CORPORATE GOVERNANCE, DISCLOSURE QUALITY, AND COST OF EQUITY: EVIDENCE FROM PAKISTAN

Amanullah 1, Xinjun Lyu 2
1School of Economics, Henan University, Kaifeng, China
2Hazara University, Mansehra, Pakistan
Korespondensi penulis: Xinjunlyu@qq.com

Abstract. To be successful in the financial world, you must know how the public disclosure of business information affects stock prices. Specifically for Pakistan, this research will help us better understand the relationship between corporate governance, disclosure quality, and equity cost. The Sys-GMM model has been employed by 167 non-financial enterprises listed on the Pakistan Stock Exchange since 2017. (PSX). Research shows it was in use between 2018 and 2020. The Sys-GMM technique for estimating may be used to account for endogeneity in corporate governance problems. We discovered that GMM projections failed to account for endogeneity, resulting in inaccurate conclusions, using pooled OLS and fixed-effect estimates. According to the research, the cost of equality and financial transparency are mutually incompatible. All of these factors contribute to the PSE’s stock price decline, including board size, concentrated ownership, and CEO duality. The research establishes a relationship between independent audit committees and high-quality audits and reduced equity expenses. Independent directors and competent auditors command a premium on the PSX. The duration of the approval process for financial statements has no bearing on the board's independence. Due to the scarcity of information disclosed in annual reports, investors anticipate a higher rate of return. The conclusions of the research may be beneficial to Pakistan's corporate governance authorities and investors.

Keywords: Pakistani listed companies, corporate companies, Quality Discourse, cost of capital.

INTRODUCTION
Tyco, Enron, and WorldCom are just a few examples of organizations that have experienced governance issues. These crises damaged investor faith in both the stock market and corporate governance standards. Corporate governance measures are being established in developed countries to re-establish investor trust and safeguard shareholders' interests. The 2002 Sarbanes-Oxley Act mandated that American businesses be more responsible and transparent in their operations. Businesses increasingly see implementing sound corporate governance principles to maintain investor trust as more acceptable. Managers may add value to a business by allaying investors' anxieties about the company's future viability. On the other hand, uncertainty is an intrinsic and inescapable component of a business. CEOs may be able to narrow market knowledge gaps (Botosan, 2000). Business leaders may contribute to the reduction of information asymmetry by encouraging their staff to share more information. As a starting measure, corporations should increase the amount of information accessible to investors to help them make better-informed choices. Then, particular private firm data
should be made public. When such confidential information is made public, investors are ready to accept lesser returns on their investments, lowering the cost of corporate borrowing.

The amount of openness and corporate governance concerning company equity capital is explored in this study. Throughout the life of a firm, management educates all investors about the company's past and assesses its future development prospects (Al Attar, 2016). In today's environment, management and investors place a higher premium on financial transparency and the company's borrowing costs. The financial and accounting literature on disclosure regulations and their influence on corporate stock financing deserve particular consideration (Beyer et al., 2010). Both (O’hara, 2004) and (Gao, 2004) have written about it. According to the researchers, releasing accounting information might result in a 30% reduction in borrowing rates. Numerous experts, including Botosan, 2000) himself, have researched Botosan's alleged link. The recent study includes (Cormier, 2010), as well as (Welker, 2011). High-quality disclosure is associated with lower equity funding for several reasons. Reduced financial statement complexity increases demand for business stock while also cutting transaction costs. (Ajina et al, 2015). Increased transparency reduces the likelihood of future inaccurate dividend distribution forecast computations.

Objectives
This research aims to determine if the quality of corporate governance has an impact on the cost of equity financing for Pakistani businesses listed on the Pakistan Stock Exchange (PSX) for four years, starting in 2019.

1. The goal of this study is to solve the following problems:
2. Do Pakistani businesses' equity capital costs go down because of decreased disclosure quality?
3. To minimize equity costs, which governance features are useful?

The report examines the progress of openness and equity participation in Pakistani publicly listed firms from 2017 to 2019. (PLCs). As discussed in this course, transparency and shareholder equity are inextricably linked. The cost of equity financing may be used in place of the required rate of return. The study results include the following subjects: concentrated ownership, large boards, dual-roles CEOs, board independence, independence of the audit committee, audit quality, and board independence. To elucidate linkages and confirm the obtained results, an OLS/fixed-effect comparison analysis was conducted. On the other hand, our study demonstrates the inextricable link between audit quality and audit committee independence. Investing in transparent firms is a good idea, according to the research findings. Authorities may use the research's findings to defend shareholders' interests while also enabling investors to invest with complete confidence.

Literature Review
While some say that corporate governance regulations increase a firm's worth and cash flow by limiting or eliminating managers' and majority shareholders' ability to obtain private gains, others argue that corporate governance laws reduce a firm's value and future cash flow by eliminating managers' and majority shareholders' ability to privately gain benefits. The application of discount premiums to the future cash flow of a business may affect a firm's cost of equity. Inconsistent financial data may lead to cash flow unpredictability in the future (Ali et al., 2019).

To minimize a firm's expenses for equity financing, a solid corporate governance structure is designed. Beginning, it establishes rules and procedures for management and stockholders, making it less likely that someone will take advantage of you (Wei et al, 2009). Companies have processes in place to minimize the occurrence of information
asymmetry and increase the company's long-term financial flexibility (Clarkson et al., 1996). External investors' demands for interest rates may be lower, leading to lower interest rates and higher business values (Lombardo, 2019).

Disclosures and Costs Equities
Concerning the cost of equity financing, many studies have studied the connection between transparency and funding. According to (Botoșani, 2018), the cost of equity borrowing in American manufacturing businesses is positively correlated with the degree of openness in these firms. Information quality seems to be inversely correlated with equity financing costs.

2.1 Mechanisms of government corporate and the cost of equality
In most developing markets, overcoming shareholder-management agency challenges while also protecting the interests of minority shareholders is typical practice. In addition, investors who are confident in the financial markets think that they are secure, and as a consequence, they are eager to increase their investment and participation in the markets. Because of this, the company's value increases as loan payments decrease (Bertoncelli et al., 2021).

Several researchers, including (Gul et al, 2016), have examined the links between corporate government and equity financing costs in their research. As an example, (Resmini, 2016) explores the link between Latin American corporate governance and the costs of equity financing in the region. The corporate governance index was developed to help Latin American business owners in assessing the level of corporate governance in their respective organizations. Ninety different companies contributed to a total of 270 observations between 2016 and 2019. Reduced capital expenditures are made possible by sound business practices and effective corporate governance. Investor rights have little influence on stock prices, even though making sure that ownership and control are evenly distributed helps to lower a company's financing costs.

Achieving speedy and precise decision-making demands having access to up-to-date and accurate data. When investors are forced to wait for information, they become more cautious and anticipate higher returns on their investments. When there are a knowledge gap, such as when a new product is introduced, the equity financing costs of a firm increase (Evans, 2015). The audit delay data for 85 publicly traded Egyptian firms were studied to have a better understanding of the situation (Afifi, 2009). According to regression models, if it takes longer to get the audit report, there is stronger CEO duality, audit committee independence, and board independence. Increased concentration of ownership, on the other hand, does not affect the amount of time it takes to compile an audit report. Based on their findings, (Botosan et al, 2002) discovered that corporations that publish timely financial account information see an increase in equity financing, while organizations that do not publish timely information experience a decrease in equity financing. In the stock market, volatility rises as more current information is made accessible to investors (Khan et al., 2020).

When it comes to publicly traded firms that are traded on the PSX, it seems that their stock price is inversely connected with their board of directors' size.

H 3: Increased costs for businesses listed on the PSX as a result of the independence of the board of directors is an additional disadvantage.

H 5: The dual CEO structure significantly reduces the company's cost of shares listed on the PSX.

H 6: Companies registered on the Philippine Stock Exchange benefit from consolidated ownership.

There is a positive connection between the cost of stock of businesses listed on the PSX and the amount of accurate information disclosure.
In a positive correlation with a company's cost of equity, the audit quality of listed firms on the PSX.

2.2 Reforms in corporate governance have an impact on disclosures

It's a tick-box exercise while we wait for the private sector to respond to and report on the new standards set by almost every government on the planet. The influence of recent economic upheavals on corporate governance, social responsibility, and environmental disclosures has been examined. (Monteiro et al, 2010) show that, despite an increase in the number of disclosures, the breadth of disclosures has not expanded proportionately. This was revealed in 2017 by researchers in China, Denmark, Malaysia, and South Africa who discovered that better sustainability disclosures increased corporate value, which satisfied the authors.

Board Members and their Effects

By enhancing diversity on the boards of directors, the incorporation of non-corporate members improves the effectiveness of oversight. Additionally, to their directorship compensation, they get a variety of financial and non-financial incentives. In contrast to individuals who rely only on the revenue of a single firm, these directors make a livelihood via a variety of business ventures and venture capital. As a consequence, they developed a hierarchy of criteria applicable to all parties. Directors on these boards serve on multiple other boards of directors, including the pay and audit committees.

Investors' confidence in a company's financial information increases when it achieves financial independence. As a result, investors may expect a lower rate of return. Anderson et al (2004) discovered a correlation between financial security and loan pricing in the United States. Ashbaugh and colleagues discovered an association between independence and the coefficient of equality (COE) (2004). According to (Setiany et al., 2017), the board's independence has little influence on COE performances. According to (Andersons et al., 2004), financial stability reduces materialistic cravings. According to Ashbaugh et al., (2004) the audit committee's independence bolsters the CEO’s independence. I think that the CEO’s independence increases in lockstep with that of the audit committee. The CEO’s board of directors lacks independence. The COE defines independence as being either negative or positive (Khemakhem et al, 2013). According to the INED, the INED, the audit committee's independence, and the investigation commission are all inextricably linked (Shah et al, 2009).

In 26 Asian countries, (Anwar et al., 2019) discovered a negative link between board independence and CEOs. (Setiany et al., 2017) assert that autonomous NEDs have a detrimental effect on living conditions in Indonesia. In a study of Pakistani publicly listed companies, board independence shows a negative correlation with the coefficient of equality. Board independence has detrimental effects on CEOs' performances in Pakistan. The number of directors has been proven to be inversely proportional to the degree of graphical realism achieved on computer screens and the number of directors has no bearing on a firm's profitability. A larger board of directors is linked with lower productivity because its members are more likely to disagree with the chief executive officer of a firm (Nosheen et al, 2020). As (Mehran et al, 2003) point out, larger boards of directors benefit certain firms by allowing for more effective oversight and decisions-makings. According to (Forbe et al, 2009), bigger boards are more difficult to monitor and hence more likely to serve as a sanctuary for free riders. As a result, (Shah et al, 2009) state that a board's dimensions are inversely proportionate to its thickness. (Anderson et al, 2014) identified negative associations between the size of the boards of directors and borrowing costs in their investigation. Although the (Khemakhem et al, 2013) results
were not statistically significant, they indicated that board directors were damaging to the Commission on the Environment. While it has been shown that larger boards are more effective and responsible and this proof is still weak (Zahra et al, 1989). Reliance on natural resources necessitates a bigger board of directors (Dalton et al, 1999). Expanding enterprises need more funding. Board members with more experience and connections are seen as having greater abilities. Larger boards, with more directors and connections, provide a competitive advantage in strategic decision-making reducing the size of the boards of directors increases a company's worth (Yermack, 1996) However, (Nosheen et al., 2020) discovered a statistically significant negatives relationships between board size and COE (costs of equity). According to the report, the number of directors on non-financial boards of directors has a negative and limited effect on returns on equity in Pakistan (Hassan et al, 2018). Pakistani researchers discovered a similar correlation between the size of the board of directors and corporate success (Singh et al, 2018).

RESEARCH METHODS

The population of the Study
Executives from enterprises that trade on the Philippine Stock Exchange participated in the study. The PSX now has 580 businesses listed across 35 sectors, with a market value of Rs9595.241 billion.

Sampling
Between 2010 and 2020, a random sample of 250 non-financial enterprises from a varied range of sectors will be selected every three years. This research will examine secondary data acquired from a variety of sources, including sample corporate annual reports, the Pakistan Stock Exchange, and the State Bank of Pakistan's website. Financial companies will be excluded from the research due to the extra disclosure requirements and the study's specific cash flow criteria for reinvestment analysis. Following the financial crisis of 2009, more regulatory restrictions were imposed on financial institutions. While financial firms employ debt as a raw material to develop more valuable financial products, manufacturing firms generate revenue and issue stock to invest in assets. As a consequence of the disparities observed, financial institutions are eliminated from the sample.

Methodology
The purpose of this study is to determine the effect of corporate governance and transparency on the cost of equity of Pakistani firms (COE). The dependent variable is the COE, while the independent variables are DQ and CG. To test the hypothesis, the following statistical methods will be used.

• Statistics Synopsis
• Matrix of correlations and variance inflation factors
• Ordinary Least Squares (OLS) • Estimation of Fixed Effects
• Methods of calculating universally applicable moments (Sys-GMM)

Sys-GMM estimates, among other things, can account for simultaneity bias, serial correlation, heteroskedasticity, and dynamic endogeneity (2007). Certain research, but not all of them, used the GMM (Holtz-Eakin et al. 2018). There are two types of GMM estimates: difference GMM and system GMM. Because the difference GMM does not perform well when there is a large degree of persistence across corporate governance issues, we employ the Blundell and Bond (1998) estimator in this circumstance instead
of the difference GMM. In the Sys-GMM estimator, the lags of level form variables are employed as instrument variables.

**Operational Model**

This equation may be used to calculate the impact of CG and DQ:

\[
\text{COST} = \alpha + \beta_1 \text{SCORE} + \beta_2 BS + \beta_3 \text{BIND} + \beta_4 \text{AUDIND} + \beta_5 CDU + \beta_6 \text{OC} + \\
\beta_7 \text{TLINE} + \beta_8 AQ + \beta_9 \text{LSIZE} + \beta_{10} NI + \beta_{11} \text{LEV} + \varepsilon
\]  

(1)

To conduct this study, we used the operational model indicated by Equation (1). We use three distinct estimate methods to determine the accuracy of this equation: OLS, fixed effect, and Sys-GMM. To calculate the cost of equity of a particular company, you would use the CAPM technique, which is based on the stock market prices of many different publicly traded businesses. In our model, we have the quality of the company's disclosure, the directors' independence, the size of the board, CEO duality, company concentration, the board of directors' ability to authorize financial statements, and audit quality. In the model, we use the following business characteristics: size, profitability, and leverage as variables for control. The models' intercept and parameter values are represented while representing the error term.

A corporation's capital cost is equal to its predicted rate of return on capital (Botosan, 2006). Others use the price-earnings growth model, the average actual return as a proxy for expected returns, or the capital asset pricing model (Boujelbene et al., 2016). (Botosan, 2006) contrasts two approaches to calculating investment costs. The first class makes use of the CAPM model, which incorporates market risk, target prices, and risk-free rates. The COE is used to examine how future cash flow projections correlate with present stock ownership (Gebhardt et al., 2001).

Future returns are anticipated using the stock prices at the time of projection. When picking a technique, it is critical to examine the availability of data and the possibility of its use. For this purpose, we use CAPM to evaluate the cost of equity of Pakistani enterprises. This method was commonly employed before the internet's introduction. (Khelif et al., 2015).

According to CAPM the cost of equity is:

\[
\text{COST}_{it} = R_{At} + (R_{mt} - R_{ft}) \beta_i
\]

\[\text{COST} = \text{cost of equity}\]
\[R_{ft} = \text{risk-free rate}\]
\[R_{mt} = \text{market rate of return}\]
\[\beta_i = \text{market risk (non-diversifiable risk)}\]

According to signaling and agency theories, rich CEOs give more information to maintain their employment and salary packages. Compliant CEOs are more honest with information to maintain their standing, according to the logic of the legitimate theory. Earnings growth increases asset returns, lowering the risk of default. This implies that profit is inversely proportionate to the cost of items sold (Zhu, 2014)
4. RESULTS AND DISCUSSION

4.1 Summary of Statistics

There are a variety of factors listed in Table 2. The standard deviation of the COE is 0.15-0.18, and the range is 0.15-0.18. It earned an average score of 68.46 out of 100 for disclosure quality, with a statistically significant standard deviation of 23.08. The maximum and minimum possible scores on this exam are 100 and 14, respectively. The standard difference in board size is 1.68 inches, and the board size is 8.26 inches. According to Lipton and Lorsch, the optimal board size is eight to nine members (1992). Our study indicates that the usual board size falls within this range. The average rating for board independence is 0.55, while the average rating for audit committee independence is 0.71. The audit committee is rated as independent at 0.71. Non-inside directors made up a greater proportion of the sample boards than the overall population (55 to 70 percent). Dummy variables with values ranging from 0 to 1 denote the dual position of the CEO as well as the period during which the board of directors must approve annual reports. It has a median CEO duality of 0.85 and a median CEO time line of 0.26, both of which are higher than the industry median. The sample firms had an average ownership concentration of 50%, ranging from 0% to 100%. As a result, the great majority of Pakistani enterprises are owned by family members. An audit's quality score is a numeric value between 0 and 1. The average leverage of the enterprises in this sample is 0.12, showing that they are mostly self-sufficient.

4.2 Correlation Matrix and Variance Inflation Factors

As you can see in Table 3, there are connections between all the elements. According to the findings, there was a negative correlation between the COE and DQ assessments, the size of the board, CEO dualism, and the concentration of shareholder wealth. Even if a low DQ score indicates a shoddy audit, none of the other metrics are linked to poor audit quality. As a result, board size has an impact on the independence of the board, audit committee, and the CEO's dual status. The audit committee's independence is intertwined with the board's autonomy. In the long run, the independence of the audit committee increases in tandem with revenue. In any case, the CEO's dual role is linked to ownership concentration, audit quality, leverage, and profit margins, among other things. Time line is tied to the size and net income of the company, but not to the quality of the audit.

4.3 Result of OLS, Fix Effects and Sys-GMM Estimation

We achieved the following conclusions using fixed effects and SysGMM (Table 5). To begin, we must approximate the OLS equation (1). Column 1 of Table 5: Results Our first hypothesis establishes a connection between the COE and DQ of PSX-listed enterprises. COE and DQ are connected, according to H1 (-0.0010, p0.01). H 1 is sufficient. As seen in H2, board size has a detrimental effect on COE (-0.1460, p0.01). As a result, H 2 is permitted. In Pakistan, the COE is influenced by factors like audit committee independence, audit quality, timely approval, and profitability. Thus, we concur with H4 and H7. Equation (1) cannot account for endogeneity in OLS results in the absence of covariates.

Here, fixed-effect estimates are used (1). Only audit quality has a statistically significant direct relationship with COE in the fixed-effect model. In the fixed-effects model, corporate governance characteristics were considered to not influence history and current performance (dynamic endogeneity) (Wintoki et al. 2012). Sys-GMM is used to account for dynamic endogeneity in OLS and fixed-effect models (Wintoki, 2007). The Sys-GMM study's findings are summarized in Table 5. (3). Acceptance of H1 is doubtful since the link between COE and disclosure quality is so low.
As a consequence, the COE of bigger boards is lowered (=0.0030, p<0.01), indicating the employment of H2. H3 is ruled out owing to the cheap cost of shares and the board of directors' independence. H4 is recognized as a result of the investigation (0.0145, p<0.10). The audit committee's independence is contingent upon the COE. H5 shows a link between CEO dualism and Pakistan's lower COE. The cost of equity is noticeably negative as a consequence of our results (-0.0089, p<0.10). As a consequence, H5 was approved. Our data indicate that greater ownership concentration in Pakistani businesses results in lower equity costs (=0.0002, p<0.05). This means that the H6 has been authorized for the investigation.

H7 asserts that timely disclosure in annual reports helps reduce equity expenses. The findings indicate that there is no statistically significant link between equity cost and H7 at the 1%, 5%, or 10% confidence levels. H7 is no longer a viable alternative. According to H8, the quality of audits conducted on Pakistani businesses is inextricably linked to their eligibility certifications (COE). The difference was statistically significant (=0.9572, p<0.01). For the time being, H8 is authorized. The COE of PSX-listed firms is proportional to the size of the business but not to its debt or profitability (COE).

Dependent variable:

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>1) OLS estimations</th>
<th>2) Fixed effect estimations</th>
<th>3) Sys-GMM estimations</th>
</tr>
</thead>
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<tr>
<td>Constant</td>
<td>Coeff</td>
<td>P-value</td>
<td>Coeff</td>
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<tr>
<td>SCORE</td>
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<td>0.000***</td>
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<td>BS</td>
<td>-0.146</td>
<td>0.000***</td>
<td>0.001</td>
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<td>BIND</td>
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<tr>
<td>AUIIND</td>
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<td>-0.015</td>
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<td>CDU</td>
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<td>0.338</td>
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<td>OC</td>
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<td>-9.670</td>
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<tr>
<td>TLINE</td>
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<td>0.000***</td>
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<tr>
<td>AQ</td>
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<td>0.000***</td>
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<td>LEV</td>
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<tr>
<td>NI</td>
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<tr>
<td>R-square</td>
<td>0.161</td>
<td>0.858</td>
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</tr>
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</table>

Table 4.4OLS, fixed effect, and Sys-GMM estimation results

5 Conclusion
Between 2011 and 2015, major changes to CG processes, DQ, and COE laws occurred, and we were interested in the response of non-financial enterprises listed on the PSX. CAPM was also a catastrophe for Pakistani firms. Depending on the context, the equivalency coefficient may be determined in a variety of different methods (COE). True, the availability of data simplifies the deployment of CAPM in Pakistan's publicly traded companies (Easton, 2004).
According to the findings of this analysis, a correlation exists between the COE and DQ of financial documents issued by Pakistani enterprises. As the volume of financial documents holding information increases, a corporation's cost of equity (COE) decreases. The businesses chosen averaged 68.45, indicating that they provide high-quality information sharing. As previous Pakistani investigations have shown, ours corroborates the results of previous research (Gul et al, 2016).

As part of the PSX project, the efficacy of CG methods in computing COE is being evaluated. Numerous factors, such as the size of a company's board of directors and the CEO's dual role, affect stock prices. Numerous factors, including a larger board of directors, more consolidation of CEO and chairman responsibilities, and increased ownership concentration, all have an adverse effect on stock prices. The vast majority of Pakistan's publicly traded companies are family-owned, and the majority of the board of directors are family members. The terms chairman of the board of directors and chief executive officer of a corporation are often used interchangeably in the business sector. As a result of these three factors, PSX's stock price should drop as well. Additionally, audit quality and the audit committee's independence are inextricably linked with COE businesses. As a result of these results, it was decided that the addition of an independent director to the audit committee and the appointment of a competent auditor would raise shareholders' cost of equity (Butt et al., 2019). There is little or no correlation between the price of Pakistani company stock and the board of directors' independence or the time required for annual reports to be authorized by the firm's shareholders. Firms that rely largely on external finance or those that seek higher profitability have an impact on the stock market's performance. Because larger firms face a higher number of agency challenges, the cost of equality is lower for them. To avoid this predicament, firms requesting finance must submit more thorough financial information (Pfeffer et al, 2018).

Future Recommendations

The basic purpose of the above study was to assess the behavior of non-financial firms in Pakistan against the listing on PSX. The study showed CAPM was unsuccessful in it, yet this data may vary with the future listing. As certain factors act as variables instead of being constant. Due to which it can be variations can be predicated among the firms. The study data may vary with each new listing. A future study should be carried out in this regard to assess the behavior of non-financial firms in Pakistan against the listing of PSX.

ACKNOWLEDGMENT

These should be included at the end of the text and not in footnotes. Personal acknowledgments should precede those of institutions or agencies.

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