership held by the foreign investment companies or FDI also report the significant and positive relationship with debt maturity. It means that when the ownership held by foreign investment companies' increases, debt maturity structure also increases. It also indicates that the firms with higher percentage of ownership held by the foreign companies have good debt maturity structure and have more capital and technological enriched (Li et at. 2006). They also proved that there is a positive relationship between debt maturity and percentage of ownership held by the foreign companies. Barclay and Smith (1995) reported that the firms with greater ownership of foreign shareholding have better management and corporate structure are more likely to receive large amount of long term debt.

Table 4.10 summarized the consequences of regression analysis where debt maturity is a dependent variable while independent variables are capital expenditure, firm size, networking capital, market to book asset, tangibility, Liquidity, free cash flow, dividend, leverage, ownership held by individual shareholding, ownership held by investment corporations and foreign companies. The value of adjusted R square is 0.590129. This means that independent variables can explain 59 % of the variation in debt maturity. As the probability value is less than 5%, this means that firm size, networking capital, market to book asset, tangibility, liquidity, free cash flow, dividend, leverage and ownership structure have adequately explained the debt maturity and model is fit.

CHAPTER 5

CONCLUSION AND RECOMMENDATIONS

In this chapter the whole study is summarized, conclusion have been drawn from the findings of this study and few recommendations have been forwarded depending upon the empirical findings.

5.1 Conclusion and Summary

This research has been conducted to examine the influence of ownership structure on cash holding and maturity structure of debt. For this purpose, study encompasses the secondary data of 76 Non-Financial organizations listed at Karachi Stock Exchange (KSE) Pakistan for the period of 2006 to 2013, where cash holding and debt maturity structure have been used as dependent variable whereas firm size, net working capital, book to market asset used as growth proxy, capital expenditure, liquidity, leverage, free cash flows, dividend payout, tangibility and the variables of ownership structures which includes individuals shareholding, institutional shareholding, investment companies shareholding and foreign companies shareholding are independent variables.

The objective of this study is to examine that, is there any impact of ownership structure on cash holding and debt maturity structure? Which is also related to the research questions of this study. For this purpose, study uses the panel data regression model to examine the results of different hypothesis.

This study is constructed on two basic research models, where first model is amongst the ownership structure and cash holding and the second model is between the ownership

structure and debt maturity structure. First model reported the negative and substantial relationship amongst firm size and holding of cash which concludes that first hypothesis is accepted and there is substantial impact of ownership structure on firm size. Trade off theory (Miller, 1977) as well as Ferreira and Vilela (2004), Saddour (2006), Drobetz and Gruninger (2007), and Rajan and Zingales (1995) also reported the inverse relationship amongst holding of cash and firm size which is similar to this study. Whereas, Afza and Adnan, (2007), reported positive relationship amongst firm size and holding of cash. The second hypothesis is also accepted as there is also a significant impact of ownership structure on networking capital. This study reported the positive relationship between cash holding and networking capital which is similar to the Ferreria and Vilela (2004), and Asad & Qadeer (2007), whereas Afza & Adnan (2007) and Megginson and Wei (2010) reported the inverse relationship amongst the holding of cash and networking capital. Third hypothesis is also accepted as there is also a significant relationship between cash holding and market to book asset. This study reported the negative relationship between both the variables which is similar to the Afza and Adnan (2007) and Rizwan and Javed (2011), whereas Alam et al. (2011) examined the positive relations amongst the holding of cash and market to book asset. Fourth hypothesis is also accepted as there is a significant and negative relationship between cash holding and liquidity. Pecking order theory (Myers & Mujluf, 1989) as well as Ozkan & Ozkan (2004), Saddour k (2006), Ferreira and Vilela (204) and Rizwan & Javed (2011) also reported the inverse relationship amongst cash holding and liquidity. Fifth hypothesis is also accepted as there is also a significant relationship amongst holding of cash and free cash flow. This study reported the positive relationship between both variables which is also similar to the Ferreria & Vilela (2004).

Pecking Order theory (Myer & Mujluf, 1989) and cash flow theory of Jensen (1986) also supports the positive relationship between both variables. Sixth hypothesis is also accepted at 10% significance level which means that there is a significant relationship amongst cash holding and dividend payout. This study reported the negative relationship between cash holding and dividend payout which is supported by the Tradeoff theory (Miller, 1977) and this results also similar to the Al-Najjar (2012), whereas Drobetz and Gruninger (2007) and Kim et al. (2011) examined the positive relationship amongst the holding of cash and dividend payout. Seventh hypothesis is also accepted as, there is also a significant relationship amongst the holding of cash and leverage. This study reported the positive relationship between both variables which is similar to the Wenyao Li (2003), whereas Ferreria and Vilela (2004), Saddour (2006) and Alam et al. (2011) examined the inverse relationship amongst cash holding and leverage. Eighth, Ninth, Tenth and Eleventh hypothesis of ownership structure are also accepted as significant and negative relationship amongst cash holding and ownership structure. Agency Theory as well as Sheikh and Khan (2015), Ozkan & Ozkan (2004), Hamidullah et al. (2014), Opler et al.(1999) and Harford and Maxwell (2008) also reported the inverse relationship amongst the holding of cash and ownership structure.

Second model reported the negative and insignificant relationship amongst capital expenditure and debt maturity structure, which means that Twelfth hypothesis is rejected. Federico and Dermot (2002) also reported the inverse relation amongst maturity structure of debt and capital expenditure. Thirteenth hypothesis is also accepted as, there is a substantial relationship amongst firm size and maturity structure of debt. This study report the positive relationship which is similar to the Shah and Khan (2009) and Ozkan (2002).

Both agency and signaling theory also supported the positive relation amongst firm size and maturity structure of debt (Terra, 2001). Fourteenth hypothesis is also accepted as, there is a significant relationship amongst debt maturity structure and networking capital. This study reported the negative relationship amongst the maturity structure of debt and networking capital which is also similar to the results of Flannery (1986) and Kale and Noe (1990). Fifteenth hypothesis is also accepted as there is a substantial relationship amongst the maturity structure of debt and market to book asset. This study reported the negative relationship between both variables which is also similar to the result of Shah and Khan (2009), Flannery (1986) and Diamond (1991). Sixteenth hypothesis is also accepted as there is a significant relationship between debt maturity structure and tangibility. This study reported the negative relationship between both variables which is also similar to the Abor (2008) and agency theory also supported the negative relationship between debt maturity and tangibility, whereas Terra (2011) reported that there is no significant relationship between debt maturity structure and tangibility. Seventeenth hypothesis is also accepted as, there is a significant relationship amongst debt maturity structure and liquidity. This study reported the positive relationship between both the variables which is similar to the results of Diamond (1991) and Cai et al. (2008), whereas Barclay and Smith (1995) reported that there is a non-monotonic relationship between liquidity and debt maturity. Eighteenth hypothesis is also accepted as there is a significant relationship between debt maturity and free cash flow. This study reported the positive relationship between both the variables which is also similar to the Brick and Liao (2013), Johnson (2013) and Custodio, Ferreira and Laureano (2013). Nineteenth hypothesis is also accepted, as there is a substantial relationship amongst debt maturity structure and dividend payout. This study

reported the positive relationship amongst both the variables, which is similar to the Hajiha and Akhlaghi (2012) and McCabe (1979). Agency theory also supports the positive and substantial relationship amongst maturity structure of debt and dividend payout ratio. Twentieth hypothesis is also accepted, as there is a substantial relationship amongst debt maturity and ability to issuing the debt. This study reported the negative relationship between both variables which is similar to the results of Dennis et al. (2000) and Richard et al. (2008). Twentieth one, two and three hypothesis of ownership is also accepted as there is a significant relationship between debt maturity structure and ownership structure. This study reported the positive relationship between both the variables which is also similar to the Shleifer and Vishny (1986), Hajiha and Akhloghi (2011) and Barclay and Smith (1995). Whereas agency theory is directly supported to the positive and substantial relationship amongst debt maturity structure and ownership structure.

5.2 Recommendation

Findings of this research advocate that there is a strong impact of ownership structure on cash holding as well as debt maturity structure. The holding of cash and the structure of debt decision represent the ownership structure of firm. Cash holding and debt maturity structure both have inverse relationship with ownership structure. Cash holding represents the negative or inverse relation with ownership structure whereas debt maturity has positive relation with ownership structure.

Firms with larger pattern of shareholding (individual's shareholding, institutional shareholding, Investment Company's shareholding and foreign shareholding) have more technological and human resources which may cause the good monitoring policies that decrease the agency cost between the shareholders and management, so that firms hold less

cash. On the other hand larger pattern of shareholding represents that firms take more debts to grab the good opportunities as for as firms diversification concerns.

According to the result of this study, this study recommends some needful suggestions that helps other shareholders, managers and the public as well:-

- Sampled firms should expand the ownership structure by involving institutional shareholders and foreign shareholders as well, so that firms hold less cash and good monitoring policy by reducing the agency cost. The other benefit of involving external shareholdings is that they facilitate to take the loan with low borrowing cost.
- In Pakistan, most of the shares are owned by the families so they are making decisions which are in the best interest of themselves. So if firms are paying dividends to their shareholders it means that most of the returns in the shape of dividends are going into their own pockets. This study found significant relationship with the cash holdings, which suggest that they are also playing role in reducing the agency problems between shareholders and management of the company. An effort must be made to ensure that whatever decisions are made by the insiders regarding any activity must be in line with the best interest of all shareholders, so that discrimination between majority and minority shareholders can be over.

5.3 Limitation of the Study

The current study chose only those companies which are listed at KSE and exclude every other company. There is no doubt that KSE is biggest stock exchange and is a representative for Pakistani market, however if more stock exchanges are included in the study, the results would definite be more generalizable in Pakistan.

Moreover, this study does not use the data of financial companies, so in future a comparable study can be conducted where at one end a sample of financial companies can be taken and at other end non-financial companies can be used. Furthermore, this study employs only a sample of 76 companies it can be extended to big sample by using the index of corporate governance and more variables of interest can be used to generalize the study's results.

5.4 Future Recommendations

There are following future recommendation that are given below:-

- As this study is as limited to only 74 Pakistani Non-Financial Firms. So, researchers would use the larger sampled size.
- This study also examined with other different variables like Tax & CEO Duality.
- Researchers can examined this study in the context of two countries and made a comparison study as well.

REFFERENCESS

Dittmar, A., Mahrt-Smith, J., & Servaes, H. (2003). International corporate governance and corporate cash holdings. *Journal of Financial and Quantitative analysis*, *38*(01), 111-133.

Acharya, V. V., Almeida, H., & Campello, M. (2007). Is cash negative debt? A hedging perspective on corporate financial policies. *Journal of Financial Intermediation*, *16*(4), 515-554.

Afza, T., & Adnan, S.M. (2007). Determinants of corporate cash holdings: A case study of Pakistan. *Proceedings of Singapore Economic Review Conference (SERC)* 2007, *August 01-04", Organized by Singapore Economics Review and The University of Manchester (Brooks World Poverty Institute), Singapore* 164-165.

Asad, M., and Qadeer, H. (2014). Components of working capital and profitability: A case of Fuel and Energy Sector of Pakistan. *A Research Journal of commerce, Economics and Social Sciences* 8, 41-51.

Almeida, H., Campello, M., Laranjeira, B., & Weisbenner, S. (2009). *Corporate debt maturity and the real effects of the 2007 credit crisis* (No. w14990). National Bureau of Economic Research.

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

Arslan, Ö., & Karan, M. B. (2006). Ownership and control structure as determinants of corporate debt maturity: a panel study of an emerging market. *Corporate Governance: An International Review*, *14*(4), 312-324.

Allen, f. and Michaely, R. (1994). Dividend policy. North Holland handbooks of operations research and management science, pp. 14-94.

Allen, F., & Michaely, R. (2003). Payout policy. *Handbook of the Economics of Finance*, *1*, 337-429.

Ahn, S., & Choi, W. (2009). The role of bank monitoring in corporate governance: Evidence from borrowers' earnings management behavior. *Journal of banking & finance*, *33*(2), 425-434.

Ahmed, H., & Javid, A. Y. (2008). Dynamics and determinants of dividend policy in Pakistan (evidence from Karachi stock exchange non-financial listed firms).

Aggarwal, R. K., & Samwick, A. A. (2006). Empire-builders and shirkers: Investment, firm performance, and managerial incentives. *Journal of Corporate Finance*, *12*(3), 489-515.

Anderson, C. W., & GARCIA-FEIJÓO, L. U. I. S. (2006). Empirical evidence on capital investment, growth options, and security returns. *The Journal of Finance*, *61*(1), 171-194.

Al-Najjar, B., & Belghitar, Y. (2011). Corporate cash holdings and dividend payments: Evidence from simultaneous analysis. *Managerial and Decision Economics*, *32*(4), 231-241.

Alam, H. M., Ali, L., Rehman, C. A., & Akram, M. (2011). Impact of working capital management on profitability and market valuation of Pakistani firms. *European Journal of Economics, Finance & Administrative Sciences*, *32*, 48-54.

Bartram, S. M., & Aretz, K. (2007). Corporate Hedging and Shareholder Value. *Journal of Financial Research*.

Bates, T. W., Kahle, K. M., & Stulz, R. M. (2009). Why do US firms hold so much more cash than they used to?. *The journal of finance*, *64*(5), 1985-2021.

Bayoumi, T., Tong, H., & Wei, S. J. (2012). The Chinese corporate savings puzzle: a firm-level cross-country perspective. In *Capitalizing China* (pp. 283-308). University of Chicago Press.

Baysinger, B. D., & Butler, H. N. (1985). Corporate governance and the board of directors: Performance effects of changes in board composition. *Journal of Law, Economics, & Organization*, *1*(1), 101-124.

Bathala, C. T., & Rao, R. P. (1995). The determinants of board composition: An agency theory perspective. *Managerial and decision economics*, *16*(1), 59-69.

Bigelli, M., & Sánchez-Vidal, J. (2012). Cash holdings in private firms. *Journal of Banking & Finance*, *36*(1), 26-35.

Brealey, A.R. and Myers, S.C. (1996) Principles of Corporate Finance, 5th edition, New York: McGraw-Hill.

Barclay, and Smith, Jr, W. (1995) 'The Maturity Structure of Corporate Debt', *The Journal of Finance,* vol. 50, no. 2, June, pp. 609-631.

Bhattacharya, S. (1979). Imperfect information, dividend policy, and "the bird in the hand" fallacy. *Bell journal of economics*, *10*(1), 259-270.

Bolton, P., Chen, H., & Wang, N. (2011). A unified theory of Tobin's q, corporate investment, financing, and risk management. *The journal of Finance*, *66*(5), 1545-1578.

Barnea, A., Haugen, R. A., & Senbet, L. W. (1980). A rationale for debt maturity structure and call provisions in the agency theoretic framework. *the Journal of Finance*, *35*(5), 1223-1234.

Barbosa, N., & Louri, H. (2002). On the determinants of multinationals' ownership preferences: evidence from Greece and Portugal. *International Journal of Industrial Organization*, *20*(4), 493-515.

Brick, I. E., & Liao, R. C. (2013). The Determinants of Debt Maturity and Cash Holdings.
Blanchard, O., C. Rhee, and L. Shleifer, (1994), "The Stock Market, Profit, and Investment," *Quarterly Journal of Economics*, 108, 77-114.

Basheer, M. F. (2014). Impact of Corporate Governance on Corporate Cash Holdings: An empirical study of firms in manufacturing industry of Pakistan. *International Journal of Innovation and Applied Studies*, *7*(4), 1371.

Claessens, S., Djankov, S., & Lang, L. H. (2000). The separation of ownership and control in East Asian corporations. *Journal of financial Economics*, *58*(1), 81-112.

Crespi-Cladera, R., & Renneboog, L. (2003). Corporate monitoring by shareholder coalitions in the UK. *ECGI-Finance Working Paper*, (12).

Chen, N., & Mahajan, A. (2010). Effects of macroeconomic conditions on corporate liquidity—international evidence. *International Research Journal of Finance and Economics*, *35*(35), 112-129.

Campbell, T., & Brendsel, L. (1977). The impact of compensating balance requirements on the cash balances of manufacturing corporations: An empirical study. *The Journal of Finance*, *32*(1), 31-40.

Custódio, C., Ferreira, M. A., & Laureano, L. (2013). Why are US firms using more short-term debt?. *Journal of Financial Economics*, *108*(1), 182-212.

Chiou, J. R., Cheng, L., & Wu, H. W. (2006). The determinants of working capital management. *Journal of American Academy of Business*, *10*(1), 149-155.

Cai, K., Fairchild, R., & Guney, Y. (2008). Debt maturity structure of Chinese companies. *Pacific-Basin Finance Journal*, *16*(3), 268-297.

Denis, D. J., & Sibilkov, V. (2009). Financial constraints, investment, and the value of cash holdings. *Review of Financial Studies*, hhp031.

Demsetz, H., & Lehn, K. (1985). The structure of corporate ownership: Causes and consequences. *Journal of political economy*, *93*(6), 1155-1177.

Dittmar, A., Mahrt-Smith, J., & Servaes, H. (2003). International corporate governance and corporate cash holdings. *Journal of Financial and Quantitative analysis*, *38*(01), 111-133.

Diamond, D. W. (1991). Debt maturity structure and liquidity risk. *The Quarterly Journal of Economics*, 709-737.

Drobetz, W., & Grüninger, M. C. (2007). Corporate cash holdings: Evidence from Switzerland. *Financial Markets and Portfolio Management*, *21*(3), 293-324.

Demirgüç-Kunt, A., & Maksimovic, V. (1999). Institutions, financial markets, and firm debt maturity. *Journal of financial economics*, *54*(3), 295-336.

DeAngelo, H., DeAngelo, L., & Skinner, D. J. (2000). Special dividends and the evolution of dividend signaling. *Journal of Financial Economics*, *57*(3), 309-354.

Easterwood, J. C., & Kadapakkam, P. R. (1994). Agency conflicts, issue costs, and debt maturity. *Quarterly Journal of Business and Economics*, 69-80.

Ferreira, M. A., & Vilela, A. S. (2004). Why do firms hold cash? Evidence from EMU countries. *European Financial Management*, *10*(2), 295-319.

Flannery, M. J. (1986). Asymmetric information and risky debt maturity choice. *The Journal of Finance*, *41*(1), 19-37.

Fama, E. F., & Jensen, M. C. (1983). Agency problems and residual claims. *The journal of law & Economics*, *26*(2), 327-349.

Faulkender, M., & Wang, R. (2006). Corporate financial policy and the value of cash. *The Journal of Finance*, *61*(4), 1957-1990.

Foreman-Peck, J., & Federico, G. (1999). *European industrial policy: the twentieth-century experience* (Vol. 1). Oxford University Press on Demand.

Fairchild, R. (2010). Dividend policy, signalling and free cash flow: an integrated approach. *Managerial Finance*, *36*(5), 394-413.

Guney, Y., Ozkan, A., & Ozkan, N. (2007). International evidence on the non-linear impact of leverage on corporate cash holdings. *Journal of Multinational financial management*, *17*(1), 45-60.

Gugler, K. (2003). Corporate governance, dividend payout policy, and the interrelation between dividends, R&D, and capital investment. *Journal of Banking & Finance*, *27*(7), 1297-1321.

Garc ´a-Teruel, P.J. and P. Mart ´nez-Solano, (2010). SSRN Working Paper Series. Tax effect on Spanish SME optimum debt maturity.

Grossman, S. J., & Hart, O. D. (1980). Takeover bids, the free-rider problem, and the theory of the corporation. *The Bell Journal of Economics*, 42-64.

Holderness, C. G., Kroszner, R. S., & Sheehan, D. P. (1999). Were the good old days that good? Changes in managerial stock ownership since the great depression. *The Journal of Finance*, *54*(2), 435-469.

Harford, J., Mansi, S. A., & Maxwell, W. F. (2012). Corporate governance and firm cash holdings in the US. In *Corporate Governance* (pp. 107-138). Springer Berlin Heidelberg.

Haushalter, D., Klasa, S., & Maxwell, W. F. (2007). The influence of product market dynamics on a firm's cash holdings and hedging behavior. *Journal of Financial Economics*, *84*(3), 797-825.

Hatfield, E., Cacioppo, J. T., & Rapson, R. L. (1994). *Emotional contagion*. Cambridge university press.

Harris, M., & Raviv, A. (1991). The theory of capital structure. *the Journal of Finance*, *46*(1), 297-355.

Hajiha, Z., & Akhlaghi, H. A. (2011). Ownership Structure and Debt Maturity Structure: An Empirical Study on Iranian Firms. *Midd. East. J. Sci. Res*, *9*(6), 814-825.

Hardin III, W. G., Highfield, M. J., Hill, M. D., & Kelly, G. W. (2009). The determinants of REIT cash holdings. *The Journal of Real Estate Finance and Economics*, *39*(1), 39-57.

He, X., Li, M., Shi, J., & Twite, G. J. (2009). Determinants of dividend policy in Chinese firms: Cash versus stock dividends. *Available at SSRN 1479053*.

Ullah, H., Saeed, G., & Zeb, A. (2014). Corporate Ownership Structure and Firm Excess Cash Holdings: Evidenced from Emerging Markets, Pakistan. *Abasyn University Journal of Social Sciences*, *7*(2).

Isshaq, Z., & Alufar Bokpin, G. (2009). Corporate liquidity management of listed firms in Ghana. *Asia-Pacific Journal of Business Administration*, *1*(2), 189-198.

Jackson, G., & Hoepner, M. (2001). An emerging market for corporate control? The Mannesmann takeover and German corporate governance. *Max-Planck-Institute for the Study of Societies, Discussion Paper*, (01/4).

Jensen, M. C. (1986). Agency cost of free cash flow, corporate finance, and takeovers. *Corporate Finance, and Takeovers. American Economic Review*, *76*(2).

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.

Johnson, S. A. (2003). Debt maturity and the effects of growth opportunities and liquidity risk on leverage. *Review of Financial Studies*, *16*(1), 209-236.

Jensen, M. C., & Ruback, R. S. (1983). The market for corporate control: The scientific evidence. *Journal of Financial economics*, *11*(1), 5-50.

Kalcheva, I., & Lins, K. V. (2007). International evidence on cash holdings and expected managerial agency problems. *Review of Financial Studies*, *20*(4), 1087-1112.

Kashyap, A. K., Stein, J. C., & Lamont, O. (1994). Credit Conditions and the Cyclical Behavior of lnventories.". *Quarterly Journal of Economics*, *109*.

Kim, C. S., Mauer, D. C., & Sherman, A. E. (1998). The determinants of corporate liquidity: Theory and evidence. *Journal of financial and quantitative analysis*, *33*(03), 335-359.

Kim, J., Kim, H., & Woods, D. (2011). Determinants of corporate cash-holding levels: An empirical examination of the restaurant industry. *International Journal of Hospitality Management*, *30*(3), 568-574.

Kuan, T. H., Li, C. S., & Chu, S. H. (2011). Cash holdings and corporate governance in family-controlled firms. *Journal of Business Research*, *64*(7), 757-764.

Kumar, J. (2006). Corporate governance and dividends payout in India. *Journal of Emerging Market Finance*, *5*(1), 15-58.

Kale, J. R., & Noe, T. H. (1990). Risky debt maturity choice in a sequential game equilibrium. *Journal of Financial Research*, *13*(2), 155-166.

Lemmon, M. L., & Lins, K. V. (2003). Ownership structure, corporate governance, and firm value: Evidence from the East Asian financial crisis. *The journal of finance*, *58*(4), 1445-1468.

Lev, B., & Thiagarajan, S. R. (1993). Fundamental information analysis. *Journal of Accounting research*, 190-215.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. (2000). Investor protection and corporate governance. *Journal of financial economics*, *58*(1), 3-27.

Lang, L. H., Stulz, R., & Walkling, R. A. (1991). A test of the free cash flow hypothesis: The case of bidder returns. *Journal of Financial Economics*, *29*(2), 315-335.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. (1999). Corporate Ownership around the World. *Journal of financial economics*, *58*(1), 3-27.

Lewis, T. R., & Sappington, D. E. (1995). Optimal capital structure in agency relationships. *The RAND Journal of Economics*, 343-361.

Leland, H. E., & Toft, K. B. (1996). Optimal capital structure, endogenous bankruptcy, and the term structure of credit spreads. *The Journal of Finance*, *51*(3), 987-1019.

Mat Nor, F., & Sulong, Z. (2007). The interaction effect of ownership structure and board governance on dividends: Evidence from Malaysian listed firms. *Capital market review*, *15*(1&2), 73-101.

Ma Yafin, (2012).What determines cash holding of a firm? Evidence from Euro-Zone Listed Firms. *Journal of Banking & Finance*, *28*(9), 2103-2134.

Miao, J. (2005). Optimal capital structure and industry dynamics. *The Journal of finance*, *60*(6), 2621-2659.

Myers, S. C. (1977). Determinants of corporate borrowing. *Journal of financial economics*, *5*(2), 147-175.

Myers, S. C. (1977). Determinants of corporate borrowing. *Journal of financial economics*, *5*(2), 147-175.

Marchica, M. T. (2008). On the relevance of ownership structure in determining the maturity of debt. In *EFA 2007 Ljubljana Meetings Paper*.

Modigliani, F. and M. Miller, (1958). The cost of maturity decisions. Applied Finance and Economics capital, corporate finance and the theory of Letter. 1: 233-238. *Investment American Economic Review,* 36.

Maher, M., & Andersson, T. (2000). Corporate governance: effects on firm performance and economic growth. *Available at SSRN 218490*.

Masulis, R. W., Wang, C., & Xie, F. (2007). Corporate governance and acquirer returns. *The Journal of Finance*, *62*(4), 1851-1889.

Megginson, W. L., & Wei, Z. (2010). Determinants and value of cash holdings: Evidence from China's privatized firms. In *23rd Australasian Finance and Banking Conference*.

Miller, M. H., & Orr, D. (1966). A Model of the Demand for Money by Firms. *The Quarterly journal of economics*, 413-435.

Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of financial economics*, *13*(2), 187-221.

McCabe, G. M. (1979). The empirical relationship between investment and financing: a new look. *Journal of Financial and Quantitative Analysis*, *14*(01), 119-135.

Nizar Al-Malkawi, H. A. (2007). Determinants of corporate dividend policy in Jordan: an application of the Tobit model. *Journal of Economic and Administrative Sciences*, *23*(2), 44-70.

Nadiri, M. I. (1969). The determinants of real cash balances in the US total manufacturing sector. *The Quarterly Journal of Economics*, 173-196.

Nguyen, P. (2006). How sensitive are Japanese firms to earnings risk? Evidence from cash holdings. *Evidence from Cash Holdings (June 2006)*.

Ng, C. Y. (2005). An empirical study on the relationship between ownership and performance in a family-based corporate environment. *Journal of Accounting, Auditing & Finance*, *20*(2), 121-146.

Opler, T., Pinkowitz, L., Stulz, R., & Williamson, R. (1999). The determinants and implications of corporate cash holdings. *Journal of financial economics*, *52*(1), 3-46.

Ozkan, A., & Ozkan, N. (2004). Corporate cash holdings: An empirical investigation of UK companies. *Journal of Banking & Finance*, *28*(9), 2103-2134.

Pinkowitz, L., Stulz, R., & Williamson, R. (2006). Does the contribution of corporate cash holdings and dividends to firm value depend on governance? A cross-country analysis. *The Journal of Finance*, *61*(6), 2725-2751.

Pettit, R. R., & Singer, R. F. (1985). Small business finance: a research agenda. *Financial management*, 47-60.

Rizwan, M. F., & Javed, T. (2011). Determinants of corporate cash holdings: evidence from Pakistani corporate sector. *Economics, Management and Financial Markets*, *6*(1), 344.

Rajan, R. G., & Zingales, L. (1995). What do we know about capital structure? Some evidence from international data. *The journal of Finance*, *50*(5), 1421-1460.

Reddy, Y. S., & Rath, S. (2005). Disappearing Dividends in Emerging Markets?: Evidence from India. *Emerging Markets Finance and Trade*, *41*(6), 58-82.

Renato Soares Terra, P. (2011). Determinants of corporate debt maturity in Latin America. *European Business Review*, *23*(1), 45-70.

Shepherd, J., Tung, F., & Yoon, A. (2008). What Else Matters for Corporate Governance?: The Case of Bank Monitoring. *Boston University Law Review, Forthcoming*, 08-35.

Shleifer, A., & Vishny, R. W. (1986). Large shareholders and corporate control. *The Journal of Political Economy*, 461-488.

Shleifer, A., & Vishny, R. W. (1992). Liquidation values and debt capacity: A market equilibrium approach. *The Journal of Finance*, *47*(4), 1343-1366.

Subramaniam, R., Devi, S. S., & Marimuthu, M. (2011). Investment opportunity set and dividend policy in Malaysia. *African Journal of Business Management*, *5*(24), 10128.

Shah, A., & Khan, S. A. (2009). Empirical investigation of debt-maturity structure: Evidence from Pakistan. *The Pakistan Development Review*, 565-578.

Smith, C. W., & Warner, J. B. (1979). On financial contracting: An analysis of bond covenants. *Journal of financial economics*, *7*(2), 117-161.

Stohs, M. H., & Mauer, D. C. (1996). The determinants of corporate debt maturity structure. *Journal of Business*, 279-312.

Smith, C. W., & Watts, R. L. (1992). The investment opportunity set and corporate financing, dividend, and compensation policies. *Journal of financial Economics*, *32*(3), 263-292.

Sheikh, N. A., & Khan, M. I. (2015). The impact of board attributes and insider ownership on corporate cash holdings: Evidence from Pakistan. *Pakistan Journal of Commerce and Social Sciences*, *9*(1), 52-68.

Saddour, K. (2006). *The determinants and the value of cash holdings: Evidence from French firms* (No. halshs-00151916).

Stulz, R. (1990). Managerial discretion and optimal financing policies. *Journal of financial Economics*, *26*(1), 3-27.

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

Tao, L. Z. W. (2006). Underperformance of Rights Issues: The Consequence of Earnings Management or the Deterioration of Real Performance [J]. *Accounting Research*, *8*, 008.

Vitols, S. (2005). Changes in Germany's Bank-Based Financial System: implications for corporate governance. *Corporate Governance: An International Review*, *13*(3), 386-396.

Vasicek, and McQuown, A. (1972). "The Efficient Market Model", *Financial Analysts Journal*, vol. 28, no. 5, September, pp. 71-84.

Wenyao, L. (2010). The Determinants of Cash Holdings: Evidence from Chinese Listed Companies. *Available on line at http://www. seiofbluemountain. com. Diakses tanggal*, *2*.

Williamson, O. (2001). Corporate governance. *Yale Law Journal*, 93, 1197-1229.

Yi, J. (2005). A study on debt maturity structure. *The Journal of American Academy of Business*, *7*(2), 277-285.

Zou, H., & Xiao, J. Z. (2006). The financing behaviour of listed Chinese firms. *The British Accounting Review*, *38*(3), 239-258.