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IMPACT OF CORPORATE GOVERNANCE ON FIRM PERFORMANCE IN SOUTH ASIAN COUNTRIES

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ABSTRACT

This paper investigates the impact of corporate governance on the financial performance of manufacturing firms in South Asian Countries. Financial performance is measured using both accounting and marketing based measures (ROA, ROE and Tobin's Q). However, corporate governance practices are captured through Board Size, CEO Duality, Audit Quality, Audit Committee Size and Audit Activity. The sample of the study comprised a total of 426 listed manufacturing firms of South Asian Countries for period spans 10 years from 2011 to 2020. Generalized Methods of Moments (GMM) was used for data analysis. We find significant impact of corporate governance on firm performance in the South Asian countries. According to the findings audit committee activity and size, as well as audit quality decisions, should be made efficiently as these factors have great implications for improving the performance of manufacturing firms in the South Asian Countries.

Keywords: Corporate Governance, Firm Performance, South Asian Countries
JEL Codes: G30, L10

I. INTRODUCTION

Increasing demand for cash besides other financial resources from firms has made corporate governance more important in South Asian countries. Major challenges for firms include securing capital, preserving liquidity, and maximizing profits. Capital markets and financial institutions in less developed states are underdeveloped, which makes it difficult for companies to attract interstate all capital (McGee, 2009). Pakistan and other developing states view strong corporate governance as a significant component now developing the efficiency also performance of their capital markets. In control of the internal management practices of firms, corporate governance mechanisms are concerned with the connection between the firm and its external shareholders for example bondholders, dealers, clienteles, and regulatory authorities of a state. It is the goal of effective corporate governance to eliminate conflicts of interest among stakeholders (Denis & McConnell, 2003). This claimed that "excellent corporate governance" is "the meticulous method now which suppliers of corporate economic investment agreement adequate rewards in a legal and ethically decent technique."

Afterwards the worldwide economic crisis of 2007-08 also the marketable scandals of significant private companies such by way of Bone china Flight, WorldCom, Kingly, Seibu, D utch Shell, Adelphi, Tyco, Adecco. Worldwide Adventure, Merrill Lynch, the importance of company authority has developed such as an important subject aimed at company administrators, platform creators, and supervisors. It is necessary to define the term corporate governance before moving on with the debate. Boards of directors have decision-making authority, according to Jensen (1993). Leader and CEO, processes for replacing them, board size and composition as well as shareholders' remuneration. As La Porta and colleagues (2000, p.4) explain, company power "is the collection of actions by which external stockholders defend themselves compared to expropriation through insiders." Theory of financial

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economics and corporate governance suggests a correlation between excellent corporate control procedures also the gainful success of corporations. Company governance processes must a beneficial influence proceeding marketable presentation, according to the "support philosophy" too "efficient board of director's hypothesis. For major South Asian firms, Brown and Caylor (2004) found a helpful also substantial link among corporate governance, firm marketable presentation, and payment ratio. Efficient corporate governance management and excellent corporate governance, as well as adequate financial structure implementation, may help manufacturing businesses enhance their financial performance. Excellent corporate governance procedures attempt to prevent shareholder conflicts of interest in the absence of good governance, company value plummeted dramatically (Denis and McConnell, 2003). According to Bauer and Piet Eichholtz (2009), "In a legal and socially moral manner, effective corporate governance may be defined as the careful method in which suppliers of corporate financial capital provide adequate rewards. Caylor & Brown (2004) suggest that the companies that are better-administered earn extra profit, are extra valued and are better able to pay out the needed case to their shareholders. By using director and executive compensation they measured that good governance is mostly related to good performance. Jenson et al. (1976) explain the good corporate governance improved financial competence and development, firm performance over and above enhances stockholder's confidence. It can be argued that good governance will lead to boost firms value as well as better firm performance.

Good corporate governance instructions to improved company performance. Both domestic and foreign investors have benefited from the South Asian firm revolution and improvement in corporate infrastructure. The macroeconomic conditions, infrastructure, and corporate governance of a state determine whether it has a favorable investment environment. Because companies are increasingly in need of internal and external finance, the implementation of effective corporate governance is a growing concern in South Asia. Investors want favorable investment returns, protection of their investments, and assurances of clear and fair disclosures, among other demands. In accumulation, lack of sincerity is a major factor in firm scandals in the state. Corporate leaders are implicated in corruption when they interrupt norms and regulations. Due to these incidents, investors' trust in the South Asian capital market has been shaken, and questions have been raised about the integrity of the market. Shah (2009) studied the link between corporate governance and firm performance. Financial success is computed by, Tobin's Q (TQ), return on equity (ROE) and return on assets (ROA). Company governance features e.g. the board size, chief executive duality, audit committee, audit quality, audit activity, has been studied by Wang and Sheikh (2012) in relation to company financing decisions. Listed firms in South Asia are shown to be unfair by corporate governance structures. According to Tariq and Abbas (2013), the code of corporate governance had an important effect on the economic performance and efficiency of firms between 2003 and 2012. A strong positive connection was found among governance submission, return on asset (ROA), and return on equity (ROE), employed after adjusting for firm-specific variables (ROCE). A modest and positive relationship was also discovered between company compliance and technological efficiency. Listed firms in South Asia were studied by Akbar et al. (2016) to determine the link between company governance mechanisms and economic performance. Their work involved the development of corporate governance and the investigation of its effect on the economic performance of firms. Compliance with company control laws not organized effect on the commercial performance of South Asia listed firms, according to the study's findings. According to Bloch and Javed (2016), financial and non-financial firms listed in South Asia between 2011 and 2020 have differing levels of corporate governance. Z-score and O-score were used to assess insolvency risk.

Better corporate governance practices improve the firm performance but in the South Asian firm sector corporate governance is not being practiced properly due to a weak governance system which ultimately affects firm performance, and this is the concern of the present study to solve this problem. In the above context, the purpose of this study is to investigate the connection between corporate governance and the financial performance of manufacturing firms in South Asian countries. To find the impact of board size on firm performance and determine the impact of CEO duality on firm performance and to explore the impact of audit quality on firm performance and to judge the impact of the audit committee on firm performance and to examine the impact of audit activity on firm performance. The results indicate that the current study is beneficial in the management of manufacturing companies, policymakers and researchers. Our findings have major consequences, particularly in developing countries, for implementing robust corporate governance practices. Based on the findings of our research, the organization's adhering to solid corporate management principles should expect higher accounting and market performance to be achieved. Theoretically, it shows that efficient corporate governance systems lead to lower agency costs and that they serve to provide organizations with useful resources. South Asia policymakers and management can benefit from this study's findings on corporate governance measures and their link to firm financial

performance. The rest of this paper is organized as follows: Section 2 provides a brief literature review, followed by data and methods in Section 3. The findings and conclusions are presented in section 4 and section 5, respectively.

II. LITERATURE REVIEW

To attract investors, the literature recommended that companies implement a good governance policy. Furthermore, efficient corporate governance management and excellent corporate governance, as well as adequate financial structure implementation, may help manufacturing businesses enhance their financial performance. Several decisions on future corporate operations, policies, and procedures must be made. This proposes that the shortfalls be addressed by firm strategic training of specific courses that enhance firm ethics and corporate governance. Kiel and Nicholson (2003) propose that worldwide business domination study design by relating the corporate authority environment for the major firms in South Asia. This concludes that there is a negative link between the business size in terms of assets and sales and Tobin's market-based performance metric. Companies that have a higher revenue base but a lesser asset base have demonstrated significant profitability. According to Fekadu et al. (2011), corporate governance issues are comparable all over the world. As a result, several states, such as Pakistan, India, Bangladesh, and Srilanka, have enacted cross-business laws. According to the report, when ownership and control become more separated, certain modifications should be undertaken to solve governance issues.

Claessens et al. (2012) look at how corporate governance contributes to economic stability and what it takes to put effective practices in place. Poor governance arises from a lack of openness and giving insiders access to information that is important to market integrity. By increasing access to capital, improving business performance, and treating all stakeholders fairly and favorably, reduced capital costs corporate frameworks that are better regulated can be developed. Firms that follow the code of corporate governance provide a positive return for shareholders and gain the trust of investors. Those companies that do not follow the code, on the other hand, lose investors' faith, incur losses, and face danger. Risk is linked to the corporate board's capital structure choice because a successful decision ensures optimal capital structure, which improves financial performance, mitigates risk, increases solvency risk protection, and instils investor confidence (Quang & Xin, 2014; Arshad and Ali, 2016; Ashraf and Ali, 2018; Audi et al., 2022; Audi and Ali, 2017; Audi and Ali, 2017; Audi et al., 2021; Audi and Ali, 2016; Audi et al., 2021; Audi et al., 2021; Audi et al., 2021; Haider and Ali, 2015; Kaseem et al., 2019; Roussel et al., 2021; Senturk and Ali, 2021; Mehmood et al., 2022). The amount of effort done on the firm sector in South Asian countries is insignificant, given how important this industry is to economic development, job generation, foreign remittances, and government revenue. The current study's main five drivers were to observe the effect of corporate governance (predictor) on ROA, ROE, Audit quality, Audit committee and other factors. And solvency risk safety (outcome), as well as to see if capital structure may act as a mediator between the predictor and outcome variables in the South Asian listed company sector. The set of laws, regulations and managerial practices used to guide and regulate company operations is known as corporate governance (Gaaniyu & Abiodun, 2012). The corporate governance codes establish the division of authority and responsibilities among various members (shareholders, auditors, creditors, managers, and other stakeholders) and are made up of the rules and procedures that govern how listed companies operate (Agyei & Owusu, 2014). Company governance is a method of managing corporate activities that improves performance while protecting shareholders and other stakeholders. It consists of processes, regulations, laws, and policies that impact how a business is governed (Shoaib & Yasushi, 2017).

Corporate governance is defined and implemented differently throughout the world. Due to differences in culture, legislative systems, and historical evolution, it is difficult to provide a generally agreed definition and methodology (Ramon, 2011). Corporate governance can be described in terms of the shareholders' and stakeholders' perspectives. As a result, the debate over corporate governance revolves around whether businesses should be run solely in the interests of shareholders (shareholders' perspective) or if other stakeholders should be included (stakeholders' perspective). The focus of corporate governance in South Asian countries (Pakistan, India, and Bangladesh, and Srilanka) is to generate a good return for investors (shareholders perspective), whereas CG refers to the entire corporate stakeholders' "stakeholders perspective" in South Asian countries (Pakistan, India, Bangladesh, and Srilanka) (Okiro, 2014). Corporate governance describes the processes that have been in place since companies' inception. These procedures are designed to ensure that corporate entities and management follow established corporate standards in order to safeguard and defend the interests of stockholders and other stakeholders (Sanvicente, 2013). Corporate governance is the process through which firm direct and transparently controls their operations. This concept is more absolute since it highlights the necessity of check and balance in corporate management. The method used to command and regulate the affairs of a firm to serve and defend the interests of every stakeholder (Butt, 2012). Organizations employ various techniques in different nations to achieve their

objectives. Every company's primary goal is to improve financial performance, which leads to higher returns for investors. As per Bhagat and Bolton (2018), if management is responsible for running the company, governance is responsible for ensuring that it is run efficiently. Todorovic (2013) defined corporate governance as a framework that allows foreign investors to protect themselves from internal expropriation. According to Okiro (2014), governance refers to the activities done by the panel of leaders to ensure the correct operation of the corporation's affairs, whereas management refers to the functions performed by personnel employed by the board to operate the company consistently. The structure that supports financial and economic stability, efficiency, and long-term growth is known as corporate governance. It assists companies in obtaining cash over a lengthy period and ensures that investors and other corporate stakeholders are paid properly (Zeitun & Tian, 2017).

Researchers from all around the world have used various methods to observe the influence of corporate authority in the literature. Corporate governance was measured by De Angelo et al. (2004) using board size, respect for investor interests, ownership structure, and quality of disclosure, whereas Brown and Caylor (2006) used board size, regard for investor interests, ownership structure, and quality of disclosure. While Shah and Hussain (2012) examined corporate governance in industrialized economies using family control, firm control, and ownership concentration by measuring corporate governance with social awareness, discipline, and transparency, fairness, board characteristics, audit quality, and audit activity and proposed that corporate governance in underdeveloped nations can be measured using the same characteristics of company sectors. VO and Nguyen (2014) measured corporate control with direction building, panel board, panel conference, panel size, and panel structure, whereas Entebang and Mansor (2011) measured corporate governance with board composition, the board size, and audit committee. However, in emerging economies of the financial and non-financial sectors, (Velnampy and Nimalthasan, 2013) assessed corporate governance with CEO duality, institutional ownership, the board size, and quality of transparency. Directors are selected to describe stakeholders and further participants in the formulation of company policies in the establishment of key assessments for their companies' operations. There are a variety of assumptions about the optimal size of a company board for successful management. Executives and non-executives should be represented in equal numbers on a firm board (Cadbury, 1992). Ideally, a board should include seven to eight members (Jensen, 1993). According to Dalton and Rechner (1991), taking the panel chairperson and chief executive in a similar somebody lowers conclusion-building administration. Using CEO duality as a fictitious variable, a score of 1 indicated the individual held both posts, while zero indicated that they did not hold both positions. The present hypothesis proposes that splitting the shares of chairman and chief executive adds to the firm's performance in a good and substantial way.

H1: *There is a Positive impact of Board size on financial performance.*

H2: *There is a Positive impact of CEO duality on financial performance.*

The audit committee, according to Todorovic (2013), is a company's sub-committee that is critical for successful CG. This committee examines all aspects of a corporation to improve the value of financial reporting (Meca & Ballesta, 2009). The agency problem develops when control and ownership are held by diverse groups of people, necessitating the formation of a audit board to address the problems. The audit board's primary goal is to assess management's financial actions to assess risk (Cohen & Hanno, 2011). Audit quality is a trustworthy indicator of one of today's most basic concerns in auditing. The chance of an auditor identifying and reporting a current major mistake has been defined as audit quality (DeAngelo, 1981). According to source dependency philosophy, big audit committee containers carry valuable assets obsessed by the firms, such as expertise and abilities. This demonstrates the value of auditing while monitoring management activities to improve a company's economic achievement (Zahra & Pearce, 1992).

H3: *There is a Positive impact of the Audit Committee on financial performance.*

H4: *There is a Positive impact of Audit quality on financial performance.*

H5: *There is a Positive impact of Audit Activity on firm performance.*

The aforementioned literature reflects the work of several famous academics that used various metrics to assess corporate governance in established and developing states. Based on the findings of prior studies, the current study examined 5 key aspects of corporate influence in the context of the South Asian Program of Corporate Governance (2014), with a focus on the business sector in the region. Insider directors, institutional shareholdings, chief executive division, audit board, and panel size are among the dimensions. Corporate governance has been measured with a few aspects in previous research (Velnampy, 2013). However, in this study, rich elements of corporate governance were employed in the context of the South Asian code of corporate governance (2014). These parameters were chosen by the researcher because they have a significant impact on financial success.

III. DATA AND METHODOLOGY

The current research investigates the impact of corporate governance practices on manufacturing firm performance in South Asian Countries. The time span of the study was 10 years from 2011 to 2020. The sample of this study comprised a total of 426 manufacturing firms in the South Asia (Pakistan (213), India (111), Sri Lanka (78) and Bangladesh (24)) (See appendix). We gather information from the financial statements of manufacturing companies listed on the Pakistan Stock Exchange (PSX), the Bombay Stock Exchange (BSE), the Colombo Stock Exchange (CSE), and the Dhaka Stock Exchange (DSE). Firm financial performance is measured with return on assets, return on equity and Tobin'Q. However, corporate governance is assessed with board size, CEO duality, audit committee size, audit quality and audit activity. Further, firm size, firm age and firm growth are used as control variables in the study. Variables description is provided in Table 1.

[Insert Table 1 about here]

Following the mathematical models are used for hypotheses testing.

$$(ROA)_{i,t} = a_{i,t} + \beta 1(BSIZE)_{i,t} + \beta 2(CEOD)_{i,t} + \beta 3(AQ)_{i,t} + \beta 4(ACSIZE)_{i,t} + \beta 5(ACA)_{i,t} + \beta 6(SIZE)_{i,t} + \beta 7(GRS)_{i,t} + \beta 8(AGE)_{i,t} + \mu_{i,t} \quad (1)$$

$$(ROE)_{i,t} = \alpha_{i,t} + \beta 1(BSIZE)_{i,t} + \beta 2(CEOD)_{i,t} + \beta 3(AQ)_{i,t} + \beta 4(ACSIZE)_{i,t} + \beta 5(ACA)_{i,t} + \beta 6(SIZE)_{i,t} + \beta 7(GRS)_{i,t} + \beta 8(AGE)_{i,t} + \mu_{i,t} \quad (2)$$

$$(Tobins\ Q)_{i,t} = a_{i,t} + \beta 1(BSIZE)_{i,t} + \beta 2(CEOD)_{i,t} + \beta 3(AQ)_{i,t} + \beta 4(ACSIZE)_{i,t} + \beta 5(ACA)_{i,t} + \beta 6(SIZE)_{i,t} + \beta 7(GRS)_{i,t} + \beta 8(AGE)_{i,t} + \mu_{i,t} \quad (3)$$

Where ROA denotes Return on Assets which is our dependent variable. ROE and TQ are dependent variables in our model, Where ROE stands for Return on Assets, TQ means the market value of equity plus book value of liabilities divided by book value of Assets. Board Size(BSIZE), CEO Duality (CEOD), Audit Quality (AQ) Audit Committee and Size (ACSIZE) Audit Quality (ACA) are Independent variables. While Firm Size (SIZETA) and Firm Growth (GRS) are Firm Age (AGE) control variables in our model. μ is error term. The initial level of data analysis is descriptive analytics. It provides a summary of historical data, which may indicate that more data preparation is required to improve organize the data for analytical modeling. The correlation measures the relationship's relative strength. It normalizes the measurements, allowing two variables to be compared. Correlation analysis is a statistical tool used to determine the relationship strength between two or more quantitative variables. A strong correlation suggests that two or more variables are closely linked, while a weak correlation means that they are rarely related. GMM (Generalized Method of Moments) is also used for hypothesis testing. To deal with the dependent variable's autoregressive properties, the endogeneity problem that arises with independent variables, and unobserved firm-related features, the GMM model is also utilized by González (2013).

IV. EMPIRICAL RESULTS

Table 2 reports the descriptive statistics of the variables. The mean value of financial performance is the same and there is a smaller variance in the values of financial performance measurements which demonstrates that our data has no outlier. However, the mean value of board size shows that on average firms have 8 members on the board committee. Additionally, the mean value of CEOD is 0.305 which represents that on average 30% of the manufacturing firms in South Asia have the same member act as a CEO and Chairman of the board. The mean value of the audit quality depicts that there are around 40% of the sample firms get their accounts audited with big four audit professionals. Audit committee size and audit committee activity stats reveals that on average there are three members in the audit committee of the firms and firms organizes quarterly meetings of the audit committee. However, among the control variables firm age indicates higher variation in the data implies that the age of the firms varies in the South Asian economies.

[Insert Table 2 about here]

We explain the Variance Inflation Factor (VIF) to verify multicollinearity in the analysis in table 3. Values of VIF are not more than 5, so we confirm no multicollinearity problem exists in this study.

[Insert Table 3 about here]

Table 3 shows the correlation matrix of all the study's explanatory factors, based on data from Pakistani non-financial companies. The correlation matrix is analyzed to check the issue of multicollinearity between explanatory

variables. The highest correlation is 0.3691 which is between board size and audit committee size, while the lowest correlation value is 0.001 which is between audit quality and audit committee activity. Because the correlation matrix shows no substantial correlation between explanatory factors, there is no concern of multicollinearity in this study.

[Insert Table 4 about here]

Tables 5 report results with ROA as a firm performance measure. The hypotheses testing for the overall manufacturing firms in Pakistan, Bangladesh, India, and Sri Lanka are presented. To verify the authenticity of instruments, we apply the Sargan test. These instruments are valid as insignificant results in our investigation. We also apply the Autocorrelation test Arellano–Bond. The first-order autocorrelation (AR1) between Arellano and Bond is significant while the second-order autocorrelation (AC2) between Arellano and Bond is not significant, indicating no autocorrelation. The results reveal that among the corporate governance variables board size, audit quality, audit committee size and audit committee activity are significantly and positively related to the firm performance of firms in South Asia. Thus, our hypotheses H1, H3, H4 and H5 are accepted. These findings imply that as the board size, audit quality, audit committee, and audit committee activity increase, it will positively influence the performance of firms. These results are congruent with the theory of resource dependency, which says that a large audit committee can add good resources such as experience and expertise to the company. This demonstrates the usefulness of auditing while monitoring management operations that increase the financial performance of companies consistent with the findings of Contessotto and Moroney (2014). However, CEO duality has no impact on the firm performance. This is owing to Southern Asian countries' weak and ineffective governance system. Among control variables, firm age negatively impacts firm performance while firm size and sales growth are positively associated with firm performance.

[Insert Table 5 about here]

Table 6 show outcomes using ROE to test hypothesis with a two-stage GMM panel regression for the manufacturing companies in Pakistan, Bangladesh, India and Sri Lanka. The Sargan test results reveal that the instruments are valid for our research. We also use the Arellano–Bond autocorrelation test. Arellano and Bond have a large autocorrelation (AR1); however, the autocorrelation of the second order between Arellano and Bond is not significant, which does not indicate an autocorrelation of the first order. Analysis indicates that among corporate governance measures only Audit committee size positively and significantly impacted return on equity aligned with the outcomes of Contessotto and Moroney (2014). So, this study accepts hypotheses H1 & H3. While all other corporate governance measures CEO duality, audit quality and audit committee activity are insignificantly related to firm performance measured with ROE. The reason for these insignificant outcomes is the weak governance system prevails in the South Asian counties. However, growth as a control variable has a significant positive association with firm performance. While size and age are insignificantly related to firm performance. Insignificant size effects indicate that South Asian manufacturers are failing to use economies of scale and thus are not meeting economic efficiency market standards and aligned with the findings of Mehmood, Hunjra and Chani (2019).

[Insert Table 6 about here]

Tables 7 report results with Tobin's Q (TQ) as a firm performance measure. The hypotheses testing for the overall manufacturing firms in Pakistan, Bangladesh, India, and Sri Lanka are presented in Table 4.6 by a two-step GMM panel regression. To verify the authenticity of instruments, we apply the Sargan test. These instruments are valid as insignificant results in our investigation. We also apply the Autocorrelation test Arellano–Bond. The first-order autocorrelation (AR1) between Arellano and Bond is significant while the second-order autocorrelation (AC2) between Arellano and Bond is not significant, indicating no autocorrelation. We found that corporate governance has a significant and positive impact on the firm performance (TQ) when corporate governance is measured with board size, audit quality and audit committee size which implies that as long as the firm increases its corporate governance practices by including more members on the board and audit committee and choose best four audit companies to perform their audit their performance significantly improves, and it ultimately leads to higher profitability. These findings support our hypotheses H1, H3 and H4 and are consistent with the findings of Mehmood et al. (2019). However, CEO duality and audit committee activity are not associated with firm performance in South Asia. Among control variables firm size positively while firm age negatively impacted the performance of firms.

[Insert Table 7 about here]

VII. CONCLUSION

Pakistan's economic progress would be impossible without the contribution of the country's manufacturing industry. At both the industry and business levels, this area needs to be studied in more detail. Increasingly, businesses in today's highly competitive market are pursuing growth strategies. Corporate governance is one strategy that companies adopt to survive in the present complex business environment. The main purpose of the study was to

investigate the impact of corporate governance on the financial performance of manufacturing firms listed on the South Asian countries' Stock Exchange. Financial performance is further divided into two parts: accounting measure and market measure of performance. The study's findings show mixed outcomes using several proxies of company performance. According to the ROA results, only audit committee size and audit committee activity are significantly connected to firm performance, with audit committee size positively influencing firm performance and audit committee activity negatively influencing firm performance in South Asia. These findings imply that when the number of audit committee members grows, business performance will improve. While additional audit committee sessions negatively influence corporate performance. These audit committee size results are consistent with the notion of resource reliance, which states that a large audit committee can bring valuable resources to the organization, such as experience and competence. However, corporate governance measures such as board size, CEO duality, audit quality, and audit committee engagement have little impact on business performance as assessed by ROE. The grounds for these negligible outcomes are the South Asian countries' underdeveloped governance systems. The size of the board has little effect on a company's financial performance. Our findings on the link between different governance and firm performance indicators indicate, however, that not all corporate governance indicators affect corporate performance substantially such as CEO duality which exhibits an insignificant impact on all firm performance measures. Overall analysis shows that corporate governance has a mixed impact on different measures of performance (ROA, ROE and TQ).

The study's findings and conclusions lead to a set of suggestions aimed at helping the industrial sector in South Asian countries enhance financial performance through better corporate governance. The manufacturing sector is critical to the economies of South Asian emerging countries, and this sector needs to enhance its financial performance. Our results demonstrate the usefulness of board characteristics as well as auditing while monitoring management operations that increase the financial performance of companies. However, South Asian development countries somehow lack effective corporate governance systems. Therefore, it is recommended that companies should adopt robust corporate governance practices to improve firm performance. It means that they should put more effort into governance practices while establishing the company's board for monitoring its performance. Additionally, firm auditing quality, as well as audit committee meetings, are also designed in a manner that improves firms performance. Overall, efficient management and use of corporate governance practices in an efficient way are needed to achieve higher performance. The findings suggest that the current study is helpful for the management of manufacturing firms, policymakers and researchers. Our findings have significant implications for implementing strong corporate governance in developing nations in particular. According to the findings of our investigations, companies that adhere to sound corporate governance standards should expect to achieve superior accounting and market performance. In theory, it indicates that effective corporate governance processes result in lower agency costs helps in bringing valuable resources to the companies. As a result, enterprises in developing economies may be able to improve their performance by applying effective corporate governance standards. In particular, audit committee activity and size as well as audit quality decisions should be made efficiently as these factors have implications for improving the performance of manufacturing firms in developing countries as identified in our research findings. Additionally, it is possible to acquire primary data directly from the management of different industries. This will help shed light on the corporate governance techniques used by various industries' top executives to boost their firms' bottom lines. Secondly, the research may be expanded to include both primary and secondary data to obtain more detailed results on the influence of the present study's variables on the financial performance of companies. Additionally, the financial sector of Pakistan may be investigated in the same way. Moreover, future studies may also employ the sample of developed countries as well and compare the outcomes of developing and developed countries.

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Table 1: Variables Description

Sr No	Study Issue	Variables	Symbols	Definition / Calculation	Reference/s
1	Financial Performs	Return on Assets	ROA	Net Income divided by Total Assets	(Bokpin & Arko, 2009; Enobakhare, 2011)
2		Return on Equity	ROE	Net Income divided by Total Stockholders' Equity	(Otman, 2014; Mackay, 2012)
3		Tobin's Q	TQ	The market value of equity plus book value of liabilities divided by book value of Assets	Wernerfelt (1997); Afza et al. (2008)
4	Corporate Governance	Board Size	BSIZE	Total number of directors in the company Board	Cheng, Evans, & Nagarajan, 2008)
5		CEO duality	CEOD	Value 1 if the CEO also acts as chairman of the board, otherwise 0.	Bhagat and Bolton (2008)
6		Audit quality	AQ	Value 1, if the firms get their accounts audited with big four audit professionals (Deloitte Touche Tohmatsu, PwC, Ernst & Young and KPMG), otherwise 0.	Francis and Yu (2009)
7		Audit Committee Size	ACSIZE	Total number of audit committee members	(Okiro, et al., 2015)
8		Audit Activity	ACA	The frequency of audits in a financial year.	Xie et al. (2003)
9	Control Variables	Firm Size	SIZETA	Natural logarithm of the market capitalization	(Muthoni, Nasieku, Olweny 2018)
10		Firm Age	AGE	Natural logarithm of the number of years between the observation year and the incorporation year of the firm	(Shoaib & Yasushi, 2017)
11		Firm Growth	GRS	Difference between the current year sale and the previous year sale to the previous year sale	(Shahid et al., 2017)

Table 2: Descriptive statistics

Variables	Mean	Maximum	Minimum	Std. Dev.	Obs.
ROA	0.048	3.445	-2.208	0.169	4260
ROE	0.145	5.116	-3.596	0.423	4260
TQ	0.909	9.86	-0.007	0.816	4260
BSIZE	8.13	21	0	2.041	4260
CEOD	0.305	1	0	0.46	4260
AQ	0.405	1	0	0.491	4260
ACSIZE	3.341	8	0	0.845	4260
ACA	4.257	15	0	1.046	4260
SIZETA	18.695	27.16	8.781	3.573	4260
GRS	0.168	6.58	-2.10	1.149	4260
AGE	38.491	173	0	26.56	4260

Note: ROA is Return on Assets, ROE is Return of Equity, TQ is Tobin's q, BSIZE is Board Size, CEOD is CEO Duality, AQ is Audit Quality, ACSIZE is Audit Committee Size, ACA is Audit Committee Activity, SIZETA is Firm Size measured with Total Assets, GRS is Sales Growth and AGE is Firm Age.

Table 3: Test of Multicollinearity

Variable	**VIF**	**1/VIF**
BSIZE	1.21	0.8298
ACSIZE	1.20	0.8313
AQ	1.16	0.8621
SIZETA	1.14	0.87.38
CEOD	1.10	0.9124
ACA	1.08	0.9271
AGE	1.05	0.9509
GRS	1.00	0.9976

Note: VIF = Variance Inflation Factor

Table 4: Correlation analysis

Sr No	Name	ROA	ROE	TQ	BSIZE	CEOD	AQ	ACSIZE	ACA	SIZETA	GRS	AGE
1	ROA	1										
2	ROE	0.3146	1									
3	TQ	0.0333	0.0949	1								
4	BSIZE	0.0665	0.0245	-0.001	1							
5	CEOD	-0.11	0.0108	-0.019	0.0221	1						
6	AQ	0.166	0.0155	0.1353	0.0691	-0.273	1					
7	ACSIZE	0.0731	0.0286	0.0369	0.3691	0.0483	-0.0667	1				
8	ACA	-0.026	0.0207	-0.023	0.1972	0.0907	-0.0006	0.2011	1			
9	SIZETA	-0.053	-0.0031	0.3245	-0.034	-0.086	0.154	-0.0118	0.0015	1		
10	GRS	0.0357	0.0088	-0.009	-0.015	-0.018	0.0101	0.0016	-0.02	0.0155	1	
11	AGE	0.0707	-0.001	0.0049	0.1212	-0.021	0.1526	0.0831	-0.046	-0.035	0.028	1

Note: ROA is Return on Assets, ROE is Return of Equity, TQ is Tobin's q, BSIZE is Board Size, CEOD is CEO Duality, AQ is Audit Quality, ACSIZE is Audit Committee Size, ACA is Audit Committee Activity, SIZETA is Firm Size measured with Total Assets, GRS is Sales Growth and AGE is Firm Age.

Table 5 Two-step system dynamic panel estimation with ROA

Variables	Model 1	Model 2	Model 3	Model 4	Model 5
L1.	0.2817*** (24.98)	0.2072*** (18.02)	0.1951*** (10.46)	0.1784*** (9.36)	0.2117*** (10.835)
L2.	0.1321*** (13.48)	0.1227*** (11.92)	0.1330*** (10.22)	0.1444*** (11.81)	0.1121*** (9.36)
BSIZE	0.116*** (-6.55)	---	---	---	---
CEOD	---	-0.099*** (-1.06)	---	---	---
AQ	---	---	0.047*** (4.166)	---	---
ACSIZE	---	---	---	0.097*** (2.74)	---
ACA	---	---	---	---	0.140*** (6.22)
SIZETA	0.017*** (3.09)	0.010*** (2.36)	0.012*** (4.26)	0.011*** (3.93)	0.070*** (5.83)
GRS	0.0072* (1.70)	0.0362* (1.903)	0.0053* (1.680)	0.0094* (1.65)	0.0023*** (2.63)
AGE	-0.002*** (-2.78)	-0.004*** (-3.60)	-0.022*** (-3.02)	-0.053*** (-2.90)	-0.028*** (-2.83)
C	0.4505*** (4.38)	0.405*** (2.258)	0.447*** (4.02)	0.4635*** (3.35)	0.4952*** (4.267)
Sargan *(P-value)*	6.3622 (0.266)	6.353 (0.153)	5.9543 (0.340)	5.2573 (0.643)	6.3785 (0.207)
AR1 *(P-values)*	0.002	0.023	0.027	0.020	0.025
AR2 *(P-values)*	0.315	0.373	0.422	0.510	0.263

Note: In model 1, BSIZE is used as proxy of corporate governance. However, model 2, 3 ,4 and 5 used CEOD, AQ, ACSIZE and ACA as proxies of corporate governance, respectively. L1. is the First Lag of the dependent variable, L2. is the second Lag of dependent variable, ROA is Return on Assets, BSIZE is Board Size, CEOD is CEO Duality, AQ is Audit Quality, ACSIZE is Audit Committee Size, ACA is Audit Committee Activity, SIZETA is Firm Size measured with Total Assets, GRS is Sales Growth and AGE is Firm Age, ***, ** and * show significance level at 1%, 5% and 10%

Table 6 Two-step system dynamic panel estimation with ROE

Variables	Model 1	Model 2	Model 3	Model 4	Model 5
L1.	0.0210*** (6.93)	0.057*** (4.84)	0.018*** (5.02)	0.0842*** (6.04)	0.0257*** (7.19)
L2.	0.0198* (2.53)	0.0251*** (3.40)	0.0221*** (4.08)	0.0290*** (6.82)	0.031*** (7.43)
BSIZE	0.113*** (3.05)	---	---	---	---
CEOD	---	-0.0097 (-0.33)	---	---	---
AQ	---	---	0.0045 (0.15)	---	---
ACSIZE	---	---	---	0.055*** (3.27)	---
ACA	---	---	---	---	0.0058 (0.82)
SIZETA	0.0011 (0.06)	0.0163*** (1.09)	0.0184*** (1.00)	0.0245*** (0.968)	0.032*** (2.01)
GRS	0.0145* (1.82)	0.0432* (1.80)	0.0762* (1.260)	0.0263* (1.380)	0.0325* (1.930)
AGE	-0.0042 (-1.54)	-0.002*** (-2.73)	-0.004*** (-2.65)	-0.003*** (-2.45)	-0.005*** (-2.28)
C	0.2123 (0.67)	0.2554*** (0.38)	0.3503*** (1.92)	0.2024*** (1.83)	0.5305*** (0.89)
Sargan *(P-value)*	42.171 (0.4201)	26.353 (0.253)	35.9543 (0.404)	25.2573 (0.433)	36.3785 (0.279)
AR1 *(P-values)*	0.0000	0.054	0.036	0.0220	0.0275
AR2 *(P-values)*	0.1912	0.215	0.274	0.310	0.3352

Note: In model 1, BSIZE is used as proxy of corporate governance. However, model 2, 3 ,4 and 5 used CEOD, AQ, ACSIZE and ACA as proxies of corporate governance, respectively. L1. is the First Lag of the dependent variable, L2. is the second Lag of dependent variable, ROA is Return on Assets, BSIZE is Board Size, CEOD is CEO Duality, AQ is Audit Quality, ACSIZE is Audit Committee Size, ACA is Audit Committee Activity, SIZETA is Firm Size measured with Total Assets, GRS is Sales Growth and AGE is Firm Age, ***, ** and * show significance level at 1%, 5% and 10%

Table 7 Two-step system dynamic panel estimation with TQ

Variables	Model 1	Model 2	Model 3	Model 4	Model 5
L1.	0.2935*** (15.35)	0.2736*** (14.03)	0.2163*** (16.83)	0.2924*** (13.47)	0.2037*** (19.35)
L2.	-0.105*** (11.99)	0.1251*** (12.01)	0.1153*** (15.23)	0.1361*** (10.82)	0.1541*** (16.36)
BSIZE	0.0112** (1.93)	---	---	---	---
CEOD	---	-0.0099 (-0.29)	---	---	---
AQ	---	---	0.098* (1.702)	---	---
ACSIZE	---	---	---	0.0328** (1.97)	---
ACA	---	---	---	---	0.0026 (0.44)
SIZETA	0.0567*** (2.48)	0.076*** (2.54)	0.034*** (2.36)	0.074*** (2.94)	0.066*** (2.77)
GRS	0.0036 (0.93)	0.0037* (1.68)	0.0056* (1.43)	0.048* (1.73)	0.032* (1.79)
AGE	-0.015*** (-4.58)	-0.002*** (-2.86)	-0.004*** (-2.74)	-0.003*** (-2.98)	-0.002*** (-2.48)
C	-0.0871 (-0.22)	0.3820*** (3.36)	0.4001*** (3.86)	0.3935*** (2.83)	0.5422*** (4.53)
Sargan *(P-value)*	79.23 (0.336)	46.33 (0.563)	65.53 (0.344)	75.73 (0.433)	63.85 (0.378)
AR1 *(P-values)*	0.0041	0.034	0.0774	0.0507	0.0502
AR2 *(P-values)*	0.5842	0.4723	0.2284	0.5946	0.6335

Note: L1. is the First L ag of dependent variable, L2. is the second Lag of dependent variable, TQ is Note: In model 1, BSIZE is used as proxy of corporate governance. However, model 2, 3 ,4 and 5 used CEOD, AQ, ACSIZE and ACA as proxies of corporate governance, respectively. L1. is the First Lag of the dependent variable, L2. is the second Lag of dependent variable, ROA is Return on Assets, BSIZE is Board Size, CEOD is CEO Duality, AQ is Audit Quality, ACSIZE is Audit Committee Size, ACA is Audit Committee Activity, SIZETA is Firm Size measured with Total Assets, GRS is Sales Growth and AGE is Firm Age, ***, ** and * show significance level at 1%, 5% and 10%