The Determinants of Corporate Dividend Policy

In Pakistan

By

Aliya Bushra

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Abstract

One of the most important financial decision to be made by the organizations is related to their dividend policy. There are different factors that affect the dividend policy such as firm size, financial leverage, profitability, growth opportunities and the ownership structure. Most firms retain the excessive cash for business expansion purpose. That is why market-to-ratio gives an inverse relationship with dividend payout because firms rely on internal source of funds. Similar is the case with leverage and firm size, the more the liabilities of larger firms the more they are willing to retain their free cash flows. On other hand, profitability ratios have a positive impact on dividend policy because the more profitable the firm is, more likely it is to pay dividends to its shareholders. The main purpose of paying dividends is to attract more investors so that the firm can maintain a good repute in the market. If the firm is not giving dividends, the foremost signal received by the market about such firm is that it is unsure about its future cash flows. Which eventually makes this a "highly risky firm".

This research is emphasizing on the determinants of corporate dividend policy. This policy plays a greater importance in making a decision about a firms well being. Each firm has its own financial limitations and restrictions when it is making the policy regarding dividend payout. The objective of this study is to find the most significant determinants of dividend policy of firms in different sectors of economy in Pakistan. The relevance of these significant determinants of dividend policy helps to make the final decisions regarding policies in other areas. The data for the study is taken from published resources of State Bank of Pakistan and Karachi Stock Exchange (KSE) for the period 2005 till 2010. The sample size was seventy five companies listed at KSE.

The research findings of this study highlight the facts that the firms with high profitability and concentrated ownership tended to give higher dividends as compared to the firms who were incurring losses. Firm size was found significant, which plays an important role in the dividend policy. The relationship of size of the firm with dividend payout ratio was negative which indicates that the larger the firm was the more it retained cash to pay off its liabilities, rather than giving cash out as dividends to its share holders. The growth in sales which was found positively related with the dividend payout ratio. This findings indicates that if a firm has good growth opportunity, then it relied more on external financing rather internally generating funds, which helps such firms to maintain a positive signal "as a dividend paying company" in the market.

Index of Abbreviations

BV	Book Value
CS	Current Sale
Div	Total Dividend
DPS	Dividend per share
DY	Dividend Yield
EMH	Efficient Market Hypothesis
FCF	Free Cash Flow
KSE	Karachi Stock Exchange
LEV	Financial Leverage
LSE	Lahore Stock Exchange
MBV	Market to book ratio,
MM	Modigliani and Miller
MV	Market Value
NI	Net income
NYSE	New York Stock Exchange
OE	Owners Equity
OWN	Ownership Structure
OWN_f	Ownership held by family/ management

OWN_i	Ownership concentration held by Institutional investors
OWN_{idv}	Ownership held by individual investors
P	Market price of a share
PS	Previous Sale
PY	Dividend Payout
ROA	Return on Assets
ROE	Return on Equity
SG	Sales Growth
SZ	Size of a firm
TA	Total Assets
TL	Total Liability

Table of Contents

Chapter 1

1. Introduction

Dividend policy is the most discussed topic in corporate finance. As Black (1976) termed dividend as a "Puzzle", *"the harder we look at the dividend picture the more it seems like a puzzle with the pieces that just don't fit together"*. He called dividend as puzzle because there is an emerging consensus[1] that no single factor alone can explain the dividend behaviour.

Dividends are rewards given to the investors for their investment in the firm. This reward could be in terms of cash (cash dividend) or in terms of stock (stock dividend), which is dependable upon company's policy. Dividends are important for the investors because these provide certainty about the company's financial well being. Investors look for secure current income.

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[1] a study conducted by Stacescus (2004) and another study by Afza and Mirza (2010) came up with the same results that no single factor can explain the behaviour of dividend policy because it depends on the behaviour of investors which changes time to time.

These rewards (dividends) can be distributed among stockholders or it could be reinvested for the future projects. For financing corporate growth, sometimes dividends are retained as these are the most significant and cheap source of fund for companies. By going for external financing (such as borrowing funds from a bank) could be quite expensive for the firms. This increases liability side of firm. So they retain these earnings and avoid a dividend which sometimes discourages the investor's expectations. Yet this growth in business ensures a stable and a smooth dividend payout in future for the firms (Lintner, 1956).

Dividends are also beneficial for providing information to the outsiders. It gives information or "signals" to the market. These signals are about the company's future performance. If there is a dividend cut, the immediate signal received by the market is that the firm is retaining its free cash flow for the future expansion or second reason could be, the respective firm is uncertain about their future earnings so they are avoiding dividend payout.

Now in first proposition, investor could perceive these types of firms (which have omitted dividend payments) that it is engaging themselves into growth expansion or diversification of its business, which is a "good signal". In second proposition, investors would perceive that firm is short of funds to give payments to their shareholders, which gives "bad signal". So we can conclude by saying this that dividends are not just the reward given to the investors; but it also provides information regarding firm's performance for the outsiders.

Signaling Theory by Bhattacharya (1980) and Information Asymmetry, John and Williams (1985), argued that the mangers cannot cut or increase the dividend rate on their own, because omission of dividends gives bad signals to the market. Managers would never increase dividend if they are not sure about the stability of their company's future cash flows. When it comes to prospect for the company, managers may have better information than outsiders. Therefore unexpected changes in dividends may relay information to the market

that they didn't know before. When firms cut dividends, they give a "signalling effect" of their earnings expectations in future, or engaging themselves in inefficient empire building.

To maintain a good repute in market, large size profitable companies often pay dividends. However, firms that are not paying dividends are not necessarily incurring a loss. These firms retain free cash flow for purpose to expand their businesses. That is why, mostly "growth" firms omit dividends. Even sometimes large and mature companies don't pay dividends because they need to retain enough cash to handle any kind of discrepancies faced by them in future.

Dividend payout also helps in the reduction of agency cost. Agency problem is the conflict of interest between the management and the shareholders. The ultimate goal of management is to maximize the shareholder's value. But manager's interests are quite different from this. They are more attracted towards their own interests such as increase in their salaries etc. Managers retain the excess cash available within the company for the investment purposes. But unfortunately managers are investing in projects with low NPV or relatively less IRR. This creates a huge conflict between shareholders and the managers. The reason behind this negligence by managers is because they are been compensated on the basis of annual growth of the respective company. In other words, how many new projects are being acquired by the manager in a year. This provides them with fringe benefits and high compensations (such as bonuses, promotion, etc). In order to gain these benefits, managers are inclined to invest in unprofitable projects.

Jensen (1986) proposed Free Cash Flow Hypothesis, which states that free cash flow should be distributed among shareholders to reduce agency cost. Rozeff (1982) also emphasized that dividends also give indirect benefit of control for these FCFs* where active

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*Free Cash flows are a measure financial performance/valuation calculated as operation cash flow minus capital expenditure.FCF represents the cash that a company is able to generate after laying out the money required to maintain or expand its asset base.

monitoring of firm's management by its shareholders is missing. But company must not reject a positive NPV projects just because they have to pay dividends or have to decrease agency cost. Otherwise, dividend payout cannot be maintained in future. Though, company must not reduce its payout unnecessarily as well. They should try to pay dividends but at the same time maintain sufficient retained earnings to avoid raising new finance for the expansion of business. They should never allow the payments of dividends to be funded by borrowing cash because this could be costly for the firm. Due to this, firm's debt-equity ratio will also become worst and will affect the share price eventually.

There are many reasons for the existence of dividend payments, but according to Modigliani and Miller (1958), a firm's capital structure (debt to equity ratio) does not affect its market value in perfect market. That is, in an efficient market the equity invested and any debts taken against them have no affect on market value. In another paper; Miller and Modigliani (1961) discussed their proposition that a firm's leverage has no effect on its weighted average cost of capital. Whereas Modigliani and Miller (1963) proposed that dividend policy is irrelevant to share value in the perfect and efficient capital markets. Dividend cannot affect the firm's capital structure and the stock price. So they stated that dividends were irrelevant in perfect market.

Dividends are irrelevant when firms are financing their projects (in the absence of tax system), this was proposed by Miller & Modigliani (1961)[2] and another paper published by Miller et al. (1978) described irrelevance with the presence of tax. The Modigliani and Miller (1958) and Miller (1977) results showed that firm value is independent of dividend policy. Investors don't care about a company's dividend policy since they can buy shares and borrow against them. So in case of no taxes or bankruptcy costs, dividend policy would be irrelevant.

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[2]MM's Dividend-Irrelevance Theory: this theory was proposed by Miller–Modigliani (1958), they tested that dividends are irrelevant when firms are financing their projects (in the absence of tax system).Another paper published by Miller–Scholes in 1978 described irrelevance with the presence of tax.

Further, Miller et al. (1978), proposed a theory that taxes are really important considerations for the investors. Mostly in developed countries, capital gains are taxed at a lower rate than dividends. As dividends are subject to double taxation, that is, first there is corporate tax charged at the source and then dividend tax is charged, where as capital gains are tax exempt. So that is why; many investors prefer capital gains over dividends. This is known as the "Tax Preference Theory". Investors are attracted to those companies, whose payout policy best suits their own investment objectives. So investor invests in those firms whose dividend policy is aligned with his own investment strategy. This is called Clientele Effect Model[3].

Bird-in-the-Hand theory contradicts with MM's theory, because it stated that dividends payments were relevant. Gordon and Walter (1985) found that if the company increases its payout ratio, investors would become concerned because company's future capital gains would decrease since the retained earnings would be reinvested. So they argued that investors are suggested to have a "bird in hand" which is referring to have "a dividend now", is better than waiting for an uncertain gain (capital gain) in future.

Most of the time management makes dividend policy by keeping the consent of their investors in mind. The determinant of dividend policy helps to predict the future growth and the stability of the firm. Management should give incentives to shareholder; by paying smooth dividends when investors put premium on dividend paying company and by not paying dividends when they prefer non-paying company (Baker & Wurgler (2004).

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[3]Tax Preference Theory and Client Effect Model was tested by Miller and Scholes in 1978. Many researchers argued on this and give their own explanations

Institutions have preference for dividend paying companies but there is little evidence that they prefer higher payout ratios. Companies having a higher growth opportunity are less likely to have free cash flow; if they don't have a free cash flow then they are unable to give dividends. Sometimes managers are reluctant to cut or increase dividends because they want to play safe. That is, they won't increase dividends until and unless they are reasonably sure about the future earnings of the firm. So they play safe by not reversing this move.

Corporate dividend policy varies across the globe. This difference is according to their institution and the capital market. Currently, terrorism and internal imbalance political situations has badly affected the economic conditions of Pakistani firms. The aim of this paper is to find the main determinants of dividend policy in corporate sector of Pakistan in such circumstances. For testing this, sample of seventy five non financial firms were taken from 2005 to 2010. The goal of this study is to highlight the factors determining dividend policy.

1.1 Research Rationale

Pakistan's capital market has its own features for examining the determinants of dividend policy. Pakistan is going through a developmental phase, the capital market is growing and economy is improving. So it would be interesting to find the main factors that play an important role in developing and evaluating a firm's dividend policy. There has been no study conducted yet which tests the significant factors that are affecting the corporate dividend policies of Pakistani firms. However, there have been few papers written on the impact of ownership structure on dividend policy. But this research is not only emphasizing on the ownership structure but would also find different determinants that are affecting

dividend policy. Such as, the affect of profitability, financial leverage, size of a firm and growth opportunity ratios of companies on their dividend policy.

The insights of this research would help the managers as well as the investors to better understand the company's future prospect. The implication drawn from this study will be beneficial for the management to have a clear view about investor's expectation from the policies made by these respective firms. So that managers could sever them well and attract more upcoming investors.

Secondly the tax system of Pakistan is different from the other developed markets. 10% withholding tax is deducted from the dividend income. If the firm doesn't announce the dividend for particular year, though, it had profit in that particular year, 35% of corporate income tax is charged by Government of Pakistan. Dividends are subject to double taxation, so that is why, mostly investors rely on capital gains (tax exemption[4]).

In 2010, capital gain taxes on stocks have been declared (which has to be implemented from fiscal year 2011), prior there were no capital gains tax[5]. According to this rule, capital gain tax is not charged on the disposal of the securities which is held for more than one year. But if the share is held with the investor for less than six months, tax will be charged at the rate of 10% at source. Although capital gain rule has been declared in July 2010 but this rule is been implemented for fiscal year 2011. This rule doesn't hold true for this research as the sample period of this research is limited to 2010. The assumption that, capital gains are tax exempt holds true for this research time period (2005-2010). The possibility of the difference in tax system can influence the dividend policy

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[4]Ahmed and Attiya (2009) has also stated this evidence in their article, whereas this has also been confirmed by the Federal Board Review's official web site. [5]The Government have given the extension till 2010 so before the 2010 no capital gain tax will be collected on stocks in Pakistan.

Thirdly, the payment of the dividends is dependable upon company's policy. There are no specific rules present in Pakistan that the dividend payment are mandatory, like in Korean capital market[6]. The choice of paying dividends to shareholders is involuntary for Korean firms. But, dividend payments are voluntary in Pakistan. It all depends on the company's financial position. This sometimes raises the agency problem, because sometimes management omit dividend payments and invest those free cash flows in a low cost of capital projects. This is done to fuel their own interests, because mostly mangers are being evaluated on the basis of the annual sales growth of a company.

Lastly, Pakistan's financial market has a great influence of agency problem because there is a weak corporate governance of the ownership structure. Most of the Pakistani firms have one primary owner who has the majority of the shares in the affiliated firms. So they mainly influence the dividend policy which creates the agency problem between the minority share holders and the majority owners. Ownership structure has a significant impact on dividend payout policies because ownership concentration creates agency problem or information asymmetry between institutional, management and individual shareholders. Most Pakistani firms are family owned firms, so they ignore outsider's/minority's interest associated with payout, which eventually leads to a conflict. This factor affects the firm's dividend smoothing behaviour in capital market. Under the law of Company Ordinance 1984, shareholder requires 20% or more shares in order to take any necessary action through court against any negligence in company's affairs by management[7].

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[6]Article by Jin Moo Lee (1987), "Internalization of The Korean Capital Market", has mentioned that the for the Korean firms it is mandatory to give dividends to the investors. This statement has also been used for Ahmed and Attiya's research paper published in 2009.
[7]this information is taken from official web site of Security Exchange Commission of Pakistan.

So finally, this research would help to determine the main determinants of dividend policy of Pakistani firms. The results showed a recent picture about today's market expectations and today's investor's interests. These findings gave future insights that how management can attract more shareholders and can fulfil their requirements. All the profitable non financial firms who paid dividends for year 2005-2010, that are listed on KSE 100 index were included in the sample.

Chapter 2

Literature Survey on Corporate Dividends Policy

Few articles have been published on the topic related to dividends in Pakistan recently. Imran (2011), tested the determinant of dividend payout in engineering sector only. The sample period was taken from 1996 to 2008 and took thirty six engineering firms. The results showed that size of the firm, earning per share, cash flow, ownership structure and previous dividend per share has a significant impact on dividend payout in that sector.

Asghar et al. (2011) conducted a study with the objective to find impact of dividend payout on stock price. Data was taken for non financial firms from five sectors: Chemical, Cement, Sugar, Engineering and Synthetic and fibre, for the period 2005-2009. The results showed that dividend payout and dividend yield has significant positive correlation and has direct effect on price volatility and firm size.

Afza and Mirza (2011) took 120 companies and tested the impact of institutional shareholding on corporate dividend policy. The sample period was taken from 2002 till 2007, the results showed that there was a positive relationship between institutional ownership and ROE on dividend payout. Whereas it was negatively related to sales growth.

The impact of ownership structure and cash flow on corporate dividend policy was tested by Afza and Mirza (2010). They took 100 firms from KSE for the year 2005-2007. The results showed that managerial and individual ownership, cash sensitivity, size and leverage were negatively related to cash dividend.

Gill et al. (2010) found the main determinants of dividend payout ratios of U.S manufacturing and service firms. The results showed that payout for service industry depends upon profit margin, sales growth and debt-equity ratios. For manufacturing firms payout was the function of profit margin, market-to-book ratio and tax implication.

Skinner and Soltes (2009) investigated the payout policy with respect to earnings quality doesn't change over time. The sample consisted of all firm listed on NYSE except utilities and financial firms between 1974 and 2005. They found that the reported earnings of firms which paid dividend were more persistent than other non paying firms. This

relationship was remarkably stabled over time. The firms who were paying dividend were less likely to report losses, but these results don't show any evidence for stock repurchases. So they concluded that dividends were informative with respect to the earnings of the firm, especially if there was a question about the credibility of managers' financial reporting practices.

DeAngelo et al. (2009) presented a research on corporate payout policy and concluded that asymmetric information laid a stress upon the needs to distribute free cash flow. Their results suggested that agency costs and security valuation problems can well explained by the main features of payout policies by using Linter (1956) model. So signaling theory, clientele demands, tax deferral benefits and investor sentiment have fewer influences on payout policy, but those managerial level behavioral biases (over-confidence) of controlling stockholders were more important predictors.

Jain et al. (2009) study, they evaluated the economics of the choice of form of payout initiation mechanism adopted by IPO firms. Their results suggested that IPO firms demonstrate preference for repurchases over dividends as the specific form of payout initiation mechanism. They compared the results of pre IPO and post IPO announcements, and found out that the market views post IPO payout initiation favorably then pre IPO. But the market was in different to the specific form of payout initiations adopted. The model they introduced in this study was the test the dividends and repurchases represent distinct payout mechanism adopted by IPO firms with fundamentally different characteristics and motivation to initiate payouts during post IPO phase. The conclusion they drawn was that the dividend initiation are primarily driven by life cycle and catering theory considerations. So the

signaling theory provides accurate explanation for the payout initiations through share repurchases.

Ahmad and Attiya (2009), found that the profitable firms paid larger dividends as compared to small size firms. Leverage, growth opportunity has a negative relationship with dividend payout. These results were found for the non financial firms whose data was listed at KSE from 2001 to 2006. In 2010, Ahmed and Attiya tested the ownership structure by using KSE 100 index, the concentration within management and individual had negative impact on dividend payout.

Dividends also involve a big cost, these cost involves cost of premium tax , cost of risk and opportunity cost, all these costs were studied by Cohen and Yagil (2008). The main issue addressed by their model was the negative relationship between the expected dividend per share and the ratio of information about the cost of the dividend held by "category" investors and "arbitrageurs". The cost of dividend has been shown in to three types: premium tax, risk and investments. So in this article the author concluded that there was a linkage between investment, financing and dividend polices decisions. The risk premium consists of two components, first was the increase in financial leverage resulting from dividend payment and the second was the semi contractual obligation of dividend paying firm to maintain the dividend payment. So the model predicted that there was negative relationship between these three premiums and expected dividend per share. This also predicted that if the firm was operating in financially risky environment prior to dividend payment, then it would be negatively related to financial leverage. Researchers came up with this conclusion that the dividend sum depends on its short term and long term impact on the stock price and also depends on the financial leverage and investment opportunities.

Denis and Osobov (2007) found some international results for the dividend policy. They analyzed dividend polices of different countries across the globe, over the 1989 to 2002 time period. U.S., Canada, U.K., Germany, France, and Japan, propensity to pay higher dividends was among larger and profitable firms. Although there were some reductions in dividends in most of the sample countries from 1994 to 2002 period, because there was an increase in new listed firms, which were unable to pay dividends for initial years of business. In each country, total dividends have not reduced yet they were concentrated among the large profitable firms. But outside of U.S. there was a little evidence of such positive relation between dividend paying and non-paying firms.

A study on dividend policy and the behavior of investors, Mollah and Mobarek (2007) suggested that mostly dividend decision is governed by those managers who have somewhat their personal interest involved in. The findings also suggested that the investors were willing to invest in those firms who had enough cash flow to pay out the dividends; as cash flow was a better measure of the company's capacity to pay out dividends and profitability.

Renneboog and Szilagyi (2007) compared the firms paying lower dividends in the stakeholder- Continental Europe than in the market-oriented Anglo-American world. They found that the payouts of Dutch firms are low because they were in a habit of using the power against shareholder provisions, and that dividends and shareholder control agency concerns. They examined 150 firms excluding financial and utilities firms for the period between 1996 and 2004.

Dividend policy, risk and catering had a positive relationship; this was found out by Hoberg and Prabhala (2006). They reported that risk was significant determinant of propensity to pay dividends and explains up to 40% of the disappearing dividends puzzle. The second thing they found out was that the catering in insignificant once there was an account for risk.

Share holder rights also play an important role in dividend policy. This was studied by Jiraporn and Ning (2006) tested agency costs as a determinant of dividend policy. They determined that how dividends were related to the strength of share holder rights so they found out that firms which paid higher dividends their share holder rights were more suppressed. So they studied the impact of share holder rights on dividend policy of a firm. As a result, dividend acted as a substitute for share holder rights. So the evidence was there that the regulations influence the relationship between dividends and the share holder's rights.

Skinner (2006) tested the relationship between earnings, corporate payout policy and repurchases. A total of 700 firms were divided into two groups of payers emerged since 1980: i) firm that paid both dividends and made repurchases ii) firms that made repurchases only. Findings of this paper was, the newer firms used repurchases instead of paying dividends, whereas, mature and more profitable firms that previously paid dividends, now paid both dividends and repurchases. Earnings were important determinant of payout for both types of the firms. So they concluded that, this was the reason why mangers were so reluctant to give out dividends because now they had an option of repurchasing the shares which was an alternate way of distributing the earnings to stockholders.

Faulkender et al. (2006) tested the relationship between corporate performance and firm's capital structure and dividend policy. They tested whether these two plays a significance role in implicit governance mechanisms for the allocation of control over decisions between managers and investors. So they divided the data into two groups of firms, one with very highly levered and very little equity. Such firms put the maximum control of decisions in the hands of investors. The second group consisted of all equity firms which has a history of not paying dividends. Such firms give maximum control to the managers. Between these two groups there were different firms with different debt-equity and dividend payout ratio, on which their allocation of control were determined. As higher the debt-equity ratios, higher was the dividend payouts, that results in massive control of the investors. So on this basis they concluded that the firm's manager sets the dividend policy and the capital structure to increase the performance. The better a firm performs; the greater was the confidence of investors in abilities of the manager for making future decisions.

A Link between firm dividend policy and stock market liquidity was tested by Banerjee et al. (2005). They argued that investor demand for stocks paying cash dividends was positively related to dividend payments and therefore inversely related to the market liquidity. All the firms for which the earnings-to-assets ratio, the market capitalization, the market-to-book ratio, the growth in assets from the previous year, and share turnover for the years from 1963 to 2003 were taken as a sample from NYSE and AMEX. They results showed that the owners of less or illiquid common stocks were had more chances to receive cash dividends. Firms with more liquid stocks would have less expectation to distribute cash dividend to their shareholders.

Gugler and Yourtglo (2005), This paper focused upon the conflict of large controlling owner and small outside shareholders on dividend announcements and dividend pay-out ratios in Germany. Dividend announcements provided new information about this kind of conflict. By testing the cash flow signaling information on the ownership and control structure, they took 736 companies who changed dividend announcements over the period 1992 to 1998. The results showed a negative relationship between larger wealth effects and lower payout ratios. in the order to the ownership and control structure. There was a need to protect minority shareholder right.

Richard and Zhang (2005) compared the share repurchase with giving out dividends and what was the impact of mangers and investors. They discussed that market immediately reacted to the dividend announcements rather than repurchase, but manger's decision was based on his time horizon and his own incentives attached to it. Investor does positively reacted to dividend news but mostly managers discourage this due to the signaling hypothesis. They considered that it would incorporate the firm's news immediately into the market. Also they found that firm free cash flow was reinvested in new NPV projects impact on the investors and the valuation or their share prices. So they concluded that dividend and repurchases were inefficient though it had strong reaction from the market but the managers were more willing to invest in positive NPV projects.

DeAngelo et al. (2004), evidence provided was of 22 large private firms whose dividend payments prevented significant agency problems. Firms with relatively high amounts of retained earnings were likely to pay dividends. They tested this result on publicly traded industrial firms that paid high dividends when the ratio of retained earnings to total assets was high. The results were highly significant between the payment of the dividends

and the ratio of retained earnings to total assets, so they concluded that firms pay dividends to reduce agency problems.

H. DeAngelo and L. DeAngelo (2004) tested Miller and Modigliani.s (1961) "irrelevance proposition" and Black (1976)"The Dividend Puzzle". The dividend puzzle was based on the assumption that low or near-zero payouts in the markets, hence should be strictly optimal when payouts are taxed. So according to their findings this logic reflected misunderstandings about the nature of payout policy irrelevance in frictionless markets. They concluded that most firms can make low payouts for extended future projects. So the standard finance model (with or without taxes) predicted the large payouts. Further they provided the evidence that payout policy were explained by cash generated from prior projects and the new investment opportunities, while signaling may help in explaining dividend smoothing and managerial reluctance to cut dividends. So these characteristics of observed payout policies that were not implied by the standard model.

Mostly investors invest in those firms who have a regular pattern of giving dividends. Stacescu (2004) examined dividend policy for a sample of Swiss companies. They came up with determinants which affected the dividend policy, such as profitability, growth opportunities and riskiness. Past and present income growth were more relevant then the future growth of dividend changes. Price volatility seemed the most significant factor in these changes. They also determined the relationship between losses and the decrease in dividends, when the firms don't give dividends they occurred losses as in investors were reluctant to invest in those firms whose cash flow were not certain. So managers hesitated to cut out the dividends as it gave negative informational signal to the Swiss market and to dividend changes.

Baker and Wurgler (2004) came up with the explanation of dividend payment. They proposed that dividend payment was done on the basis of investor's demand. Mostly managers catered to investors, by giving them incentives such as dividend premium. By putting a premium non payer was initiated when the demand was high, there was expectation of future earnings, whereas when there was no premium that implied that more investment was done and was discouraging for the investors as psychological point of view. They constructed four stock price based measure for the investor demand, the broadest one was about to check average between market-to-book ratio, second one was checking the difference between the cash dividend and stock dividend share classes, third one was related to dividend initiations this will affect the stock price of company, and lastly future stock returns of payer and non payers.

Nishat and Irfan (2003) tested the impact of price volatility on dividend policy. The sample consisted of 160 companies from 1981 to 2000. The results showed that there was a positive impact of price volatility on dividend yield and dividend payout, after controlling for size, earning volatility and leverage.

Baker and Wurgler (2003) came up with the appearing and disappearing dividends and they linked this with catering incentives. They used Fama and French (2001) methodology to identify total of four trends in the propensity to pay dividend between the period 1963 and 2000. The propensity to pay dividends increased when stock market dividend premium was positive and decreases when it was negative. They concluded that dividend tends to disappeared during pronounced booms in growth stocks and reappeared after crashes in such stocks.

Fuller and Goldstein (2003) investigated investors prefer dividend-paying to non-dividend-paying stocks. By using S&P 500 monthly returns as a proxy for market announcements, the results indicated that dividend-paying firms had higher returns than non-dividend-paying firms, especially in declining markets.

Kumar (2003) examined the possible relationship between ownership structure, corporate governance and dividend payout policy in emerging market of India. Sample consisted of 2575 firms listed between the periods of 1994-2000. The results showed that ownership was a significant variable in determining the dividend policy of the firms. Furthermore, there was a positive relationship between dividends and earnings. Debt equity was found to be negatively related, whereas investment opportunities were positive and were highly associated with dividends. By dividing the ownership structure: Corporate and directors ownership was positive and Institutional ownership had inverse relationship with dividends. Yet no evidence was found in the favor of foreign ownership and dividend payout growth. Retained earnings are high which a sign of increase in future earnings growth is.

Mehr Ayub (2002) found that Pakistani firms use only 23% of their incremental profit as payout and the remaining amount was retained for the growth purpose. This result was found by accessing 180 KSE listed companies; the sample period was taken from 1994-2002.

Farinha (2002) analyzed agency problem of corporate dividend policy in the UK. His findings suggested that if cash is paid to the shareholders that would help to reduce agency problems in two ways: 1) by increasing the external capital or 2) by reducing free

cash-flow. By using data for two five-year periods (1987-91 and 1992-96) of 600 UK firms, he found a strong relationship between dividend payouts and insider ownership in the UK.

Arnott and Asness (2001) tested whether dividend policy can forecasts future earnings growth. Their evidence contradicted from those researchers who believed that reinvestment of retained earnings would give faster future earnings growth. The findings of this article were that the managers used this 'signalling effect' of their earnings expectations through dividends, or engaging in inefficient empire building. They used three sources of dividend yield and stock total return data, drawn from Professors Schwert, Shiller and Ibbotson. Earnings were from Shiller's data, which was drawn from Standard and Poors from 1926 to date. So they concluded that there was a positive link between payout ratios and earnings growth, high market P/E and low payout ratio combined to be a strong indicator of high future earnings growth.

Khang and King (2001) argued the implications of asymmetric information; they found that firm's insiders take informational advantage in trading the shares. Due to this, there was an effect on the dividend policy too. According to this research there was a strong relationship between asymmetric information, Insider's trading profits and dividend policy. By using a sample from 1982 through 1995, they found that higher the firm's dividends, the lower would be an insider's gain. But found no evidence that due to the change in dividend policy would directly affect information asymmetry.

Chapter 3

Research Methodology

This study explored the main factors influencing the dividend policies of non financial Pakistani firms. All those firms who are giving dividends during six years, 2005-2010, were included in the sample. This study took into account the total amount of dividends paid to the shareholders as cash dividends or as stock dividends.

3.1 Sample Selection and Criteria Limitation

The sample for this study consisted of seventy five Pakistani non financial companies which were listed on Karachi Stock Exchange (KSE) 100 index. Only non financial firms were included in the sample, because there is a difference in capital structure of financial and non financial firms. The main data has been collected through company's annual reports for the year 2005 till 2010.

The Ex dividend days in Pakistan are usually in June and July. The analysis of this research was based on yearly observations. The companies selected as a sample in this study were those which were paying dividends and were not incurring any losses. The data of these profitable firms was collected through their financial reports, which included: dividend per share, total assets, stock price, share outstanding at the end of fiscal year, income before extra ordinary items, , cash dividend per share, stock dividend per share ex date, total equity as both as book value of equity and market value of equity, shareholding pattern and total debt.

3.2 Theoretical Framework:

[Insert Figure 1 about here]

The theoretical framework of this study has been shown in figure 1. The dependent variables were dividend yield and dividend payout ratio. Dividend yield measured the market expectations at the announcement of dividends. Dividend payout measured the firm's characteristics. The impact of independent variables; profitability ratios such as return on assets and return on equity, firm size, financial leverage, growth in sales, market to book ratio and ownership structure on these dependent variables (dividend yield and dividend payout) were tested.

3.3 Sources of secondary data

The secondary data was collected from Karachi Stock Exchange (KSE) website and also from annual reports. In order to estimate dividend yield, the yearly average stock price was taken from Business Recorder. For market capitalization ratio, the price was taken on annual basis.

3.4 Model Specification

In the first model, the impact of independent variables were tested on dividend yield. These independent variables were testing the impact of profitability ratios, the growth opportunity ratios, such as market to book ratio and sales growth, the affect of leverage, size of the firm and ownership concentration on dividend yield. Whereas second model was testing the significance of the same independent variables mentioned above, on dividend payout ratio.

The dependent variables were: i) Payout ratio and ii) Dividend Yield. The independent variables were: ROA, ROE, firm size, Leverage, sales growth, market-to-book ratios and the share of capital owned by institution, family or by individual share holders.

3.4.1 Dependent Variables:

The dependent variables were; Dividend Yield and Dividend Payout ratio. The dividend yield has captured the amount of dividend per share according to the average price of the respective firm. The average price has been taken as the beginning price of the year and the price at the ending period. The purpose of calculating the dividend yield was to determine the amount of dividend given per share to the share holders according to firm's

average price. This ratio captures the market expectations. This basically tests the investor's perception and expectation of the company's share value. Dividend yield was taken as one of the dependent variable to study the dividend policy of Pakistani corporations. (Asghar et al. (2011).

The second dependent variable used to run the multiple regression was, Dividend Payout ratio. The dividend payout ratio has been calculated by taking the ratio of total dividend paid to the shareholders and a firm's net earnings (profits). These share holders were the total number of shareholders a company has, regardless the division of ownership structure of that firm. The total dividend included cash dividend and stock dividend paid to the shareholders. If only cash dividend was taken into an account for the measurement of this dependent variable, the sample size was reduced to only twenty five non financial firms. So in order to avoid a smaller sample size, the total amount of dividend paid (that is, stock dividend plus cash dividend) were taken. This variable helped to determine the amount of dividend paid, whether it is cash dividend or the stock dividend or both, to the share holders according to the firm's net income. This variable tested the impact of firm's characteristics while making a financial decision for the company.

3.4 Variable Estimation

Dependent Variables Estimation

Dividend yield was estimated as follows:

$$DY_t = \frac{DPS_t}{P_{avgt}}$$

Where DY_t, is dividend yield of a firm at the end of year t, DPS and P_{avgt} is dividend per share (cash or stock dividend or both) and the average price of a firm after the announcement of the dividend, at time period t respectively.

Similarly, Dividend Payout ratio was estimated as follows:

$$PY_t = \frac{Div_t}{NI_t}$$

Where PY_t is payout ratio at the end of year t, Div_t and NI_t are the total dividends (cash or stock or types of dividends) paid to the shareholders and the net income of a firm at time period t respectively. The total dividend included cash dividend plus the stock dividend paid to the shareholders. If only cash dividend was taken into account for the measurement of this dependent variable, the sample size was reduced to only twenty five non financial firms. Because only twenty five companies were able to announce cash dividends for the shareholders during research period (2005-2010). So in order to avoid the results based on smaller sample size, the total amount of dividend paid to the stockholders (that is, stock dividend plus cash dividend) were taken for this study.

3.4.2 Independent Variables:

First independent variable was market-to-book ratio, most commonly used to test the growth opportunity available for a firm. Baker and Wurgler (2004) used market-to-book ratio as a proxy for growth opportunity. As the market value of equity increases that makes a growth stock. This ratio has a negative effect on both dependent variables because large company with higher the M/B ratio tends to pay lower dividends. Larger the investment opportunity available for the firms, the more is the requirement of retained earnings, so these "growth" firms pay fewer dividends to its shareholders. If the firm wants to expand its business, the excess cash is retained for the future investments and not given as payout to the

shareholders. Most of the firms would rely on internal financing in order to avoid the high cost associated with external financing.

Second independent variable was ownership structure. The first category of this variable, shares held by institutional investors, such as banks, insurance companies etc. Relationship of institutional owners with dividend payout and dividend yield has mixed results. Meaning, according to previous literature it has a positive sign and in few studies it has negative relationship with above mentioned dependent variables. One of the reasons could be that the firm tends to pay dividends in order to reduce the cost of agency conflict. They tend to reduce the free cash flow in hands of managers by paying out the dividend so that there are less chances of agency problem, Grinstein & Michaely (2003). This shows a positive relationship of institutional owner with dividends. If there is a high concentration of insurance companies or pension funds companies then again it has positive relationship with dividend payout because these firms requires excessive cash for the settlement of their claims.

But if there is a high concentration of institutional ownership is held by the banks, there is negative effect on dividend payout. This negative relationship is due to the securitization for bank's debts (loans). Mostly banks invest their FCF in different types of assets, to secure their financial obligation and maintain their financial position in the market, (Al-Makawi, 2007). That is why these institutions discourage the dividend payments.

The second category of ownership structure is insider owners. These insiders are family owned firms or the majority shares held by the management. It has an inverse impact on dependent variables (dividend yield and dividend payout ratio). The reason behind this is that the family members are given a high compensation (salaries) which increases the expenses for the firms, so the net earnings are not enough to payout as dividends. Sometimes these expenses leads to a negative income for such firms. Another reason of this negative

relationship is the fact that the managers are reluctant to distribute cash to the shareholders. They want to keep these free cash flows to fuel their own interests (such as investing these FCFs in negative NPV projects, in order to gain fringe benefits).

Third and last category of ownership structure is, shares held by the individual investors. These individuals have been categorized as agents or brokers or retired civilian officer in this study. This variable has a negative effect on dividend yield and payout ratio. This is mainly due to the tax treatment. Individuals are more interested in capital gains rather than in dividends. Because capital gains are tax exempt, whereas dividends are subject to double taxation. This discourages the investors to wait for their reward till the end of the year. So they have low preference for the dividend payout. Therefore it was expected that higher proportion of individual investors among the shareholders would have negative relationship with the dividend payout and also with dividend yield.

Third independent variable was, Firm size. This variable was likely to have a negative effect on dividend yield and dividend payout. Larger firms have more liabilities so they retain the excess cash, Lintner (1956). Whereas, Asghar et al. (2011) found that the size of the firm was positively related to dividend payout ratio. Larger the firm was, the more stable their cash flow generated from the operations was. And more likely it used to pay dividends to its shareholders. Another reason is that the large companies are well diversified so it has to maintain a good repute of 'financial well-being' in the market by giving out smooth dividend to its investors, Shah et al. (2011). So large firms, tends to pay more dividends to its shareholders, rather investing in their assets.

Fourth independent variable was sales growth. According to the signalling theory, the higher the growth of a firm, it pays fewer dividends to its share holders. Benartzi et al.

(1997), found a negative impact of earning growth on dividends. They proposed that the dividend changes are based on past and current earning rather than on future earnings growth. To increase the sales, companies invest in new positive net present value (NPV) projects so they avoid paying dividends. however, few firms maintain their repute in the market by giving smooth dividends to their stockholders. A study by Afza and Mirza (2010) came up with the positive relationship of sales growth and dividend payout. They found that the firms who were able to generate sales were likely to give rewards to their shareholders. So this variable has positive as well as negative relationship with dividend yield and payout ratio.

Fifth independent variable was financial leverage. There is a negative relationship between debt and dividend payout as well as with dividend yield. Mostly high leveraged firms try to increase retained earnings in order to decrease their dependency on the external financing. Such high leveraged firms pay lower dividends to avoid the cost of raising external capital, Rozeff (1982). These firms have to pay fixed financial charge, interest and the repayment of the principle amount. If they are unable to repay their debts, company would end up in liquidating its assets. So in order to maintain liquidity position and cash flow, high leveraged firms avoid the dividend payment. Therefore it was expected that dividend yield and dividend payout would be found negatively related with the financial leverage in this study.

Two independent variables used in this study as determinants of dividend policy were, ROA and ROE. These profitability ratios of the firms have a positive impact on both dependent variables (dividend yield and dividend payout ratio). The firms with the positive earnings tend to pay more dividends. Mostly the firms with the high profitability have stable earnings over the period of time, and they can easily afford large free cash flows to be

distributed as dividends. so it was expected that ROE and ROA would be found positively related with dividend yield and dividend payout ratio.

3.4 Independent Variables Estimation

The independent variables were measured as:

Firm size measured as logarithm of total asset;

$$SZ_t = Log(T.A)_t$$

Where, SZ_t is the size of a firm in time t and $Log(T.A)_t$ is logarithm of total assets at time t. By taking logarithm any variations (outliers) present in the data were eliminated.

Profitability ratios were estimated as follows:

$$ROA_t = \frac{NI_t}{TA_t} \quad ,$$

$$ROE_t = \frac{NI_t}{OE_t}$$

Where, ROA_t and ROE_t are the return on assets and return on equity at t, respectively. Whereas NI_t, OE_t and TA_t are the net income, total owners equity and total assets of a firm in period t respectively.

Another independent variable; Financial Leverage was measured as:

$$LEV_t = \frac{TL_t}{TA_t}$$

Where LEV_t is total leverage estimated at time t. TA_t and TL_t are total assets and total debt in period t respectively.

The independent variable, Sales Growth was measured as percentage change in sales.

$$SG_t = \frac{CS_t - PS_{t-1}}{PS_{t-1}}$$

Where SG_t represent sales growth at time t. CS_t and PS_{t-1} were the current sales at time period t and previous sales in t-1 respectively.

The opportunity growth was measured by Market to book value of equity

$$MBV_t = \frac{\text{MV of equity}}{\text{B.V of equity}}$$

Where MBV_t is the ratio of market to book value of equity in t. MV of equity was calculated by multiplying the number of shares outstanding into market price. The market price is taken from KSE website. $B.V$ of equity was taken as the total equity presented in the balance sheet at year end t.

Last independent variable, Ownership Structure was estimated as the numbers of majority shareholders holding stocks, (taken from annual reports). Proportion of shares held by institutional investor, such as Banks, Pension funds, Mutual funds, insurance companies, foreign companies, investment firms, etc. Proportion of shares held by family members or management. Proportion of shares held by individual investor, such as agents, dealers, retired civilians, etc.

3.4.3. Model 1:

On this panel data, the following were the two regression equations:

$$DY_{it} = \beta_0 + \beta_{1t}\,OWN_{inst_{it}} + \beta_{2t}OWN_{f_{it}} + \beta_{3t}OWN_{idv_{it}} + \beta_{4t}LEV_{it} + \beta_{5t}SG_{it} + \beta_{6t}ROE_{it} + \beta_{7t}ROA_{it} +$$

$$\beta_{8t}MBV_{it} + \beta_{9t}\,Log(TA)_{it} + \varepsilon i \qquad\qquad ..... \,(1)$$

With t = 1, 2, 3...., 6 (2005 till 2010)

Where, *DY* represents the dividend yield on time *t*, *SG* represents sales growth, *OWN* represents ownership structure: OWN_i represents the ownership concentration held by institutional investor at time *t*, OWN_f represents the ownership held by family/ management, OWN_{idv} represents the ownership held by individual investors at the specific time period *t*, *MBV* represent market to book ratio*, Log (T.A)* is representing the firm Size at *t*, *LEV* represents the leverage or the total debt held by the firm ,the profitability ratios are presented by *ROA & ROE.* β_t represents the slop of the regression equation*,* β_o is the intercept of regression equation representing the non dividend yield component and $\mathcal{E}$ represents the error term which is the random in nature and was expected due to uncertain event related to a particular company.

3.4.4. Model 2:

$$PY_{it} = \beta_0 + \beta_{1t}\,OWN_{inst_{it}} + \beta_{2t}OWN_{f_{it}} + \beta_{3t}OWN_{idv_{it}} + \beta_{4t}LEV_{it} + \beta_{5t}SG_{it} + \beta_{6t}ROE_{it} +$$

$$\beta_{7t}ROA_{it} + \beta_{8t}MBV_{it} + \beta_{9t}\,Log(TA)_{it} + \varepsilon i \qquad\qquad .... \,(2)$$

With t = t = 1, 2, 3...., 6 (2005 till 2010)

Where, *PY* represents dividend payout at the time period *t, SG* represents sales growth, *OWN* represents ownership structure: OWN_{inst} represents the ownership concentration held by institutional investor at time *t,* OWN_f represents the ownership held by family/ management, OWN_{idv} represents the ownership held by individual investors at the specific time period *t, MBV* represent market to book ratio, *Log (T.A)* is representing the firm

Size at *t, LEV* represents the leverage or the total debt held by the firm ,the profitability ratios are presented by *ROA & ROE*. $ß_t$ represents the slop of the regression equation, *ßₒ* is the intercept of regression equation representing the non dividend yield component and $\mathcal{E}$ represents the error term which was the random in nature and is expected due to uncertain event related to a particular company.

3.5 Impact of Independent Variables on Dependent Variables

The impact of listed independent variables on dividend yield and the payout ratio along with the expected signs are given below:

[Insert Table 9 about here]

3.7 Hypotheses

The following hypotheses are tested:

H_1: There is a relationship between dividend yield/payout and constant

H_2: There is positive relationship between dividend yield/payout an institutional ownership structure

H_3: There is negative relationship between dividend yield/payout and family/management ownership   structure

H_4: There is negative relationship between dividend yield/payout and individual ownership structure

H_5 : There is negative relationship between dividend yield/payout and leverage

H_6 : There is negative relationship between dividend yield/payout and sales growth

H_7: There is positive relationship between dividend yield/payout and ROE

H_8 : There is positive relationship between dividend yield/payout and ROA

H_9 : There is negative relationship between dividend yield/payout and marke to-book equity

H_{10} : There is negative relationship between dividend yield/payout and firm size

Chapter 4

Empirical Results and Analysis

[Insert Table 1 about here]

Table 1 report the descriptive statistics of all the variables (dividend yield, dividend payout, size of the firm, return on assets, and return on equity, market-to-book ratio, ownership structure, sales growth and financial leverage of the firm) for the year 2005. The results indicated the mean, median and standard deviation for all the above mentioned variables. The dividend yield had a stable trend over the years whereas there had been a slight increase in payout ratio. The central tendency measures give the spread of the data of distribution.

[Insert Table 2 & 3 about here]

The results of table 2 and 3 is measuring the descriptive statistic, just as in table 1, the mean and median for almost every variable (dependent variables and independent variables) has an increasing trend, dividend yield, payout ratio, profitability ratios for the year 2006 and 2007. Whereas, financial leverage, ownership structure and growth opportunity ratios are stable over time.

[Insert Table 4, 5 &6 about here]

In table 4, 5 and 6 the dispersion of each variable from its mean, has been stable over time. The data collected was for the year 2008, 2009 and 2010 respectively. Results have clearly shown that during these years the mean, median and standard deviation was quite stable for almost every independent variable. This could be because in this these years the industries were overall stable, no as such expansion had taken place. The overall trend shown in table 1, 2, 3, 4, 5 and 6 of the central tendency and the dispersion illustrate that for dividend yield is has been increasing from 2005 till 2008. This increasing trend tells that opportunity for growth was available for the firms. And after from 2009 till 2010, it was stable. Whereas, payout ratio, return on assets, size and market to book ratio has an decreasing trend for one year (2005 till 2006) and after that it was quite stable throughout the sample period (2007-2010). Financial leverage clearly showed a downward trend which means that most of the companies were able to pay off their debt over these years. Return of equity showed a positive trend throughout 2005 till 2010. The mean, median an standard deviation shows stability after 2008 for this ratio.

Table 7 reported the fixed effect (panel data) regression analysis of profitability ratios, growth opportunity, size of firm, financial leverage and ownership structure on dividend yield. The empirical results of this test revealed a strong relationship between size of firm, profitability and the sale growth of a firm. The results indicated a positive extreme significance of return of assets and return on equity on dividend yield. The coefficients of these variables were positive, which clearly tells that if a firm is able to maintain its profit they are more likely to give dividend to the shareholders. If a firm generated enough operating cash flows from its sales they end up in higher net income. Firms with the high profitability have stable earnings over the time so they can easily afford large free cash flows to be distributed as dividends. This significance was tested at 99%, the level of significance was 1% which shows an extreme significance of theses profitability ratios on dividend yield.

In table 7, another independent variable, firm size, was also significant at 99% but with the negative slope. This indicated that while making a decision regarding dividends, firms keep their size into an account. The larger the firm was, the more they had liabilities to pay off , so they wanted to retain the excess cash flow available to them. To secure their debts they invest more in assets. After testing dividend yield model, results clearly showed that firms were considered their size while making their dividend policy. The smaller firm had to gain confidence of the market so they paid dividends to their shareholders which gave a positive signal to the investors.

Last significant independent variable was sales growth with positive extremely significant at 99%. Sales growth was basically measuring the growth opportunity available for the firms. This result showed that Pakistani firms who had an opportunity for business

expansion and increase in sales, still tends to manage to pay reward to their shareholders. This contradicted from the previous studies. Whereas after testing this dividend yield model, the coefficient of sales growth was positive. This was mainly due to the recession period in Pakistan. Mostly firms had stagnant sales for the period 2005 till 2010. At this time there was an economic and political crisis in our country. The firms were unable to increase their sales but still they had to maintain a good repute in the market by paying dividends to its shareholders. The significance of this variable clearly indicated the importance of signalling effect. Unfortunately, during this study's sample period, Pakistani capital market was highly affected by the security issues, which resulted in reduction in sales for most of the companies. No growth opportunities were available, no further business expansion or new projects were acquired. So the excess cash flow available within these Pakistani firms were distributed as dividends. Secondly, higher the sale of the firm's product eventually increases its profitability and hence firms have enough amounts of cash available with them to be distributed among their shareholders.

The slopes of the rest of the variables were quite same as suggested by the previous researches. Moreover, R^2 of this dividend yield model was also high, which suggested that significant independent variables included in this regression analysis well explained the dependent variable.

[Insert Table 8 about here]

Table 8 presents the empirical results of the second model, which was testing the independent variables, profitability ratio, firm size, growth ratio, ownership structure and financial leverage on dividend payout. This model was been tested for the robustness of the results. The significant independent variables in the first model (dividend yield) are also extremely significant in this model except sales growth. Whereas, profitability ratios; return on assets and return on equity were extremely significant at 99%. The coefficient of these independent variables was positive which suggested that the more profitable company was, the more were chances of the dividend payouts. Firms which were sure about their present and future earnings, tends to give dividend payouts to the shareholders to maintain the level of confidence in their business.

Firm size was also extremely significant with respect to dividend payout, at 99%. It had a negative slope, which indicated that the larger the firm was, the more likely they would retained FCFs rather than giving out as dividends. This was due to an increase in financial obligation the firm had. Firms had to maintain some minimum level of liquidity to pay off their debts. If they were unable do so, they would end up in liquidating their assets. So large size firms avoided dividend payouts.

The growth opportunity available to the firm was measured by market-to-book ratio. In previous model (dividend yield model) the sales growth was significant, whereas in this dividend payout model the sales growth was insignificant but the market-to-book ratio was extremely significant at 1% significance level. This had a negative coefficient, which suggested that if a firm had an opportunity to expand its operations, they tend to retain the

excess amount of cash flows in order to avoid the costly external financing. These growth firms rely more on internal financing. That is why, these firms save free cash flow and avoid paying dividends. This ratio was different from the sales growth because the sales growth was measuring the amount of sales increased from previous years. Whereas, market-to-book ratio was testing the market value to the book value of their equity. The market value could be increased with any positive signal given to the market; whether it was through expansion of projects or by ensuring the stability of their earnings over the time.

Ownership structure was also an extreme significant independent variable. The ownership structure was further divided into three categories; the first category of ownership structure was the shares held by the institutions, these institutions were mainly the banks, insurance companies, government owned mutual funds and pension funds. The empirical results clearly showed that the ownership structure had a significant impact on dividend payout, yet it had a negative coefficient which ensured that the high concentration within institutions reduces dividend payouts. This was due to the securitization for their debts (loans). Because mostly these institutions invests in form of assets or reserves to be maintained at the expense of low dividend payout. Mostly banks invest their FCF in different types of assets, to secure their obligation for the liabilities and maintain their financial position in the market, so they avoid dividend payments to their shareholders. This variable is extremely significant at 99%.

The second category of ownership structure was ownership concentration within family or by the management. The firms with high concentration of shares held in within family members or by the management itself, were likely to pay fewer dividends. It had an inverse loading yet it's extremely significant. The reason behind this was that the family members were given a high compensation (salaries) which increased the expenses for the firms. so the net earnings were not enough generated to pay dividends. Sometimes these

expenses lead to a negative income for such firms. Another reason of this negative relationship was that the managers were reluctant to distribute cash to the shareholders. They wanted to keep this cash for their own interests. When this FCF is in hands of managers, they invest in unprofitable projects.

The last category of ownership structure was the shares held by the individual investors. The result showed a negative effect on dividend payout. This is mainly due to the tax treatment on dividends. The coefficient showed an inverse yet extreme significant relationship with dividend payout. Most individuals such as agents or brokers or retired officer were interested in capital gains because they are tax exempt, whereas dividends are subject to double taxation at the source. This discourages the investors to wait for their reward till the end of the year. So they have low preference for the dividend payout. This result reported that the tax treatment plays an important role for individuals while making a decision regarding dividend payout.

Ownership structure and market-to-book ratio were not significant in the dividend yield model (first regression model), whereas it shows an extreme significance impact on dividend payout. The overall R^2 was high for this model (dividend payout ratio) as compared to the first model. This reported that the dividend payout is well explained by the above mentioned significant independent variables.

Chapter 5

Conclusion

Dividend yield and dividend payout model was used a s dependent variables in this research to measure determinants of corporate dividend policy. An exhaustive literature exists in the support against the validity of the above mentioned model. The empirical evidence has shown the relevance of this dividend model all over the world; however it has been a much greater importance for emerging capital markets. The developing countries, like Pakistan, have led a great stress on the behavioural finance, especially the behaviour of investors regarding the dividend payments. The reaction on the changes in dividend rates, the announcement of dividends or a cut in dividend, has different dimensions to behaviour of investors. This study in particular tests the importance and the significance of different determinants of dividend which mostly firm's account for, while making decisions regarding

dividends. The purpose of this study was to explore these dividend yield and dividend payout models in an emerging market (like Pakistan). Moreover, to identify the significant factors that helps to understand the behaviour of the market. However, the emerging markets have special features that are distinct from developed capital markets. Dividend decision is primary element for any corporation. These are the rewards given to the shareholders for bearing a risk and investing their assets into a business. So when a company makes decision regarding their dividend policy, they have to take each and every aspect of investor behaviour into an account.

Dividend are not only a cash flow to the shareholders but it also provides information of present and future performance of the company to the market, so that's why it is very crucial for the companies to make a right decision regarding their dividend policy. The purpose of this research was to test the most important factor that affected the decision of corporate dividend policy. Therefore, all the non financial firms listed on KSE, were taken. And the results were quite consistent with the previous literature. This research would facilitate the financial managers and investors to make an appropriate analysis and rational decisions regarding the rate and investments. This eventually could maximize their returns.

Dividends represent the distribution of earnings. For expansion of business, earnings which are retained could be used as it is a cheap source of financing.

The sharing of firm's profits (dividends) with the shareholders is one of the simplest ways for the firms to give a signal (to upcoming investors) of their financial well being. This distribution of rewards sends a clear, powerful message about future performance of the companies. A company's willingness and ability to sustain the payments of dividends over time, provides good news to the market. Usually large size and mature profitable

companies pay dividends. However, firms that are not paying dividends are not necessarily incurring a loss. One of the reasons could be the expansion of their business. Companies feel that their own growth opportunities are worth more than giving dividend to the shareholders. That is why; very few "growth" firms pay dividends. Even sometimes large and mature companies don't pay dividends because they need to retain enough cash to handle any kind of discrepancies faced in future. Dividend policy of the companies varies across the globe, according to their capital market differences. Pakistan currently is dealing with terrorism and internal imbalance political situations. That has badly affected the economic conditions of Pakistani firms.

Pakistani companies have preferences for dividend paying companies but there is little evidence that they prefer higher payout ratios or dividend yield. Companies having a higher growth opportunity are less likely to have free cash flow; if they don't have a free cash flow then they are unable to give dividends. Mostly managers are reluctant to cut dividends because they want to play safe. That is, they won't increase dividends until and unless they are reasonably sure about the future earnings of the firm so that they don't have to reverse this move. Manager tries to fulfil the needs of their investors in their best interest so they hesitate to cut the dividend. And if they do so, sooner or later it will discourage the investors. The cutting of dividends, apparently, is a bad move because this gives a negative signal to the market about the uncertainty of the firm's cash flows. As dividend increases there is positive signal that the managers are confident enough about the stability of future earnings.

The impact of size of a firm, ownership structure, and financial leverage of a firm, net earnings, sales growth, and market value of a firm on dividend yield and dividend payout has been tested in this study.

The regression results indicate a positive extreme significance of return of assets and return on equity on dividend yield. These results are consistent with Michaely et al. (2000) findings. This clearly tells that if a firm is able to maintain its profit, they are able to give dividend to their shareholders. If a firm generated enough operating cash flows from its operations, they end up in higher net income. Firms with the high profitability have stable earnings over the time so they can easily afford large free cash flows to be distributed as dividends, Nishat et al. (2003). Also in another study by Asia et al. (2011), the results showed a positive relation between dividend yield and earnings of firms. If a firm had profits for a specific year, there was high probability that the firm announced dividend that year. This was because they were certain about their future prospect of the operations and they were able to sustain dividend payment for next years, Ahmed and Attiya (2009).

Firm size, was also significant but had a negative slope. This indicated that while making a decision about dividends, firms keep their size in account. The larger the firm was, the more they had liabilities to pay off so the more they wanted to retain the excessive cash available to them. This finding was consistent with Al-Makawi (2007), Gugler and Yurtoglu (2003). A Large firm, larger number of borrowings so higher the chances of retention of these funds for future business expansions. The smaller firm had to gain confidence of the market so they avoid omission in dividend payments. Asghar et al. (2011) also tested the dividend yield on firm size and their results were same as indicated in this study.

Sales growth is also positive extremely significant. This finding was quite different from previous literature, as Afza & Mirza (2010) stated that if there is a growth opportunity available for the firm, they would more likely retain due to the expensive external financing Ahmad and Attiya (2009). But this result doesn't hold true in this sample. The reason behind this was basically that Pakistani firms who had a greater opportunity for business expansion still tends to manage to pay rewards to their shareholders. This was

mainly due to the recession period in Pakistan. Most of the firms had stagnant sales for the period 2005 till 2010, because at that time there was an economic and political crisis in our country. The firms were unable to increase their sales yet they had to maintain a good repute in the market by declaring dividends. In another study conducted by Mayer and Majluf (1984), found that the firms with high growth opportunities required extra funds to avail investments with cheapest source of finance; which were mainly, retained earnings. Therefore growth companies hesitate to pay dividends to their shareholders.

But sales growth was positively significant which clearly showed the importance of signalling effect. Unfortunately, during this study's sample period, Pakistani capital market was highly affected by the security issues which led to decrease in sales. No growth opportunities were available at that time. So as a result the excess cash flows were distributed as dividends.

Secondly, higher the sales of the firm's product eventually increases its profitability and hence firms have enough amount of cash to be distributed among their shareholders. Grullon et al. (2002) showed negative relationship between dividends and the growth opportunity. But this study clearly reported that in Pakistani firms were able to maintain the dividend payments.

Another reason of such result was that mature companies had fewer chances to invest in high growth projects because they had already grown up at an optimum level of an average industrial business. Afza and Hammad (2010), these companies were quite old in the market and they don't have sufficient empire building incentives due to which they experience lower growth and less capital expenditure.

Ownership concentration was not significant with dividend yield whereas, it was significant with dividends payout. The first category of ownership structure was the shares

held by the institutions, these institutions were mainly the banks, insurance companies, government owned mutual funds and pension funds. The empirical result showed that the institutional ownership structure had a significant impact on dividend payout. It had a negative coefficient which ensured that the high concentration within institutions reduces the dividend payouts. This result was consistent with Ahmed & Attiya (2010) and Afza & Mirza (2011). This was due to the securitization for their debts (loans) inform of assets or reserves at the expense of low dividend payout. Another reason could be that these institutional owner were deferring gains for long term purposes. Whereas, the findings of this research contradicts from Allen et al. (2002) and Aghian and Stein (2008) results. They proposed that mostly institutions prefer dividend payments to avoid the agency problem. These same results were also provided by Sheifer and Vishny (1986).

The second category of ownership structure is shares held by family or by the management. The firms with high concentration of shares held in within family members or by the management itself, were likely to pay fewer dividends. It had an inverse loading yet it's extremely significant. Ahmad & Attiya (2010) and Afza & Mirza (2010) finding were also same as this study. The reason behind this was that the family members were given a high compensation (salaries) which increased the expenses for the firms, that leads to a negative income, Nishat & Imran, (2003). Therefore dividends are not declared due to this reason.

The last category of ownership structure was the shares held by the individual investors. The coefficient showed an inverse extreme significant relationship with dividend payout model. This result was consistent with Grinstein and Michaely (2003) and Asghar et al. (2011) findings. Most of the individuals were more interested in capital gains rather than dividends due to tax treatment. Capital gains were tax exempt, whereas dividends are subject to double taxation at the source. Therefore they had low preference for the payout. This result

reported that the tax treatment plays an important role for individuals while making a decision regarding dividend payout, Miller and Scholes (1978).

Size of the firm was also extremely significant with respect to dividend payout. The larger the firm was, the more likely they retain FCFs rather than giving out dividends. the reason behind this was that the large size companies have high financial obligations. So in order to avoid any liquidation of their assets (only if they were unable to pay their debts) they retain FCFs. These types of firms generate funds internally to avoid costly external financing. Therefore large firms usually deferred gains (dividends) for the investors.

The growth opportunity available to the firms was measured by growth in sales and the market-to-book ratio. In dividend yield model, sales growth was significant, whereas in dividend payout model, sales growth was insignificant but the market-to-book ratio was extremely significant. This had a negative loading which suggested that if a firm had an opportunity to expand its operations, they tend to retain the excess amount of cash flows to avoid the costly external financing, Grullon et al. (2002). They rely more on internal financing so they save free cash flow and avoid dividends.

This research would help investors to identify clearly the dividend paying firms. All these significant independent variables could help the upcoming investors to know exactly which firm's characteristics to invest in. All these firms characteristics, such as, profitable and high sales growth firms are likely to pay dividends to their shareholders. So investors can invest their money into these types of companies if they are investing for dividend purposes. And if investors are interested in long term gains then they can target those firms who have high market-to book ratio, high leveraged firms and concentrated ownership structure.

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Appendix

Figure and Tables

Figure 1

TABLE 1.

Descriptive Statistics: Mean, Median and Standard Deviation

This table reports the results of the data collected for the period 2005. The only descriptive statistics are given are mean, median and standard deviation.

Where, *DY* represents the dividend yield, *PY* is the payout ratio, the profitability ratios are presented by *ROA & ROE*, *LEV* represents the leverage or the total debt held by the firm, *SG* represents sales growth, *MBV* represent market to book ratio, *SZ is Log (T.A)* is representing the firm Size, *OWN* represents ownership structure: OWN_i represents the ownership concentration held by institutional investor, OWN_f represents the ownership held by family/ management and OWN_{idv} represents the ownership held by individual investors.

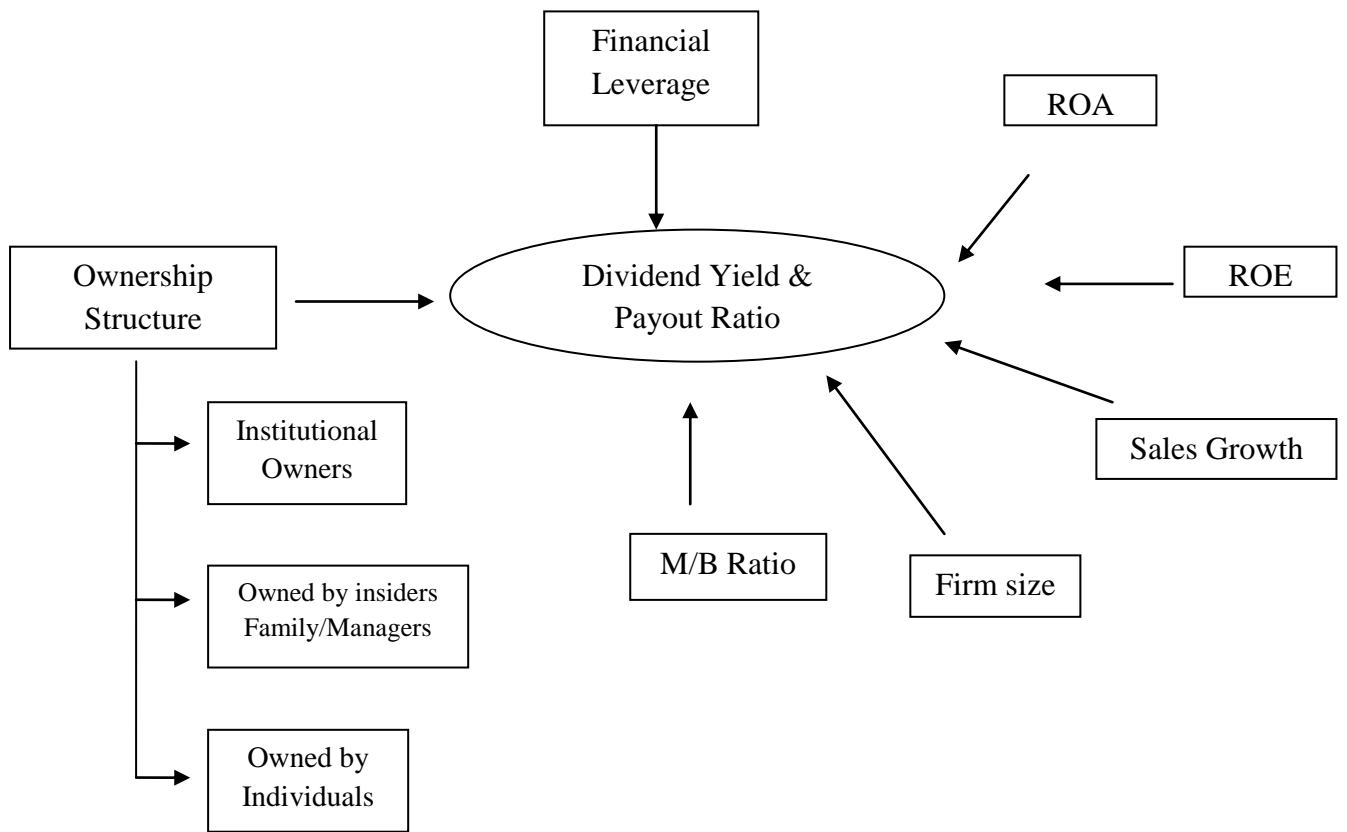| Year 2005	Mean	Median	Standard Deviation
DY	0.05	0.03	0.06
PY	0.63	0.28	1.52
ROA	0.09	0.09	0.10
ROE	0.14	0.16	0.40
LEV	0.52	0.50	0.24
SG	0.25	0.24	0.26
MBV	1.49	1.09	1.51
SZ (in millions)*	1964	36	4555
OWNi	0.49	0.44	0.24
OWNidv	0.18	0.18	0.11
OWNf	0.34	0.34	0.26

*SZ, firm size is reported in millions.

TABLE 2.

Descriptive Statistics: Mean, Median and Standard Deviation

This table reports the results of the data collected for the period 2006. The only descriptive statistics are given are mean, median and standard deviation.

Where, *DY* represents the dividend yield, *PY* is the payout ratio, the profitability ratios are presented by *ROA & ROE, LEV* represents the leverage or the total debt held by the firm, *SG* represents sales growth, *MBV* represent market to book ratio, *SZ is Log (T.A)* is representing the firm Size, *OWN* represents ownership structure: OWN_i represents the ownership concentration held by institutional investor, OWN_f represents the ownership held by family/ management and OWN_{idv} represents the ownership held by individual investors.

Year 2006	Mean	Median	Standard Deviation
DY	0.06	0.03	0.10
PY	0.42	0.21	0.97
ROA	0.07	0.09	0.40
ROE	0.18	0.18	0.49
LEV	0.52	0.54	0.22
SG	0.22	0.18	0.34
MBV	1.48	1.09	1.54
SZ (in millions)*	1214	22	3389
OWNi	0.48	0.46	0.26
OWNidv	0.17	0.15	0.12
OWNf	0.34	0.30	0.28

*SZ, firm size is reported in millions.

TABLE 3.

Descriptive Statistics: Mean, Median and Standard Deviation

This table reports the results of the data collected for the period 2007. The only descriptive statistics are given are mean, median and standard deviation.

Where, *DY* represents the dividend yield, *PY* is the payout ratio, the profitability ratios are presented by *ROA & ROE, LEV* represents the leverage or the total debt held by the firm, *SG* represents sales growth, *MBV* represent market to book ratio, *SZ is Log (T.A)* is representing the firm Size, *OWN* represents ownership structure: OWN_i represents the ownership concentration held by institutional investor, OWN_f represents the ownership held by family/ management and OWN_{idv} represents the ownership held by individual investors.

Year 2007	Mean	Median	Standard Deviation
DY	0.06	0.03	0.10
PY	0.42	0.22	0.97
ROA	0.07	0.09	0.40
ROE	0.18	0.19	0.49
LEV	0.52	0.54	0.22
SG	0.22	0.18	0.34
MBV	1.49	1.10	1.54
SZ (in millions)*	1767	24	4460
OWNi	0.48	0.46	0.26
OWNidv	0.17	0.15	0.12
OWNf	0.35	0.31	0.28

*SZ, firm size is reported in millions.

TABLE 4.

Descriptive Statistics: Mean, Median and Standard Deviation

This table reports the results of the data collected for the period 2008. The only descriptive statistics are given are mean, median and standard deviation.

Where, *DY* represents the dividend yield, *PY* is the payout ratio, the profitability ratios are presented by *ROA & ROE, LEV* represents the leverage or the total debt held by the firm, *SG* represents sales growth, *MBV* represent market to book ratio, *SZ is Log (T.A)* is representing the firm Size, *OWN* represents ownership structure: OWN_i represents the ownership concentration held by institutional investor, OWN_f represents the ownership held by family/ management and OWN_{idv} represents the ownership held by individual investors.

Year 2008	Mean	Median	Standard Deviation
DY	0.06	0.03	0.10
PY	0.43	0.22	0.98
ROA	0.07	0.09	0.40
ROE	0.18	0.19	0.49
LEV	0.52	0.54	0.22
SG	0.22	0.18	0.34
MBV	1.49	1.09	1.54
SZ(in millions)*	1641	28	6244
OWNi	0.48	0.47	0.26
OWNidv	0.17	0.15	0.12
OWNf	0.34	0.30	0.28

*SZ, firm size is reported in millions.

TABLE 5.

Descriptive Statistics: Mean, Median and Standard Deviation

This table reports the results of the data collected for the period 2009. The only descriptive statistics are given are mean, median and standard deviation.

Where, *DY* represents the dividend yield, *PY* is the payout ratio, the profitability ratios are presented by *ROA & ROE, LEV* represents the leverage or the total debt held by the firm, *SG* represents sales growth, *MBV* represent market to book ratio, *SZ is Log (T.A)* is representing the firm Size, *OWN* represents ownership structure: OWN_i represents the ownership concentration held by institutional investor, OWN_f represents the ownership held by family/ management and OWN_{idv} represents the ownership held by individual investors.

Year 2009	Mean	Median	Standard Deviation
DY	0.06	0.03	0.10
PY	0.45	0.22	1.07
ROA	0.07	0.09	0.40
ROE	0.18	0.19	0.49
LEV	0.52	0.54	0.22
SG	0.22	0.18	0.34
MBV	1.48	1.07	1.54
SZ (in millions)*	1320	15	5226
OWNi	0.48	0.46	0.26
OWNidv	0.17	0.16	0.12
OWNf	0.34	0.31	0.28

*SZ, firm size is reported in millions.

TABLE 6.

Descriptive Statistics: Mean, Median and Standard Deviation

This table reports the results of the data collected for the period 2010. The only descriptive statistics are given are mean, median and standard deviation.

Where, *DY* represents the dividend yield, *PY* is the payout ratio, the profitability ratios are presented by *ROA & ROE, LEV* represents the leverage or the total debt held by the firm, *SG* represents sales growth, *MBV* represent market to book ratio, *SZ is Log (T.A)* is representing the firm Size, *OWN* represents ownership structure: OWN_i represents the ownership concentration held by institutional investor, OWN_f represents the ownership held by family/ management and OWN_{idv} represents the ownership held by individual investors.

Year 2010	Mean	Median	Standard Deviation
DY	0.06	0.03	0.10
PY	0.45	0.22	1.07
ROA	0.07	0.09	0.40
ROE	0.18	0.19	0.49
LEV	0.52	0.54	0.22
SG	0.22	0.18	0.34
MBV	1.48	1.07	1.53
SZ (in millions)*	1987	29	5170
OWNi	0.48	0.46	0.26
OWNidv	0.17	0.16	0.12
OWNf	0.34	0.31	0.28

*SZ, firm size is reported in millions.

TABLE 7.

Model 1: Regression model of Dividend Yield for panel data for the period 2005 till 2010

This table reports the results of first model, which is testing the impact of all independent variables on dividend yield

$$DY_t = \beta_o + \beta_{1t}\ OWN_{it} + \beta_{2t}OWN_{ft} + \beta_{3t}OWN_{idvt} + \beta_{4t}LEV_t + \beta_{5t}SG_t +$$
$$\beta_{6t}ROE_t + \beta_{7t}ROA_t + \beta_{8t}MBV_t + \beta_{9t}Log(T.A)_t + \mathcal{E}$$

Where, *DY* represents the dividend yield on time *t*, *SG* represents sales growth, *OWN* represents ownership structure: OWN_i represents the ownership concentration held by institutional investor at time *t*, OWN_f represents the ownership held by family/ management, OWN_{idv} represents the ownership held by individual investors at the specific time period *t*, *MBV* represent market to book ratio, *SZ is Log (T.A)* is representing the firm Size at *t*, *LEV* represents the leverage or the total debt held by the firm ,the profitability ratios are presented by *ROA & ROE*. β_t represents the slop of the regression equation, *ßo* is the intercept of regression equation representing the non dividend yield component and $\mathcal{E}$ represents the error term which is the random in nature and is expected due to uncertain event.

	ßt	Std.error	*t (ßt)*	p-value
β_0	0.20	0.19	1.04	0.30
OWNi	-0.13	0.16	-0.81	0.42
OWNf	-0.10	0.13	-0.74	0.46
OWNidv	-0.11	0.15	-0.72	0.47
LEV	0.004	0.02	0.19	0.85
SG	0.02	0.01	2.99	0.00***
ROE	0.02	0.00	5.05	0.00***
ROA	0.01	0.00	3.42	0.00***
MBV	-0.004	0.01	-0.77	0.44
SZ	-0.04	0.00	-2.04	0.01***
Adj. R²	0.158			
Durban Watson	1.9			
*** Significant at 99%				

TABLE 8

Model 2: Regression model of Dividend Payout for panel data for the period 2005 till 2010

This table reports the results of first model, which is testing the impact of all independent variables on dividend payout.

$$PY_t = \beta_o + \beta_{1t}\ OWN_{it} + \beta_{2t}OWN_{ft} + \beta_{3t}OWN_{idvt} + \beta_{4t}LEV_t + \beta_{5t}SG_t +$$
$$\beta_{6t}ROE_t + \beta_{7t}ROA_t + \beta_{8t}MBV_t + \beta_{9t}Log(T.A)_t + \mathcal{E}$$

Where, *PY* represents dividend payout at the time period *t, SG* represents sales growth, *OWN* represents ownership structure: OWN_i represents the ownership concentration held by institutional investor at time *t*, OWN_f represents the ownership held by family/ management, OWN_{idv} represents the ownership held by individual investors at time period *t, MBV* represent market to book ratio, *SZ is Log (T.A)* is representing firm Size at *t, LEV* represents the leverage or the total debt held by the firm ,the profitability ratios are presented by *ROA & ROE.* β_t represents the slop of the regression equation, *ßo* is the intercept of regression equation representing the non dividend yield component and $\mathcal{E}$ represents the error term.

	βt	Std.error	t (βt)	p-value
$ß_0$	3.19	8.30	0.38	0.46
OWNi	-1.78	0.55	-3.23	0.00***
OWNf	-1.80	0.66	-2.72	0.01***
OWNidv	-2.40	0.64	-3.78	0.00***
LEV	-0.39	0.26	-1.51	0.13
SG	0.01	0.04	0.31	0.75
ROE	0.09	0.01	7.73	0.00***
ROA	0.10	0.01	17.07	0.00***
MBV	-0.04	0.00	-9.01	0.00***
SZ	-0.08	0.00	-19.57	0.00***
Adj. R²	0.1902			
Durban Watson	2.01			

*** Significant at 99%

TABLE 9

Impact of these independent variables on Dividend yield and Payout Ratio

Variables	Expected signs +/-	Significance	Previous literature
Market-to-book ratio	_	Significant	Grullon, Michaely and Swaminathan (2002)
Return on assets	+	Significant	Asif & Kamal (2010), Ahmed and Attiya (2009)
Return on equity	+	Significant	Afza & Mirza (2011)
Firm size	+/-	Significant	Lintner (1956), Asghar, Shah & Suleman (2011)
Sales Growth	+/-	Significant	Afza & Mirza (2010) and Benartzi et al. (1997)
Financial Leverage	_	Significant	Asif & Kamal (2011), Fama & French (2002)
Sh. Of capital owned by Institutional investors	+/-	Significant	Ahmed & Attiya (2010), Al-Makawi (2007), Afza & Mirza (2011)
Sh. Of capital owned by Family/management	-	Significant	Ahmad & Attiya (2010), Nishat & Imran (2003), Afza & Mirza (2010)
Sh. Of capital owned by individual investors	-	Significant	Grinstein and Michaely (2003), Asghar, Shah & Suleman (2011), Afza & Mirza (2011)