Dividend Payment Practices in the Non-Financial Sector of Pakistan: Empirical Evidence from the Karachi Stock Exchange

Roomi M. A., Chaudhry N. I., and Azeem M.

***Abstract*—**this study intends to investigate the dividend payment practices of the non-financial sectors of the Karachi Stock Exchange. All the dividend paying sectors of the Karachi Stock Exchange were investigated for the period 2004–2010. A well developed mixture of six variables along with the descriptive statistics was used to scrutinize the dividend paying behavior of different sectors. Inconsistency, reluctance and trivial average rate from 1.5% to 5% of the dividends were being paid by the sectors. Profitability was not functioning adequately with regard to dividends, and the highly profitable sectors were also in the habit of paying at a nominal rate. It was noticed that most of the funds were used to finance growth opportunities, but only the mature and highly profitable sectors were keeping pace with growth opportunities and endeavoring to transform them for shareholders. Market capitalization was seen to oppose dividend trends in almost all the sectors. All the sectors tended to disburse the dividend rate at the very beginning, middle and at least to make a drift in it during the last couple of years, particularly in 2010. Corporate governance should be strengthened in order to protect the rights of individual shareholders.

***Keywords*—**Dividend Policy, Determinants and PayingBehavior, KSE Pakistan

I. Introduction

DIVIDENDS are the compensation paid to shareholders for bearing risk on their investments [53]. The process of paying dividends is an amazing riddle of modern finance. Numerous studies have been carried out to resolve this mystery, but still there is no answer. It is normally considered an unresolved "dividend puzzle" [13]. More recently, Brealey & Myers [12] discovered that the dividend was one of the top ten vital unresolved problems of corporate finance. Since more than three decades, the situation is still baffling; few empirical and theoretical researches are deemed to have developed a universal census on the dividend policy [5].

Muhammad Azam Roomi is working as Director of Research and Principal Lecturer at Business School, University of Bedfordshire, UK (e-mail: muhammad.roomi@beds.ac.uk).

Naveed Iqbal Chaudhry (Corresponding author) is a PhD scholar at Business School, University of Bedfordshire, UK (e-mail: naveed.iqbal@beds.ac.uk).

Muhammad Azeem is a PhD scholar at Department of Management Science, COMSATS University, Pakistan (e-mail: azeem_pugc41@yahoo.com).

Scholars have endeavored to resolve this issue by contributing to the existing body of literature in the form of models and theories. Until now they have succeed in developing five theories regarding dividend policy. The first theory emphasizes dividend payments instead of capital gains [27]; in the second a change in the dividend affects the price of the stock as the investors perceive this change as a statement about expected future earnings [42] in the third, the dividend mitigates the information asymmetry between management and the shareholders by transmitting some secret information about a firm's future prospects [11]; in the fourth the dividend helps to curtail the agency costs associated with the separation of ownership and control [32] and finally, the catering theory calls upon managers to stimulate the investors after their needs [9]. Along with these models, the defining factors (the determinants) of the dividend policy are equally imperative. Empirical research has evolved numerous potential determinants of the dividend policy since 1956. These have a two way effect on policy. Some of them enforce dividend initiation while others inflict omissions. Profitability is an important predictor of the dividend policy that initiates it. The current earnings are an important variable that defines the dividend policy, such as how much portion is distributed or retained [50]. Baker et al. [9] have argued that the current and expected future earnings enforce more dividends. The size of the firm works as a catalyst to the dividend payments only large firms can afford more. A firm's propensity to distribute reduces with a smaller size and lower earnings [22]. It seems that earnings only work for dividends but firms also have some strategic objectives that press for the accumulation of earnings instead of paying dividends.

When defining dividend policy, managers are confronted with the challenge of how much should be distributed or retained for future needs [38]. [51] described that a threshold characterizes an optimal dividend policy: whenever the retained earnings cross this threshold, firms start to pay the dividend. The earnings are a cheap internal source of financing retained to finance growth opportunities [44-37]. It is a bit controversial to cut down dividend payments to fuel growth opportunities. Normally, management endeavors to solve this enigma on the basis of projected returns [16]. It has been considered that earnings are the cost predictor for the dividend while on the other hand the retained earnings are

preferred to finance growth opportunities through internal and cheaper sources of financing.

All of the above determinants work in a chain reaction: the profitability defines dividend and the retained earnings; the investments opportunities try to finance through the retained earnings, sometimes even at the cost of the dividends; and later on the size of the firm defines the results of the capitalizing growth opportunities. Stulz et al. [2005] have added a new facet to the dividend payment decision. A mixture of factors governs the dividend policy such as: profitability, retained earnings, size, investment opportunities, the dividend history and the cash balance. By having a critical eye on the interplay of these determinants, the optimal dividend policy can be evolved within the developed one. However, the dividend policy of developing countries is substantially different from those of the developed world. Unlike the developed countries, in the Second World dividends are intentionally neglected for retained earnings. The dividend payout ratios of the developing countries are just about two thirds those of developed ones [Glen et al., 1995]. Because the earnings of the firms are wobbly in nature, they define the current dividend payments [Naceur et al., 2006]. Shareholders are more inclined to rock the retained earnings in the developing countries. They perceive that the accumulation of retained earnings is at the cost of dividends and most of these earnings are exploited by the management to their own ends. So, the retained earnings should be disposed of as dividends [Buffet, 1984]. Because of the weak legal framework for investment opportunities are financed at the cost of dividends [La Porta et al., 2000].

Pakistan is an emerging and developing country. Corporate governance is not flourishing here [Mehar, 2002]. Most ventures are owned and controlled by families, who also hold the managerial positions in them. The managers exploit the minor shareholders for their own ends. Most of the earnings are retained and used for investment opportunities instead distributed as dividends [Shah et al., 2010]. The issue of corporate governance can, however, be resolved by giving more dividends [Mitton, 2004]. In Pakistan, however, companies are reluctant to pay these. The amount of dividend paid by the companies is as pathetically low as Rs 0–2.5 per share [Naeem & Nasr, 2007]. Normally, the ventures switch over to paying dividends after achieving a certain level of growth [Mehar, 2002]. The investment policy is being preferred to the dividend policy at first, but after growth is achieved it is not transferred properly to the shareholders. It has been observed that properly high-market capitalized sectors do not pay proper dividends, while the existing literature has proved that market capitalization is a determinant of dividend initiation [29-15].

In Pakistan, low capitalized sectors like engineering, and cable and electronic goods lead in dividend payments, while more than 90% and 80% companies of these sectors disbursing, respectively. Fuel and energy are at the top in terms of capitalization but just 55% of the companies in these sectors pay dividends [ESP, 2007]. The highly capitalized sectors in Pakistan are reluctant to pay dividends while the less capitalized sectors are distributing more. There is no set pattern between dividend policy and market capitalization in the listed companies of the Karachi Stock Exchange (KSE). It has often been observed that companies prefer to retain their earnings instead of distributing those [1]. The mounting retained earnings create panic among the investors, and should be distributed [14]. There exist certain issues of corporate governance and a weak legal system in Pakistan, hence investors run after dividend payments, which rapidly increase the turnover of dividend paying (announcing) stocks by 100% to 300% [33]. The low dividend payments and heavy retained earnings infringe the rights of most investors as they are not active participants in daily speculative tricks for the sake of capital gains [40].

This study is intended to portray the dividend payment practices in the non-financial sectors of the KSE. Its objective is to investigate the compliance between dividend policy and market capitalization of the companies listed on the KSE. It further focuses on investigating how companies utilize their earnings – whether they disburse them or retain them for growth opportunities. The dividend policy is a complex topic of corporate finance. Because of its sensitivity, scholars have investigated it in several ways. Formerly, they explored what are the factors (determinants) that define the dividend. Since 1956, however, research has sought to derive something conclusive about dividend. The dividend having been defined adequately, these confront management. Five different theories and models have been evolved and tested with the passage of time; these include the signaling hypothesis and the agency cost model. In the developed world, all these stages have been completed and, furthermore, investors, policy makers and other concerned parties are better informed about their capital markets, thus enhancing their efficiency. The KSE is an emerging market in Asia and received the best performance award in 2003 [49]. There is a urgent need to study its dividend payment trends and behavior to project its picture properly to its stakeholders, following the massive economic progress and stock market reforms of the 1990s that have encouraged dividend disbursements [49].

II. Literature Review

The existing literature provides a small amount of knowledge about dividend payment practices across the world over different time spans.

The fact that firms pay dividend at all is considered as a "dividend puzzle" [Black, 1976]. Scholars have tried to resolve this hitch, and have developed five theories regarding dividend policy. Brealey and Myers [2005] argued that the dividend is one of the top ten vital unresolved problems in corporate finance. Three decades later the ball is still wandering among the courts.

Frankfurter & Wood [2000] tried to solve this puzzle by providing a conclusive approach to the selection of the payout strategy. The dividend policy of a company should be compliant with nature of the firm and country. Dividend payments are favorable to the shareholder, as they cover agency costs. It is possible that managers may exploit the

surplus money of the company; hence it is better to dispose of it as a dividend [Jensen & Meckling, 1976]. Agarawal & Jayaraman [1994] described the Indian scenario and seconded the agency theory of dividend policy, claiming that dividends and managerial ownerships are the controlling factors for reducing agency costs. Akbar & Stark [2003] conducted a study in England regarding dividend payments and the value of firms. They tested a new model and determined that R&D and dividend payments have a positive impact on corporate value. The dividend "Irrelevance theory" explained that dividends are irrelevant to shareholders' wealth in the perfect economic environment. The theory also explained the tax preference effect and the clientely effect. The theory proposes that investors are generally indifferent to a choice between dividend and capital gains [Miller & Modigliani, 1961]. Gordon [1963] proposed "The Bird In The Hand" theory, which emphasis that the investors prefer today not earnings in future.

Some important theories of dividend policy have been evolved with the passage of time. The dividends mitigate information asymmetry between the management and shareholders by transmitting private information about a firm's future prospects [Bhattacharya, 1979]. Dividends help shrink the agency costs associated with the separation of ownership and control [Jensen & Michael, 1986]. The Catering Theory suggests that managers try to entertain investors according to their needs and wants. That is, cater to investors by paying a dividend [Baker, 2004]. Along with these models, the defining factors (determinants) of dividend policy are equally important.

Certain determinants lead dividend policy. The current earnings are an important variables that defines dividend policy, how portion is distribute or retained [Patsouratis, 1989]. Baskin [1989] further suggested that operating earnings, size of the firm, level of debt financing, payout ratio and level of growth have an impact on dividend policy. The most important factors influencing dividend policy are the level of current and expected future earnings, the size of the firm, the stability of earnings and the pattern of past dividends [Baker et al., 2007]. Mature profitable firms prefer to pay more dividends.

Smith [1992] argued that firms' dividend policy expands positively with the size of the firm. But later, Eriotis [2005] inspected the role of distributed earnings and size in the dividend policy of Greek firms. The study found that a firm's earnings and size are the cost determinants of dividend policy. Gadhoum [2000] showed that the signaling efficiency of dividend disbursements diminishes for larger firms; it is considered a control variable in studies. However, large firms used to pay more dividends than small firms. Belanes et al. (2007) related the probability of dividend payments from profitable and mature firms to growth.

The dividend is affected substantially by profitability and the size of the firm, but the retained earnings are also an influence. Stulz et al. [2005] examined the relationship between retained earnings and dividend policy by applying the life cycle theory of dividends. Eije & Muggings [2006] examined a large sample of 3400 listed firms in fifteen different countries of the European Union for the period 1989–2003. The tendency of firms to pay dividends reduced for the entire period while the ratio of dividend payments to net profits surged. Angelo et al. [2004] investigated the feeling for paying dividends in three different dimensions: dividend policy, agency cost and earned equity. Décamps & Villeneuve [2007] explained the decision critaria for the managers when deciding between dividends and investments. They analyzed the interaction between the optimal dividend policy and the decision to investment in a growth opportunity.

Fama & French [2001] explained the dividend-paying propensity of listed firms, in the light of changing characteristics. The new firms tended to be smaller, with more growth opportunities but less portability, concentrating on low dividend payments and preferring growth opportunities. They otherwise started to retain earnings to finance growth opportunities internally instead of paying dividends [Angelo et al., 2004]. Buffet [1984] demonstrated that shareholders favored the use of retained earnings as dividends. Investors perceived that the accumulation of retained earnings came at the cost of dividends and that most of these earnings were exploited by management for its own ends. So, retained earnings would be better disposed of as dividends. La Porta et al. [2000] explained why investors were worried about rocking the retained earnings. They investigated those countries with high legal protections and concluded that fast-growing firms pay low dividends as they progress, with a view to capitalizing on growth opportunities.

Pakistan is a developing country with an emerging capital market. Nishat [1995] described the Karachi Stock Exchange as a high risk, high return market, in which the dividend payments have a signaling effect on the market price: prices normally move in the direction of dividends. Another study also determined the same; that dividends are positively linked to corporate value, sustaining the signaling hypothesis, which assumes that managers might use dividends as a signal for the companies' future profitability [Hughes, 2008]. However, in Pakistan companies are reluctant to pay dividends. There, investors chase only dividend payments, rapidly increasing the turnover of dividend paying (announcing) stocks by 100% to 300% [Kaleem & Salahudin, 2006]. Market capitalization is positively linked to dividend policy. Horace [2003] examined the relationship between dividend policy and market capitalization in two countries. Chen et al. [2009] further explained that the more the firm is lavishly market-capitalized, the greater the chances of dividend payments. Firms tend to introduce the tradable equity into the market by making it attractive for investors.

It may be derived from the above literature that firms in developed countries have a smooth and long-term dividend policy. A mixture of factors lead the dividend policy to function in such a way that the earnings defined the dividend policy and the level of the retained earnings: firms prefer to cut dividends and finance investment opportunities when a project has attractive returns. In developing countries, earnings are preferably retained to finance growth opportunities and

dividends are intentionally neglected. Owing to poor corporate governance and a weak legal system, shareholders are concerned about increasing retained earnings, as growth was not being properly transferred to shareholders, and the funds were being exploited by management.

III. Methodology

In our investigation of the dividend payment practices in the non-financial sectors of the KSE, all the dividend-paying sectors were selected except for the financial sectors during the period of 2004–2010. The dividend-paying sectors were identified from the report published by the State Bank of Pakistan [Hussain et al., 2007]. The period consisted of seven years, equal to two operating cycles, the least required for study [Kenwar, 2003]. This was the period in which Pakistan's economy had shown rapid of economic progression [Ahmed & Javad, 2009]. The multiple items of data were explored from several directions.

A. Variables

An established mix of five independent variables were used in this study profitability, market-to-book value ratio, retained earnings, total asset growth, market capitalization as well as one dependent variable: dividend yield ratio. Stulz et al. [2005] have also indentified the chain reactions of these variables in defining dividend policy.

1.Dividend Yield

The dividend yield ratio was measured as a dependent variable instead of the payout ratio to ignore the effect of negative incomes. It has been calculated as dividend per share divided by the average market price per share [Ahmed & Javad, 2009].

2.Growth Opportunities

The Market-to-book value was used as the proxy of the growth opportunities. It had a negative impact on the dividend policy because firms prefer to avoid transaction costs due to external financing and retain a greater proportion of the cash if they have opportunities for growth [Lang & Litzenberger, 1998].

3.Size

The size of the firm was the dividend initiation determinant of the dividend policy. It was defined as the number of total assets. Large firms had easy access to the market and to explore opportunities properly. They therefore tended more towards dividend payments [Kouki, 2009].

4. Market Capitalization

Market capitalization was the product of the number of shares outstanding in the market and the current market price of the share. It was related positively to the dividend policy of a company [Horace, 2003].

5. Profitability

Profitability was the cost determinant of the dividend policy. The profitable firms with stable net earnings could afford more dividends than less profitable firms. The earnings per share were the proxy of profitability [Ahmed & Javad, 2009].

6.Retained Earnings

Retained earnings are used as an internal and cheaper source of financing to finance growth opportunities. They are the dividend omission determinant of dividend policy [Mehar, 2002]. The calculation and use of these variables complied with the existing literature. A few of these variables were calculated in the same way as the State Bank of Pakistan and the Economic Survey of Pakistan.

B. Procedure

With a view to producing conclusive results a number of items were polled. The sequence of variables was the dividend yield ratio, the earning per share, the total assets, the retained earnings, the market-to-book value ratio and the market capitalization. The variables were sequentially compared with each other to project the dividend policy of each non-financial sector. The standard methods of calculation that followed were derived from existing studies. The dependent variable dividend yield ratio was calculated by dividing the dividend per share by the current market price of the share. Formerly, the dividend yield ratio and weighted average of each sector was calculated for the representation all sectors. Descriptive statistics were the major tests of this study. These were the simpler forms of mathematical tests commonly used in the financial studies. A sequence of comparisons of the variables was used in this study to comment on its hypothesis.

IV. Results

Following the industrial distribution of the Economic Survey of Pakistan the study covers 11 economic non-financial sectors of the KSE. These are as follows;

A. Engineering Sector

Engineering is an important sector of the KSE. Thirteen scripts are listed, of which 7 are regular dividend payers. Market capitalization has been on the increase throughout the period, but the trend of dividend payments has been otherwise. Both variables are moving in opposite directions: a negative relationship between dividends and market capitalization is seen (SEE TABLE I). The sector is profitable and there has been an upward shift in from 2004–2008. During that period dividend policies were wobbly in nature. From 2004 to 2008 dividends were curtailed, while profitability rose. In 2009, there was a downward trend in dividends in spite of companies earning handsomely. This indicates that funds were being pocketed; a smooth upward trend of the retained earnings was evident. An investment policy is preferred to dividend disbursement as the companies have healthy opportunities to invest their funds, and the glittering figures of the market-to-book value ratio demand for it. As an upshot of the suspension of dividends in favor of investments, a massive growth is observed in the companies' size and market equity. The upward drift in size and market capitalization figures justifies the decision to omit dividends in favor of capitalizing on investment opportunities. In the engineering sector funds are retained instead of being given out as a dividend. It may be the objective of management that long-term healthy returns

will be distributed among shareholders tomorrow having invested it today.

TABLE I
DESCRIPTIVE STATISTICS WITH RESPECT TO ENGINEERING SECTOR

Years	DY Ratio	Profitability in Rupees	Size in Millions	Retained earnings in Millions	Market-to-book value	Market Capitalization in Billions
2010	3.66	8.9	25850	61684	6.87	17.46
2009	3.04	13	20048	54799	8.58	15.01
2008	3.4	16.2	17092	41639	1.64	11.32
2007	6.46	12.8	14777	31248	1.24	9.34
2006	4.04	11.2	12648	23260	1.23	6.75
2005	4.92	11.4	6989	14760	1.26	4.3
2004	6.24	10.4	3492	12587	1.2	2.06

B. Cement Sector

Dividend payments are neglected in the cement sector. It is not a large sector of the KSE: the total number of listed companies is 21, of which 5 are regular dividend payers. An aggressive negative connection between dividend policy and market capitalization is seen. During the period studied, dividends have decreased while market capitalizations have continued to surge. This means that market capitalization was responding negatively to the dividend policy (SEE TABLE II).

TABLE II
DESCRIPTIVE STATISTICS WITH RESPECT TO CEMENT SECTOR

Years	DY Ratio	Profitability in Rupees	Size in Millions	Retained earnings in Millions	Market-to-book value	Market Capitalization in Billions
2010	0.49	0.9	264150	64329	0.72	144.58
2009	1.94	1	205378	61220	0.71	129.93
2008	1.1	4.6	172242	39386	1.08	133.12
2007	2.17	3	112676	20652	1.63	68.39
2006	1.31	1.5	84323	8024	2.22	64.11
2005	2.45	-0.05	82112	5519	1.8	33.54
2004	3.45	0.4	76837	4924	0.5	15.76

Profitability in this sector was quite shaky and even at the ground in 2004, but it began to rise again and remained positive until the end of the period studied. The dividend policies of the companies are unsteady in nature. From 2004 to 2006, dividends were curtailed while profitability climbed, and in 2007 there was downward trend in dividends than earnings. So, a mix of trends is seen between dividend policies and profitability. Dividends remained under pressure throughout the period irrespective of earnings. From 2008–2010 the earnings of the companies were nominal, but the dividends decreased. However, the retained earnings multiplied in size during the same period. It was observed that whenever companies had sufficient earnings they preferred to invest in growth opportunities via retained earnings. Dividends remained overlooked throughout the period. Growth opportunities in the cement sector were not very attractive, but in spite of this they were preferred over paying dividends. An immense surge in market capitalization and size proves that the investment decisions were good for the time being.

C. Sugar and Allied Sector

The Sugar and Allied Sector is a cost sector of the KSE. The number of listed companies was 37, 11 of which were regular dividend payers. A blend of relationships between dividend policy and market capitalization was noted. In the early period dividends and market capitalization contradicted each other's pace, but afterwards they began to move in the same direction (SEE TABLE III).

TABLE III
DESCRIPTIVE STATISTICS WITH RESPECT TO SUGAR & ALLIED SECTOR

Years	DY Ratio	Profitability in Rupees	Size in Millions	Retained earnings in Millions	Market-to-book value	Market Capitalization in Billions
2010	4.45	0.4	85156	10554	3.37	18.74
2009	2.28	-1.3	69175	9057	7.49	17.05
2008	2.6	1.8	62220	9513	2.84	17.3
2007	2.87	3.3	54820	7137	3.57	12.81
2006	3.09	0.8	37709	3974	6.4	11.08
2005	4.36	-1.1	34209	1782	16.04	7.22
2004	6.65	0.7	31293	1287	3.92	4.45

A negative relationship between the dividend yield ratio and market capitalization is seen. The streams of dividend payments slide downward 2004 to 2009 but picked up again in 2010. Profitability in this sector was quite volatile and was even negative on a couple of occasions. In spite of unstable earnings the companies distributed regular returns, but they reduced over time. The major cuts in dividends were from 2005 to 2009, when the companies were increasing their earnings. However, the management kept the money stored in order to capitalize on growth opportunities. The decision to omit dividends bestowed handsome dividends and growth on the stakeholders in 2010, even though the companies had suffered losses in 2007. Payments of the dividends were neglected in this sector despite the losses, but in the phase of depression from 2006 to 2009 managements began to curb dividends and store the money to grasp passing growth opportunities. It is seen that the companies' preferred to pay dividends at the nominal rate, but when they had earnings they retained them to finance growth opportunities. To some extent the practices of balanced dividend payment are followed in this sector; investors are regularly entertained with interim dividends and future prospects for growth.

D. Paper and Board Sector

Paper and Board is a moderately capitalized sector of the KSE. It comprises 10 listed companies, out of which 4 are regularly paying dividends. A constant surge in market capitalization and a decline in the rate of dividends were marked from 2004–2010. Market capitalization and dividends remained opposing throughout the period (SEE TABLE IV).

TABLE IV
DESCRIPTIVE STATISTICS WITH RESPECT TO PAPER & BOARD SECTOR

Years	DY Ratio	Profitability in Rupees	Size in Millions	Retained earnings in Millions	Market-to-book value	Market Capitalization in Billions
2010	5.36	0.5	41366	20788	0.59	27.34
2009	1.81	31.6	38427	22645	0.5	24.03
2008	2.49	36.9	31840	17821	0.57	21.78
2007	4.86	10.5	20097	11343	0.73	16.64
2006	4.7	11.8	13270	7565	0.92	16.42
2005	5.76	13.7	12531	5692	1.13	12
2004	7.79	4.5	10720	4458	1.25	6.54

The frequency of dividend payments was quite good in the early years, but then pushed down until the end of the period. Even though the companies' earnings were handsome during 2006–2009, dividends were squeezed in the same period. The rise in retained earnings was due to profit instead of the payment of dividends. Earnings are normally retained to

finance growth opportunities at the cost of dividends, but the downhill trend in growth opportunities in this sector were not attractive due to the cuts in dividends. The expansion in size and market capitalization justified the decision to omit dividends because even though growth opportunities were low they had been properly capitalized and in future they may bring more. In the Paper and Board sector earnings were retained even at the cost of dividends. Internal sources of finance were attempted to finance growth opportunities. Companies may perceive that investment is better than distribution and that is deemed suitable for their future prospects.

E. Textile Sector

This is the most important sector of the KSE and of the economy as a whole. This sector has three sub-sectors, namely Textile Spinning, Textile Weaving and Textile Composite. This sector lists 208 companies, while just 37 of them are dividend distributors. A mix of relationships between dividend policy and market capitalization is seen. At first dividends and market capitalization moved in opposite directions, but in the last two years under study they have coincided (SEE TABLE V).

TABLE V
DESCRIPTIVE STATISTICS WITH RESPECT TO TEXTILE SECTOR

Years	DY Ratio	Profitability in Rupees	Size in Millions	Retained earnings in Millions	Market-to-book value	Market Capitalization in Billions
2010	2.7	2.2	418931	98892	0.55	105.32
2009	1.75	2.4	389247	103273	0.54	103.32
2008	2.12	2.3	336181	82835	0.64	98.72
2007	1.98	4.4	282592	68875	0.84	102.87
2006	2.6	3	224785	46553	1	88.78
2005	4.44	3.1	185891	37219	0.9	65.68
2004	8.27	2.9	154871	31245	0.6	41.09

In this sector the dividends are inconsistent and there was a downward drift during 2004–2010. The earning pace of this sector was nominal and volatile in nature. There was an upward trend in earnings during 2004–2005, but after this it started to drop. During the period of increasing profitability, dividends were continuously omitted. The retained earnings were very large during 2004–2006, while in the same period earnings and dividends decreased. Afterwards, retained earnings again accumulated well and profitability and dividend continued to decrease. These glittering figures for size and market capitalization declared loudly that the investments had brought handsome returns. Even so, the growth opportunities were creeping. Companies had grasped them firmly and channeled the funds properly. In this sector funds were retained instead of giving them away as dividends. The management might deem it fit to finance the investment opportunities via internal sources. The sufficient returns in the long term might be distributed among the shareholders in the future.

F. Chemical and Pharmaceuticals Sector

This is a highly capitalized sector of the KSE. Most of the companies listed in it are dividend payers: 20 out of 32. There was a massive surge in market capitalization and a decrease in the rate of dividends from 2004–2005. During the last few years, a constant rise in market capitalization figures is seen while dividends continue to dwindle. Despite of all this, the variables move in opposite directions (SEE TABLE VI).

TABLE VI:
DESCRIPTIVE STATISTICS WITH RESPECT TO
CHEMICALS & PHARMACEUTICALS SECTOR

Years	DY Ratio	Profitability in Rupees	Size in Millions	Retained earnings in Millions	Market-to-book value	Market Capitalization in Billions
2010	5	8.3	255733	68470	2.09	258.39
2009	5.51	10.1	211217	58925	2.24	241.41
2008	6.14	7.6	166685	41442	2.44	221.9
2007	5.18	8.1	149175	36331	2.94	171.5
2006	3.8	7.4	143112	31887	2	158.74
2005	5.01	2.3	130348	18507	1.9	108.2
2004	7.57	2.9	123451	14640	1.3	50.75

The rate of dividend in the Chemical and Pharmaceutical sector was good and consistent, but continued to contradict the profitability stream. Company earnings gained momentum while dividend size was squeezing from 2004 to 2007. From 2008 to 2010 dividends continued to slide down, but earnings increased. The trend of in profitability was upwards throughout and peaking in 2009. The pace of increase in retained earnings was completely compliant with profitability during this period. Strong figures in the market-to-book value ratio indicate that there is much investment potential in this sector. The investment opportunities were properly capitalized properly and the resulting extraordinary surge in the size of the companies and market capitalizations was recorded from 2004 to 2008. Thus, in the Chemical and Pharmaceutical sector the potential for earnings remained attractive throughout the period and company managements distributed some portion of earnings to shareholders as dividends. However, they kept the major portion in growth opportunities.

G. Transportation and Communication Sector

It is not a big sector of the KSE in terms of capitalization of listing of companies. It includes just 14 companies, of which 4 are dividend distributors. A mixed relationship between dividend yield ratio and market capitalization was there at the start of the period, both variables were opposing each other. During the later years of the period studied, both moved in same direction (SEE TABLE VII).

TABLE VII
DESCRIPTIVE STATISTICS WITH RESPECT TO
TRANSPORTATION & COMMUNICATION SECTOR

Years	DY Ratio	Profitability In Rupees	Size In Millions	Retained earnings In Millions	Market to book value	Market Capitalization In Billions
2010	5.36	-4.3	375449	7807	1.9	255.8
2009	6.4	1.7	318160	33185	1.51	244.89
2008	6.3	2.5	300646	51480	1.65	209.49
2007	5.53	4.9	247524	56969	1.78	285.41
2006	7.11	6.3	250664	44666	1.12	193.62
2005	8.82	6.2	198746	38578	1.2	123.29
2004	11.99	7.6	164581	30157	0.7	70

The feelings for dividend payment in this sector were not very encouraging. The rate of dividends decreased continuously during 2004 to 2010. It was because of the retained earnings: as the graph of profitability sloped negatively, dividends went the same way. During 2010, when earnings reached the bottom, dividends were also low. The opportunities for growth remained quite aggressive throughout

the period. Companies decided to keep earnings aside instead of distributing them. A prominent surge in retained earnings was seen from 2004 to 2008. Companies also maintained the nominal rate of dividends along with the collection of retained earnings, but in 2008–2010, when the earnings were in danger, managements used the retained funds to distribute the same dividends. This sector showed a trend of balanced dividends. Along with the accumulation of funds to finance the aggressive growth opportunities, certain companies also maintained pace with dividend payments. Investors in the Transportation and Communication enjoyed regular dividends and the prospects of future goals.

H. Fuel and Energy Sector

This is an important and very large sector of the KSE, which includes most of the blue chip companies. The Fuel and Energy sector is a blend of four sub-sectors: Refining, Oil and Gas Marketing, Oil and Gas Exploration, and Power Generation. There are in total 17 dividend paying companies out of 27 companies. From 2004 to 2005 there were both handsome market capitalization and sufficient subtraction in dividends, while the both variables moved in the same direction for the remaining time period (SEE TABLE VIII).

TABLE VIII
DESCRIPTIVE STATISTICS WITH RESPECT TO FUEL & ENERGY SECTOR

Years	DY Ratio	Profitability In Rupees	Size In Millions	Retained earnings In Millions	Market to book value	Market Capitalization In Billions
2010	9.45	7.9	444884	182848	1.13	1134.7
2009	5.65	5.4	277918	159524	1.45	1098.18
2008	4.15	6.5	182954	169210	1.47	1081.48
2007	3.03	4.9	114089	161779	1.74	890.84
2006	3.5	4.3	108973	97082	2.13	485.75
2005	8.06	2.1	94725	58359	1.9	191.54
2004	9.15	1.9	89745	49875	1.1	104.48

The rate of dividend payments in this sector was fine and variable in nature. The stream of dividends behaved like a curve at first but afterwards moved up. At the end, the earnings outlook was positive. A rising trend in profitability and retained earnings was observed; however, dividends dropped down to keep pace with the growth opportunities. From 2007 to 2010 the earnings moving in the same way, the chances to grow trickled down and the funds were again guided towards dividends. Market capitalization and size were the result of an effective utilization of surplus funds for growth opportunities, showing goods results throughout the period. In the Fuel and Energy sector dividends were a priority alongside opportunities for growth. The companies maintained a nominal pace of dividends throughout the period but always remained investment seekers.

I. Auto and Allied Sector

This is not one of the larger sectors of the KSE in terms of capitalization or listing. Twenty-five companies are listed in the Auto and Allied sector, of whom 11 pay dividends. Dividends and market capitalization moved in clearly opposite directions during 2004–2010. A negative relationship between both of these variables is seen (SEE TABLE IX).

TABLE IX
DESCRIPTIVE STATISTICS WITH RESPECT TO AUTO & ALLIED SECTOR

Years	DY Ratio	Profitability In Rupees	Size In Millions	Retained earnings In Millions	Market to book value	Market Capitalization In Billions
2010	6.6	7.8	86130	42158	1.53	104.3
2009	2.91	10	94339	44512	1.63	92.02
2008	3.89	14	96950	39874	1.83	70.58
2007	4.14	10.34	83648	38879	2.17	40.24
2006	4.65	8.7	61845	33487	2.38	38.72
2005	4.76	8.14	45600	23245	2.67	30.55
2004	9.22	8.6	32923	16540	2.8	10.19

In the Auto and Allied sector the feeling for distribution behaved like a curve: in the first few years it slide down but began to rise. However, the outlook for earnings during 2004–2007 continued to contradict the dividend sentiment. When earnings increased dividends started to decline, but when the earnings later started to fall, dividends began to climb. The rising trend in profitability and retained earnings held that the dividends were reduced in order to keep pace with the growth opportunities during 2004–2008. The companies made a shift in dividend payments later on when earnings were falling. This was because the rate of growth opportunities reduced after 2008. The companies in the Auto and Allied sector were eager to put their funds exclusively in investments. As a result, certain companies started to upload funds, but as the pace of growth opportunities slowed, companies changed the direction of their funds towards dividends. In the Auto and Allied sector dividends were not a priority. Management often sought investment first, then dividends at the second. They may have believed that by withholding the dividends today long-term returns would be given to the shareholders in the future.

J. Cables and Electronic Goods Sector

This is a tiny sector of the KSE with regard to its listing and its market capitalization. The number of listed companies was 9 and 4 of which are dividend distributors. The dividend paying behavior of the sector remained unpredictable during the entire period, while the market capitalization was always positive. A blend of relationships between the dividend payments and the market capitalization is seen (SEE TABLE X).

TABLE X
DESCRIPTIVE STATISTICS WITH RESPECT TO
`CABLES & ELECTRONIC GOODS SECTOR

Years	DY Ratio	Profitability In Rupees	Size In Millions	Retained earnings In Millions	Market to book value	Market Capitalization In Billions
2010	8.29	29.33	48173	11192	1.43	24.57
2009	1.93	47.96	35378	8595	1.62	19.96
2008	2.9	18.29	27605	5092	2.8	18.93
2007	4.02	17.58	20180	4887	3.09	9.05
2006	2.88	19.07	14334	4382	3.42	7.2
2005	3.82	12.78	11987	3794	3.65	4.45
2004	6.55	8.77	11161	3369	3.54	2.36

The earning propensity of this sector was much higher than others. The behavior of earnings moved upward until the end, touching a historical peak in 2009. The trend of dividend payments in this sector did not comply with earnings. It remained downward even while earnings were booming. This indicates that earnings were not distributed but were retained. The Cable and Electronic Goods Sector were amply equipped with growth opportunities, and their rate remained exceptionally high from 2004 to 2008. Astonishingly high

growth was also found in market capitalization as companies expanded steadily. This meant that investors were responding well to the investment behavior of this sector, and purchased in it with an eye on its growth potential. The pace of growth opportunities and the positive market sentiments encouraged the companies to make dividend cuts and use the high tempo of earnings to cater the pace of growth opportunities. This may be a sign of the perspective future expansion of this sector.

K. Miscellaneous Sector

This is a gigantic sector of the KSE with respect to its listing and numerous sub-sectors. It comprises five sub-sectors, namely: Jute, Vanaspati & Allied, Glass & Ceramics, Food & Personal Care, and Others. The total number of listings is 85, of which 37 are dividend payers. A mixed relationship between dividend policy and market capitalization is seen. In the first four years under study, the dividends and the market capitalization contradicted the pace of each other, but after this they started to move in the same direction (SEE TABLE XI).

TABLE XI
DESCRIPTIVE STATISTICS WITH RESPECT TO MISCELLANEOUS SECTOR

Years	DY Ratio	Profitability In Rupees	Size In Millions	Retained earnings In Millions	Market to book value	Market Capitalization In Billions
2010	4.08	13.23	124523	44644	2.61	254.2
2009	2.39	20.5	100128	36865	2.46	241
2008	3.72	11.6	74883	29505	2.92	167.29
2007	3.57	7.73	68554	25387	3.17	111.4
2006	4.18	8.8	54225	19001	3.87	98.2
2005	5.49	6.4	45589	14926	8.3	65.99
2004	5.94	5.67	44699	13330	5.3	44.69

The sector was a little profitable compared to the others, and the earnings surged from 2004 to 2009. The dividend policies of the companies varied. From 2004 to 2007 dividends were curtailed while profitability rose. Companies' earning potential remained positive throughout the period, but the dividends remained under pressure. The companies earned handsomely but also have dazzling potential for growth, particularly in the first few years, pushed managements into directing funds towards investment. Investment was preferred to dividend disbursement as the companies had sound opportunities, and the glittering market-to-book value ratio demanded for it. As a result, large growth is seen in the companies' size and market equities, particularly from 2007 to 2010. During these years the size and market capitalization of the companies doubled. The companies increased the rate of dividends in 2010, having achieved a certain level of growth. This means that in the Miscellaneous sector investors would have expected a lot, with extraordinary future returns. The companies' preferred to distribute dividends, but only after achieving a certain level of growth.

V. Conclusion

This study is intended to portray dividend payment behaviors in the non-financial sectors of the KSE. Undoubtedly, it has been designed to throw some light on the dividend payment behavior of the companies as well as how they choose between making investments and dividend payments. The dividend payment behavior was examined on a sector basis. All of the sectors studied are reluctant to pay dividends. Most of them are inconsistent in their payment of dividends, in particular the cement and the textile sectors. The average dividend rate offered by most of these sectors ranges from just 1.5% to 5%.

Profitability is the major determinant of dividends; normally it is considered that the more you earn the more you distribute. The Cable and Electronic Goods, and the Paper and Board sectors are at top of the list in terms of profitability. But in terms of what they are distributing they are equal to the Cement sector, a highly unprofitable sector of the KSE. Should the profitable sectors not pay dividends, the other prospects become strong enough that earnings are used for other purposes? In fact, the funds are made use of according to the opportunities for growth. This is the case for all the sectors, whatever the chances to grow. In the high growth potential sectors like Engineering and Sugar & Allied, the size of the dividends begins to reduce with the increasing rate of growth options; and in the low growth potential sectors the dividends climb with the decreasing pace of growth opportunities. Hence, in sectors in which growth is variable, dividends are omitted and the growth potential is captured. Those sectors that are continuously growing, like Transportation & Communication and Fuel & Energy, are maintaining a nominal rate of dividends along with the impulse to investment. This means that they are the mature ones, have attained growth in the past and know that they are diverging towards balanced dividends. The choice is made to finance growth opportunities at the cost of the dividends. The ultimate objective of this move is to pocket the enhancement in the companies' assets to distribute more in the future for shareholders. It has been noted that the Engineering and Miscellaneous sectors have achieved sufficient boosts in assets. They also have a fascinating ratio of profitability. However, the Cement and Technology & Communications sectors have the sound potential to grow, but due to a scarce level of earnings they have not been able to grasp those opportunities.

Dividend policies respond positively to market capitalization, with more dividends when capitalization is high. In the KSE, a different relationship between dividends and market capitalization has been experienced. Market capitalization continually acts in contradiction to dividends. In most of the sectors dividends are linked negatively with market capitalization. In the Miscellaneous and Fuel & Energy sectors, the most highly capitalized sectors of the KSE, a massive surge in capitalization is observed. A mixed relationship between dividends and the market capitalization is also noted. In low capitalized sectors like Engineering, Paper & Board and Sugar, dividends remain aggressively down although market capitalization keeps peaking. However, in sectors like Cement, Transportation & the Communication and Chemicals & Pharmaceuticals, where market capitalization steadily rose, dividends also decreased throughout the period. A new horizon for dividend payment behavior has been explored in this investigation, with all sectors following a particular trend in dividend payments. In most sectors the rate

of dividends persistently decreased in the beginning and middle of the period, but in the last couple of years, and particularly in 2010, a handsome surge was seen in the rate of dividends.

This is a unique study as it not only measures the dividend payment tendencies of different sectors but also portrays the disparities between the dividend payment behaviors of different sectors listed on the KSE. The scope of this study may be extended to the Lahore and Islamabad stock exchanges with an extended sample size and variables.

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