Impact of Ownership Structure on Corporate Dividend Policy and Performance

By

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2004-NUST-PhD-Mgmt-01

PhD Program

In

Business Administration

Submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy

NUST Business School
National University of Sciences and Technology
Islamabad

Dedicated to

my parents (late) and a sincere friend Attaullah Shah

Acknowledgements

I begin by thanking Allah the Almighty, who gave me courage and strength to overcome the pressures and challenges connected to this thought-provoking and demanding task of completing the PhD dissertation.

I am blessed with the parents who have dedicated their whole life for the children. My mother had a passion for education. She always said that education is one's real asset which no one can steal. I had both my mother and father with me when I started off this journey back in 2005 but today when I am writing these lines, I do not find them around and they are no longer with us now. Though I faced a very tough time during my PhD studies, but it was my parents love and my mother's passion for education that I inspired to complete my doctoral education.

I would like to express my sincere gratitude to all those who have helped me complete this challenging task. I am grateful to both my supervisors, Dr. RaheelGohar and Dr. Abdullah Mohammad Iqbal for their valuable input, guidance and encouragement which gave me confidence to write my PhD dissertation.

I am grateful to Dr. Ashfaque Hassan Khan, Dean NBS for his patience and support during the completion of my thesis. I would like to highlight and acknowledge ex Director General NBS, Dr. Dilawar Ali Khan for his firm support and confidence in my abilities.

My GEC member and a colleague, DrAttaullah Shah has been a constant source of guidance and encouragement during the research. He guided me technically and supported me emotionally at times when I really needed that support. I am truly indebted to him and feel that without his support it would not have been possible to complete my dissertation.

I also acknowledge the patience and support of my family members during this long journey of completing my PhD; especially my brother, who used to look after the domestic issues at home and take care of the business and my wife who has been quite patient for the last five years while I was busy in my studies.

I am also thankful to my parent organization, the Institute of Management Sciences, Peshawar and the Higher Education Commission of Pakistan for the financial support that these organizations provided to make the completion my PhD possible.

Fahad Abdullah

August, 2011

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Impact of Ownership Structure on Corporate Dividend Policy and Performance

ABSTRACT

This dissertation studies the impact of corporate ownership structure on dividend payout and firm performance. The dissertation ties these variables to test whether policy intervention with respect to blockholding and higher managerial ownership is required in Pakistan. This dissertation develops and tests two main hypotheses about insiders' ownership in listed firms. The first hypothesis is related to finding evidence of expropriation of minority shareholders by insiders whereas the second hypothesis is related to quantification of the expropriation effects on firm value.

In the first part, this dissertation posits that the relevance and indeed the assumptions of the dividends cost minimization model ought to be restricted to those countries where shareholders rights are well protected. Alternatively, this study proposes an "investor power" hypothesis, which is closely akin to the La Porta et al.'s (2000) "outcome hypothesis". The investor power hypothesis states that the determining factor of dividends payout in a weak legal system is not the minimization of agency costs; instead it is the presence of certain powerful outside investors who can force firms to pay out dividends. Using two variants of the dividends cost minimization model and a modified version of the dividends partial adjustment model on a data set for 183 Pakistani listed firms, the empirical results partially support the investor power hypothesis. Results of the mean-comparison tests as well as the regression models show that dividend-payout ratio decreases with the ownership percentage of individual shareholders and the incumbent managers. The empirical results indicate that there is only weak evidence that institutional investors can force managers to pay dividends. Among the other variables, dividend payout ratio increases with the size of a firm and ownership percentage of associated companies, and decreases with financial leverage, coefficient of variation of net income, and growth opportunities.

In the second part, the dissertation hypothesizes that the market places expropriation premium on the stocks of the firms where large insiders are present. In addition to poor market performance, such firms are expected to show poor accounting performance due to various forms of expropriations. These hypotheses are tested with the help of OLS (ordinary least square) and 2SLS (two-stage least square) regressions while controlling for other explanatory variables that have been identified in the literature. The results indicate that both the market- and accounting-based measures of performance are negatively related to the ownership percentage of incumbent managers. Among the control variables, Tobin's Q increases with growth opportunities and

tangibility of assets, whereas it decreases with firm size, market risk, firm-specific risk, and ownership percentage of institutional shareholders.

CHAPTER1

INTRODUCTION

1.1 Introduction and Background of the Study

The debate over conflicts between managers and shareholders is more than two centuries old. Adam Smith (1776) argued that managers will not work with as much dedication as owners. Since then, multiple dimensions of the agency problems have been highlighted in the literature.These problems vary with firm characteristics as well as with financial and governance systems. Recently, several studies have shifted the focus towards internal conflicts of interests that shareholders can experience in afirm.LaPorta, Lopez-de-Silanes, Shleifer andVishny (2000) found strong evidence that expropriation of minority shareholders by controlling insiders is extensive. Different forms of expropriation are possible such as outright theft, sale of assets and products to related parties at unfair prices, giving lucrative positions to unqualified relatives or paying executives excessively. Expropriation creates inefficiency in a financial system in a sense that fund providers will be reluctant tosurrender their wealth in face of possibleexpropriation by the insiders. The legal way to control expropriation is to devise laws and enforce them effectively (La Porta et al., 1997, 1998). This indirectly implies that expropriation by insiderswillbe high in legal systems where content of the law and/or its enforcement do not protect the rights of minority shareholders. Pakistan is one such country where insiders' blockholdings are ubiquitous in the corporate sectorbut sufficient protection to minority shareholders is not available. One evidence of low judicial efficiency in Pakistan comes from the *"Doing Business 2010: Pakistan"*,a report by the World Bank. In this report, the World Bank ranks Pakistan 158th among 183 countries on overall contract enforcement. The report further shows that average time taken in disposing off a judicial case is 978 days whereas the average costs are 23.8% of the claim. These statistics shows that judicial process is not only lengthy but also costly in Pakistan when compared to other countries. The question that arises is that if expropriation by insiders creates inefficiency in a financial system, should it be controlled by making appropriate laws. The answer would be straight 'yes', if insiders' blockholdings do not

offer any compensating advantages. However, the fact is that the literature is equally replete with arguments that blockholdings, insiders' ownership, family ownership, and group affiliationsolve agency problems between managers and shareholders (Jensen and Meckling, 1976), reduce many transaction costs in labor and material markets, provide insurance mechanism to the group firms,andprovide a mechanism to deal with market failures of different sorts. A rational approach to leave or dismantle business groups and blockholdings will involve a systematic analysis of their value-additions and costs. Since a comprehensive analysis of this sort does not exist in Pakistan, any policy intervention in such a case can prove to be costly. This dissertation is a step forward in this direction and provides evidence on expropriationby insiders and the impact of the same on the values of the firms listed on Karachi Stock Exchange. The dissertation accomplishes this objective in two parts. Part 1 develops and tests several hypotheses about dividend decisions from the interplay of ownership variables and transaction cost variables. The primary focus of the analysis is on the question'whethermanagers with significant shareholdings pay dividends willingly or retain cash inside the firm even if the firm does not need the cash'. If managers do not pay dividends willingly, their shareholdings will be viewed as a signal of expropriation of minority shareholders, by the market. Market reaction to this type of expropriation is tested in part 2 of the thesis.

1.2 Ownership Structure and Dividend Policy

Dividends are considered a reward for equity holders. However, the payment of dividends is not mandatory. In practice, dividend decisions are linked to agency costs (Jensen, 1986; Easterbook, 1984), the firm's investment opportunities (Lease et al., 2000), existing leverage and available financing options (Smith and Warner, 1979; Rozeff, 1982), dividends and personal taxes (Brennan, 1970), the preferences of different groups of investors i.e. clienteles effects (John and Williams, 1985), the relative power of insiders and outsiders (La Porta et al., 2000), and the past payout and future profitability (Lintner, 1956; Brav et al., 2005). Despite an enormous amount of research in this area, dividends remain a puzzle for theoretical and empirical researchers (Black, 1976). In frictionless world, the payment of dividend is irrelevant to the value of a firm since investors can generate home-made dividends (Miller and Modigiliani, 1961). However, in less-than-perfect markets, an optimal dividend payout ratio exists that maximizes the firm's value. For example, several theoretical and empirical studies show when information asymmetry exists

between managers and external shareholders, dividends can be used as a signaling device. Bhattacharya (1979), Miller and Rock (1985), and Ambarish, John, and Williams (1987) argued that increases or cuts in dividends send signals regarding the future profitability of a firm. However, recent empirical studies have found weaker support for the signaling models (see, for example,DeAngelo, DeAngelo, and Skinner, 1996 and Benartzi, Michaely, and Thaler, 1997).

In relatively less efficient markets, a more powerful explanation of dividend payout policy has recently emerged in the context of agency models. In an agency framework, financial economists offer two opposing explanations for dividend payouts. Studies likeEasterbook (1984), Jensen (1986),Zwiebel (1996),Fluck (1998, 1999), Myers (2000), and Gomes (2000) suggest that dividends curtail cash flows under the managers' discretion and/or force managers to seek outside financing, which would subject them to the scrutiny of external markets. According to this agency view, one would expect outsiders to have a strong preference for dividends. Extending the agency model, Rozeff (1982) conjectured that dividend payout is an outcome of the trade-off between the firm's agency costs and transactions costs. He called his model as dividend cost minimization model (DCM). According to him, outside minority shareholders will demand higher dividends to overcome agency problems, however, these shareholders will be less forceful in their demands for dividends if they believe that dividend payment would subject the firm to higher transaction costs of external financing. However, La Porta et al. (2000) argues that dividends are not voluntarily paid by the management and that the rights of the minority shareholders in a legal system determine the dividend payout ratio. If minority shareholders have stronger rights, they can force management to payout dividends through different tactics. They found support for their hypothesis using a sample of 4000 firms from 33 countries.

It is hypothesized that a strong rationale exists for La Porta et al.'s (2000) argument especially in developing economies where the corporate governance indices are low and the rights of minority shareholders are not well protected. The agency model is based on the assumption that even minority shareholders can squeeze dividends out of firms and minimize agency costs. However, this assumption may seem unreasonable given imperfections of the legal and governance mechanisms in developing economies. It should be really hard for weak external shareholders to force well-entrenched managers or a large inside-blockholder to pay dividends in a weak legal system.

The overall theme of this study is in line with that of La Porta et al. (2000). However, it is different from theirs on two accounts. First, this study uses a within-country sample and distinguishes between different classes of shareholders on the basis of their relative powers to force firms to disgorge cash. For example, it is expected that outside individual shareholders are incapable of forcing entrenched managers to pay dividends. Hence dividend payout ratio would be negatively associated with the ownership percentage of individual shareholders. In contrast, the dividend cost minimization model of Rozeff (1982) implies a positive relationship between the two.

Second, this study also tests La Porta et al.'s (2000) outcome hypothesis (my close counterpart for their outcome hypothesis is "the investors' power hypothesis") with Lintner's (1956) Partial adjustment model. This study proxy's the investor's powers with the ownership percentage of institutional investors, who have the comparative advantage of information and being vocal about their rights. Being more powerful than individual investors, they can force firms to pay dividends. Other proxies that were used for investors' powers are the ownership percentage of directors, associated companies, and five largest shareholders. In contrast, La Porta et al. (2000) used an index that measures protection of investors' rights in different countries. It is argued that such an index may not be useful for a single country sample, as any specific group of investors is treated equally by the law.

1.3 Ownership Structure and Firm Performance

More than two centuries ago, Adam Smith (1776) raised doubts over the efficiency of joint stock companies because of the separation of management from ownership. He observed that managers of joint stock companies cannot be expected to watch over the business with the same anxious vigilance as owners in a partnership would. Adam Smith's worry remained buried for a century and a half until Berle and Means (1932) rekindled interest in this area when they hypothesized in their book that dispersed shareholding is an inefficient form of ownership structure. They argued that separation of ownership and management control has changed the role of owner from being active to the passive agent. Dispersed shareholders lack incentives to monitor self-interested managers who possess only a small fraction of the total shareholdings.

The propositions by Adam Smith (1776) and Berle and Means (1932) received some support when Jensen and Meckling (1976) tied together the elements of property rights, agency costs, and finance to develop a theory of ownership structure of a firm. Jensen and Meckling asserted that agency costs are real, which the owner can reduce either by increasing ownership stake of the agent in the firm or by incurring monitoring and bonding costs. In early tests, several research studies supported the views of Jensen and Meckling. However, these studies did not account for endoegenity problem.

A significant turn in the direction of research in this area was observed when Demsetz (1983) questioned the views held by Berle and Means (1932). Demsetz proposed that the ownership structure of the firm is optimally determined based on the principle of profit maximization. Owners of a closely held firm will sell shares only when they expect that doing so will increase the firm's performance. Similarly, owners of a widely held corporation will sell their shares in a takeover situation when they expect that doing so is optimal. Existing and potential shareholders choose concentrated or diffused ownership structure for a firm so that optimal performance level is reached. This implies that there is no systematic relationship between the level of ownership concentration in a firm and the firm performance. Allowing for endogenous determination of ownership structure and firm value, several studies including Demsetz and Lehn (1985), Demsetz and Villalonga (2001) show support for Demstez (1983)'s argument.

The nature of interaction between different stakeholders, and hence its implication for firm value, is different in developing economies. Claessens, Djankov, Fan, Lang, andFomento (1999) maintain that many of the East Asian economies are characterized by weak property and investors' rights, poor judicial efficiency, and corruption. These features make it easier for influential parties to exploit weaker ones. Moreover, many developing countries including Pakistan have family- and group-controlled businesses where substantial portion of shareholdings lie with family members or associated companies. Large shareholders such as these have significant powers to redistribute wealth in ways that might not coincide with the interests of other stakeholders (ShleiferandVishny (1997). A special case of a country where judicial efficiency is low (Word Bank, 2010), property and investors' rights are weak, and family- and group-controlled businesses are ubiquitous is Pakistan. Despite these facts, this country has not been able to attract sufficient attention of empirical researchers in this area. The

main objective of this study is to address this gap. Specifically, this study tests hypotheses and predictions of various theories which were discussed in the preceding paragraphs in the context of Pakistan. In doing so, it accounts for the problem of endogenity by estimating two-stage least square (2SLS) regression and models the relationship between various ownership variables in a manner that is consistent with the suggestions of Demsetz and Villalonga (2001). Moreover, it uses several alternative proxies for external monitoring to check robustness of the results.

1.4 Objectives and Contributions of the Study

The purpose of this study is to empirically evaluate the above hypotheses using a sample of Pakistani listed firms. In Pakistan, the ownership structure of firms is different from those of the Anglo Saxon countries like the US and the UK where dispersed shareholdings are ubiquitous. Pakistan lacks widely held corporations. The ownership of the firms is concentrated in a few hands, with large shareholders having ample incentives and ability to control. These settings can be used to test the validity of La Porta et al. (2000) hypothesis in comparison to the dividend cost minimization hypothesis. Further, the impact of ownership structure on the firm performance is to be analyzed with rigor.

The study makes several contributions to the literature. Firstly, this study extends the dividend cost minimization model of Rozeff (1982) by splitting the data set on the basis of 50th percentile of ownership variables. It is hypothesized and tested that the effects of transaction costs and agency costs on dividend payout ratio are not straight-forward; instead the presence of one moderates the impact of the other on dividend policy. Previous research in Pakistan or elsewhere has largely ignored this aspect. This conjecture allows us to split the data into two subsamples using the 50th percentiles of the ownership variables like percentage of ownership held by institutional investors, outside individual investors, directors (insiders) and associated companies. This unique methodology allows disentangling of the interaction effects that might exist between agency cost variables and transaction cost variables. In this regard, this study makes a valuable contribution to the literature. Because of this unique methodology, this research is able to evaluate whether demand for dividends by external shareholders decrease

systematically when the firm faces more transaction costs of external financing. Similarly, in line with the main hypothesis of this study, results indicate that dividend payout ratio decreases with increase in the directors' ownership, irrespective of whether the firm has more or less transaction costs of external financing. Existing studies in Pakistan have not examined these dimensions of the dividends payouts.

Second, this study examines the relationship between ownership variables and dividend policy in Pakistan. This area has attracted little attention of empirical researchers in Pakistan for the obvious reason of non-availability of ownership structure data in an organized form.

Third, the coverage is more extensive as the few existing studies on this topic in Pakistan lack rigor not only in terms of data set and insufficient number of ownership variables, but also in terms of proper econometric modeling.

Fourth, it is important to note that La Porta et al., (2000) make a specific case for the determinants of dividend payout ratio in weak legal systems. The results of their study have not been validated rigorously, especially on within-country samples. This study attempts to validate (or otherwise) their findings.

Fifth, this study also contributes to the extant literature by extensively examining the association between ownership structure and firm performance in Pakistan. Study of this aspect in the second part of the thesis complements the discussion on ownership structure and dividend policy in the first part of the thesis. Results in second part of the thesis lend further support to the hypothesis that entrenched managers/controlling-insiders act opportunistically to expropriate other shareholders. Results indicate that both market and operating performances are lower in firms in which directors have large shareholdings. Further, contrary to theory of CAPM but in line with the hypothesis of this study, results indicate that firm-specific risk factors are also priced in the market valuation of firms in Pakistan. All these unique results have not been explored in previous studies conducted on Pakistan.

To meet the above objectives, this study addresses a number of research questions. The broader question relates to whether corporate insiders' dominance in Pakistan results in value creation or value destruction for firms. The following questions are posed:

1. Does insiders' dominance reduce corporate dividend payout ratio in Pakistan?
2. Are institutional shareholders better monitors; do they force firms to pay dividends when the firms do not have effective use of retained earnings?
3. Does the interaction of transaction costs and agency costs affect dividend policy in Pakistan?
4. Does insiders' dominance affect accounting- and market-based measures of corporate performance?
5. In view of concentrated ownership structure in Pakistan, do systematic and unsystematic risk factors affect market performance of firms?

1.5 Limitations of the Study

Availability of data on ownership variables is the main constraint in Pakistan. There is no formal database which could provide such data. As a result, ownership data were hand collected from the annual reports and websites of listed companies. This data limitation restricted the sample size to only 183 firms. Even for those companies, data on the ownership variables had gaps. This restriction further necessitated time series averages of the ownership variables for every cross-sectional unit. Second, almost all previous research studies have tested the impact of the large outside blockholders on dividend payout ratio and firm performance. In this case, the available data did not permit to distinguish between external and managerial/group blockholders.

1.6 Scheme of the Study

The remainder of the dissertation is organized in the following manner. Chapter 2 reviews the existing literature and testable hypotheses are drawn in the light of existing literature. Chapter 3 presents data, methodology, model specification, and definition of variables. Chapter 4 reports the results, discusses findings and analyses both dividend and firm performance regressions. Chapter 5 concludes the dissertation and summarizes the findings. In addition, the policy implications and recommendations for further research are presented.

CHAPTER 2

LITERATURE REVIEW

Since this dissertations focuses on dividends decisions and firm value in relation to ownership structure, each aspect is discussed separately in Sections 2.1 and 2.2.

2.1 Ownership Structure and Corporate Dividend Decisions

This section discusses the theoretical considerations surrounding dividends, agency problems, dividends cost minimization model, and the investors' powers. Additionally, proxies for transaction cost variables and ownership variables are defined in the light of existing research. Finally, testable hypotheses are developed towards the end of this section.

2.1.1 Dividend and Related Theories

Dividend is the reward given to the owner (shareholder) in the corporate sector and is actually the portion of the earnings which the management decides to share with the providers of the equity finance. Dividends can take three forms: dividend in the form of cash; dividend paid in the form of additional stock; and the liquidating dividend. Black (1976) identified the dividend puzzle and since then academicians are trying to address the same but to no resolve. Mixed opinion is held by researcher as to how dividends affect the firm value. Corporate dividend policies are discussed under three schools of thought based on the prediction of the dividend payment's effect on share price. One cluster of researchers holds an opinion that the stock price increases with dividend payments because of the information content (Pettit, 1972; McCluskey et al., 2006). A second group believes that dividend payout reduces the firm value. This tendency of reduced firm value is attributed to the fact that firms hardly find any investment opportunities to invest funds in projects with positive NPVs (Woolridge and Ghosh, 1985;Soter et al., 1996).

Moreover, a higher dividend payment leads to higher tax payments especially in case where capital gains tax is lower (Litzenberger and Ramaswamy, 1979; Litzenberger and Ramaswamy, 1982; Poterba and Summers, 1984; Lasfer, 1995; Bell and Jenkinson, 2002; Brealey et al., 2008). The third group of theories maintains that firm dividend policy is irrelevant in stock price valuation (Miller and Modigliani, 1961; Black and Scholes, 1974).

The dividend irrelevance assumption is discussed followed by dividend models based on the information asymmetries and the behavioral aspects of the dividend

2.1.2 Dividend Irrelevance

Miller and Modigliani (1961) in their seminal work started off with the discussion on relevance of dividend on the value of the firm in the presence of certain assumptions. The "irrelevance theory" proposed by them suggests that the equity holders are indifferent whether they get the return in the form of a capital gain or dividend. Miller and Modigliani (1961) assumed that the benefit of cash dividend is counterbalanced by the capital loss experienced by the investor in the event of issuance of additional capital in the presence of fixed investment and borrowing policy. Two major assumptions driving the MM irrelevance theorem were that a firm's management is purely interested in maximizing share-holder value (there are no agency problems) and Corporate insiders and outsiders share the same information about the firm's operations and prospects (the ''symmetric information'' assumption). Other assumptions are given as (p.412)

> Their assumptions were based on "perfect capital markets" where "all traders [had] equal and costless access to information" along with "no brokerage fees, transfer taxes, or other transaction costs incurred when securities [were] bought, sold, or issued, and there [were] no tax differentials…between dividends and capital gains." Moreover, shareholders were assumed to be "rational"… "always prefer more wealth to less and [were] indifferent…..in cash payment or an increase in the market value of their holdings of shares." Finally the authors assumed "perfect certainty" [implied] complete assurance….to the

future investment program" with "no need to distinguish between stocks and bonds" (p. 412).

The authors stressed upon the importance of available investment opportunities and the future potential success of the business rather than the dividend in creating the value of the firm. This was observed by Miller and Modigliani (1961, p.414)

> "Values are determined solely by "real" considerations –…the earning power of the firm's assets and its investment policy – and not by how the fruits of the earning power are "packaged" for distribution."

The view held by Miller and Modgiliani was further reinforced by Black and Scholes (1974) who analyzed the effect of dividend payout on the expected returns to the equity holders. The results lend support to the dividend irrelevance hypothesis. The views held against irrelevance theory are based on empirical (Pettit, 1972) and theoretical grounds (Lintner, 1956 and Baker and Powell, 1999). For example, Baker and Powell's, (1999) survey about US firm's attitudes rejected the arguments in favor of dividend irrelevance based on the premise that dividend, investment and financing decisions were interconnected.

2.1.3 Models of Information Asymmetries

Subsequent theoretical research has analyzed the effects of incorporating asymmetric information and agency problems into the firm's dividend decision. This resulted in two competing approaches; the dividend signaling hypothesis, and the excess cash hypothesis

2.1.3.1 Signaling model

One of the criticisms on the dividend irrelevance theorem arises from the symmetric information assumption. The corporate insiders and outsiders may have different information content. The managers knowing more about the future prospects of the business may signal about the future performance by a change in the dividend policy (Bhattacharya, 1979; Bhattacharya, 1980). The signaling hypothesis states that under asymmetric information between managers and investors, dividend policy may provide signals regarding the firm's current performance and future

prospects. The evidence that a change in dividend payout ratio gives a signal is provided by Lintner (1956) who suggests that a higher dividend payout ratio will signal the level of certainty about the future profitability of the firm. A higher dividend payment will give a positive signal because it reduces the ambiguity about the future earning capability and the value of the firm (Baker and Powell, 1999). The dividends paid in cash are observed by the players in the financial markets and managers use this cash flow as a backing for the signal. The external stakeholders recognize increase in dividends as "good news" and a dividend cut as a "bad news" about the future profitability of the firm (Pettit, 1972; Aharony and Swary, 1980). Pettit (1972) examines the relationship between the dividend announcements and the share prices and found that significant price changes took place during the month of announcement and in the following month.

Although a lot of empirical researchers argue in favor of positive relationship between dividends and share price, i.e., Dividends increase is good news, Woolridge and Ghosh (1985) present an alternative view by debating that in the presence of strong growth opportunities, increased dividend payments may be considered bad news. Allen and Michaely (2002) note that with asymmetric information, the firms that pay dividends do not find investing opportunities with positive NPV. Black (1976) further emphasizes that a corporation that pays no dividend may demonstrate confidence of having attractive investment opportunities which may be missed upon payment of the dividends. Supporters of this point of view recognize that share price declines gain momentum once the investors are educated of the reasons for the dividend cut to ensure the true nature of the signal.

2.1.3.2 Free cash flow hypothesis

Prudent managers who act to maximize the shareholder's wealth should ideally undertake all profitable opportunities. The agency problem between the managers and the shareholders leads to the wastage or consumption of surplus resources at their disposal. This inefficiency was first recognized by Berle and Means (1932). Jensen (1986) later on highlighted the managers like to invest in negative NPV projects and prefer to build empires for themselves at the cost of minority shareholders. Higher dividend payments can address this value minimizing behavior on the part of the managers by reducing the cash flow under their control. These views also reflect that higher dividend payments lead to higher firm value. The free cash-flow hypothesis states that the

payment of dividend by corporations somehow tends to solve the agency problems that exist between the managers and outside investors (for example Easterbrook, 1984; Jensen, 1986; Fluck, 1995). Jensen's (1986) free cash flow hypothesis updated this assertion, combining market information asymmetries with agency theory. After having invested in all positive NPV projects, the remaining funds give rise to the conflict of interest between the two parties. Higher dividend and interest payments actually decrease the free cash flow available to managers and managers' privilege consumption.

2.1.4 Agency Problems and Dividends

Jensen and Meckling (1976) in their seminal study argue that managers act opportunistically to increase their personal benefits at the expense of external shareholders. Therefore, non-payment of dividends can effectively increase the chances of agents to misappropriate the shareholders' wealth towards their personal gains. As such, it is in the best interest of managers to pay lower dividends. In addition, managers may not want to pay dividends because the payment of dividends can subject managers to the scrutiny of external capital markets (Easterbrook, 1984).

2.1.5 Agency Problems, Transaction Costs and Dividends

Rozeff (1982) conjectures that optimal dividend payout ratio is determined by two factors; the agency costs of free cash flows and the transaction costs of outside financing. Agency costs decrease with the payment of dividends as such payments reduce the amount of free cash flows under the control of self-serving managers. Second, dividends payment could subject managers to the scrutiny of external capital providers and thus serve as a monitoring device. On the other hand, dividend payments would make it more likely for a firm to seek external financing and sustain transaction costs associated with it. An optimal dividend payout ratio will be one that minimizes the sum of agency costs and transaction costs.

2.1.6 Agency Problems, Transaction Costs, Investors' Power, and Dividends

Rozeff (1982) implicitly assumes that outside shareholders are powerful enough to force management to pay dividends. In other words, outside shareholders would require a payout ratio that minimizes transaction and agency costs. However, this assumption might not hold true in weak legal systems where outside shareholders are not well-protected. La Porta et al. (2000) draw a testable hypothesis from the agency framework of Jensen (1986) that managers would not pay dividends unless outside shareholders are powerful enough to force them to do so. Several studies show that investors' protection is weak and corporate governance index is low in emerging economies like Pakistan.

The following section identifies proxies for agency costs, investors' powers and the transactions costs in the light of the theoretical and empirical research.

2.1.7 Explanatory Variables: Proxies for Investors Powers and Agency Costs

2.1.7.1. Institutional ownership (INST)

The extant literature establishes link between dividend policy and institutional ownership when certain market inefficiencies exist. These inefficiencies include tax, information asymmetry, and agency costs. Besides these inefficiencies, various types of institutional investors might have unique preferences for dividends due to their assets/liabilities structures and or their shareholders' preferences.

The corporate taxation laws in Pakistan are similar to those in the US where corporate profits are taxed twice. Firms face a flat rate of tax whereas shareholders face a marginal income tax rate according to their income levels. Taxes are levied on both the firms when they declare profits and on individuals when they receive dividends. Theoretically, such a double taxation should discourage firms from paying dividends. However, certain financial institutions such as pension funds invest in equities to get returns from these investments in order to fund their ongoing

activities such as paying pensions and insurance claims/policies. Tax laws may create bias for capital gains, but these institutions cannot just simply wait for capital gains for ever (Short et al., 2002). Resultantly, such institutional investors will want their investee firms to pay more dividends. Bond, Chennells, and Devereux (1996) argue that the demand for higher dividend payout ratio by institutional shareholders could reveal their short-term attitudes and the tax exemption on dividends that institutional investors such as mutual funds enjoy in many countries. In recent times, a number of studies lend support to the above arguments. Chetty and Saez (2005) and Brav et al. (2005) found evidence in support of the above observations. Moreover, Perez-Gonzales (2003) and Holmen, Knopf, and Peterson (2008) found that after changes in tax laws or rates, firms that have institutional shareholders or large shareholders make changes in their dividends in a way that reduces the tax burden for such shareholders.

Several studies have highlighted the role of institutional shareholders in reducing agency problems. Since they are more informed, there will not allow self-serving managers to retain profits for no-good reasons. In this regard, Renneboog and Szilagyi (2007) provide evidence from Netherlands firms that payout ratio was highest in firms that were controlled by corporate insiders, along with institutional investors who possessed superior monitoring skills and incentives.

Though institutional investors are treated as a homogenous group in this study due to data limitation; nevertheless, the dividend preference of different types of institutional investors might be different. For example, banks (a kind of institutional investor) might force their investee firms to retain earnings and pay fewer dividends due to their inherent preference for low-risk investments (Amihud and Murgiam 1997). On the other hand, as argued above, insurance companies and pension funds prefer higher dividend payouts owing to their regular cash requirements for the settlement of the claims (Al-Malkawi, 2007; Khan, 2006).

Due to their large stake and monitoring capability, institutional investors are assumed to reduce the free-riders' problem which is more pronounced in the case of dispersed individual-ownership. Being good monitors, institutional investors can reduce the type of agency problems proposed by Jensen and Meckling (1976). In the context of agency model, Rozeff (1982) and Easterbrook (1984) argue that dividends can serve as a monitoring tool because it makes it more likely for a firm to be out in the capital market more often than not. The scrutiny of external

markets would result in lower agency costs. Zeckhauser and Pound (1990) conjecture that institutional investors can be a surrogate for dividends induced monitoring. It can be hypothesized that the percentage of institutional shareholding will be negatively related to dividend payout ratio.

However, in a system where managers do not pay dividends voluntarily even if they do not have value-enhancing projects, institutional investors would play a more direct role to reduce agency costs. They will use their powers to force managers to pay dividends. They could do so because they are more informed, active and aware of their rights as compared to individual investors. Along similar lines, Zeckhauser and Pound (1990) argue that large shareholders such as institutional investors do not monitor managers directly but instead force them to pay dividends. According to this alternative hypothesis, a higher percentage of institutional investors should increase dividend payout ratios. Besides this power hypothesis, the dividend preference hypothesis also predicts a positive relationship between institutional shareholders and dividend payout. Some studies have found evidence that institutional shareholders have a preference for dividends due to their assets-liabilities structures (Short et al. 2002).

2.1.7.2 Individuals ownership (IND)

Established financial literature has clearly established that individual shareholders lack incentives to monitor managers and impose checks on their activities. This is referred to as the free riders' problem. Grossman and Hart (1980) and Demsetz (1983) argue that minority shareholders get paybacks in proportion to their ownership but the cost they pay for monitoring is relatively high. Therefore, individual shareholders prefer dividend-induced monitoring instead of personal monitoring. In the cost minimization model of Rozeff (1982), higher percentage of individual shareholders should lead to a higher dividend payout ratio so as to reduce the amount of free-cash flow under the control of managers.

However, in legal systems where individual shareholders are not well protected, like the one in Pakistan, the most relevant question is whether individual shareholders can force managers to disgorge cash or not? In such legal systems, the power of individual shareholders to force firms to pay dividends should be a major determining factor of dividend payout ratio (La Porta et al.

2000). Thus, a more relevant hypothesis in Pakistan's context will be that individual shareholders are toothless and their higher ownership percentage would result in lower payout ratio.

Support to this view comes from the evidence reported in La Porta et al. (2000), where they found that dividend payout ratios were higher in common law countries because they have better investor protection whereas payout ratios are lower in civil law countries where such protection is weak. Moreover, they found that specifically in common law countries, firms with higher growth rates make lower dividend payouts than firms with low growth rate. La Porta et al. (2000) interpreted these results as evidence of the fact that investors use their legal powers in countries where good legal protection is available to force firms to pay dividends, especially when growth opportunities do not exist.

2.1.7.3 Directors' ownership (DIRC)

When inside directors have a higher stake in a firm, their interest is more aligned with the interest of outside shareholders (Jensen and Meckling, 1976). This renders dividends a useless tool for controlling agency problems. Consequently, we can expect an inverse relationship between directors' ownership and dividend payout. In contrast, we argue that the owner-directors do not pay dividend because dividend-induced monitoring is not needed, but because their larger stakes give them more power to retain profits inside the firm. Higher profit-retention allows the controlling shareholders to enjoy more perks and expropriate outside minority shareholders. Thus the negative association between directors' ownership and dividend payout should be considered as an expropriation of minority shareholders at the hands of the directors. To distinguish between these two alternative hypotheses, we estimate two different versions of the cost minimization model as explained in Section 3.1.2.1

2.1.7.4 Associated companies (ASSO)

Group companies have historically been viewed as a useful mechanism to help each other in financial matters, technology transfers, experience sharing, and also to overcome many

imperfections in product, capital, and the ongoing labor markets. Recently, several studies have shifted the focus towards internal conflicts of interests that shareholders in business groups can experience (see, for example, Dewenter et. al, 2001; Weinstein and Yafeh, 1998; and Morck, Nakamura, and Shivdasani, 1998; Berger and Ofek, 1995). On one hand, it is believed that business groups do not act opportunistically enough due to their reputation as these groups are highly visible. Their visibility might be due to their big sizes and/or usually the famous business tycoons or personalities with bureaucratic and political backgrounds that sit on their managerial boards (Dewenter et. al, 2001). On the other hand, a complex web of intra-group transactions might make it more difficult for analysts and investors to know about their opportunistic behavior. Thus the complexity of any intra-group transaction can increase the probability of opportunistic transactions. In the agency framework, a higher ownership percentage of group companies should reduce agency conflict between shareholders and managers, but it might lead to severe conflicts of interest between majority-insiders and minority-outsiders. Thus, if the group-reputation hypothesis holds, group companies should pay more dividends, as the transaction costs of such companies are assumed to be low due to the group size and reputation. However, if complexity of transaction hypothesis is true, then group companies should pay lower dividends, which would imply that the group companies are involved in minority shareholders exploitation, and/or the group has lower reputation and is facing higher transaction costs.

2.1.7.5 Blockholders (BLOC)

Owing to their large ownership stake, outside blockholders have sufficient incentives to monitor managers' activities, so they can reduce agency costs (Shleifer and Vishny 1986), suggesting that blockholders and dividends are alternative forms of monitoring. However, dividend is a costly option of monitoring and hence firm with large shareholders would like to use the less costly option (Goergen, Renneboog, and Correia da Silva 2005). Similarly, Rozeff's (1982) model suggests that large blockholders prefer lower or no dividends in order to reduce transaction costs. All of these studies use the term "blockholders" to refer to shareholders who are not part of the executive management. However, the data do not allow us to differentiate between internal and external blockholders. In Pakistan, family holdings are typical and prominent in the corporate sector. Therefore, in the absence of such information, the compelling assumption is that

blockholders are either directors or family members of the top management. Based on this assumption, *BLOC* should reduce problems between management and shareholders, but it may also give rise to another agency problem that exists between majority and minority shareholders. Therefore, a testable hypothesis for *BLOC* is that the dividend payout ratio is lower when *BLOC* is above the 50th percentile. My measure of blockholding is *BLOC* which is dummy variable. *BLOC* takes the value of 1 if the ownership percentage of the top 5 shareholders is above its 50th percentile, otherwise zero.

2.1.8 Explanatory Variables: Transaction Costs Variables

2.1.8.1 Size

Large firms are more diversified and less likely to experience financial distress (Titman and Wessels, 1988), face lower expected costs of bankruptcy as a percentage of total firm value, and generate more information about themselves than small firms (Pettit and Singer, 1985). These factors facilitate large firms' access to external financing at a lower cost than small firms. In the cost minimization model, keeping other things constant, large firms should have a higher dividend payout ratio. My measure of size of the firm is represented by *SIZE* and is calculated as the natural logarithm of total assets.

2.1.8.2 Growth

A growing firm is more likely to require external financing than a non-growing firm. According to pecking order theory, growing firms should rely first on internally generated funds, debt financing should be considered as a second option and finally equity should be issued. This implies a negative relationship between the firm's growth rate and its dividend payout ratio. Under the cost minimization model, growing firms will maintain lower dividend payout ratio because they are considered riskier than more mature and stable firms and face higher transaction costs of external financing. Growth is measured as the geometric mean of annual percentage increase in total assets and is represented by *GROW*.

2.1.8.3 Leverage and cash flow volatility

Leverage increases a firm's cash flow sensitivity to external shocks (Hamada, 1972). A firm with more volatile cash flows can be frequently in need of external financing (Rozeff 1982). Additionally, a higher leverage ratio reduces the likelihood that the firm will obtain more external financing easily and cheaply (Ozkan and Ozkan, 2004). Consequently, it is hypothesized that both leverage and cash flow volatility are negatively related to dividend payout ratio. Financial leverage *(LEV)* of a firm is measured by dividing total debts by total assets and Cash flow volatility*(CV)* is measured as the coefficient of variation of net income and are represented by *LEV* and *CV* accordingly.

2.1.9 Interaction of the Agency Cost Variables and the Transaction Cost Variables

Besides the straightforward influence of the agency cost variables and the transaction cost variables, it is hypothesized that the interactions of these variables also affect the dividend payout ratio. As an example, consider the case of firm size, which is a proxy for transaction costs, and the percentage of ownership by institutional shareholders, which is a proxy for agency costs and/or the relative power of investors. From the perspective of agency costs, institutional shareholders can monitor the activities of managers, thereby becoming a surrogate for dividend-induced, external monitoring. The presence of institutional shareholders would control agency costs, and the need to reduce free-cash flow through dividend payments would become less compelling. On the other hand, large size of the firm facilitates external financing. Dividends payment will not subject large firms to costly external financing.

Based on the theoretical arguments and justifications, I propose the following hypotheses:

H1: If the percentage of institutional shareholders is high, dividend payments would be less responsive to the size of a firm. However, they would be more responsive to the size of the firm where institutional shareholding is less or zero.

From the investors' power perspective, an alternative hypothesis could be developed by considering two firms operating in a country in which shareholders' rights are not well protected, i.e., a firm with larger stakes of institutional shareholders operating in a country with weak legal framework is compared with a firm with smaller stakes of institutional shareholders in an environment where minority shareholder's interest is at stake. Institutional shareholders in the first firm will be comparatively more powerful and could force managers to pay dividends as long as the firm does not incur higher transaction costs. As the firm size increases, the transaction costs would decrease accordingly and the dividend payments will be more responsive to the size of the firm in the first case as compared to the second one. Since the shareholders rights are not well protected, managers in the second firm would not pay dividends even if the firm had lower transaction costs. Thus, the dividend payout ratio will be less responsive to the size of the second firm in which there are fewer institutional shareholders. Hence I propose:

H2: If the percentage of institutional shareholders is high, dividend payment will be more responsive to the size of a firm. However, in firms where institutional shareholding is less, dividend payout will be less responsive to the size of the firm

We can generalize this to other transaction cost variables, for example, in the presence of strong institutional shareholders, dividend payout ratio will be more responsive to growth, leverage and cash flow volatility than it would be in the absence of strong institutional shareholders. Further we can generalize this to other ownership variables. Dividend payout ratio will be more responsive to all transaction cost variables in firms with lower percentage of managerial and individual ownership than other firms. All these hypotheses are based on the investors' power

hypothesis. These hypotheses are tested by splitting the data into groups that are based on the 50th percentiles of the ownership variables.

2.2 Ownership Structure and Firm Performance

This section reviews the theoretical considerations surrounding a firm's ownership structure and the firm's performance. Empirical evidence in favor or against these theoretical underpinnings are also presented. Finally, testable hypotheses are developed towards the end of this section.

2.2.1 Ownership Patterns and Firm's Performance

More than two centuries ago, Adam Smith observed that managers of a joint stock company cannot be expected to work with the same devotion as the owner of the business would. Berle and Means (1932) extended Smith's rationale and argued that firms with dispersed ownership will suffer more from agency problems. Diffused ownership gives significant power to managers under which they could use the firm's resources for their personal gains, instead of maximizing the shareholders' wealth. Berle and Means recipe for better corporate performance is a concentrated ownership structure. Jensen and Meckling (1976) developed a more comprehensive framework to suggest that concentrated ownership benefits a firm in a sense that large shareholders can reduce the firm's transaction costs by negotiating and enforcing contracts with different stakeholders. Shleifer and Vishny (1986) reach the same conclusion as Berle and Means, and Jensen and Meckling, but with a different explanation. Shleifer and Vishny (1986) suggest that large shareholders have the ability and incentives to monitor managers, which implies that the presence of large shareholders improves the firm's value. The consensus developed over the passage of time from the perspective of agency theory, imperfections in the labor, capital, and product markets was that the ownership structure does matter in the valuation of a firm. However, Demsetz (1983), Demsetz and Lehn (1985), and Demsetz and Villalonga (2001) challenged this view when they hypothesized that ownership structure and firm value are

determined endogenously. Their central hypothesis was that existing and potential shareholders change ownership structure of the firm in view of the profit-maximization motives. In other words, ownership structure is as likely to be influenced by the firm performance as it may influence firm performance. As a result, there should be no systematic relationship between the two. Limited empirical evidence exists in support of the views of Demsetz (2003) as observed by Shleifer andVishny (1997, p.759),

> "Although Demsetz (1983) and Demsetz and Lehn (1985) argue that there should be no relationship between ownership structure of a firm and its performance, the evidence has not borne out their view."

Thus, there exists some sort of agreement among financial economists that large shareholders create value. However, the relationship may not be strictly linear. For example, when large shareholders possess a larger fraction of shareholdings, this may enable them to indulge in expropriating minority shareholders and other stakeholders such as bondholders (Shleifer andVishny, 1997). This aspect of ownership structure and its implications for firm performance are reviewed next.

2.2.2 Large Shareholders and Firm Performance

Large shareholders bring a unique set of benefits and costs to a firm. As outlined in Subsection 2.1, large shareholders are good at monitoring and reducing transaction costs in a sense that they make and enforce better contracts with stakeholders of the firm. However, at the same time, large shareholders have costs as well. Shleifer andVishny (1997) discuss several costs of large shareholders which may in turn destroy value for other stakeholders of the firm. First, if large shareholders have relatively more control rights than their cash flow rights, they might pay themselves special dividends or take unfair advantage from business relationship with their companies (Grossman and Hart, 1982; Harris and Raviv, 1988). Second, large shareholders may force firms to take more risk in hope of higher return. This creates moral hazards problems for

debt holders as they do not share in upside movements of the firm profit but are affected by the downside movements (Jensen and Meckling (1976).

The above discussion makes it clear that the relationship between ownership structure and firm performance is inverted U-shaped. Stulz (1988) was the first one to suggest this kind of relationship. A number of empirical studies, including McConnell and Servaes (1990), Morck et al. (1988), and Wruck (1989), upheld Stulz's view.

A special case of large shareholders is the large-insiders' ownership which is reviewed next.

2.2.3 Insiders' Dominance

Increasing managers' ownership stake in a firm reduces the agency conflicts (Jensen and Meckling, 1976), however, managerial ownership beyond a certain point gives rise to another problem, known as managerial entrenchment. Fama and Jensen (1983) argue that higher managerial ownership makes the managers entrenched from job market risks or take-over threats. Entrenched managers are better placed to extract rents in the form of special dividends, perks, or bonuses (Shleifer and Vishney, 1997). Managerial entrenchment can result in several significant drawbacks such as outright theft, sale of assets and products to related parties at unfair prices, giving lucrative positions to unqualified relatives or paying executives excessively (La Porta et al. 2000). McColgan and Hillier (2009) further add that entrenched managers might show less preference for risk in order to preserve their capital and jobs. These drawbacks can result in poor operating or market performance of the firm. Consistent with the above arguments, a number of studies have found evidence that market performance of the firm increases when an unrelated CEO is appointed (Perez-Gonzalez, 2002; McColgan and Hillier, 2009). Similarly, Morck et al. (2000) provided evidence in support of the above views. They found that heir-controlled firms show lower levels of industry-adjusted performance and technical innovation when compared to firms of similar age and size.

Managerial entrenchment effects and rent extraction costs are assumed to be greater in countries where protection of investors' and property rights are weak, and judicial efficiency is low (La

Porta et al. 2000; Shleifer and Vishney, 1997). Given that Pakistan is a developing country, and like many other developing countries, it is expected that investors' protection is weak and judicial efficiency is low in Pakistan (Doing business, 2010 Pakistan). In addition, many firms are owned by families and groups where managers hold significant portion of the total shares.

In light of the above discussion, we test the following hypothesis,

H3: Firms with higher managerial ownership experience poorer performance.

2.2.4 The Monitoring Effect of Certain Groups of Shareholders

Managerial rent extraction can be controlled to some extent if there are shareholders in the firm who have monitoring capabilities. Large shareholders, institutional shareholders, and associated companies are such groups of shareholders who might question and restrict managerial actions.

2.2.4.1 Institutional shareholders and firm performance

Institutional investors are an important stakeholder in corporate governance mechanisms because they have the potential to play the monitoring role (Roberts and Yuan, 2010; Shleifer and Vishny, 1986). Several reasons exist why they would or would not monitor the activities of managers. Institutional investors are usually thought to have longer investment horizons which in turn motivate them to get involved in the affairs of the firm (Jeon, Lee and Moffett, 2011; Short andKeasey, 1999; Wahab and Rahman, 2009; Shome and Singh, 1995). Their willingness to monitor is also related to their ability to monitor. Their ability in turn is related to several factors: Firstly, they have better access to various sources of information to know about managerial rent extractions (Lev, 1988); and, secondly, they can potentially intimidate the firms' management either through sale of their shares or by using their voting rights (Gillan and Starks, 2003).

Empirical evidence suggests that when institutional shareholders do not own a significant fraction of their total investments in a firm, their level of commitment will be low (Burns, Kedia, and Lipson, 2010). In extreme cases, large external shareholders (like institutional shareholders)

may be passive voters and may collude with managers to expropriate other minority shareholders (Pound, 1988). A number of studies that examined the possibility of whether or not institutional investors can influence a firm value have failed to find any association between the two. (Agrawal and Knoeber, 1996; Duggal and Miller, 1999; Faccio and Lasfer, 2000; Karpoff, Malatesta and Walking, 1996). Reasons behind the passive role of institutional investors include lack of ability to monitor (Taylor, 1990), short-term investment horizons (Coffee, 1991) free rider problems (Black, 1990; Ernst Maug, 1998) and regulatory restrictions (Jennings, 2005).

As mentioned previously, it is possible that institutional shareholders suffer from passive voters' phenomenon. The passive voters' hypothesis will hold true if the level of investment of the institutional shareholders is quite low in a firm (Burns, Kedia, & Lipson, 2010) or the institutional shareholders intend to invest for quite short period of time. Data available in Pakistan does not allow differentiating between long-term or short-term institutional shareholders. However, data and methodology used in this research allows differentiating between small and large levels of investment by institutional shareholders in a firm. As will be discussed in detail in the Methodology Section, this research employs the 50^{th} percentile cut-off point to form the dummy variable *INST*. Such a classification will isolate institutional shareholders with substantially higher investment from those with smaller ones. Institutional shareholders in the upper 50^{th} percentile are assumed to have substantial shareholdings that motivate these shareholders to monitor the activities of managers

H4: Performance is expected to be higher in firms where institutional shareholding is above 50^{th} percentile than in firms where institutional shareholding is below the 50^{th} percentile.

2.2.4.2 Group association

If a firm is a part of a large group of companies, the firm can reap several benefits from the group association. First, group companies can act as large external shareholders who can help in controlling expropriations by the top management. James (1999) adds to the view by arguing that the ownership held by the associated firms are more long term in nature and this very characteristic of unmitigated sphere of investment leads to efficient strategic decisions. Another argument that goes in favor of associated ownership is that a firm can benefit from the goodwill

and reputation of the group. Furthermore, group companies assist one another through shared resources such as finance, technology, and experience (Villalonga and Amit 2006; Wang, 2006; Sraer and Thesmar, 2007; and Maury, 2006).

Recently, several studies have shifted the focus towards internal conflicts of interests that shareholders in business groups can experience (see Dewenter et. al, 2001; Weinstein and Yafeh, 1998; and Morck, Nakamura, and Shivdasani, 1998; Berger and Ofek, 1995). On one hand, it is believed that business groups do not act opportunistically due to their reputation as these groups are highly visible. This visibility might be due to their big sizes and/or usually the famous business tycoons or personalities with bureaucratic and political backgrounds that sit on their managerial boards (Dewenter et. al, 2001). On the other hand, a complex web of intra-group transactions might make it more difficult for analysts and investors to know about their opportunistic behavior. Thus the complexity of intra-group transaction can increase the probability of opportunistic behavior.

In an agency framework, a higher ownership percentage of group companies should reduce agency conflict between shareholders and managers, but at the same time, it might lead to severe conflicts of interest between majority-insiders and minority-outsiders. Thus, if the group-reputation hypothesis holds, group companies should exhibit better market and accounting performance than non-group companies, as the transaction costs of such companies are assumed to be low due to the group size and reputation. However, if complexity of transaction hypothesis is true, then group companies would display weak performance, which would imply that the group companies are involved in minority shareholders exploitation, and/or the group has inferior reputation and is facing higher transaction costs.

In view of the above, two testable hypotheses can be proposed. Given that group companies monitor the managers' activities and/or the firm does not exploit minority shareholders due to the group's reputation, a testable hypothesis is:

H5a: Higher ownership percentage of associated companies in a firm leads to a better performance of the firm

If group companies do not care about the group's image and/or the intra-group transactions are considered complex by analysts and shareholders, then they will demand risk premium in view of possible expropriation of minority shareholders. A competing hypothesis, in this context, is:

H5b: Higher ownership percentage of associated companies in a firm leads to a poor performance of the firm

2.2.5 How to Measure Firm Performance

An enduring query that has puzzled empirical researchers is what measure of performance is most appropriate in studying the relationship between corporate ownership structures and a firm's performance. Literature mainly suggests the use of accounting-based and market-based measures of a firm's performance. Both of them have their own advantages and disadvantages. Demsetz and Lehn (1985) used accounting profit rate while Demsetz and Villalonga (2001) and Morck, Shleifer and Vishny (1988) used both accounting measure and Tobin's Q as alternative measures of firm performance. The majority of researchers like McConnell and Servaes (1990), Loderer and Marin (1997), Cho (1998), Himmelberg, Hubbard and Palia (1999), Hermalin and Weisbach (1991) and Holderness, Kroszner and Sheehan (1999) have used Tobin's Q as a preferred measure of firm performance. These two measures differ in terms of time and the fact that who actually measures performance. The problem with accounting profit rate is that its calculation is subject to accounting standards which do not account for market value of growth options. Also accounting profit rate is inherently more backward-looking. In other words, accounting profit rate is based on the facts reported in the financial records, so future expected cash flows are minimally considered. In contrast, Tobin's Q is a market-based measure of performance. It accounts for all present decisions/actions taken by the management as well as the future expected performance of the firm. The disadvantage associated with this measure is that it is driven by the investors' psychology and may be biased at time because of the investors' undue optimistic or pessimistic behaviors. Moreover, Tobin's Q also involves the figures from financial

records (i.e. book value of tangible assets) in its calculation which is why Demsetz and Villalonga (2001) suggested that there would be a correlation between the two measures. The above discussion highlights that each measure has its own pros and cons and should be used with caution. This study uses Tobins's Q as well as accounting-based measures for the purpose of comparison and robustness of results.

2.2.6 Control Variables

A number of other variables may affect the firm performance beside the ownership structures, commonly referred to as the control variables. The following control variables have largely been used in empirical studies.

2.2.6.1 Financial leverage

In perfect capital markets, the capital structure does not influence a firm's value (Modigliani and Miller, 1958). However, once the assumptions of the perfect capital markets are relaxed, then capital structure does matter. Stiglitz and Weiss (1981) looked into this relationship in the context of asymmetric information where leverage is treated as a signaling device. They found that information asymmetry between managers and shareholders and between lenders and borrowers could lead to adverse selection problem. Ultimately, high quality borrowers can use debt as a signaling device and improve its market performance (Leland and Pyle, 1977). Further, leverage is viewed as a mechanism to align the interest of managers and shareholders. Agency theory suggests that there exists a conflict of interest between the firm's managers and shareholders where managers follow their own objectives. Higher leverage under such circumstances can play a disciplining role by reducing the free cash flow at the managers' disposal (Jensen, 1986) and may expose the managers to external monitoring of lenders (Easterbrook, 1984; Rozeff, 1982). Grossman and Hart (1982) further argue that to escape the personal cost of bankruptcy, managers will like to have less leverage in the firm's capital structure. Consequently, a better corporate performance is expected in the presence of high

leverage. An alternative view held by the researchers like Jensen and Meckling (1976) and Myers (1977) targets the agency cost created by different priorities of bondholders and stockholders. Shareholders indulge in moral hazards by investing in risky projects and enjoy the win-win situation at the cost of bondholders who share in losses if the projects fail and do not share in gains if risky project are successful. Myers (1977) conjectures that a firm foregoes positive NPV projects in the presence of risky-debts, which is known as the underinvestment problem. This set of arguments suggests a negative relationship of leverage with firm performance.

A large strand of literature that provides evidence of both positive and negative relationship of leverage and firm performance is a clear signal of disagreement among researchers in this area. Mahakud and Misra (2009) attributed this disagreement to the definition of corporate performance used by different researchers.

2.2.6.2 Firm size

Size of a firm has a significant role to play in determining performance of the firm. Large firms are expected to be more diversified both in terms of demographics and product offerings which make them less vulnerable to the risk of bankruptcy (Titman and Wessels, 1988). Fama and French (1992) found significant size premium in a sample of more than 5000 US firms from 1927 to 1987. This indicates riskiness of small firms. This premium might also relate to low resources endowment, poor product quality, lack of research, lower provision for training and development of employees, and absence of qualified management in small firms. A counter argument is that big firms might suffer from inefficiencies due to tall bureaucratic structures. Also, agency problems are expected to be severe in big firms. The relative big size of a firm might not necessarily be a result of honest efforts of the management. Instead, the managers might have invested in non-value maximizing projects to ensure continued employment in the firm, get more bonuses, or for empire-building (Murphy, 1985). It will be interesting to see which of these competing arguments is corroborated by the empirical findings. In a meta-analysis, Capon, Farley and Hoenig (1990) reported that the relationship between firm size and financial performance was flat based on the results of 88 empirical studies.

2.2.6.3 Growth

Capon et al. (1990, p.1157) commented on growth while discussing the implication of their meta-analysis of determinants of financial performance that,

> *"High growth situations are desirable; growth is consistently related to profits under a wide variety of circumstances."*

Literature provides several explanations for the positive association between growth and firm performance. For example, sales growth has positive impact on factors that include internal motivation, promotion and retention of talented employees. Growth facilitates all the way to the implied opportunities for investments in new equipment and technologies that upgrade the production process as a whole. In addition, sales growth provides opportunities or economies of scale (Gale, 1972; Buzzell et al., 1975) and learning curve benefits. However, sales growth might not always lead to better corporate performance. According to agency theory, managers pursue growth because growth helps them achieve personal objectives. Growth guarantees employment and salary increases for managers due to the greater responsibilities of managing a larger firm (Murphy, 1985).

2.2.6.4 Beta (Market risk)

The Capital Asset Pricing Model (CAPM) of Sharpe (1964), Lintner (1965) and Black (1972) and predict a positive relationship between required /observed rate of return on a stock and its beta. Beta is the ratio of covariance between a given stock return and the market return to the variance of the market return. CAPM assumes that beta is a proxy of all systematic risks of a stock. As beta of a stock increases, investors will require higher risk premium which will result in lower share price of the given stock. As a result, it is expected that beta is negatively related with the market performance of a firm.

2.2.6.5 Idiosyncratic risk (Standard error)

Theory of CAPM suggests that firm-specific risk is irrelevant because the negative covariance between assets' returns cancel out unsystematic risk of the assets when sufficiently large numbers of assets are included in a portfolio. However, when investors do not invest in large number of securities, the unsystematic risk of their investments will affect them. Majority of the firms are owned and controlled by families, blockholders and associated companies in Pakistan (Javaid, 2010). The holdings of these investors are necessarily not diversified. Thus, it is expected that unsystematic risk and market performance are negatively related in Pakistan.

2.2.6.6 Sales turnover (ST)

A firm's financial performance can also depend on how efficiently the management uses the firm's assets. A firm with better utilization of firm's resources, like a firm with higher sales turnover, is expected to perform well in comparison to other firms.

2.2.6.7Tangibility (TG)

Assets tangibility refers to the percentage of a firm's fixed assets to total assets. Assets tangibility can be a proxy for the firm's operating leverage or availability of collaterals which can be offered against debt financing. Operating leverage has implications for both risk and returns. In good times, firms with higher operating leverage will perform better than other firms and vice versa. In perfect markets, the risk-return trade-off will make the share price insensitive to operating leverage. On the other hand, if tangibility is considered a proxy for the availability of collaterals, then it is supposed to reduce the worries of the lenders which in turn would help in lowering the cost of borrowing. Additionally, literature suggests that the collateral can solve several issues related to asymmetric information. Chan and Kanatas (1985) argue that the collateral has more stable value which gives more confidence to the lender in lending decision. The apparent advantage in getting external financing at favorable terms should lead to a better firm performance.

CHAPTER 3
DATA AND METHODOLOGY

This section discusses the sample framework, sources of data, measurement of explained and explanatory variables, and choice of statistical models. Since the dissertation focuses on dividends decisions and firm value in relation to ownership structure, variables and model specifications for each aspect is discussed separately in Sections 3.1 and 3.2.

3.1 Data and Methods for Ownership Structure and Dividends

3.1.1 Sample and Data Sources

The number of non-financial firms listed at the Karachi Stock Exchange has shown a decreasing trend over the period under study. The number of listed firms was 481, 463, 451, 443, 436, 437, and 437 in the years 2003 to 2008, respectively. An average number of 179 financial firms were operating during the period 2006-2009 according to estimates of the State Bank of Pakistan. However, these firms were not included in the analysis of this study. As far as the inclusion of the non-financial firms is concerned, only a sample of 371 firms was finally chosen out of the 437 firms that were listed at the KSE in 2008, after dropping firms with missing data or firms in financial distress. Financial data for these 371 firms was obtained from the Balance Sheet Analysis of Stock Exchange Listed Companies, a publication of the Statistics Department of the SBP. However, out of the 371 firms, ownership data for only 183 firms could be obtained from all available sources, including companies' annual reports, companies' websites, or online annual reports on the www.paksearch.com. All those firms which have paid dividends in any of the years from 2003 to 2008 are considered as dividend paying firms.

The study required the firms to satisfy the following criteria:

- The corporation should not be financially-distressed, such as those with negative equity.

- The corporation should be a non-financial firm.
- The corporation should not be owned by the Government of Pakistan.
- The corporation with abnormal or influential data can create goodness of fit problems and make the generalization of results difficult. For this reason, all such firms or observations were identified with Cook's D and/or studentized residuals and were removed.

Since the exclusion of the firms is not size-wise or any other characteristic-wise, this should not create any problem in generalization of the results. However, it is important to note that the data on ownership variables is available but sometimes with gaps. This restriction necessitated time series averages of the ownership variables for every cross-sectional unit. Theoretically, averages can reduce or miss yearly variations in the ownership variables. However, it is expected that this problem would not be severe in Pakistan. Since blockholdings are ubiquitous and many firms are owned by families and business groups in Pakistan (Javaid, 2010), therefore, ownership structures of the listed firms can be expected to show considerable persistence over short periods.

Data on ownership variables is obtained from the annual reports of the sample firms. The firms listed on KSE are required by the Companies Ordinance, 1984 and by the Code of Corporate Governance, 2002 under clause XIX (i) to provide information on the pattern of shareholdings in their annual reports. Financial data has been taken from the "Balance Sheet Analysis of Joint Stock Companies Listed on the Karachi Stock Exchange", a publication of the State Bank of Pakistan.

3.1.2 Model Specifications

A panel data framework is used to test the hypotheses developed in the previous section. Panel data, as noted by Hsiao (1986), has several distinct advantages: it provides more degrees of freedom, increases variations in the data and thereby reduces the chances of multicollinearity,

and makes it possible to control for fixed effects. We test the hypotheses using the following three alternative methods.

3.1.2.1 Cost minimization model - the baseline estimation

The first method is the simple cost minimization model of dividends. This method uses a dummy variable scheme for the agency cost variables. These dummy variables are defined on the basis of 50th percentile of each respective agency cost variable. For example, a dummy variable *INST*, the institutional shareholdings, assumes the value of 1 for a firm where the ownership percentage of institutional shareholders is above the 50th percentile; otherwise it assumes a value of 0. Similarly, dummy variables *DIRC*, *IND*, *ASSO*, and *BLOC* are defined for directors, individual shareholders, associated companies, and blockholders, respectively. Out of a total of 923 observations, dividend was 0 in 467 cases. This is a very high ratio of left-censored observation to the total. In such a case, simple OLS would give inconsistent estimates. An appropriate option in a censored data is to use a Tobit regression. The dividends cost minimization model estimated with Tobit regression is given below,

$$DIV_{it} = a + \beta_1(SIZE_{it}) + \beta_2(LEV_{it}) + \beta_3(GROW_i) + \beta_4(CV_i) + \beta_5(DIRC_i) + \beta_6(IND_i) + \beta_7(BLOC_i) + \beta_8(ASSO_i) + \beta_9(INST_i) + \beta_{10-14}(YEARS) + \beta_{15-42}(INDUST) + \varepsilon_{it} \quad (1)$$

Where DIV_{it} is the dividend payout ratio of firm i at time t. All specifications include a full set of industry dummies *(INDUST)* and year dummies *(YEARS)*. *SIZE*, *LEV*, *GROW* and *CV* are proxies for the transaction cost variables discussed in Section 2.1.5. *DIRC*, *IND*, *BLOC* and *ASSO* are the proxies for agency cost variables discussed in Section 2.1.4. ε_{it} is the error term.

3.1.2.2 Cost minimization model - the interaction effects

To test the interaction effects, the second method splits the data into groups based on the 50th percentile of the ownership variables. On the basis of each ownership variable, the data is divided into two groups and a separate regression is estimated for each group. In doing so,

theinterest lies in comparing the coefficients of transaction cost variables in both regressions to determine interaction effects between transaction costs and agency costs variables, as follows,

$$DIV_{it} = a + \beta_1 SIZE_{it} + \beta_2 LEV_{it} + \beta_3 GROW_i + \beta_4 CV_i + \beta_{5-32} INDUST_i + \beta_{33-37} Year_i + \varepsilon_{it} \qquad (2)$$

3.1.2.3 The partial adjustment model

Besides the above, the investors' power hypothesis is also tested with the Partial Adjustment Model of Lintner (PAM). PAM is modified in a way that accommodates the ownership variables.

A large number of financial economists favor Lintner (1956) model, which shows that the dividends follow an adjustment process. In this section we use the famous partial adjustment model of Lintner (1956) to provide further evidence on the investors' power hypothesis. Lintner (1956) hypothesized that shareholders do not prefer breaks in the patterns of dividends. Management tries to ensure more stable dividend policies. Any change in dividend policy is linked to the earnings level such that the new dividend level could be maintained in the future. This way firms choose a desired payout ratio on the basis of last year's dividend payment as well as the current year's earning. We further argue that this preference is not uniform for all types of investors. Especially, we hypothesize that the power of investors would be a determining factor in influencing the dividends sensitivity to the current earnings.

The target dividend in the partial adjustment model of Lintner (1956) is given by:

$$D_t^* = rE_t \qquad 0 < r \leq 1, \qquad (3)$$

Where the target dividend payout ratio (D_t^*) is dependent upon the current level of earning (E_t) and the sensitivity of dividends (r) to current earnings. When a firm moves away from previous level of dividends to current level of dividends, the change necessarily reflects the change toward the target dividend payout. According to Lintner (1956), this change in dividend is given by;

$$D_t - D_{t-1} = c(D_t^* - D_{t-1}) + \varepsilon_t \qquad 0 < c \leq 1; \qquad (4)$$

The ($D_t - D_{t-1}$) reflects change in dividends from previous period to current period and *c* shows the speed of adjustments.

Substituting equation 3 in equation 4, the following testable model is obtained.

$$D_t = a + (cr)E_t + (1-c)D_{t-1} + \varepsilon_t \qquad (5)$$

In the light of the discussion in Sections 2.1.4 through 2.1.6, I argue that *r* will be high in firms where there are powerful external shareholders such as institutional shareholders with larger stakes or external block holders than in those firms where there are weak external and/or powerful internal shareholders. The modified partial adjustment model that I test is as follows,

$$D_{it} = a + (cr_j)E_{it} + cr_jE_{it} * Own_k + (1-c)D_{it-1} + \varepsilon_{it} \qquad (6)$$

Here D_{it} is the dividend payout ratio of firm *i* at time *t*. And '*c*' and '*r*' are speed of adjustments and payout ratios, respectively. Own_k represents different ownership variables. The ownership variables are in dummy form. The details of these variables and their symbols are given in Section 2.1.4. The variable *E* is a measure of a firm's earnings which is measured as the ratio of net income to total assets. To avoid the problem of circularity that may be induced by including all ownership variables in one regression,I estimate the above equation separately for each ownership variable. This also helps in avoiding the multicollinearity problem.

3.2 Data and Methods for Ownership Structure and firm performance

3.2.1 Sample and Data Sources

Sample selection procedures and data sources are the same as discussed in section 3.1.1

3.2.2 Specifications of the Models

A framework of panel data is used to test different hypotheses developed in the previous section. Panel data, as noted by Hsiao (1986), has several distinct advantages. For example, panel data provides more degrees of freedom, increases variations in the data and thereby reduces the chances of multicollinearity, and makes it possible to control for fixed effects, etc. We test the hypotheses using the following methodology.

The econometric methodology adopted in this study follows from the study conducted by Demsetz and Villalonga (2001). They consider firm performance and ownership structure as endogenously determined. To account for the endogeniety issue, a method of two stages least square (2SLS) is applied. Unlike Demsetz and Villalonga (2001) who use time series averages, this study uses panel data framework because panel data analysis has several advantages over simple cross section or time series analysis[1]. Due to data limitation, variables such as advertising expenditure, research and development expenditures and firm concentration ratio were dropped from the econometric model.

3.2.3 The Two-Stage Least Square Regressions (2SLS)

To tackle the problem of endogeneity, the method of two 2SLS is used. 2SLS requires the availability of appropriate instrumental variables that are correlated with the endogenous

[1] For detailed discussion on advantages of panel data, see Hsiao (1986) and Baltagi and Li (1991)

variables but uncorrelated with the error term. To satisfy these criteria, two equations are estimated where the first equation uses the instrumental variables in lieu of the endogenous variable and the second equation then uses the predicted values of the endogenous variable from the first equation.

For the Tobin's Q regressions, the following two regressions were estimated.

$$DIRC = \alpha + \beta_1(ST_{it}) + \beta_2(SIZE_{it}) + \beta_3(INST_i) + \beta_4(GROW_i) + \beta_5(LEV_{it}) + \beta_6(TANG_{it}) + \beta_7(ROA_{it}) + \beta_8(SER_i) + \beta_{10}(Q) + \varepsilon_{it} \quad 7(a)$$

$$Q = \alpha + \beta_1(DIRC_i) + \beta_2(INST_i) + \beta_3(GROW_i) + \beta_4(LEV_{it}) + \beta_5(TANG_{it}) + \beta_6(ROA_{it}) + \beta_7(SER_i) + \beta_8(BETA_i) + \varepsilon_{it} \quad 7(b)$$

In the first equation, sales growth and size of the firm are used as instruments for Directors' ownership. These two variables were found to be significantly correlated with directors' ownership, but uncorrected with the error term in the second equation**.**

Similarly, for ROA regressions, the following two equations are estimated.

$$DIRC = \alpha + \beta_1(ST_{it}) + \beta_2(SIZE_{it}) + \beta_3(INST_t) + \beta_4(GROW_i) + \beta_5(LEV_{it}) + \beta_7(ROA_{it}) + \beta_8(SER_i) + \beta_{10}(BETA_i) + \beta_{11-38}(INDUST_i) + \varepsilon_{it} \quad 8(a)$$

$$ROA = \alpha + \beta_1(DIRC_i) + \beta_2(INST_i) + \beta_3(GROW_i) + \beta_4(LEV_{it}) + \beta_5(TANG_{it}) + \beta_7(ROA_{it}) + \beta_{8-35}(INDUST_i) + \varepsilon_{it} \quad 8(b)$$

In the first equation, idiosyncratic risk (SER) and systematic risk (Beta) are used as instruments for Directors' ownership. The reasons for not using ST and Size as instruments for directors ownership as we did in the Q regression is that ST and SIZE are themselves explanatory variables in the ROA regression. Consequently, other instrumental variables were searched for. Resultantly, SER and BETA were found to be significantly correlated with directors' ownership, but uncorrected with the error term in the second equation**.**

A summary of the variables used in this study, their measurement and the symbols used in the analysis are reported in Table 3.1.

Table 3.1: Names, Measurement and Symbols of Variables Used in this Study

Variable	**Symbol**	**Measurement**
Directors' ownership	*DIRC*	Shares owned by directors / total shares
Institutional shareholders' ownership	*INST*	Shares owned by financial institutions / total shares
Associate companies ownership	*ASSO*	Shares owned by associate companies / total shares
Blockholders ownership	*BLOC*	Shares owned by 5 largest blockholders / total shares
Individual shareholders' ownership	*IND*	Shares owned by individuals/ total shares
Dividend payout ratio	*DVD*	Dividend paid / net income
Tobin's Q	*Q*	(book value of debt + market value of equity) / book value of assets
Return on Assets	*ROA*	Net income / total assets
Firm Size	*SIZE*	Natural log of total assets
Growth rate	*GROW*	Geometric mean of annual percentage increase in assets
Firm's systematic risk	*BETA*	Ratio of covariance between stock returns and market returns to the variance of market returns
Firm's idiosyncratic risk	*SER*	firm-specific error term in the beta regression
Sales turnover ratio	*ST*	Gross sales / total assets
Financial leverage	LEV	Total debts / total assets
Fixed assets ratio	TANG	Net fixed assets / total assets
Financial performance	FP	A general term used for both *ROA* and *Q*
Operational risk	CV	Coefficient of variation of net income

Table 3.1 column 1 reports the variables used in the analysis. Column 2 gives out the symbols of the variables used and column 3 provides the variable definitions and the details of how the variables are calculated.

3.2.4 Testing for Endogenity

If the problem of endogenity does not exist, then 2SLS regressions yield inefficient estimates (Woodridge, 2001).To test whether ownership variables and firm performance are endogenously determined, a test suggest by Durbin–Wu–Hausman (1978) can be used which directly compares the OLS and 2SLS estimates and determines whether the differences are statistically significant. If estimates from the two regressionsdiffer significantly, it can be suspected that ownership variables and firm performance are endogenous. Operationally, this can be accomplished by in

two steps. In the first step, directors' ownership percentage is regressed on all variables in the Q regression plus instrumental variables that are supposed to be correlated with director's ownership but uncorrelated with the error term. Then from this auxiliary regression, residual values are predicted. In the second step, the predicted residual values are then added to the Q regression as an explanatory variable. If residuals are found to be statistically significant, it is taken as an evidence of endogenity. As for the results of this study are concerned, the residual values were highly significant and that is why the preferred model for the analysis of data is 2SLS regression.

CHAPTER 4

RESULTS AND DISCUSSION

4.1 Results and Discussion on the Ownership Structure and Dividends

This section presents and discusses descriptive statistics of ownership variables and transaction costs variables which were discussed in Chapter 3. The results of the regression models are presented and discussed in Section 4.1.2.

4.1.1 Descriptive Statistics

Panel A of Table 4.1 reports descriptive statistics of the variables (as noted in Table 3.1) used in this study. The mean dividend payout ratio during the period 2003-2008 is 11.9%. The ratio is considerably lower than dividend payout ratios in developed countries. For example, Short et al. (2000) report the mean payout ratio of 26.4% for a sample of 200 U.K. firms during the period 1988-1992 (See Table 1 in Short et al). Similarly, for a sample of 266 firms Gill, Biger, and Tibrewala (2010) found that US firms paid on average 27% of their earnings in dividends in the year 2007. It will be interesting to know if such a lower payout ratio in Pakistan is an indication of expropriation of minority shareholders by directors and family members. This will be analyzed in a systematic manner through the proposed empirical models.

Panel B of Table 4.1 reports mean dividend payout for two groups of firms. The groups are based on the 50th percentile of financial and ownership variables. The results indicate that mean dividend payout is significantly higher in large firms; firms with more associated holdings and higher percentage of blockholdings than other firms. The dividend payout ratio is significantly

lower in firms with higher ownership percentage of directors, individual shareholders, and in firms with more volatile cash flows and higher leverage.

To examine the association of dividends with the explanatory variables from a different perspective, Panel C of Table 4.1 reports mean values of financial and ownership variables of dividend-paying and non-dividend-paying firms. Dividend-paying firms are more profitable, are larger in size and have more institutional shareholders. Non-dividend paying firms have higher leverage ratios, have volatile cash flows and have more individual and directors' shareholdings. However, dividend payment is not statistically related to the growth of firms or to the percentage of blockholdings.

Table 4.1
Panel A: Descriptive Statistics of Variables

Variable	Mean	Median	Std. Dev.	Min	Max	Skewness	Kurtosis
DVD	0.119	0.000	0.167	0.000	0.850	1.459	4.512
LEV	0.584	0.624	0.206	0.014	1.000	–0.618	2.902
SIZE	7.727	7.670	1.578	1.723	12.140	0.041	3.125
GROW	0.160	0.152	0.118	–0.074	0.582	0.385	2.967
CV	0.673	0.594	0.339	0.120	1.500	0.305	2.046
ROA	0.098	0.081	0.114	–0.505	0.570	0.464	5.284
DIRC	0.249	0.16	0.258	0.000	0.880	0.806	2.419
IND	0.233	0.19	0.168	0.000	0.800	0.822	3.143
INST	0.202	0.17	0.168	0.000	0.840	1.160	4.349
BLOC	0.574	0.59	0.230	0.000	0.990	–0.496	2.943
ASSO	0.304	0.23	0.294	0.000	0.970	0.571	2.097

Panel B: Mean Dividend Payout Ratio by 50th Percentile of Included Variables

Variables	Below 50th Percentile	Above 50th Percentile	Difference	T-stats
DIRC	0.197	0.087	–0.111	–7.93*
IND	0.188	0.106	–0.082	–5.53*
INST	0.132	0.150	0.018	1.22
BLOC	0.108	0.174	0.066	4.61*
ASSO	0.089	0.192	0.103	7.33*
SIZE	0.120	0.162	0.042	2.94*
LEV	0.191	0.091	–0.101	–7.13*
CV	0.162	0.121	–0.041	–2.87*
GROW	0.142	0.140	–0.002	–0.14

* Significant at the 1% level

Panel C: Mean Values of Financial and Ownership Variables of Dividend Paying and Non-Dividend Paying Firms

Firm Characteristics	Dividend=0	Dividend >0	Difference	T-stats
SIZE	7.334	8.058	0.724	7.247*
LEV	0.629	0.532	–0.097	–7.398*
CV	1.627	1.172	–0.455	–6.036*
GROW	0.466	0.471	0.006	0.081
DIRC	0.304	0.193	–0.111	–6.877*
IND	0.262	0.202	–0.059	–5.587*
INST	0.173	0.228	0.055	5.187*
BLOC	0.571	0.583	0.012	0.809
ASSO	0.242	0.367	0.125	6.742*
ROA	0.0359	0.1582	0.122	19.062*

* Significant at 1% level

Table 4.1 Panel A reports the descriptive statistics of the variables included in the analysis. Panel B gives the mean dividend payout ratio on the basis of 50th percentile of the variables included. Panel C reports the mean values of financial and ownership variables on the basis of the firms' dividend paying capabilities for a sample of 183 firms listed on KSE over the period 2003-2008. DIRC is measured as shares owned by directors per total shares outstanding. INST is measured as shares owned by financial institutions per total shares outstanding. GROW is Geometric mean of annual percentage increase in assets. LEV is the financial leverage and is the ratio of total debts to total assets. TANG is the value of net fixed assets over total assets. ROA is return on assets and is the ratio of net income to total assets. SER is firm-specific error term in the beta regression. BETA is Ratio of covariance between stock returns and market returns to the variance of market returns. ST is sales turnover ratio and is measured as the ratio of Gross sales to total assets. SIZE is the natural logarithm of total assets.

4.1.2 Results of the Regression Models

This section discusses the results of the three models proposed in Section 3.1.2.

4.1.2.1 Results of the cost minimization model

Table 4.2 reports the results of the cost minimization model. Specification (1) and (2) show the results of Tobit and OLS regressions, respectively. In both of these, ownership variables are in dummy form. For every ownership variable, a separate dummy variable is formed which assumes a value of 1 for values of the variable that are above the 50th percentile, otherwise zero. To isolate the relative significance of each variable, the study ran another set of regressions on standardized values of the explained and explanatory variables and calculated their standardized coefficients (which are also known as beta coefficients) of the explanatory variables. The standardized value for a variable is established by expressing its value as the deviation from the mean, and dividing the deviation by the standard deviation of the variable. Specification (3) shows standardized coefficients of the OLS regression. The coefficient under this column can be interpreted in terms of standard deviations. For example, the variable *SIZE* has a value of 0.23 which means that one standard deviation increase in size will lead to 0.23 standard deviation increase in dividend payout ratio. This standardization allows the comparison among the explanatory variables even with different units of measurements. For example, table 4.2 shows that the largest economic impact on dividend policy is that of CV (0.241) followed by size with a coefficient of 0.23. Coefficients of the explanatory variables are reported outside the parenthesis whereas their standard errors are reported in the parenthesis.

All transaction cost variables have the expected signs and are significant in all specifications, with the exception of *GROW*. The results show that large firms distribute more profits in dividends than small firms. This result supports the descriptive results reported in the previous sections. This shows that larger firms raise external financing without delays and face lower costs of external financing. The results also indicate that firms with volatile cash flows and

higher leverage distribute lower dividends. This implies that firms facing higher operating and financial risks find external financing costly and prefer to rely more on internally generated funds. These results are consistent with Rozeff (1982) and Khan (2006).

The investors' power hypothesis receives partial support in some of the ownership variables. The dummy variable *INST* for institutional ownership has a positive coefficient but is insignificant in specifications (1) and (2). Similar findings are also shown in descriptive statistics in Panels B and C of Table 4.1. In unreported regression results, the coefficient of *INST* is positive when *INST* is included in the regression in continuous form instead of a dummy form. Also results of the interaction effect model in section 4.1.2.2 indicate that institutional shareholder make the dividend payout ratio more sensitive to the transaction cost variables. These results partially support the investors' power hypothesis.

The predictions of dividend cost minimization model (DCM) fail in the case of outside individual shareholders. It is a widely held view that the free-riders' problem is severe in the case of individual investors. The DCM predicts that outside minority shareholders will demand more dividends to curtail cash flows under managers' discretion. The negative coefficient of *IND* in fact shows that the dividend payout ratio decreases with an increase in ownership of individual shareholders. In contrast to the explanation of DCM, the power-hypothesis explains the negative coefficient of *IND*. Since individualinvestors lack resources to coerce managerial action, managers will avoid paying dividends, especially in a legal system in which effective protection for small shareholders is not likely.

The DCM seemingly receives support in the case of directors' ownership. The dummy variable DIRC is negative and statistically significant in all cases. With an increase in the directors' ownership, the agency problems between managers and shareholders should ease out and the need for dividend-induced monitoring will subside. However, negative sign of DIRC can also be considered as an indication of the expropriation of minority shareholders. Being in control, insiders may try to retain more and build excessive free-cash flow reserves that they could squander on their personal gains. This line of argument again leads us to the power-hypothesis.

Table 4.2
Results of the Cost Minimization Model

Tobit regression estimates of the dividend cost minimization model based on 183 KSE listed firms from 2003 to 2008.

$$DIV_{it} = a + \beta_1(SIZE_{it}) + \beta_2(LEV_{it}) + \beta_3(GROW_i) + \beta_4(CV_i) + \beta_5(DIRC_i) + \beta_6(IND_i) + \beta_7(BLOC_i) + \beta_8(ASSO_i) + \beta_9(INST_i) + \beta_{10-14}(YEARS) + \beta_{15-42}(INDUST) + \varepsilon_{it}$$

Independent Variables	(1)-Tobit	(2)-OLS	(3)-Standardized coefficient of OLS
SIZE	0.055(0.008)*	0.024(0.004)*	0.23(0.004)*
LEV	–0.303(0.046)*	–0.113(0.023)*	–0.14(0.023)*
GROW	0.035(0.081)	–0.083(0.042)**	–0.058(0.042)**
CV	–0.291(0.033)*	–0.119(0.017)*	–0.241(0.017)*
INST	0.01(0.018)	0.004(0.009)	0.012(0.009)
DIRC	–0.041(0.021)***	–0.038(0.011)*	–0.114(0.011)*
IND	–0.058(0.019)*	–0.034(0.01)*	–0.103(0.01)*
BLOC	–0.033(0.02)***	0.008(0.01)	0.025(0.01)
ASSO	0.047(0.022)**	0.021(0.012)***	0.062(0.012)***
Constant	–0.042(.155)	0.211(.061)**	0.211(.061)**
Number of obs	923	923	923
LR chi2(40)	587.62		
Prob > chi^2	0		
Pseudo R^2	0.7179		
R^2		0.46	0.46
AdjR^2		0.43	0.43
Observations censored at dvd=0	467		

Results significant at 1%, 5%, and 10% are denoted by *, **, and ***, respectively.

Table 4.2 reports the results of the dividend cost minimization model for a sample of 183 firms listed on KSE over the period 2003-2008.Columns 1 and 2 report the results of the Tobit and the OLS regressions respectively whereas column 3 shows the betas of the OLS regressions. DIRC is measured as shares owned by directors per total shares outstanding. IND is measured by shares owned by individuals to total shares. INST is measured as shares owned by financial institutions per total shares outstanding. BLOC is measured by shares owned by 5 largest blockholders to total shares. ASSO is measured by shares owned by associate companies to total shares. GROW is Geometric mean of annual percentage increase in assets. LEV is the financial leverage and is the ratio of total debts to total assets. TANG is the value of net fixed assets over total assets. ROA is return on assets and is the ratio of net income to total assets. SIZE is the natural logarithm of total assets. CV is measured as coefficient of variation of net income.

In other words, with every increase in the ownership percentage of managers, the chances that outsiders may force managers to pay out dividends become less and less. Further support to this

line of argument can be found in Section 4.1.2.2 where results of high-*DIRC* regression show that majority of the transaction cost variables have smaller coefficients than their coefficients in the low-*DIRC* regression. The smaller coefficients of the transaction cost variables in the high-*DIRC* regression imply that dividend payout ratio does not increase in the presence of higher directors' ownership even if the firm does not face higher transaction costs of external financing. Thus the negative sign of the *DIRC* is not an indication of the reduction in agency costs; instead it is an indication of the expropriation of external shareholders. Moreover, keeping in view the results and explanations of other ownership variables e.g. *IND*, the latter explanation of the negative coefficient of *DIRC* seems more plausible.

The dummy variable for the combined ownership of five largest blockholders i.e. *BLOC* has negative and marginally significant coefficients only in Tobit regression (Specification 1) whereas it is insignificant in OLS (Specification 2). It is important to note that almost all previous research studies have tested the impact of large outside blockholders on dividend payout ratio. In the case under consideration, the available data did not permit us to distinguish between external and managerial/group blockholders. Thus the results do not provide clear support for either DCM or the investor power hypothesis.

Finally, the variable *ASSO* had positive and statistically significant coefficients in both Tobit and OLS regressions. *ASSO* represents ownership of associated companies in a firm. Ownership of associated holdings can have implications for both transaction and agency costs. Higher percentage of associated holdings should reduce agency as well transaction costs. As noted in the theoretical framework, group firms would face lower transaction costs of external financing and can easily borrow from external sources including the group firms because of the group size and reputation. The positive coefficient of *ASSO* substantiates the above hypothesis. From the agency costs' perspective, the complexity of intra-group transactions increases the chances of expropriating minority shareholders. However, group firms usually care more about group reputation and often follow good corporate governance practices. Thus the group reputation hypothesis also explains the positive *ASSO* coefficient.

4.1.2.2 Results of the split sample regressions

Table 4.3 presents results of the regressions run on the data sets that are split on the basis of 50th percentile of different ownership variables.

Panel A of the table shows that the dividend payout increases significantly in the presence of institutional shareholders. In the regression where institutional shareholding is above the 50th percentile, the constant is 18.4% (significant at 5%) whereas it is 15.1% (insignificant) in the regression where the institutional shareholding is below the 50th percentile. These results imply that, keeping other factors constant, dividend payout is high when there are shareholders who are more informed, vocal and capable of enforcing their rights, such as institutional shareholders.

Second, the results suggest that institutional shareholders also care about a firm's cost of capital. When the transaction costs are potentially high, they are not forceful in their demand for dividend. However, the presence of institutional shareholders makes the dividend payment more responsive to the changes in the transaction costs variables. This is evident from the comparison of coefficients of *SIZE*, *LEV*, *CV*, and *GROW* in both high- and low-*INST* regressions. All of the transaction costs variables in both the high- and low-*INST* regressions are according to the expectations. The coefficients of *SIZE*, *LEV*, *CV*, and *GROW* are lower in regressions where institutional ownership is below the 50th percentile.

The investors' power hypothesis cannot be rejected in case of individual shareholdings. In the regression where individual shareholding is above 50th percentile, the coefficient of *CONST* is 14% whereas it is almost double (28.7%) in the regression where the individual shareholding is below 50th percentile. In addition, many of the transaction costs variables have larger coefficients in the low-*IND* regressions as compared to their coefficients in the high-*IND* regressions. If predictions of the DCM model were valid, the results should have been the other way around. According to agency theory, individual shareholders are poor monitors sothey prefer dividend-induced monitoring. However, the results support the alternative explanation of

investors' power hypothesis. The results additionally suggest that dividend payout ratio is not high in firms where majority of shareholders are outside individual shareholders even if the firm has lower transaction cost. It clearly indicates that dividend payout is not an outcome of the wishes of helpless shareholders like dispersed outside individual shareholders.

The results in Table 4.3 lend further support to the explanation given in Section 4.1.2.1 regarding *DIRC* and the investor's power hypothesis. Results in Table 4.3 show that dividends are less responsive to all other transaction cost variables except *SIZE*in firms where directors' ownership is high. Moreover, the constant of high-*DIRC* regressions is in line with the descriptive statistics and the regression results in section 4.1.2.1.

BLOC represents ownership of top 5 blockholders. In Pakistan, the blockholders are family members, directors, or associated companies in many cases. The results seem to partially support the hypothesis that dividend payout decreases with the increase in ownership percentage of blockholders. There is an indication that large insiders expropriate outside minority shareholder as shown by the statistically significant constant of the regression which is 21.8% in the low-*BLOC* regression. The sensitivity of transaction costs variables is not uniform in low- and high-*BLOC* regressions.

Table 4.3
Results of Split-Sample Regressions

$$DIV_{it} = a + \beta_1 SIZE_{it} + \beta_2 LEV_{it} + \beta_3 GROW_i + \beta_4 CV_i + \beta_{5-32} INDUST_i + \beta_{33-37} Year_i + \varepsilon_{it}$$

Panel A: Regression results where ownership variables are above their 50th percentile

Variables	High-*INST*	High-*DIRC*	High-*IND*	High-*ASSO*	High-*BLOC*
SIZE	0.022(0.01)*	0.02(0.005)*	0.018(0.005)*	0.025(0.007)*	0.031(0.007)*
LEV	–0.189(0.04)*	–0.145(0.024)*	–0.148(0.026)*	–0.087(0.042)**	–0.071(0.04)***
GROW	–0.096(0.06)	0.021(0.047)	0.067(0.047)	–0.205(0.072)*	–0.197(0.063)*
CV	–0.17(0.02)*	–0.042(0.018)**	–0.043(0.02)**	–0.223(0.031)*	–0.158(0.026)*
CONST	0.184(0.09)**	0.08(0.056)	0.14(0.062)**	0.093(0.098)	0.018(0.114)
R^2	0.45	0.32	0.36	0.47	0.49
F-test	12.29*	7.71*	8.68*	10.95*	13.38*

Panel B: Regression results where ownership variables are below their 50th percentile

Variables	Low-*INST*	LOW-*DIRC*	Low-*IND*	Low-*ASSO*	Low-*BLOC*
SIZE	0.016(0.01)**	0.006(0.007)	0.01(0.007)	0.014(0.005)*	0.007(0.005)
LEV	–0.119(0.03)*	–0.15(0.041)*	–0.104(0.044)**	–0.142(0.024)*	–0.141(0.027)*
GROW	–0.074(0.06)	–0.076(0.067)	–0.175(0.076)**	0.049(0.043)	0.083(0.062)
CV	–0.094(0.02)*	–0.222(0.026)*	–0.158(0.03)*	–0.077(0.017)*	–0.059(0.024)**
CONST	0.151(0.106)	0.353(0.077)*	0.287(0.153)***	0.199(0.048)*	0.218(0.069)*
R^2	0.53	0.52	0.54	0.39	0.42
F-test	16.02*	14.79*	15.43*	11.51*	9.93*

Results significant at 1%, 5%, and 10% are denoted by *, **, and ***, respectively.

Table 4.3 reports the results of the split-sample regressions for a sample of 183 firms listed on KSE over the period 2003-2008. Panel A displays results of equation (2) which is estimated if the given ownership variable is above its 50th percentile. Panel B reports estimated values of equation (2) if the given ownership variable is below its 50th percentile. SIZE is the natural logarithm of total assets. LEV is the financial leverage and is the ratio of total debts to total assets. GROW is Geometric mean of annual percentage increase in assets.CV is measured as coefficient of variation of net income.

4.1.2.3 Results of the partial adjustment model

Results of the OLS regressions estimated from Equation 6 are given in Table 4.4. In almost all regressions (1 – c) is in the range of 0.45 to 0.48 and accordingly the speed of adjustment is in the range of 52% to 55%. In line with the previous results, the incremental coefficients of *ROA×DIRC* and *ROA×IND* are negative and significant. My explanation for the negative coefficient of *ROA×IND* is that individual shareholders are weak and cannot influence the dividend to be more sensitive to the level of earnings. In the case of directors' ownership, the negative and statistically significant coefficient is an indication that directors are more interested in retaining higher portion of the current earnings. Again this lends support to an earlier assertion that powerful insiders prefer higher retention rate to accumulate cash flows for their perks or for the expropriation of minority shareholders.

The interaction terms of *BLOC* and *ASSO* are positive and statistically significant.

The results also show that ownership percentage of 5 blockholders increases the dividends sensitivity to current earnings. This again affirms the investors' power hypothesis. Interestingly, the coefficient on institutional ownership is not statistically significant. We can link this to the results in the previous Section (Table 4.2). Results in Table 4.2 show similar findings.

Table 4.4
Results of the Partial Adjustment Model With Interaction Terms

Regression estimates of the partial adjustment model (PAM) based on 183 KSE listed firms from 2003 to 2008

$$D_{it} = a + (cr_j)E_{it} + cr_j E_{it} * Own_k + (1-c)D_{it-1} + \varepsilon_{it}$$

Variables	*ROA× DIRC*	*ROA× IND*	*ROA× INST*	*ROA× BLOC*	*ROA× ASSO*
$D_{(t-1)i}$	0.458(0.032)*	0.453(0.032)*	0.48(0.031)*	0.474(0.031)*	0.46(0.032)*
E	0.328(0.056)*	0.356(0.056)*	0.258(0.057)*	0.093(0.067)	0.144(0.059)**
E × DIRC	–0.197(0.068)*				
E × IND		–0.228(0.061)*			
E × INST			–0.03(0.062)		
E × BLOC				0.212(0.067)*	
E × ASSO					0.2(0.069)*
Intercept	0.065(0.064)	0.066(0.064)	0.062(0.064)	0.064(0.064)	0.065(0.064)
Goodness of Fit Statistics					
F-Statistics	26.95	27.32	26.66	27.06	26.94
P-value(F-Statistics)	0.000	0.000	0.000	0.000	0.000
R^2	0.5581	0.5615	0.5632	0.5592	0.5581
Adj.R^2	0.5374	0.541	0.5421	0.5385	0.5374

Results significant at 1%, 5%, and 10% are denoted by *, **, and ***, respectively.

Table 4.4 reports the results of the partial adjustment model with interaction terms for the included variables for a sample of 183 firms listed on KSE over the period 2003-2008. DIRC is measured as shares owned by directors per total shares outstanding. INST is measured as shares owned by financial institutions per total shares outstanding. BLOC is measured by shares owned by 5 largest blockholders to total shares. ASSO is measured by shares owned by associate companies / total shares. IND is measured by shares owned by individuals to total shares.

4.2 Results and Discussion on the Ownership Structure and Performance

This Sectionpresents and discusses descriptive statistics of ownership variables and other financial variables (section 4.2.1) that were identified in the literature review section. After that, results of the regression models are presented and discussed in Section 4.2.2

4.2.1 Descriptive Statistics

Table 4.5 shows correlation matrix of the variables used in the regression analysis. With the exception of correlation between Q and *ROA*, none of the other variables are correlated to an extent that warrants attention. The two alternative measures of performance i.e. Q and *ROA* have a correlation of 0.53, which shows a reasonable level of correlation and hence they can prove to be good alternative measures of performance.

Table 4.5: Matrix of Correlation among the Variables

	Q	*DIRC*	*INST*	*GROW*	*LEV*	*TANG*	*ROA*	*SER*	*BETA*	*ST*	*SIZE*
Q	1.00										
DIRC	-0.21	1.00									
INST	0.08	-0.36	1.00								
GROW	0.15	-0.03	0.04	1.00							
LEV	-0.11	0.09	-0.09	0.05	1.00						
TANG	-0.11	0.18	-0.05	-0.15	0.07	1.00					
ROA	0.53	-0.21	0.14	0.25	-0.33	-0.28	1.00				
SER	-0.31	0.18	-0.24	-0.17	0.09	0.16	-0.35	1.00			
BETA	0.03	-0.16	0.16	0.07	-0.03	0.12	0.07	-0.23	1.00		
ST	0.25	-0.15	0.09	0.08	0.02	-0.30	0.36	-0.22	-0.05	1.00	
SIZE	0.13	-0.29	0.25	0.12	0.17	-0.01	0.16	-0.34	0.26	0.05	1.00

Table 4.5 reports matrix of correlation between the included variables for a sample of 183 firmslisted on KSE over the period 2003-2008. Q is the market measure of performance and calculated as the book value of debt plus market value of equity divided by the book value of assts.DIRC is measured as shares owned by directors per total shares outstanding. INST is measured as shares owned by financial institutions per total shares outstanding. GROW is Geometric mean of annual percentage increase in assets. LEV is the financial leverage and is the ratio of total debts to total assets. TANG is the value of net fixed assets over total assets. ROA is return on assets and is the ratio of net income to total assets. SER is firm-specific error term in the beta regression. BETA is Ratio of covariance between stock returns and market returns to the variance of market returns. ST is sales turnover ratio and is measured as the ratio of Gross sales to total assets.SIZE is the natural logarithm of total assets.

Table 4.6 reports mean Tobin Q for groups of firms which are based on the 50th percentile of the financial and the ownership variables. The results indicate that Tobin's Q is significantly higher in firms where the percentage ownership of associated holdings and block holdings is above their respective 50th percentiles. This supports the view that associated-holdings and blockholdings reduce agency costs, and/or create positive signaling effect. Tobin's Q is also higher in larger firms and in firms with higher sales turnover ratios. Firm size can be a proxy for financial distress (Titman and Wessels, 1988) or information asymmetry (Petit and Singer, 1985). In either case, the effect of firm size is expected to be positive on the market performance. And sales-turnover ratio is a gauge of operating efficiency of the firm. The results indicate that better operating efficiency leads to higher market performance. On the other hand, Tobin Q is significantly lower in firms where directors' and institutional ownership percentage is above their respective 50th percentiles. These results partially support the results in the previous section where it was found that directors do not pay dividends willingly. As the directors' percentage of shareholdings increases, they become more powerful in their decisions. As shown in Table 4.2 and 4.3, directors' unwillingness to pay dividends doesnot decline even if a firm faces lower or no transaction costs of external financing. Results in Table 4.6 show that market is recognizant of this fact. With increasing ownership stake of directors in a firm, the chances of expropriating other external shareholders increase which in turn lead to lower Q. The negative association between Q and institutional shareholding is somehow unexpected. Given their monitoring role and signaling effects, the association should be positive. One might postulate that institutional shareholders are viewed by the market as large entities that collude with managers. However, we need to prove this point with stronger evidence that might come from 2SLS regressions.

Table 4.6 reports that firm with high systematic risk and idiosyncraticrisk have lower Qs. In the edifice of capital market theory, only systematic risk is priced into the valuation of securities. However, in less-diversified markets, like ones where shares are held not according to diversification principles but motivated by control consideration, idiosyncratic risk will be a relevant factor. This argument seems to be true in Pakistan as many firms are controlled by families. Shareholders in these firms are not fully-diversified. They are affected to a larger extent by firm-specific risks. And finally, Q is low in firms that experienced higher growth rate in their assets in previous years. This indicates that the market views growth in assets merely as

empire building by managers, and not as valuable projects that would maximize the shareholders wealth.

Table 4.7 is similar in construction and analysis to Table 4.6, except that this table reports mean *ROA* for groups of firms divided on the basis of median values (50th percentile) of selected ownership and financial variables. This analysis is useful in a sense that *ROA* depict a picture of operational performance, whereas Q is the market perception of this performance. For example, Table 4.7 shows that mean *ROA* is significantly lower in firms where directors' ownership is higher than in firms where directors ownership is low.

Table 4.6: Tobin's Q by 50th Percentile of Firms' Variables

Variables	Below 50th Percentile	Above 50th Percentile	Difference	T-stats
DIRC	1.967	1.151	–0.816	–4.959
INST	1.874	1.287	–0.588	–3.545
BLOC	1.145	1.986	0.841	5.120
ASSO	1.153	1.991	0.838	5.101
GROW	1.774	1.350	–0.424	–2.567
LEV	1.589	1.545	–0.045	–0.268
TANG	1.222	1.073	–0.149	–3.846
ROA	0.915	1.377	0.462	12.985
SER	1.823	1.315	–0.508	–3.059
BETA	1.894	1.242	–0.652	–3.916
ST	1.027	1.268	0.241	6.313
SIZE	1.076	1.218	0.142	3.655

Table 4.6 reports the market performance of the firms measured by Tobin's Q for a sample of 183 firms listed on KSE over the period 2003-2008. DIRC is measured as shares owned by directors per total shares outstanding. INST is measured as shares owned by financial institutions per total shares outstanding. BLOC is measured by shares owned by 5 largest blockholders / total shares. ASSO is measured by shares owned by associate companies / total shares.GROW is Geometric mean of annual percentage increase in assets. LEV is the financial leverage and is the ratio of total debts to total assets. TANG is the value of net fixed assets over total assets. ROA is return on assets and is the ratio of net income to total assets. SER is firm-specific error term in the beta regression. BETA is Ratio of covariance between stock returns and market returns to the variance of market returns. ST is sales turnover ratio and is measured as the ratio of Gross sales to total assets. SIZE is the natural logarithm of total assets.

This finding corresponds to results reported in Table 4.6 where Q is significantly lower in firms with higher percentage of directors'ownership. As stated previously, higher ownership stake makes the directors powerful enough to influence many decisions in their favor. If agency predictions of Jensen and Meckling's (1986) model are correct, higher stakes of directors will give them ample incentives to improve the firm performance and increase the firm's value. But if they know that private benefits are greater than maximizing the overall value of the firm, they would still act opportunistically and adopt strategies that enhance their own welfare. This can be expected in a system which provides room for opportunistic behaviors. If this argument is true, managers might try to hide the true profits of the firm by colluding with suppliers of raw material and intentionally inflate costs of production in books of accounts. Doing so, they directly pocket the cash not paid to suppliers but shown in costs of production. Consequently, this will deprive minority shareholders of dividends and government of taxes. Though profitable, yet the firm will look less profitable in books. Accounting-based measure of firm performance, such as *ROA* will be lower for firms where directors have more control on the firms' decisions. Since market participants can recognize this fact, Tobin's Q is also expected to be low. The results from both *ROA* and Tobin's Q mean-comparison analysis in Table 4.6 and Table 4.7 are aligned.

ROA is higher in firms where institutional ownership is above the 50th percentile but the difference in mean *ROA*s of the two groups of firms is marginally significant at 10% level. In Table 4.6, institutional shareholding is negatively associated with Q. Overall, we do not see a clear picture of how institutional investors influence firm's performance. Table 4.7reports that *ROA* is significantly higher where the percentage ownership of blockholders and associated ownership is above their respective 50th percentiles. The reason attributed to this positive association can be the possible monitoring role.

Among the financial variables, *ROA* is higher in larger firms, firms with higher growth rate,and firms where ratios of sales-to-tangible assets are higher. It is interesting to see that *ROA* is higher in growing firms, but Tobin Q is lower in such firms. This discrepancy is difficult to explain. Explanations for the other variables are the same as offered with Q in Table 4.6. Two of the variables that measure riskiness of a firm's stock price warrant some explanation. Diversified investors do not concern themselves with idiosyncratic risk (which is measured by

the standard error of the regression on observed stock returns and returns of the market index, denoted by *SER*). However, at firm's level, this risk might matter for a stand-alone firm. If a firm faces higher idiosyncratic risk and the firm is not part of a group of firms, even this risk might increase the probability of default of the firm. On the other hand, systematic risk (which is measured by coefficient of market return in the regression of observed stock returns and returns of the market index, and denoted by *BETA*) affects both diversified and non-diversified firms. Both *SER* and *BETA* increases the firm's risk, and hence it's cost of capital. The results in Table 4.7 show that*ROA*is lower in firms with higher *SER* and *BETA*. It is inferred that firms with higher idiosyncratic risk and systematic risk face higher costs of borrowing which results in lower *ROA*.

Table: 4.7: ROA by 50th Percentile of Firms' Variables

Variables	Below 50th Percentile	Above 50th Percentile	Difference	T-stats
DIRC	0.125	0.070	–0.055*	–7.521
INST	0.091	0.105	0.014	1.857
BLOC	0.085	0.111	0.027*	3.609
ASSO	0.071	0.124	0.053*	7.307
GROW	0.081	0.114	0.033*	4.394
LEV	0.130	0.066	–0.064*	–8.876
TANG	0.116	0.072	–0.044*	–6.030
Q	0.049	0.140	0.091*	13.48
SER	0.126	0.071	–0.055*	–7.546
BETA	0.110	0.086	–0.023*	–3.117
ST	0.056	0.133	0.077*	11.070
SIZE	0.0797	0.109	0.029*	3.975

Table 4.5 reports the accounting based performance of firms measured by ROA for a sample of 183 firms listed on KSE over the period 2003-2008. DIRC is measured as shares owned by directors per total shares outstanding. INST is measured as shares owned by financial institutions per total shares outstanding. BLOC is measured by shares owned by 5 largest blockholders / total shares.ASSO is measured by shares owned by associate companies / total shares. GROW is Geometric mean of annual percentage increase in assets. LEV is the financial leverage and is the ratio of total debts to total assets. TANG is the value of net fixed assets over total assets. Q is the market measure of performance and calculated as the book value of debt plus market value of equity divided by the book value of assts. SER is firm-specific error term in the beta regression. BETA is Ratio of covariance between stock returns and market returns to the variance of market returns. ST is sales turnover ratio and is measured as the ratio of Gross sales to total assets. SIZE is the natural logarithm of total assets.

4.2.2 Regression Results of Tobin's Q and ROA

The results of regression models are presented in Table 4.8 and Table 4.9 where the dependent variables are Tobin's Q and return on asset (*ROA*), respectively. These tables report coefficient of the explanatory variables for both OLS and 2SLS models. Table 4.10 and 4.11 report results of the regressions where the variable *INST* (a proxy for institutional investors) has been replaced with *ASSO* and *BLOC* which represent ownership percentage of associated holdings and blockholders. In fact, Table 4.10 and Table 4.11 show results of regressions for robustness checks. The coefficients of the explanatory variables are given outside the small parenthesis whereas their standard errors are given inside the parentheses. The *, **, and *** indicate statistical significance at 1%, 5%, and 10% respectively. Since we treat managerial ownership as endogenously determined, Table 4.8 and Table 4.9 report results of both Q regressions and *DIRC* regression. Under the columns *DIRC*, we report results of regressions where directors' ownership percentage is the dependent variable.

In all Q regressions, results are consistent as far as the coefficient of the *DIRC* is concerned, except in Table 4.10 where ownership percentage of associated holdings is used as a proxy of external monitoring. The results of both OLS and 2SLS estimations show that Tobin's Q is inversely related with the ownership percentage of directors. These results are in line with the argument of Shleifer and Vishny (1997) who proposed that large shareholders may distribute wealth in a manner that adversely affects the interest of minority shareholders (known as the expropriation hypothesis). When the directors' ownership percentage increases, they gain more and more control over the decisions of the firm which makes the expropriation of minority shareholders more likely.Expropriation exacerbates agency costs and negatively affects firm value. The literature provides one more explanation for the results. Fama and Jensen (1983) discussed in their seminal paper the costs of insiders' holdings. They argued that higher ownershippercentage but induce other costs make managers entrenched (formally known as the

Table 4.8: OLS and 2SLS regressions for Q

	Q	
	OLS	2SLS
DIRC	–0.369(0.079)*	–4.664(1.779)*
INST	–0.165(0.12)	–2.033(0.811)**
GROW	0.489(0.159)*	0.765(0.357)**
LEV	–0.232(0.093)**	0.222(0.272)
TANG	–0.015(0.056)	0.549(0.261)**
SER	–5.795(0.765)*	–6.414(1.642)*
BETA	–0.055(0.03)***	–0.204(0.088)**
SIZE	0.008(0.014)	–0.151(0.072)**
Constant	1.545(0.129)*	3.566(0.877)*
F–Statistics	17.22	4.08
P–value(F–Statistics)	0.00	0.00
R^2	0.14	0.13
Adj.R^2	0.1323	0.1298

Table 4.8 reports the results of OLS and 2SLS regressions run for the market based performance measured by Tobin's Q for a sample of 183 firms listed on KSE over the period 2003-2008. DIRC is measured as shares owned by directors per total shares outstanding. INST is measured as shares owned by financial institutions per total shares outstanding. GROW is Geometric mean of annual percentage increase in assets. LEV is the financial leverage and is the ratio of total debts to total assets. TANG is the value of net fixed assets over total assets. SER is firm-specific error term in the beta regression. BETA is Ratio of covariance between stock returns and market returns to the variance of market returns. SIZE is the natural logarithm of total assets.

entrenchment hypothesis). The likelihood of firing or challenging the decisionsof directors who have larger chunk of shareholdings in their hands is theoretically small. Consequently, higher ownership stake of the manager in the firm may not necessarily align their interest with that of the other shareholders.Results in this section lend further support to the analysis in Sections4.1.2, 4.1.2.1, and 4.1.2.2. The negative sign of *DIRC* coefficient approves the entrenchment and expropriation hypotheses against the alignment of interest hypothesis. As argued in Sections 4.1.2.1 and 4.1.2.2, legal protection and investors' activism are weak in Pakistan. Insiders try to exploit outsider minority shareholders and avoid taxes as and when the opportunity arises. One indication of this was reported in the case of dividends in the earlier analysis. The dividend payout ratios were found to be significantly lower in firms with higher directors' ownership percentage. This was true whether or not the firm faced transaction costs of

external financing. Weak legal protection of the investors' rights like in case of Pakistan aggravates the costs of entrenchment. Recognizant of this fact, the market values firms less favorably where directors owns a substantial fraction of the firm shares.

In *ROA* regression, the sign of the coefficient of the *DIRC* is still negative; however, it is statistically insignificant in all regressions. The results indicate that increasing ownership stake of directors in a firm does not improve the operating performance of the firm which negates the prediction of alignment of interest hypothesis, proposed by Jensen and Meckling (1976). When one considers this finding in combination with Q results,it can be argued that managerial ownership is not a source of value creation to the firm; instead it is a source of value destruction.

The three proxies used for external monitoring effect yield conflicting results. In Table 4.10, the linkage between *INST* and Q is negative both in OLS and 2SLS, though the coefficient is statistically significant only in the later. *BLOC* and *ASSO* are positively and significantly affect Q only in OLS regression. These findings are against what one might expect.

Table 4.9: OLS and 2SLS regressions for ROA

	ROA	
	OLS	2SLS
DIRC	–0.008(0.013)	0.163(0.153)
INST	0.022(0.019)	0.083(0.058)
ST	0.058(0.004)*	0.062(0.005)*
GROW	0.13(0.027)*	0.082(0.049)***
LEV	–0.161(0.015)*	–0.16(0.016)*
SIZE	0.019(0.002)*	0.026(0.007)*
Intercept	–0.062(0.022)*	–0.19(0.12)
F–Statistics	31.31	25.98
P–value(F–Statistics)		0
R^2	0.53	0.441
Adj.R^2	0.51	0.4203

Table 4.8 reports the results of OLS and 2SLS regressions run for the accounting based performance measured by ROA for a sample of 183 firms listed on KSE over the period 2003-2008. DIRC is measured as shares owned by directors per total shares outstanding. INST is measured as shares owned by financial institutions per total shares outstanding. ST is sales turnover ratio and is measured as the ratio of Gross sales to total assets GROW is Geometric mean of annual percentage increase in assets. LEV is the financial leverage and is the ratio of total debts to total assets. SIZE is the natural logarithm of total assets.

Intuitional shareholders, blockholders, and associated companies have potentially more incentives and capabilities to monitor and actively participate in running of the firm. Two explanations can be given for the negative coefficient of the *INST*. First, it is possible that institutional investors collude with managers and collectively expropriate minority shareholders. Second, it is expected that institutional shareholders sell their shares when market values of the firm's shares are high, possibly because they speculate that better performance will be followed by worst performance. This explanation will hold true especially in highly volatile markets. Like many emerging markets, Pakistani stock market is also characterized by higher volatility. Demsetz and Villalonga (2001) provide similar justification when they found that director's ownership declined significantly when Tobins' Q was high.

Table 4.10 shows that market performance of the firms included in the sample increases with the increase in ownership percentage of associated companies and blockholders. However, these results are statistically significant only in the OLS regressions. *ROA* regressions display similar

statistics. Results in Table 4.11 show that ownership percentages of associated companies or the blockholders in a firm have significant impact on the operating performance of the firm. These findings are incongruent with the view that significant ownership by blockholders in a firm or the association of a firm with a group of companies have positive externalities in the form of reduced agency costs or benefiting from the experiences and resources-sharing of the group companies. It is important to note that previous research studies use the term 'blockholders' for external large shareholders who are not part of the executive management. However, the data do not allow us to differentiate between internal and external blockholders. In Pakistan, as argued before, family holdings is a prominent feature of the corporate sector. Therefore, in the absence of complete information, the compelling assumption is that blockholders are either directors or family members of the top management. Based on this assumption, *BLOC* should reduce problems between management and shareholders. But it might give birth to another agency problem that exists between the majority and the minority shareholders (Shleifer and Vishny, 1997). This way, higher ownership percentage of blockholders presents a trade-off between the benefits of reduced agency costs against the costs of minority expropriation. If these two are equal in amount, the ownership percentage of blockholders should be inconsequential to the value of the firm.

Similarly, the ownership percentage of associated companies presents a trade-off. As discussed in detail in Section 2.2.4.2, association of a firm with a group of firms can help the firm in financial matters, technology transfers, experience sharing, and in overcoming many imperfections in product, capital, and labor markets (for a survey of this literature, Tarziján (1999) can be seen). Moreover, it is believed that business groups do not act opportunistically due to their reputation as these groups are highly visible (Dewenter et. al, 2001). Thus, group association should have a positive impact on the firm's operating and market performance. On the other hand, a complex web of inter-group transactions might make it difficult for analysts and investors to know about opportunistic behavior, thus the complexity of their intra-group transactions increases the probability of their opportunistic transactions. Again, if the benefits of group association and costs of opportunistic behavior of group firms are equal in amount, the ownership percentage of associated companies in a firm should be inconsequential to the value

of the firm. Unfortunately, it cannot be said in the current analysis whether the irrelevance of ownership by blockholders and associated companies in firm performance is due to these trade-offs or due to passive roles of these shareholders.

Among the control variables, idiosyncratic risk and market risk are still negatively related to market performance of the firm as they were in the mean-comparison tests in Table 4.6. The Capital Asset Pricing Model (CAPM) of Lintner (1965), Black (1972) and Sharpe (1964) predict a positive relationship between required /observed rate of return on a stock and beta (a measure of systematic risk) of the stock. CAPM argues that firm-specific risk (firm-specific error term in the beta regression) is cancelled out when sufficiently large number of assets are included in a portfolio which is why idiosyncratic risk is irrelevant. The coefficient of systematic risk, *BETA*, is negative in the regression used for an analysis. As mentioned above, CAPM predicts that higher beta leads to higher expected return, which would be consistent with lower market value. In other words, beta and stock price should be negatively related. Thus, as far as the firm's systematic risk is concerned, the results support CAPM but are not in line with the findings of Fama and French (1992) who found that the relationship between beta and returns is flat. The reason one may give in support of negative and statistically significant linkage between idiosyncratic risk, *SER*, and Tobin's Q is that investors in Pakistan do not hold diversified portfolios. Majority of the firms are owned and controlled by families, blockholders and associated companies. The holdings of these investors are necessarily not diversified. In the parlance of capital market theory, idiosyncratic risk will be irrelevant only if investors hold diversified portfolios. Negative coefficient of *SER* proves the above assertion.

Firm size, which is used as a control variable in the Q and *ROA* regressions, has negative impact on market performance and positive impact on operating performance of the firm. Larger size helps a firm to have more economies of scale, face lower information asymmetry (Petit and Singer, 1985) and face lower chances of bankruptcy (Titman and Wessels, 1988). Both the market and operating performance of the firm should be positively related to the size of the firm. One explanation for the results might be that opportunistic managers may increase size of a firm irrespective of whether such an increase maximizes the shareholders' wealth or not which is why larger firms are viewed unfavorably by the market. However, the discrepancy in the results of *ROA* and Q regression is not explainable.

Table 4.10: OLS and 2SLS regressions for Q

	Blockholders		Associated Companies.	
	OLS	2SLS	OLS	2SLS
DIRC	–0.285(0.075)*	–4.048(1.548)*	–0.046(0.095)	11.219(11.034)
BLOC/ASSO	0.427(0.079)*	–0.084(0.262)	0.426(0.085)*	6.674(6.126)
GROW	0.453(0.157)*	0.751(0.336)**	0.518(0.157)*	0.459(0.664)
LEV	–0.224(0.091)**	0.306(0.283)	–0.167(0.092)***	–0.361(0.432)
TANG	–0.033(0.055)	0.495(0.242)**	–0.008(0.055)	–0.837(0.844)
SER	–5.937(0.748)*	–4.726(1.571)*	–5.661(0.748)*	–7.364(3.561)**
BETA	–0.034(0.03)	–0.222(0.097)**	–0.03(0.03)	0.663(0.691)
SIZE	0.003(0.013)	–0.165(0.073)**	–0.007(0.014)	0.123(0.14)
Constant	1.299(0.13)*	3.074(0.771)*	1.357(0.128)*	–3.745(5.024)
F–Statistics	21.16	5.73	20.56	1.29
P–value(F–Statistics)	0	0	0	0.24
R2	0.1672		0.1633	
Adj.R2	0.1593		0.1553	

Table 4.10 reports the results of OLS and 2SLS regressions run for market based performance of the firm in the presence of blockholders and associated companiesfor a sample of 183 firms listed on KSE over the period 2003-2008. DIRC is measured as shares owned by directors per total shares outstanding. GROW is Geometric mean of annual percentage increase in assets. LEV is the financial leverage and is the ratio of total debts to total assets. TANG is the value of net fixed assets over total assets. SER is firm-specific error term in the beta regression. BETA is Ratio of covariance between stock returns and market returns to the variance of market returns. SIZE is the natural logarithm of total assets. BLOC is measured by shares owned by 5 largest blockholders / total shares.

Table 4.11: OLS and 2SLS regressions for ROA

	Blockholders		Associated Companies	
	OLS	2SLS	OLS	2SLS
DIRC	–0.011(0.012)	0.127(0.132)	–0.028(0.015)***	0.055(0.087)
ST	0.057(0.004)*	0.059(0.005)*	0.059(0.004)*	0.057(0.005)*
GROW	0.13(0.027)*	0.091(0.045)**	0.125(0.027)*	0.116(0.028)*
LEV	–0.163(0.015)*	–0.166(0.016)*	–0.165(0.015)*	–0.163(0.015)*
SIZE	0.019(0.002)*	0.026(0.007)*	0.02(0.002)*	0.022(0.003)*
BLOC	0.004(0.013)	0.009(0.014)	–0.028(0.014)**	0.015(0.048)
Intercept	–0.06(0.023)*	0.16(.102)	–.04(.02)*	–.04(.06)***
F–Statistics	31.2	27.1	31.01	30.01
P–value(F–Statistics)	0.00	.00	.00	.00
R^2	0.53	0.46	0.53	0.52
Adj.R^2	0.51	0.44	0.51	0.5

Table 4.11 reports the results of OLS and 2SLS regressions run for accounting based performance of the firm in the presence of blockholders and associated companies for a sample of 183 firms listed on KSE over the period 2003-2008.DIRC is measured as shares owned by directors per total shares outstanding. GROW is Geometric mean of annual percentage increase in assets. LEV is the financial leverage and is the ratio of total debts to total assets. ST is sales turnover ratio and is measured as the ratio of Gross sales to total assets. SIZE is the natural logarithm of total assets. BLOC is measured by shares owned by 5 largest blockholders / total shares.

CHAPTER 5

CONCLUSIONS AND POLICY IMPLICATIONS

5.1 Conclusions

The main objectives of this dissertation wereto: (i) to empirically evaluate that the powerful investors / owners are in the position to enforce their will because of the inherent power that they enjoy; and (ii) highlight the importance of the ownership structure and its impact on the financial and the market based performance of the firm. These objectives are accomplished by empirically evaluating the data of 183 non-financial firms listed on the Karachi Stock Exchange for the period 2003 to 2008.

This study challenges the validity of the dividends cost minimization model in a weak legal system in an emerging economy, such as that of Pakistan. This study's main hypothesis holds that managers do not pay dividends willingly in a weak legal system unless there are powerful external shareholders. In contrast, the cost minimization model assumes that even weak external shareholders, such as dispersed individual shareholders, can ask for and receive dividends in a bid to curtail agency problems. Similarly, the proposed hypothesis is in contrast to the view that institutional shareholders play a monitoring role and substitute dividend-induced monitoring. Instead, we propose that the relative information advantage and the size of their shareholdings place institutional shareholders in a better position to force managers to pay dividends. Similar hypotheses are developed for a number of ownership variables in this study. These hypotheses are tested in three frameworks, (1) the cost-minimization model, (2) the cost-minimization model with interaction effects (splitting the data set on the basis of 50th percentile of ownership variables), and (3) the dividends partial adjustment model. To account for the censored-nature of the dividend data, we estimate the two cost minimization models with Tobit regressions.

In most cases, dividend-payout ratio decreases with the ownership percentage of individual shareholders and incumbent managers. These results lend strong support to the investors' power hypothesis. This implies that institutional investors are either not powerful enough or they are not active investors in Pakistan to influence dividend decisions. The ownership of associated companies is positively related to dividend payout ratio in all models. These results show that group reputation hypothesis dominates the power hypothesis. In the cost minimization models, all the transaction cost variables have expected signs, and are statistically significant, with the exception of the firms' past growth rate. The results are robust across the three regression models. Furthermore, results of the regression models are consistent with the descriptive statistics.

In the second part of the thesis, the impact of the ownership structure on firm performance is investigated in detail. The results indicate that Tobin's Q is significantly higher in firms where the percentage ownership of associated holdings and block holdings is above their respective 50th percentiles. This supports the view that associated-holdings and blockholdings reduce agency costs, and/or create positive signaling effect. Tobin's Q is also higher in larger firms and in firms with higher sales turnover ratios.

5.2 Policy Implications and Recommendations

There are several implications of the results of this study. The results of the study give several indications of the expropriation of minority shareholders by powerful managers. Potential expropriation by strong insiders can engender inefficiency in the financial system. In such a case, investors attach a risk premium in expectation of possible expropriation whenever the firm goes out in financial markets for raising funds. Such a risk premium raises the cost of funds, which in turn makes it less likely to accept projects which otherwise would be accepted. This hampers the growth of the firm. When this happens on a large scale, the overall development of the real sector suffers. In the absence of investors' expropriation, funds can flow more efficiently from investors to producers through financial markets. This way investor protection is linked to financial development, which in turn is linked to economic development (La Porta, 2000b, King and Levine (1993), Carlin and Mayer 1999)).

From the above it is evident that protection of minority shareholders is extremely desirable for financial and economic development. Several alternative choices are available towards this end. Historically, there exist two views concerning investors' protections in an economy. The financial economists view is that market forces are efficient and do not need any outside interference from the regulators to protect investors rights (Stigler, 1964; Easterbrook and Fischel, 1991). Their rationale is that both issuers and investors in the financial market are quite informed, which makes the regulations of the financial markets unnecessary. The investors may discipline the firms who fail to contractually disclose about themselves or otherwise do not treat the investors well on account of risk of expropriation. At the time of securities issuance, contracts are entered into with investors to bind the entrepreneurs to stop expropriation because costs are anyway incurred by entrepreneur. If the legal environment is supportive and the contracts are enforced in the court of law, there is no need to regulate the financial markets.

The second approach is the legal way of ensuring that the rights of all parties to a contract are protected (Coase, 1961; La Porta et al 1997, 1998, 2000b). The results of this study corroborate the second view. According to this view, market imperfections do not give enough power to investors to discipline dominant insiders. Hence, there needs to be appropriate laws and efficient enforcement of the same to protect weak investors. Also, an indirect way of doing so will be to give some external groups of investors, such as institutional investors, incentives through laws to play a monitoring role.

The evidence found in this study that corporate insiders expropriate minority-outsidersmake it mandatory to adopt certain measures which can address the agency problems expected under such circumstances. These measures can broadly be divided into punitive and the preventive measures. But as already elaborated that the legal protection and enforcement of laws are weak in Pakistan, the punitive measures might not be effective. These punitive measures may fail when it comes to the prosecution stage because referring to the legal channel is both expensive and time consuming in Pakistan. Given these facts, it seems appropriate to focus more on preventive measures. Based on these preventive measures there is a need to improve and implement the corporate governance framework in its true spirit.

Based on the results of the thesis, several recommendation and policy implications are suggested the preventive measures to improve the good corporate governance in Pakistan. Also, some punitive actions, which might be effective even if legal framework is weak, are suggested.

5.2.1 Disclosures

In the context of developing economies, where corporate matters are opaque and firms are mostly insiders-controlled, any success in attaining good corporate governance is based on sufficient disclosure of corporate activities and transparency. In case of Pakistan where implementation of law remains a problem, disclosure may have a virtue of possessing a self-enforcing element. Moreover, to protect the interests of the minority shareholders, effective corporate governance mechanisms should ensure that the shareholders do have access to the required information which helps them in taking rational decisions. In this regard, SECP has a prime responsibility of ensuring that listed firms provide enough information in their Annual Reports.

5.2.2 Oppressed Minority Mechanism

In several developing countries such as Korea and Mexico the "Oppressed Minority Mechanism" clause exists in law whereby minority shareholders are given the right to sell their shares to the company at fair price in case minority shareholders disagree with the controlling insiders (Nenova, 2005). The fair price is determined by an independent evaluator who is expert in the field and appointed by a third party such as chamber of commerce or the country's security and exchange commission. Such clause might be introduced in Pakistan as well, keeping in view the results of this study.

5.2.3 The Role of Independent Directors

In case of Pakistan where majority insiders control the corporations, the presence of independent directors can also be effective because their presence can make sure that the interest of minority shareholders are looked after. The present Code of Corporate Governance by SECP requires at least 1/4th of the directors to be non-executive directors. To play their roles effectively, this number may be increased to 2/3$^{rd.}$ Moreover, the present Code does not require the presence of non-executive directors to be mandatory. If minority investors are to be protected effectively, 1/3rd of the executive director must be independent directors.

5.2.4 The role of institutional investors

Results of the thesis are mixed regarding the monitoring role of institutional investors. The reason for such mixed results is that many institutional shareholders have small investments in equities that give them little incentives to devote more efforts toward monitoring of their investee firms. This calls for incentives that can motivate institutional investors in Pakistan to invest more in equities. This might be in form of tax incentives. This can at least ward off the impact of higher-yield government bonds in Pakistan which have historically been responsible for discouraging institutional investors from investing in equities. Second, to make institutional investors powerful monitors, they might be given a veto right where a certain threshold of institutional shareholding enable them to challenge the decision of powerful insiders.

5.2.5 The role of Auditors

To improve the protection of minority shareholder, the role of auditors can further be enhanced by making the audit committee of the company more effective and by ensuring that the individuals with high personal integrity are working as auditors. The auditors sometimes are involved in helping out the management in preparing financial statements. This role assumed by

the auditors gives rise to the conflicting roles. In the absence of conflicts of interest, the auditors can prove to be an effective tool in checking the expropriation of minority shareholders.

5.2.6 The role of Media

The misappropriation of the controlling insiders can possibly be addressed by exploiting the role of media to bring in awareness among the general public and in developing a consensus public opinion. The issues of concern regarding companies can be raised and shared on the internet. In the presence of weak enforcement of the law, self-enforcement and goodwill becomes more important. It is expected that strong insiders will discipline themselves to avoid the adverse public opinion because ultimately the companies have to refer to the external markets to raise public funds.

5.2.7 Punitive Actions

Some of the punitive measures may work even in the presence of weak legal framework. The SECP may delist a company which has not fulfilled the corporate governance requirements. This delisting can be an extreme step. A more moderate punitive action will be to establish separate defaulter counters for the reasons of disclosure requirements, audit committee etc. Similarly, a list of those companies who exercise good corporate governance can be prepared and distributed by relevant stock exchanges to motivate others to follow in the steps of the good companies. Companies included in such a list will enjoy the benefits of having goodwill and their share prices may also increase owing to the good reputation. These companies will also enjoy benefits of their reputation while raising funds.

5.3 Direction for Future Research

This thesis is an effort to analyze the impact of ownership structure on the dividend payouts and the firm performance. During the extant review of literature certain areas could not be covered because of lack of availability of data and time. I consider this thesis to be a work-in-progress and so I believe that the following areas can be targeted by the researchers working in this area.

After reading existing literature, one can understand the complexity of dividend puzzle. The institutional investors considered as a homogenous group have important role in augmenting the performance of companies in Pakistan. It is important to analyze the presence of different types of institutional investors in the corporate ownership and their preferences for the dividend payments. Institutional investors may take the form of banks, modarba companies, insurance companies or mutual funds etc. It seems more appropriate to collect data for different institutions and study the impact of their presence in the ownership structure on the dividend payout policy of firms in Pakistan.

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