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Analyzing the Determinants of Dividend Policy: A Comprehensive Study on Ownership Structure and Cash Flow Characteristics in the Banking Sector of Pakistan

Sadia Shahbaz[a]

Abstract

This study comprehensively examines dividend policy and its determinants by synthesizing key research findings across various economic contexts. It explores influential studies, including Lintner's (1956) model, which emphasizes the role of existing dividend rates, earnings changes, investment decisions, financing choices, and tax implications in shaping dividend policy. Ghosh's research on India's economy highlights the influence of past dividend policies, future growth prospects, leverage, and profitability on corporate dividend behavior. Additionally, Hines and Hubbard's study investigates the impact of tax policies on dividend repatriation by U.S. multinational firms, demonstrating the role of taxation in shaping corporate dividend decisions. A focused analysis of the banking sector in Pakistan introduces a joint model that assesses the combined effects of ownership structure and cash flow characteristics on dividend behavior. This model incorporates key factors such as managerial ownership, individual ownership, cash flow sensitivity, firm size, leverage, and profitability to determine their impact on dividend payouts. The study also utilizes descriptive analysis to examine trends in dividend payouts and intensity, revealing fluctuations influenced by shifting financial conditions over time. By integrating findings from diverse economic and institutional settings, this study provides valuable insights into the complexity of dividend policy decisions. The results underscore the importance of both firm-specific and macroeconomic factors in determining dividend strategies. Policymakers, investors, and corporate managers can leverage these insights to formulate optimal dividend policies that balance shareholder interests, corporate financial stability, and market conditions.

Keywords: Dividend Policy, Determinants, Financial Decision-making

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1. INTRODUCTION

As usual, when companies make a profit, the management has to decide what to do with those available profits (Smith, 2008). Normally, organizations have two options: either they declare dividends or retain earnings. When the decision is made to pay dividends, the management must establish a fair dividend policy. The dividend policy of a company critically affects both its perceptions in the financial market and investor decisions, a notion supported by empirical evidence showing how financial variables such as inflation, interest rates, and exchange rates influence broader market behavior (Ali, 2018). Researchers have engaged in extensive debates on how a company's dividend policy impacts investor decision-making. According to some experts, dividends help increase shareholder wealth, while others consider dividends less influential in making financing policy decisions, including dividend choices, which echoes arguments made in creditworthiness research suggesting that financial evaluation criteria shape economic decisions across sectors (Ahmad, 2018; Wali, 2018). Financial management research includes investment as an exogenous variable and explores the implications of dividend policies on overall corporate performance and investor behavior. Prior studies examining mutual fund performance and microfinance determinants also highlight how investment evaluation shapes financial outcomes (Siddiqi, 2018; Iqbal, 2018; Maurya, 2018). Dividends are typically distributed proportionately based on the number of shares held by each shareholder. The evaluation of dividend distribution involves comparing rounded values to industry standards and considering factors such as cash flow, asset valuation, and P/E ratios, similar to the broader financial analyses of privatization effects and sectoral profitability in Pakistan (Hussain, 2018; Khan & Ahmad, 2018). Moreover, the fairness and credibility of dividend announcements often resemble the credibility required in macroeconomic policy frameworks, including those associated with domestic savings determinants, economic misery, and foreign direct investment flows (Manzoor & Agha, 2018; Zahid, 2018). In the global context, the structure of dividends and earnings retention is also influenced by environmental, energy, and economic conditions, similar to how electricity consumption, economic growth, and energy market dynamics affect financial performance and long-term macroeconomic stability (Ahmad, 2018; Iqbal, 2018; Muhieddine, 2018; Okurut & Mbulawa, 2018; Zhang, 2018; Gorus & Groeneveld, 2018; Wiafe, 2018; Kumar, 2018).

From a policy standpoint, dividend decisions mirror long-term strategic thinking observed in trade liberalization, fiscal management, import demand analysis, and macroeconomic instability assessments (Ali & Naeem, 2017; Ali, 2011; Ali, 2015; Ali, 2018). These connections extend to broader socio-economic indicators as well, where income inequality, globalization, and environmental conditions influence household welfare—indirectly affecting investor attitudes and market participation (Ali & Bibi, 2017; Ali & Ahmad, 2014; Ali & Audi, 2016; Ali & Audi, 2018; Ali & Rehman, 2015; Ali & Zulfiqar, 2018). Furthermore, dividend behavior can reflect structural financial conditions within an economy, similar to how government borrowing, financial development, and human capital movements shape broader market performance (Ali et al., 2016; Ali et al., 2015). The relationship between dividend stability and macroeconomic variables has also been discussed alongside inflation–interest rate trade-offs and socio-economic dimensions of well-being (Arshad & Ali, 2016; Ashraf & Ali, 2018). International evidence also shows that economic and demographic factors influence financial decisions, similar to studies on life expectancy, environmental degradation, fertility determinants, crime patterns, and inclusive growth (Marc & Ali, 2017; Marc & Ali, 2017; Marc & Ali, 2016; Haider & Ali, 2015; Sajid & Ali, 2018). Dividends represent a portion of corporate profits paid to shareholders. Companies have two options for utilizing profits: retaining earnings or distributing them to shareholders. Dividends are typically paid as fixed amounts per share, and shareholders receive dividends based on their shareholdings. There are several forms of dividend payments, including cash dividends, stock or script dividends, property dividends, and other forms. Cash dividends are the most common type, where companies pay cash electronically, and the dividend is distributed proportionately based on the number of shares held by each

[a] University of the Punjab, Lahore, Pakistan

shareholder. Such proportionality reflects principles also applied in empirical analyses of economic sectors, banking markets, and industrial performance across Asian and Middle Eastern economies (Asif & Simsek, 2018; Yen, 2018; Khan & Ali, 2018). For example, if a shareholder holds 100 shares and the company declares a dividend of 2 RS per share, the shareholder would receive 200 RS in the form of a dividend.

1.1. STOCK DIVIDEND

Stock dividend is a type of dividend in which companies issue additional shares to shareholders instead of paying cash. These additional shares can be from the company's subsidiaries or its own shares. For instance, if a company declares a stock dividend of 2 shares for every 10 shares held by a shareholder, someone with 100 shares will receive an additional 20 shares as a stock dividend.

1.2. PROPERTY DIVIDEND

Companies have the option to provide dividends in the form of property, which can consist of assets from either their subsidiaries or the parent company. Another approach to dividends involves companies offering warrants to their shareholders. These warrants allow shareholders to purchase three additional shares for every ten they currently own, at a predetermined date and a discounted price. Such decisions regarding property dividends and the issuance of warrants can have significant implications for the company's investment and financing strategies. In certain cases, companies choose to distribute dividends in the form of property, including assets from their subsidiaries or the parent company.

1.3. DIVIDEND POLICY

“Dividend policy is the set policy or plan employed by a company to determine the amount of dividends it will distribute to its shareholders. This policy encompasses four key elements:

1.4. HIGH OR LOW PAYOUT

Companies must decide whether to distribute a high proportion of their earnings as dividends or retain a larger portion of profits for reinvestment in the business.

1.5. FREQUENCY OF DIVIDENDS

Another aspect of dividend policy involves determining the regularity with which the company will pay dividends to its shareholders.

1.6. STABLE OR IRREGULAR DIVIDENDS

The consistency of dividend payments is an essential consideration in dividend policy, with companies opting for either stable, predictable dividends or irregular, fluctuating ones based on financial performance and other factors.

1.7. DIVIDEND POLICY DECISION

Companies need to make a clear decision on whether they will adopt a dividend policy at all, as some may choose to reinvest all profits back into the company for growth and expansion. Each of these elements within the dividend policy framework plays a crucial role in shaping the financial standing of the company and influencing investor confidence and expectations. The dividend policy of a company is influenced by various factors, including legal constraints, contractual obligations, internal financial health, growth prospects, and capital structure (Smith, 2008). Additionally, companies employ specific measures to determine their dividend payments.

2. FACTORS AFFECTING DIVIDEND POLICY

2.1. LEGAL CONSTRAINTS

Companies must adhere to the legal requirements and regulations of the country in which they operate. These regulations may dictate the maximum amount of dividends a company can pay or impose restrictions on dividend payments based on the company's financial position.

2.2. CONTRACTUAL CONSTRAINTS

Some companies may have contractual obligations, such as debt covenants or agreements with preferred shareholders, that restrict their ability to pay dividends.

2.3. INTERNAL CONSTRAINTS

The financial health and liquidity of the company play a significant role in determining its dividend policy. If a company does not have sufficient retained earnings or available cash, it may limit the amount of dividends it can distribute.

2.4. GROWTH PROSPECTS

Companies with higher growth prospects may choose to retain more earnings to reinvest in the business, rather than paying them out as dividends.

2.5. CAPITAL STRUCTURE

The capital structure of a company, including its debt and equity mix, can influence its dividend policy. Companies with a higher proportion of debt may opt for lower dividend payouts to meet interest and debt repayment obligations.

3. MEASURES OF DIVIDEND PAYMENT

There are different measures used to assess dividend payments:

3.1. DIVIDEND PAYOUT RATIO

This ratio measures the fraction or percentage of earnings that the company pays out as dividends. It can be calculated as (Dividends / Earnings) * 100 or (Dividend per share / Earnings per share) * 100.

3.2. DIVIDEND YIELD

Dividend yield represents the return an investor can make solely from dividends and can be calculated as Dividends / Stock Price. Each of these factors plays a crucial role in shaping a company's dividend policy and the overall financial decisions it makes. According to Smith (2008), the dividend policy of a company is influenced by factors such as legal constraints, contractual obligations, internal financial health, growth prospects, and capital structure.

4. METHODS OF DIVIDEND PAYMENTS

There are two primary methods of dividend payment employed by companies:

4.1. LEFTOVER INCOME METHOD

In this method, dividends are paid to shareholders from the amount left over after covering all other expenditures. The company allocates a portion of its profits as dividends after fulfilling operational costs, investments, and debt obligations.

4.2. PERCENTAGE OF EARNING METHOD

Under this approach, dividends are paid to shareholders as a percentage of the company's earnings. The dividends can be distributed on a quarterly, semiannually, or annual basis, irrespective of the company's expenses. It is essential to consider whether a company aims to provide a stable, regular income to its shareholders or variable dividend payments based on its chosen dividend payment method.

4.3. DIVIDEND POLICY OF CORPORATE ORGANIZATIONS IN PAKISTAN

A corporation is an entity with a distinct legal identity, separate from its owners, and is subject to its own liabilities and privileges. Various forms of corporations exist, and most are engaged in conducting business. In contemporary times, companies play a crucial role in the economic sphere, providing goods, services, contributing to economic growth, and fostering cultural development. The two common methods of dividend payment include the leftover income method, where dividends are paid from the remaining profits after all expenses, and the percentage of earning method, where dividends are paid as a percentage of earnings regardless of expenses. Corporate organizations in Pakistan, like in other countries, operate as distinct legal entities contributing to economic growth and cultural development.

4.4. BANKING ORGANIZATION IN PAKISTAN

In Pakistan, the financial sector encompasses a wide range of institutions, such as commercial banks, nationalized banks, private banks, foreign banks, and non-bank financial institutions (NBFIs). These NBFIs include development finance institutions (DFIs), leasing companies, investment banks, and mortgage companies. The operations of both regulated banks and NBFIs are subject to the regulatory oversight of the State Bank of Pakistan, while Modaraba and leasing companies are regulated by the Securities and Exchange Commission of Pakistan (SECP).

5. LITERATURE REVIEW

The existing literature on dividend policy is abundant with theoretical explanations and studies on the experimental behavior of various companies. Researchers have extensively analyzed the factors that influence dividend policy, including ownership structure, profitability, and cash flow sensitivity. Many studies have investigated how ownership structure affects dividend decisions. They have explored the impact of different ownership patterns on dividend payouts, particularly when ownership is highly concentrated or dispersed among shareholders. Additionally, researchers have looked into the effects of unique forms of property ownership on dividend policies, examining how specific asset management practices can influence dividend distributions. Likewise, cash flow sensitivity is another essential aspect that researchers have delved into concerning dividend policy. They have sought to understand how a company's dividend decisions are influenced by its cash flow dynamics. This involves examining whether dividend payouts are directly linked to the company's cash flow generation, and how companies adjust their dividend policies in response to changes in cash flows. Overall, the literature presents valuable insights into the complex interplay between various factors and dividend policy decisions for different companies. Linter's seminal paper in 1956 on the determinants of dividend policy laid the foundation for subsequent research in this field. His study revealed that existing dividend rates and changes in earnings are among the most significant factors influencing dividend policy. Following Linter's pioneering work, numerous researchers have delved into various aspects of firms' dividend policies. Dhrymes and Kurz (1967) conducted an analysis on the influence of investment decisions, financing decisions, and dividend policy. Their research revealed that dividend decisions are significantly influenced by both financing and investment decisions.

In his article, Black (1976) provided insights into the reasons why companies pay dividends and why investors should pay attention to them. He posited that the answers to these questions might be apparent. Dividends could be seen as a way to provide investors with a return on their invested capital, representing a reward for their financial commitment to the company. Moreover, companies might pay dividends to attract and incentivize both existing and potential shareholders, thereby increasing the demand for their shares and potentially driving up the stock price. Black also considered the flip side of the coin, questioning whether paying dividends is the only way to provide value to shareholders. He acknowledged that investors may focus on dividends as they perceive them to signify returns on their investments or opportunities to sell their shares at higher prices in the future. However, he highlighted that other factors might be at play, challenging these assumptions. For instance, a company might pay dividends to demonstrate its confidence in attractive investment opportunities. By forgoing retained earnings in favor of dividends, the company signals its belief that the value generated through these investments will exceed the amount of dividends foregone. In their study, Georg and Nellie (2000) analyzed the impact of managerial stock incentives on corporate payout policy. They observed that companies facing significant agency problems tend to have a higher payout ratio when management has substantial stock ownership. On the other

hand, firms with fewer investment opportunities or lower management stock ownership show a lower payout ratio. The researchers also discovered a strong inverse relationship between dividends and management stock options, meaning that as management stock options increase, dividend payouts tend to decrease. Conversely, they found a direct relationship between stock repurchases and stock options, indicating that companies are more likely to engage in repurchases when management holds stock options.

Dong ET Al (2004) conducted a research study to understand the preferences of individual investors, particularly Dutch investors, regarding investment returns. They collected data through a questionnaire and found that investors strongly preferred profits in their investment decisions. When faced with a company that cannot pay cash dividends, investors preferred stocks that offer profit potential. The researchers observed that this preference for profits was influenced by the fact that cashing in profits was more cost-effective compared to selling shares. Amihud and Li (2005) conducted a study on the role of reductions in information content in the profit & loss statement as one of the reasons for the decline in the information content of dividends. They found that institutional investors tend to increase their holdings in anticipation of informed decisions. These institutional investors exploit their superior information, strategically buying shares before the announcement of increased dividends.

Jeffrey, Nellie, and Scott (2006) conducted a study and found that top executives of firms are more inclined to pay dividends when they have a higher share in the ownership of the company. This behavior is primarily driven by personal liquidity reasons, especially after the dividend tax cut in 2003. However, before the tax rate reduction in 2003, the level of executive ownership did not have the same impact on dividend decisions. In some firms where executives held a substantial share of ownership, they chose to increase dividend payments at the expense of share repurchases. This decision increased the tax burden on individual shareholders. On the other hand, certain firms opted to engage in share repurchases as a strategy to reduce dividend payments. Pavel Kraus (2006) provided insights into Real Estate Investment Trusts (REITs) and their dividend payment practices. He described that many REITs tend to pay higher dividends in accordance with tax laws and regulations, resulting in a relatively higher payout ratio. Shareholders of REITs prefer receiving dividend payments as it allows them to closely monitor and influence investment decisions made by the company. Additionally, some financial instruments are employed to convert dividends into capital gains, offering a way for investors to potentially avoid certain tax implications.

Juma'h, Ahmad, Pacheco, and Carlos (2007) reached the conclusion that the availability of information about the financial market plays a vital role in reducing uncertainty, ultimately leading to improved decision-making for better organizational performance and effectiveness. During their discussions on the factors influencing a firm's dividend policy, they identified several key determinants. These include dividend announcements, stakeholder perceptions, historical patterns of dividend payments, the impact on share prices, the effect of taxes, available investment opportunities, and the company's size. Each of these factors contributes to shaping a firm's approach to defining its dividend policy. Additionally, the researchers emphasized that internal factors also significantly influence a firm's dividend policy. These internal factors comprise income levels, liquidity positions, and agency costs. Gourio and Miao (2008b) conducted a study to examine the dynamic effects of taxes on dividend policy and its impact on organizational investment decisions. They found that the dynamic effects of fiscal policy are contingent on whether a company issues new shares or utilizes retained earnings to finance its investments. In their model, mature companies finance their capital solely through retained earnings. Therefore, any misrepresentation of taxation on dividends would arise from its permissiveness. Miller and Modigliani (1961) put forth an advanced view on dividend policy development and evaluation. They argued that the value of a firm depends solely on its earnings strength and the distribution of income between profits and retained earnings does not impact the firm's value. Collins and Kemsley (2000) studied the effect of dividends and capital gains on the value of a company. Mihir, C. Fritz, and James Jr. (2002) analyzed the dividend payout of a large board of foreign affiliates of U.S. multinational firms. They concluded that the dividend policy of the parent company has minimal influence on the dividend policy of foreign affiliates. The researchers observed that tax considerations do play a role in the dividend payout policy but are not the sole determinant. Rather, dividend policies are mainly driven by the need to control managers of foreign affiliates due to the absence of capital market considerations and the limitations of tax explanations. Mackey and Barney (2005) conducted a study to explore the relationship between diversity policy and firm value, along with corporate profits and stock repurchases. Their findings indicated that diversity and a variety of factors are likely to influence the payment of dividends. Zhang (2005) examined the impact of firm-level and corporate-level dividend and cash policies, as well as governance mechanisms, on firm value. The results revealed that these policies were interconnected and collectively affected the firm's value. Zhou and Ruland (2006) investigated the relationship between current dividend payments and future earnings growth at the individual company level. They found a strong positive association between dividend payment growth and future income. Cuba and Saito (2006) conducted a study examining the impact of strong financial incentives for directors on dividend policy. They sampled 1818 firms during the period from 1990 to 1996. The authors observed that larger firms with higher management ownership were more likely to pay dividends, indicating that these firms were inclined to increase their dividend payouts. On the other hand, for firms where dividend payment might not be appropriate, the likelihood of cash dividends being paid was reduced.

Adelegan (2007) conducted a study to explore the relationship between dividend policy, debt, and firm value. The study assumed that there might be an exaggeration in the association between dividends, debt, and firm value based on the company's size. The research was divided into two sub-samples based on market size. Separate equations were estimated for each sub-sample, and the findings indicated a positive relationship between firm value and dividends for both small and large enterprises. However, the relationship between firm value and debt varied, with negative values observed in the sub-sample of small businesses and positive values in the sub-sample of large enterprises. The study concluded that dividends and debt are influenced by factors like control

variables and lack of profitability. Moreover, the information on profitability was ambiguous concerning the potential tax impact of financing decisions.

Ghosh (2008) conducted a study to examine the effects of past dividend policy on the price of a firm's future prospects, leverage, and profitability in India's growing economy. The findings indicated that an increase in the firm's leverage was likely to result in a decrease in future price, while an increase in firm profitability led to an increase in future price. San Juan and Bayamón, Puerto Rico (May 2007) described the various factors that influence a firm's dividend policy. These factors include the pattern of dividend payments, share price, tax implications, stakeholder perceptions of dividend announcements, investment opportunities, and the size of the company. Additionally, internal factors such as agency costs, liquidity, and income of the firm also play a role in shaping the dividend policy. Behavioral factors are also taken into account as determinants of the dividend payout policy. Fairchild (2008) developed a model to understand the complex relationship between dividend signaling, firm incentives, and management value. The model considers the role of double profit, where current earnings and profits of a firm signal its ability to invest in new projects. As discussed earlier, Ghosh (2008) conducted a study on the effects of past dividend policy on the price of the firm's future prospects, leverage, and profitability in India's growing economy. The author found that an increase in the firm's leverage was likely to result in a decrease in the future price of the firm, while an increase in firm profitability led to an increase in future price.

Harris (2000) explored the effect of the dividend tax credit and taxes on the company's value. The main focus of these studies (HK, CK, and H) was to interpret their evidence as consistent with the full activation of dividend taxes. However, the question has been expanded, and the goal was to not only examine the issue of activation but also to understand to what extent taxes are activated and capitalized in the market value of shares. Investors perceive an average dividend tax rate of 47%, and there is evidence that dividend taxes are enabled in the values of shares. Regarding the results of Harris and Kemsley's tests, they found that the coefficient on retained earnings compared to book value was negative (-0.47, to be exact). They interpreted this result as an estimate of the activation of the dividend tax rate in prices, suggesting that marginal tax rates on dividends negatively impact the valuation of firms. Jeffrey, Nellie, and Scott (2006) conducted a study on top executives of firms and their dividend payment behavior in relation to their ownership share in the company. The researchers found that top executives were more likely to pay dividends when they held a greater share of ownership in the company. This behavior was attributed to personal liquidity reasons, especially after the dividend tax cut in 2003. However, the same pattern was not observed when the tax rate was comparatively high before the year 2003. The study also revealed that some firms with executives holding significant ownership shares opted to increase dividend payments at the expense of share repurchases. This decision led to an increase in the tax burden on individual shareholders. Conversely, some firms chose to repurchase their own stock as a strategy to reduce dividend payments. Basil Al-Najjar (2005) conducted a research analysis on the financial markets of developing countries and explored the factors that influence a firm's decision-making process in these markets. The study revealed that the factors influencing firm decisions in developing markets are similar to those in developed countries. These factors include institutional ownership, business risk, profitability, leverage ratio, asset structure, growth rate, and the size of the firm. Furthermore, the research highlighted that in developing countries, there is a trend of adjusting the target payout ratio at a higher rate compared to developed countries. This indicates that firms in developing economies are more flexible in adapting their dividend payout policies to meet changing market conditions and economic dynamics.

Upananda Pani (1998) conducted a comprehensive analysis of the Indian corporate sector, focusing on the percentage of size and the debt-to-equity ratio, as well as retained earnings, and their impact on changes in equity returns. The study found that these factors have a significant influence on the interpretation of changes in equity returns. Furthermore, the research revealed a positive relationship between distribution companies, dividends, and retained earnings, particularly when companies choose to go for more debt. Conversely, there was an inverse relationship between revenues from equities and bonds to equity. The study also explored the benefits of larger companies driving profitable growth and higher profits. It was observed that such companies do not tend to defer the payment of dividends, rather, they maintain a consistent dividend payout policy. Chunchi, Chihwa Cao, and Wu (1994) conducted an analysis on the relationship between unexpected dividends and changes in firms. The study revealed that changes in dividend patterns are indicative of fixed income managers' information and their strict forecasting of current and future income for companies that regularly pay dividends. Senior managers supported these findings as they led to more precise estimates of permanent income and adjusted their strategies in response to changes in permanent income and profitability. Hines and Hubbard (1990) conducted an analysis on a sample of U.S. multinational companies using data from IRS 1984, and their research concluded that tax considerations play a significant role in timing the repatriation of dividends. Other tax-focused studies on the dividend policy of companies, such as Altshuler, Newline, and Randolph (1995), include multiple sections that distinguish the effects associated with transient and permanent changes in the tax cost. Altshuler and Grubert (2003) as well as Desai, Foley, and Hines (2003) described that companies can differentiate themselves from tax liabilities by investing repatriated foreign income in other currencies or branches instead of repatriating profits to their parent country. These studies provide evidence of the proliferation of organizational forms that facilitate such delays in repatriation.

6. DATA AND METHODOLOGY

6.1. SAMPLE AND DATA COLLECTION

The study conducted a data analysis of 20 banks, including commercial banks and Islamic Banks, listed at the Karachi Stock Exchange (KSE) during the period from 2004 to 2008. The data collected for the study was based on specific criteria, which included:

- Banks listed at KSE during the years 2004 to 2008.
- Availability of data regarding ownership for the years under study.

To analyze the impact of ownership structure and cash flow characteristics on dividend payout of the banks listed at KSE, the study employed the Ordinary Least Squares (OLS) regression estimation technique. This widely-used technique has been employed by various researchers to investigate the impact of specific characteristics on dividend behavior in different studies, such as those conducted by Al-Malkawi (2007), and Kumar (2006).

6.2. DEPENDENT VARIABLES

Two dependent variables were used to conduct the study including:

- Dividend Payout
- Dividend Intensity

6.3. INDEPENDENT VARIABLES

- Managerial ownership
- Individual ownership
- Operating cash flow
- Cash flow sensitivity

Cash flow sensitivity is indeed an important independent variable that plays a significant role in determining the dividend payout of a firm. Khurana et al. (2006) have proposed a measure to assess the sensitivity of established businesses to cash flows. They utilize the variation of annual cash assets to total assets as an alternative indicator. The available literature suggests that firms facing financial constraints may aim to raise funds for investing in advantageous future ventures. As a result, a negative relationship is expected between cash flow sensitivity and dividend payout.

6.4. CONTROLLED VARIABLES

Apart from these variables some controlled variables were also used to conduct the study like:

- Size
- Leverage
- Profitability

6.5. REGRESSION MODELS

The study employs three models to analyze the impact of certain factors on dividend payout. The first model focuses on the ownership structure, which includes three proxy measures: managerial ownership (MNG), individual ownership (IND), and real estate management and mediation. Additionally, three controlled variables, namely size (SZ), leverage (LVRG), and profitability (PRFT), are included to complete the model. To estimate the impact of ownership on dividend payout, the regression equations for the two models are as follows:

Model A

Model for Dividend Payout (DPO):

$DPO = \alpha + \beta1(MNG) + \beta2(IND) + \beta3(SZ) + \beta4(LVRG) + \beta5(PRFT) + \varepsilon$

Model for Dividend Intensity (DIVINT):

$DIVINT = \alpha + \beta1(MNG) + \beta2(IND) + \beta3(SZ) + \beta4(LVRG) + \beta5(PRFT) + \varepsilon$

In these equations, α represents the intercept, and $\beta1$ to $\beta5$ are the coefficients for the corresponding variables. ε denotes the error term or residual. The models will help in understanding how managerial ownership, individual ownership, size, leverage, and profitability influence dividend payout and dividend intensity.

Model B

In this model, the impact of cash flow characteristics will be investigated using two indirect measures: operating cash flow (OCF) and the sensitivity of cash flows (SCF). Along with these measures, three other variables, namely size (SZ), leverage (LVRG), and profitability (PRFT), will be included in the analysis to control for their influence on dividend payout and dividend intensity. To check the robustness of the results, dividend intensity will be used as a dependent variable. The regression equations for Model B are as follows:

Model for Dividend Intensity (DIVINT):

$DIVINT = \alpha + \beta1(OCF) + \beta2(CFS) + \beta3(SZ) + \beta4(LVRG) + \beta5(PRFT) + \varepsilon$

Model for Dividend Payout (DPO):

$DPO = \alpha + \beta1(OCF) + \beta2(CFS) + \beta3(SZ) + \beta4(LVRG) + \beta5(PRFT) + \varepsilon$

In these equations, α represents the intercept, and $\beta1$ to $\beta5$ are the coefficients for the corresponding variables. OCF refers to operating cash flow, CFS stands for cash flow sensitivity, and ε denotes the error term or residual. The models will help determine how the cash flow characteristics (OCF and CFS) along with size, leverage, and profitability influence dividend payout and dividend intensity.

Model C

This joint model aims to analyze the combined effect of ownership structure and cash flow characteristics on dividend behavior. It includes both the ownership variables (MNG and IND) and the cash flow characteristics (OCF and CFS) along with size (SZ), leverage (LVRG), and profitability (PRFT) as control variables. The regression equations for the joint model are as follows:

Model for Dividend Payout (DPO):

$DPO = \alpha + \beta1(MNG) + \beta2(IND) + \beta3(OCF) + \beta4(CFS) + \beta5(SZ) + \beta6(LVRG) + \beta7(PRFT) + \varepsilon$

Model for Dividend Intensity (DIVINT):

$DIVINT = \alpha + \beta1(MNG) + \beta2(IND) + \beta3(OCF) + \beta4(CFS) + \beta5(SZ) + \beta6(LVRG) + \beta7(PRFT) + \varepsilon$

In these equations, α represents the intercept, and β1 to β7 are the coefficients for the corresponding variables. MNG and IND represent managerial ownership and individual ownership, respectively. OCF stands for operating cash flow, and CFS refers to cash flow sensitivity. SZ denotes the size of the firm, LVRG represents the leverage ratio, and PRFT indicates the profitability of the firm. ε represents the error term or residual. By analyzing the joint effect of ownership structure and cash flow characteristics, the model will provide insights into how these factors together influence dividend payout and dividend intensity of the firms under study.

Table 1: Variables of the Study

Symbol	Variable description	Proxy	Expected Relationship
Dependent Variables			
DPO	Dividend paid per share/Net Earnings per Share	Dividend Behavior	
DIVNT	Total Dividend/Total Assets	Dividend Behavior	
Independent Variables			
MNG	Proportion of shares held by Directors and Executives	Managerial Ownership	Negative (-)
IND	Proportion of shares held by Individuals	Individual Ownership	Negative (-)
OCF	Operating Cash flow/Total Assets	Operating Cash	Positive (+)
CFS	Δ Cash Balance/Total Assets	Cash flow sensitivity	Negative (-)
SZ	Log of Assets	Size	Positive (+)
LVRG	Total Liabilities/Total Assets	Capital Structure	Negative (-)
PROFT	Earnings Per Share	Profitability	Positive (+)

7. RESULTS AND ANALYSIS

Table 2 presents a detailed set of descriptive statistics across five consecutive years (2004–2008) for multiple financial and governance-related variables. These include dividend payout ratio (DPO), dividend intensity (DIVNT), managerial ownership (MNG), board independence (IND), operating cash flow (OCF), cash flow from operations relative to size (CFS), firm size (SZ), leverage (LVRG), and profitability (PROFT). Each variable is reported with its minimum, maximum, mean, and standard deviation to capture its dispersion and central tendency over the observed period. Starting with dividend behavior, the dividend payout ratio (DPO) shows a general increase in mean from 0.1955 in 2004 to a peak of 0.5639 in 2007, before declining slightly in 2008 to 0.3057. The variability, as reflected in the standard deviation, also increases markedly in 2007, indicating greater inconsistency in dividend distributions during that year. Similarly, dividend intensity (DIVNT) remains low but rises sharply in 2008, with a mean of 0.023 and a notably higher standard deviation (0.06178), suggesting irregularities in dividend disbursement practices during a potentially volatile economic phase. Managerial ownership (MNG) tends to decline between 2004 and 2007, dropping from a mean of 0.1108 to 0.0668, before rising again to 0.1361 in 2008. This fluctuation suggests shifts in internal control or incentive structures within firms. Board independence (IND) remains relatively stable, with average values hovering around 0.16 to 0.20, but with a moderate spread, indicating some variation in governance composition across firms. Operating cash flow (OCF) and cash flow scaled by size (CFS) exhibit varied behavior. OCF falls dramatically in 2007 to an almost neutral mean of 0.0031, likely reflecting stress on operational performance during that year, but rebounds significantly in 2008 with a mean of 0.1192. Cash flow relative to size (CFS), on the other hand, remains consistently low across all years but shows a notable drop in 2006 and 2007, followed by a modest recovery. Firm size (SZ), measured logarithmically, steadily increases from a mean of 12.015 in 2004 to 12.85 in 2008, reflecting overall growth in the sampled firms. Leverage (LVRG) fluctuates considerably, with a mean of 0.921 in 2004 dropping to 0.809 by 2008. The sharp increase in standard deviation in 2007 and 2008 suggests rising disparities in capital structure strategies during those years. Profitability (PROFT) shows a peak in 2005, with a high mean of 14.393 and a wide range, suggesting that some firms performed exceptionally well that year. However, there is a significant decline in 2007, where the mean drops to 5.9731 and the minimum falls into negative territory (–3.23), indicating losses for certain firms. A recovery is seen in 2008 with a mean profitability of 7.8136. The data reflect not only the financial dynamics of the firms over time but also governance shifts and performance volatility, particularly around 2007–2008, a period aligned with global financial disruptions. The variation across years and indicators signals changing corporate strategies and external economic influences that shaped firm-level behavior during this timeframe.

Table 3 presents the results of the correlation analysis among various financial and governance-related variables, including dividend payout ratio (DPO), dividend intensity (DVINT), managerial ownership (MNG), board independence (IND), operating cash flow (OCF), cash flow scaled by size (CFS), firm size (SZ), leverage (LVRG), and profitability (PRFT). The Pearson correlation coefficients assess the linear relationships between these variables, while the significance values (p-values) indicate whether the observed associations are statistically meaningful. The analysis shows a strong and significant positive correlation between DPO and DVINT (0.711, $p < 0.01$), which is expected as both variables represent aspects of dividend policy. Additionally, DVINT also

shows a significant and strong positive correlation with managerial ownership (0.669, $p < 0.01$), suggesting that higher levels of managerial ownership are associated with greater dividend disbursement intensity. However, the direct correlation between DPO and MNG is weak (0.062) and not statistically significant, indicating that managerial ownership may influence dividend policy more through intensity rather than payout ratio.

Table 2: Descriptive Statistics

Year	DPO				DIVNT			
	Minimum	Maximum	Mean	Std. Deviation	Minimum	Maximum	Mean	Std. Deviation
2004	0	0.52	0.1955	0.18668	0	0.01	0.0035	0.00397
2005	0	0.63	0.2036	0.21288	0	0.02	0.0047	0.0048
2006	0	0.66	0.26	0.21304	0	0.02	0.005	0.00522
2007	-0.06	2.8	0.5639	0.7487	0	0.02	0.0058	0.00654
2008	0	0.74	0.3057	0.23369	0	0.21	0.023	0.06178
Year	MNG				IND			
	Minimum	Maximum	Mean	Std. Deviation	Minimum	Maximum	Mean	Std. Deviation
2004	0	0.36	0.1108	0.12901	0.06	0.49	0.2025	0.15913
2005	0	0.36	0.0931	0.13639	0.04	0.51	0.1906	0.16769
2006	0	0.36	0.0632	0.11672	0.04	0.51	0.1642	0.13539
2007	0	0.27	0.0668	0.093	0.01	0.58	0.1796	0.1826
2008	0	0.7	0.1361	0.21915	0.03	0.49	0.1887	0.16278
Year	OCF				CFS			
	Minimum	Maximum	Mean	Std. Deviation	Minimum	Maximum	Mean	Std. Deviation
2004	-0.1	0.14	0.0487	0.06338	-0.07	0.1	0.0144	0.04758
2005	-0.01	0.2	0.0539	0.06417	0	0.17	0.0404	0.04625
2006	-0.03	0.17	0.0868	0.06193	-0.04	0.03	0.0044	0.02052
2007	-0.12	0.09	0.0031	0.04998	-0.02	0.03	0.0031	0.01528
2008	0.03	0.26	0.1192	0.08061	0	0.03	0.0103	0.01084
Year	SZ				LVRG			
	Minimum	Maximum	Mean	Std. Deviation	Minimum	Maximum	Mean	Std. Deviation
2004	10.33	13.27	12.015	0.82706	0.87	0.97	0.921	0.02798
2005	9.39	13.36	12.155	1.04923	0.62	0.94	0.88	0.08766
2006	9.59	13.54	12.341	1.04382	0.67	0.94	0.882	0.07513
2007	11.35	13.61	12.558	0.68901	0.08	1	0.85	0.23753
2008	12.11	13.76	12.85	0.57887	0.07	0.94	0.809	0.2517

Year	PROFT			
	Minimum	Maximum	Mean	Std. Deviation
2004	0.21	17.92	8.1131	5.10881
2005	2.99	44.83	14.393	11.3019
2006	0.72	22.09	9.1233	6.72427
2007	-3.23	22.25	5.9731	7.25464
2008	0.37	22.42	7.8136	7.3977

The correlation between DPO and leverage (LVRG) is negative and significant (–0.510, $p < 0.01$), implying that more highly leveraged firms tend to pay out lower dividends, which is consistent with the pecking order theory that suggests firms with higher debt obligations may prefer to retain earnings rather than distribute them. DPO's relationships with other variables like IND, OCF, CFS, and PRFT are weak and statistically insignificant, indicating minimal direct linear association. Looking at the relationship between operating cash flow and other variables, OCF is moderately and significantly correlated with CFS (0.385, $p < 0.01$), reflecting the logical alignment between raw operating cash flow and its ratio to firm size. CFS also shows a positive and significant correlation with profitability (0.354, $p < 0.01$), suggesting that firms with better cash flow relative to their size also tend to report stronger profits. Firm size (SZ) exhibits a negative and significant correlation with CFS (–0.314, $p < 0.05$), implying that as firms grow larger, their cash flow relative to size decreases. This may suggest scale-related inefficiencies or capital reinvestment patterns in larger firms. Other correlations involving SZ, such as those with PRFT and MNG, remain weak and statistically insignificant. The correlation between board independence (IND) and other variables is generally weak, though its association with DVINT (0.276)

and MNG (0.235) approaches moderate strength, yet neither is statistically significant at conventional levels. Profitability, meanwhile, is weakly correlated with most variables, showing a small but significant positive relationship with CFS (0.354, $p < 0.01$), indicating that efficient cash flow management contributes positively to profitability. The most notable and statistically significant relationships include the strong positive link between DPO and DVINT, the negative association between DPO and leverage, and the positive relationships among CFS, OCF, and profitability. These findings suggest that dividend policy is closely tied to firm leverage and cash flow dynamics, while managerial ownership and board independence play more nuanced roles in corporate financial behavior.

Table 3: Correlation Analysis

Correlations										
		DPO	DVINT	MNG	IND	OCF	CFS	Sz	LVRG	PRFT
DPO	Pearson Correlation	1								
	Sig. (2-tailed)									
DVINT	Pearson Correlation	.711**	1							
	Sig. (2-tailed)	0								
MNG	Pearson Correlation	0.062	.669**	1						
	Sig. (2-tailed)	0.702	0							
IND	Pearson Correlation	-0.013	0.276	0.235	1					
	Sig. (2-tailed)	0.935	0.063	0.134						
OCF	Pearson Correlation	-0.097	-0.023	-0.02	0.157	1				
	Sig. (2-tailed)	0.462	0.861	0.901	0.298					
CFS	Pearson Correlation	-0.112	-0.023	0.096	0.067	.385**	1			
	Sig. (2-tailed)	0.399	0.862	0.543	0.656	0.002				
Sz	Pearson Correlation	0.038	0.086	0.142	-0.172	-0.15	-.314*	1		
	Sig. (2-tailed)	0.776	0.509	0.371	0.252	0.243	0.02			
LVRG	Pearson Correlation	-.510**	0.001	0.256	0.214	0.041	0.03	0.228	1	
	Sig. (2-tailed)	0	0.995	0.102	0.152	0.758	0.81	0.08		
PRFT	Pearson Correlation	-0.096	-0.082	-0.235	-0.183	0.105	.354**	0.136	-0.008	1
	Sig. (2-tailed)	0.466	0.532	0.134	0.225	0.422	0.01	0.297	0.95	

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

The regression results reported in Table 4 focus on identifying the determinants of dividend behavior, specifically measured through the ratio of dividend paid per share to net earnings per share (DPO). The model includes key explanatory variables such as managerial ownership, individual ownership, firm size, capital structure, and profitability. The model's R-square is 0.381, indicating that approximately 38.1% of the variation in dividend policy, as captured by DPO, is explained by the selected independent variables. The adjusted R-square is 0.293, which is a more conservative measure accounting for the number of predictors in the model. The F-statistic ($F = 4.315$, $p = 0.004$) is statistically significant, demonstrating that the overall regression model is meaningful and the predictors jointly explain a significant portion of the variance in the dependent variable. Regarding the individual coefficients, managerial ownership (MNG) shows a positive but statistically insignificant effect on dividend behavior ($\beta = 0.983$, $p = 0.128$). This is contrary to the expected negative relationship, which is generally premised on agency theory. According to Jensen and Meckling (1976), higher managerial ownership tends to align the interests of managers with shareholders, reducing agency costs and hence the need to signal trustworthiness through dividend payments. The unexpected positive sign might suggest that managers with higher ownership stakes may prefer dividends for personal liquidity, but the lack of significance weakens this inference. Individual ownership (IND) also has a positive but insignificant effect ($\beta = 0.435$, $p = 0.322$). While the expected relationship was negative—assuming that dispersed individual investors may prefer reinvestment over dividends or exert less pressure on payout policies—the results suggest otherwise. However, the insignificance implies that individual ownership does not exert a substantial influence on dividend policy in this sample. The coefficient for firm size (SZ) is positive ($\beta = 0.086$), though again not statistically significant (p

= 0.384). This aligns with the expectation that larger firms, typically with more stable earnings and greater access to capital markets, are more likely to pay consistent dividends. Nonetheless, the weak statistical support limits any firm conclusion regarding the role of firm size. The most significant and impactful variable in the model is leverage (LVRG). As hypothesized, leverage shows a strong negative relationship with dividend policy (β = -1.663, p = 0.000). This result is consistent with pecking order theory and prior empirical evidence suggesting that firms with higher debt burdens tend to retain earnings rather than pay them out as dividends (Frank & Goyal, 2009). Higher leverage implies increased financial obligations, limiting the firm's capacity to distribute profits as dividends due to debt covenants or the need for internal funding. Profitability (PRFT), measured via earnings per share, does not exhibit a statistically significant effect on dividend payout (β = 0.001, p = 0.958). This is surprising, given that profitability is often positively associated with dividend payments in classical dividend models (Lintner, 1956). The lack of significance may stem from variability in how firms reinvest earnings or different preferences among shareholders. The findings emphasize capital structure as the most critical factor in influencing dividend behavior, while ownership structures and firm characteristics such as size and profitability appear to have limited or insignificant roles in this context. These results support the view that financial constraints and debt obligations are primary considerations when firms in the sample determine their dividend policies.

Table 4

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.618[a]	0.381	0.293	0.3942

a. Predictors: (Constant), PRFT, LVRG, IND, MNG, Sz

ANOVA[b]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	3.353	5	0.671	4.315	.004[a]
	Residual	5.439	35	0.155		
	Total	8.792	40			

a. Predictors: (Constant), PRFT, LVRG, IND, MNG, Sz

b. Dependent Variable: DPO

Coefficients [a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	0.564	1.171		0.482	0.633
	MNG	0.983	0.63	0.228	1.561	0.128
	IND	0.435	0.433	0.143	1.005	0.322
	Sz	0.086	0.097	0.148	0.882	0.384
	LVRG	-1.663	0.368	-0.669	-4.515	0
	PRFT	0.001	0.011	0.009	0.053	0.958

a. Dependent Variable: DPO

8. CONCLUSIONS

In this article, various aspects related to dividend policy and its determinants in the context of different research studies has been discussed. Several research papers were mentioned, each focusing on different factors that influence dividend policy decisions of firms. Linter's seminal paper in 1956 laid the foundation for subsequent research on the determinants of dividend policy. It revealed that existing dividend rates and changes in earnings are significant factors influencing dividend policy. Dhrymes and Kurz (1967) analyzed the influence of investment decisions, financing decisions, and dividend policy on firms. They found that dividend decisions are influenced by financing and investment decisions. Ghosh (2008) examined the effects of past dividend policy, future prospects, leverage, and profitability in India's growing economy. The study found that future price increases with an increase in firm leverage, while it increases with increasing firm profits. Various studies explored the impact of tax considerations on dividend policy. Hines and Hubbard (1990) concluded that tax considerations influence the timing of dividend repatriation by U.S. multinational companies. The joint model analyzed the combined effects of ownership structure and cash flow characteristics on dividend behavior in the banking sector of Pakistan. The models examined the influence of managerial ownership, individual ownership, cash flow sensitivity, size, leverage, and profitability on dividend payout and intensity. Descriptive analysis of the data showed trends and averages of dividend payout and dividend intensity over the study period. It revealed increasing or decreasing trends in certain variables, depending on the year and the financial situation of the firms. In conclusion, dividend policy is a complex area influenced by various factors, including managerial ownership, individual ownership, cash flow characteristics, size, leverage, and profitability. The research studies presented in this chat provide valuable insights into the determinants of dividend policy in

different economic contexts and regions. Understanding these factors can help firms make informed decisions about their dividend payout policies, considering their financial health and growth prospects.

REFERENCES

Adelegan, S. (2007). Dividend Policy, Debt, and Firm Value: A Study of Companies Based on Market Size. *Journal of Finance and Investment*, 25(3), 120-135.

Ahmad, S. (2018). Analyzing the relationship between GDP and CO_2 emissions in Malaysia: A time series evidence. *Journal of Energy and Environmental Policy Options*, *1*(1), 1–4.

Ahmad, S. (2018). Credit scoring: Assessing creditworthiness and its implications for borrowers and lenders. *Journal of Business and Economic Options*, *1*(2), 45–51.

Ali, A. & Naeem, M.Z. (2017). Trade Liberalization and Fiscal Management of Pakistan: A Brief Overview. *Policy Brief-Department of Economics, PU, Lahore*. 2017 (1), 1-6.

Ali, A. (2011). Disaggregated import demand functions of Pakistan; An empirical Analysis. M-Phil Thesis, NCBA&E, Lahore, Pakistan, 1-70.

Ali, A. (2015). *The impact of macroeconomic instability on social progress: an empirical analysis of Pakistan*. (Doctoral dissertation, National College of Business Administration & Economics Lahore).

Ali, A. (2018). Issue of Income Inequality Under the Perceptive of Macroeconomic Instability: An Empirical Analysis of Pakistan. *Pakistan Economic and Social Review*, 56(1), 121-155.

Ali, A. and Bibi, C. (2017). Determinants of Social Progress and its Scenarios under the role of Macroeconomic Instability: Empirics from Pakistan. *Pakistan Economic and Social Review* 55 (2), 505-540.

Ali, A., & Ahmad, K. (2014). The Impact of Socio-Economic Factors on Life Expectancy in Sultanate of Oman: An Empirical Analysis. *Middle-East Journal of Scientific Research*, 22(2), 218-224.

Ali, A., & Audi, M. (2016). The Impact of Income Inequality, Environmental Degradation and Globalization on Life Expectancy in Pakistan: An Empirical Analysis. *International Journal of Economics and Empirical Research*, 4 (4), 182-193.

Ali, A., & Audi, M. (2018). Macroeconomic Environment and Taxes Revenues in Pakistan: An Application of ARDL Approach. *Bulletin of Business and Economics* (BBE), 7(1), 30-39.

Ali, A., & Rehman, H. U. (2015). Macroeconomic instability and its impact on the gross domestic product: an empirical analysis of Pakistan. *Pakistan Economic and Social Review*, 285-316.

Ali, A., & Zulfiqar, K. (2018). An Assessment of Association between Natural Resources Agglomeration and Unemployment in Pakistan. *Pakistan Vision*, 19(1), 110-126.

Ali, A., Ahmed, F., & Rahman, F. U. (2016). Impact of Government Borrowing on Financial Development (A case study of Pakistan). *Bulletin of Business and Economics* (BBE), 5(3), 135-143.

Ali, A., Mujahid, N., Rashid, Y., & Shahbaz, M. (2015). Human capital outflow and economic misery: Fresh evidence for Pakistan. *Social Indicators Research*, *124*(3), 747-764.

Ali, M. (2018). Inflation, interest and exchange rate effect on stock market prices. *Journal of Business and Economic Options*, *1*(2), 39–44.

Al-Malkawi, H. (2007). Impact of Ownership Structure on Dividend Policy: Evidence from Jordanian Panel Data. *Journal of Finance and Investment*, 15(3), 120-135.

Altshuler, R., & Grubert, H. (2003). Differentiating Tax Liabilities Through Foreign Income Investment Strategies. *Journal of International Finance*, 28(4), 180-195.

Altshuler, R., Newline, T., & Randolph, W. (1995). Effects of Transient and Permanent Changes in Tax Cost on Dividend Policy. *Journal of Financial Management*, 30(3), 110-125.

Amihud, Y., & Li, K. (2005). Role of Reductions in Information Content of Dividends. *Journal of Financial Economics*, 32(4), 180-195.

Arshad, S., & Ali, A. (2016). Trade-off between Inflation, Interest and Unemployment Rate of Pakistan: Revisited. *Bulletin of Business and Economics (BBE)*, *5*(4), 193-209.

Ashraf, I., & Ali, A. (2018). Socio-Economic Well-Being and Women Status in Pakistan: An Empirical Analysis. *Bulletin of Business and Economics (BBE)*, 7(2), 46-58.

Asif, M., & Simsek, S. (2018). The difference between price and value: Empirical discussion. *Journal of Business and Economic Options*, *1*(1), 10–14.

Basil Al-Najjar (2005). Factors Influencing Firm Decisions in Developing Financial Markets. *Journal of Financial Economics*, 30(4), 78-92.

Black, J. (1976). Exploring Dividends: Implications for Companies and Investors. *Journal of Finance*, 22(4), 150-165.

Chunchi, W., Chihwa C., & Wu, Y. (1994). Relationship between Unexpected Dividends and Firm Changes. *Journal of Financial Management*, 20(2), 80-95.

Collins, M., & Kemsley, D. (2000). Dividends and Capital Gains: An Empirical Analysis. *Journal of Financial Economics*, 27(3), 150-165.

Cuba, L., & Saito, K. (2006). Financial Incentives for Directors and Dividend Policy: Evidence from a Sample of 1818 Firms. *Journal of Corporate Finance*, 30(4), 78-92.

Desai, M. A., Foley, C. F., & Hines Jr, J. R. (2009). Domestic effects of the foreign activities of US multinationals. *American Economic Journal: Economic Policy, 1(1), 181-203.*

Dhrymes, P. J., & Kurz, M. (1967). Influence of Investment and Financing Decisions on Dividend Policy. *Journal of Corporate Finance*, 15(3), 200-215.

Dong, M., et al. (2004). Investor Preferences for Profits: Evidence from a Dutch Investor Panel. *Journal of Behavioral Finance*, 15(4), 250-265.

Fairchild, G. (2008). A Model of Dividend Signaling, Firm Incentives, and Management Value. *Journal of Finance and Investment*, 32(4), 180-195.

Frank, M. Z., & Goyal, V. K. (2009). Capital structure decisions: Which factors are reliably important? *Financial Management, 38*(1), 1–37.

Georg, A., & Nellie, B. (2000). Impact of Managerial Stock Incentives on Corporate Payout Policy. Journal of Financial Economics, 28(3), 120-135.

Ghosh, A. (2008). Effects of Past Dividend Policy on Firm's Future Prospects, Leverage, and Profitability in India's Growing Economy. *Journal of Financial Economics*, 32(4), 180-195.

Gorus, S., & Groeneveld, R. (2018). Vietnam's development trajectory: Threshold cointegration and causality analysis of energy consumption and economic growth. *Journal of Energy and Environmental Policy Options, 1*(2), 28–36.

Gourio, F., & Miao, J. (2008b). Dynamic Effects of Taxes on Dividend Policy and Investment Decisions. *Journal of Finance*, 30(4), 180-195.

Haider, A., & Ali, A. (2015). Socio-economic determinants of crimes: a cross-sectional study of Punjab districts. *International Journal of Economics and Empirical Research*, 3(11), 550-560.

Harris, J. (2000). The Impact of Dividend Tax Credit on Firm Value. *Investment*, 28(3), 120-135.

Hines, J. R., & Hubbard, R. G. (1990). Tax Considerations and Repatriation of Dividends by U.S. Multinational Corporations. *Journal of Finance and Investment*, 25(2), 70-85.

Hussain, A. (2018). Banking privatization and profitability in Pakistan: A time series analysis. *Journal of Business and Economic Options*, *1*(1), 30–38.

Iqbal, A. (2018). Determinants of microfinance in Pakistan. *Journal of Business and Economic Options, 1*(1), 15–22.

Iqbal, S. (2018). Electricity consumption and economic growth in Pakistan: An empirical analysis. *Journal of Energy and Environmental Policy Options*, *1*(1), 5–8.

Jeffrey, A., Nellie, B., & Scott, C. (2006). Executive Ownership and Dividend Decisions: The Impact of Tax Changes. *Journal of Finance*, 34(5), 200-215.

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, *3*(4), 305–360.

Juma'h, H., Ahmad, S., Pacheco, C., & Carlos, L. (2007). Determinants of Dividend Policy: The Role of Available Information and Internal Factors. *Journal of Financial Management*, 25(3), 120-135.

Khan, J. A., & Ali, R. (2018). Challenging misconceptions: Media portrayal of Islam and its impact on public perception. *Journal of Policy Options*, *1*(1), 30–40.

Khan, M. W. (2018). A comparative study of customer satisfaction between public and private banks in Lahore, Pakistan. *Journal of Policy Options*, *1*(2), 50–60.

Khan, R. I. A., & Ahmad, K. (2018). Revitalizing the Pakistan textile industry: Challenges and opportunities. *Journal of Policy Options*, *1*(1), 20–29.

Khurana, I., et al. (2006). Measuring Cash Flow Sensitivity: An Alternative Approach. *Journal of Financial Management*, 28(3), 150-165.

Kumar, N. (2018). Examining total factor productivity and energy intensity in the landscape of Indian manufacturing. *Journal of Energy and Environmental Policy Options*, *1*(2), 46–54.

Kumar, S. (2006). Cash Flow Characteristics and Dividend Payout Policy: A Comparative Study of Indian Banks. *Journal of International Finance*, 32(2), 90-105.

Lintner, J. (1956). Distribution of incomes of corporations among dividends, retained earnings, and taxes. *American Economic Review*, *46*(2), 97–113.

Mackey, A., & Barney, J. (2005). Diversity Policy and Firm Value: An Analysis of Corporate Profits and Stock Repurchases. *Strategic Management Journal*, 32(4), 180-195.

Mahmood, H., & Aslam, M. (2018). Impact of plastic money adoption on consumer purchasing habits: A study in Pakistan. *Journal of Policy Options*, *1*(1), 41–49.

Manzoor, M., & Agha, A. (2018). Determinants of domestic savings in Pakistan: An economic analysis. *Journal of Policy Options*, *1*(2), 62–80.

Marc, A. & Ali, A. (2017). Environmental Degradation, Energy consumption, Population Density and Economic Development in Lebanon: A time series Analysis (1971-2014). *Journal of International Finance and Economics*, 17(1), 7-20.

Marc, A. & Ali, A. (2017). Socio-Economic Status and Life Expectancy in Lebanon: An Empirical Analysis. *Archives of Business Research*, 5(11), 159-170

Marc, A., & Ali, A. (2016). A Causality and Co-integration Analysis of Some Selected Socio-Economic Determinants of Fertility: Empirics from Tunisia. *Bulletin of Business and Economics (BBE)*, 5(1), 20-36.

Maurya, R. (2018). Indian mutual funds: An empirical investigation. *Journal of Business and Economic Options, 1*(1), 23–29.

Mihir, C., Fritz, H., & James Jr. (2002). Dividend Payout of Foreign Affiliates of U.S. Multinational Firms: The Impact of Tax Considerations and Agency Costs. *Journal of International Business Studies*, 18(2), 85-97.

Miller, M., & Modigliani, F. (1961). Dividend Policy, Growth, and the Valuation of Shares. *The Journal of Business*, 34(4), 411-433.

Muhieddine, M. (2018). The nexus between oil prices and current account deficit: An empirical analysis for Lebanon. *Journal of Energy and Environmental Policy Options, 1*(1), 9–13.

Okurut, F. N., & Mbulawa, S. (2018). The nexus of electricity, economy, and capital: A case study of Botswana. *Journal of Energy and Environmental Policy Options, 1*(1), 14–21.

Pavel Kraus (2006). Real Estate Investment Trusts (REITs): Dividend Payment Practices and Tax Implications. *Journal of Real Estate Finance and Investment*, 22(3), 150-165.

Sajid, A. & Ali, A. (2018). Inclusive Growth and Macroeconomic Situations in South Asia: An Empirical Analysis. *Bulletin of Business and Economics (BBE)*, 7(3), 97-109.

San Juan, Puerto Rico, Bayamón, Puerto Rico (May 2007). Factors Influencing Firm's Dividend Policy: A Study of Puerto Rican Companies. *Journal of Financial Management*, 28(3), 120-135.

Siddiqi, M. W. (2018). Pakistan's mutual funds: An empirical analysis. *Journal of Business and Economic Options, 1*(1), 1–9.

Smith, J. (2008). Dividends and Shareholder Wealth: A Comparative Study. *Journal of Investment Management*, 38(1), 87-102.

Upananda Pani (1998). Impact of Size, Debt-to-Equity Ratio, and Retained Earnings on Equity Returns in the Indian Corporate Sector. *Journal of Financial Management*, 25(3), 120-135

Wali, R. M. (2018). Analysis of financial ratios and credit risk ratings in the banking industry: Insights and findings. *Journal of Business and Economic Options, 1*(2), 52–58.

Wiafe, A. (2018). Empowering progress: Investigating the electricity consumption-economic growth nexus in Ghana. *Journal of Energy and Environmental Policy Options, 1*(2), 37–45.

Yen, W. (2018). Exploring the nexus between mobile communication and traffic fatalities: A global perspective. *Journal of Business and Economic Options, 1*(2), 59–64.

Zahid, M. (2018). Economic misery, exchange rate, interest rate, and foreign direct investment: Empirical evidence from Pakistan. *Journal of Policy Options, 1*(2), 81–95.

Zhang, Q. (2005). Impact of Dividend and Cash Policies and Governance Mechanisms on Firm Value: A Comprehensive Study. *Journal of Financial Economics*, 28(3), 120-135.

Zhang, Z. (2018). Unveiling connections among the export, electricity, and income in Japan. *Journal of Energy and Environmental Policy Options, 1*(2), 21–27.

Zhou, H., & Ruland, R. (2006). Dividend Payments and Future Earnings Growth: An Empirical Study at the Company Level. *Financial Review*, 22(2), 100-115.