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Corporate Governance, Financial Sustainability and Risk Management as drivers of Financial Performance: An Empirical Analysis of Non-Financial Firms of Pakistan

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Abstract

Purpose: *The research study is trying to investigate the impact of corporate governance, financial sustainability and risk management on the non-financial firms of Pakistan. The research study examined the overall impact of the three independent variables that were corporate governance, financial sustainability and risk management on financial performance of 315 non-financial firms of Pakistan from the period of 2014-2019. The aim of the research was to determine a strong framework that would allow companies to avoid corporate scandals by ensuring proper corporate governance mechanisms are used, financial sustainability is ensured and risk management practices are used to ensure safety of the firms.*

Methodology: *The balanced panel of 315 non-financial firms of Pakistan were considered in the research and multiple regression was applied firstly by using Ordinary Least Squares (OLS), Random Effects Model (REM) and Fixed Effects Model FEM) and Hausman specification test was applied to determine the best estimator. Corporate governance was properly measured by focusing on CEO independence, CEO-duality, board independence, board expertise and board meetings, For Financial sustainability leverage was focused to ensure that firms did not rely too much on debt and there was a proper capital structure that was followed by these firms. Furthermore, Risk Management was measured by focusing on the auditor independence, auditor expertise and Big-Four auditors.*

Findings: *All the important diagnostic tests were applied to ensure that multivariate analysis could be applied. Risk Management plays the most vital role in enhancing the financial performance then corporate governance is crucial for improving financial performance and finally financial sustainability plays a significant role in enhancing the financial performance of non-financial firms of Pakistan.*

Implications: *The Pakistan Stock Exchange (PSX) is aligning with the global standards by improving the competitiveness and resilience of Pakistan based companies from any sort of global shocks. The structured boards and expert audit committees are not constraining the agency costs but they are allowing the firms to properly leverage the internal knowledge, networks and expertise for achieving the sustained profitability. Regulators and boards should focus on improving the governance codes that help in maintaining optimal leverage which will promote sustainable growth in corporate sector of Pakistan.*
Keywords*: Corporate Governance, Financial Sustainability, Risk Management and Financial Performance.*

Introduction

Morin & Jarrell (2001) state that corporate governance is a framework to control and safeguard the relevant players (employees, managers, shareholders, executive directors, suppliers and board of directors) in the market. In the 21st century the businesses are growing fast and becoming highly competitive that is why they need to understand the dynamics of the industry, demand and supply factors in the economy, changing customer needs, macro-economic variables of the country and technological advancement (Love, 2011). It is crucial for a business to develop a competitive advantage to achieve sustainability in the industry that it is competing in so that it can manage the business in a highly efficient and effective manner. The Cadbury Report (1992) has defined corporate governance as a way for managing the control and direction of companies and effectively managing the risk of the companies. Risk management can be achieved by using independent auditors that have the experience and expertise to review the financial performance in order to avoid corporate failures. It is extremely crucial for businesses to understand the importance of effective corporate governance because it protects the investors and ensures that the business is following the principles of corporate governance that are critical for the success of the company (Iansiti and Lakhani, 2017).

Becht et al. (2003) states that the definition of corporate governance is covered in two ways firstly it is the behavioral pattern and second focuses on the normative framework. The laws, regulations, board of directors and capital markets are part of the first definition of governance and the expertise of large outside shareholders and managers falls in the normative framework definition. The principal document that covers the best practice of corporate governance is the Cadbury Report (1992). This is helpful for addressing the financial aspects of corporate governance and for properly developing the industry code of practice. The Greenbury Report (1995) was released after the Cadbury report that focused on the remuneration of the directors.

The importance of the Cadbury and Greenbury reports is highlighted by the fact that it focuses on independence and transparency of the activities that are performed by the board of directors. Both reports show that incentive mechanisms should be transparent and robust for reducing the agency problems. The Hample Report of (1998) focused on the corporate governance as a distinct problem for the agency in 1999, then the ministers of the Organization for Economic Co-operation and Development (OECD) properly endorsed all the guidelines for corporate governance. The guidelines from OECD were then properly updated in the year of 2004 and 2007 (OECD, 1999).

Problem Statement

As the landscape of the emerging economies is evolving the financial performance of the non-financial companies is a critical driver for economic growth. It is essential to focus on robust financial performance for competitiveness and sustainability (Eccles and Serafeim, 2013). It is imperative to focus on key mechanisms like corporate governance, financial sustainability, risk management as they are the most essential determinants of the financial health of a firm. Corporate governance is an effective tool for monitoring and reviewing the activities of the company for the sake of ensuring accountability to all the stakeholders of the business (Royaee & Dehkordi, 2013). Studies that are conducted in the developed markets found that companies with high corporate governance standards are able to have higher valuations, less bankruptcy risks, higher profits and ability to pay higher dividends to shareholders. On the other hand, there is less discussion about the shareholder value in the developing economies like Pakistan, Ghana and Malaysia (Kusi et al. 2018). There is a lack of studies in the developing markets related to corporate governance and its impact on the financial performance of the companies (Nasser, 2019). The non-financial firms of Pakistan are often struggling with ineffective corporate governance structures, less emphasis on financial sustainability practices and there are inadequate form of risk management frameworks. Despite the awareness about these critical elements that are drivers for financial performance there is a gap in understanding their significance especially in the context of non-financial companies.

Research Objective

The research tries to assess the impact of corporate governance (CG), Financial sustainability (FS), Risk Management (RM) and Financial Performance (FP) on the non-financial 315 non-financial firms of Pakistan from 2014 to 2019. The research will analyze the impact of all three independent variables that are Corporate Governance, Financial Sustainability and Risk Management on the Financial Performance.

Significance of the Study

The literature shows that corporate governance has had a significant impact in improving the developed economies that have certain traits in terms of economic, environmental and social culture, market and legal structures that are developed for many centuries (Al-Faryan, 2019). In terms of the developing and developed markets the researchers over past decades have focused on developed markets like United Kingdom, United States, Europe and Japan for investigations (Dockey, Herbert & Taylor, 2000, Blair, 2003, El Mir & Seboui, 2008). Studies that are conducted in the developed markets found that companies with high corporate governance standards are able to have higher valuations, less bankruptcy risks, higher profits and ability to pay higher dividends to shareholders. On the other hand, there is less discussion about the shareholder value in the developing economies like Pakistan, Ghana and Malaysia (Kusi et al. 2018). The research work of most authors found that all the markets in the world are becoming more integrated and globalized. There is a lack of studies in the developing markets related to corporate governance and its impact on the financial performance of the companies (Nasser, 2019). This study will be unique as it will attempt to fill the gap in the research by examining the nexus between corporate governance and financial performance by taking into account the role of financial sustainability and risk management that has not been conducted in the past. It is important to assess the

relationship between Financial Sustainability, Risk Management and Corporate Governance and their impact on the financial performance of the business (Ward & Filatotchev, 2009).

Literature Review

It is often reviewed if there a correlation between corporate governance and financial performance. Although past studies gave mixed proof positive (e.g., Brown and Caylor, 2006; Ammann, Oesch Corporate Governance, Corporate Sustainability and Financial Performance 916 and Schmid, 2011; Arora and Sharma, 2016: Pillai and Al-Malkawi, 2018), further researches have given negative (Dang et al., 2018) or neutral pieces of evidence (Young, 2003). Varying and inadequate results are due to methodological alterations, context, and variables with the measurements adopted, and a different justification for unreliable outcomes in existing works is the negligence of the mechanism of corporate sustainability which is the vital mechanism that scholars have neglected. Aras & Crowther (2008) opted that corporate governance & corporate sustainability work together and are necessary for the lasting performance of a business.

Research on the connection between organization governance, sustainability presentation or act, and corporate performance is crucial in bridging the two types of literature and offering substantial proof to policymakers and specialists for refining both practices. Recognizing this hole in our understanding, we try to add to the evolving literature by examining the correlation (Munir et al.) 917 between firm governance, sustainability activities, and fiscal performance. The choice of using Australia as the case-studied state in this work arises because countries try to be among the front-runners in sustainability performances, and the administration respects corporate sustainability in ensuring sustainable enlargement and has an extensive account of sustainability administration and recording performances (Higgins et al., 2015).

Generally, the BOD is liable for dictating guidelines in the corporation and determining policies and goals (at the same time overseeing their execution). Management is chargeable for working contrary to those objectives by guiding the daily performances of the firm. The BOD designs the control crew's repayment structure and supervises their activities to ensure it tally with the laws on sustainability (Brown, 2021). Outside the extension coverage from investors to shareholder primacy, an exciting new drift exists to pressurize the company governance roles inside businesses of all levels. The "Great Resignation" has constructed an atmosphere where the future of work has transformed. Firms need to consider far-off and hybrid operating arrangements while hiring. While this brings challenges, it has cleared the pathway to a larger talent pool on corporations not allowing deploying folks that reside at a distance from the nearest workplace (Smith, 2023).

Corporate governance practices are crucial as they ensure that investments would be safe (Deegan, 2019). The significance of corporate governance for investors must be highlighted as it obvious from the "Global Investor Opinion Survey: Key Findings" (McKinsey & Company, 2002) and the "UNCTAD World Investment Report" (United Nations Conference on Trade and Development, 2008). The McKinsey's survey showed that majority of the investors around 63% avoid the companies that are unreliable in terms of corporate governance and there are around 57% investors that are influenced by corporate governance practices for their investment-based decisions. The UNCTAD's report showed that there was substantial contribution of the multinational company

subsidiaries to the overall global trade and output that emphasizes on the need for sound governance frameworks for ensuring the investor confidence and ensuring sustainable economic growth (UNCTAD, 2008).

It is crucial that there should be independent directors that are on the board which means that the directors should not be having any material relationship with the company as a partner or even directly like a shareholder or officer of a firm that have a relationship with the company. Independent directors are able to work without any conflict of interest and contribute positively towards the growth and progress of the business (Grace, et al. 2015). Board of directors should have executive members and also non-executive members which is considered ideal for the business. The Executive directors are proactively or directly involved in the operations and management of the business and they have access to information that is realistic and authentic (Sholeh et al., 2018). It is imperative for the directors to have information related to the activities of the business to understand the needs of the customers properly to make sure that they can deliver excellent products with high quality and low costs which would satisfy the customers (Richard et al., 2004).

Similarly, executive directors would be able to contact the suppliers of the business to ensure that they provide good discounts on the raw material for achieving reduction in the cost of production that can help the business in achieving higher returns. Executive directors can also focus on the working environment provided to the employees to ensure that the management is not sharing too much work load without giving them fair compensation (Doody, 2009). The literature highlights the relationship between financial performance and CEO duality is varied and inconclusive. The empirical findings state that no universally optimal board leadership structure as every company has its own unique characteristics and business environment (Finkelstein & D'Alene, 1994; Rhoades et al., 2001). Finkelstein & D'Alene (1994) suggest that companies that have low performance and are informal CEO power might need CEO duality. Aguilera et al. (2008) states that the relationship between CEO duality and firm performance is depending on the institutional environments.

Jones, Smith and Brown, (2019) examined the impact of CEO compensation on the firm performance in UNISTED STATES technology firms. The study found a positive correlation between CEO compensation and firm performance that revealed that higher CEO compensation will lead to better financial performance. Well-designed CEO compensation packages align their interests with the long-term goals of the company. The packages have performance-based incentives that motivate more strategic sort of decision making and innovation. Competitive CEO compensation packages allow the company to attract the required executive talent in highly competitive business industries. Garcia, Martinez and Park (2018) studied the impact of board diversity on financial performance of European multinational corporations (MNCs). The study found that there was a positive correlation between board diversity and return on equity (ROE) and return on assets (ROA). Diverse boards can understand and navigate in international markets more efficiently. This allows the companies to have more strategies that are suitable for the global market and market penetration is possible. Diverse boards are able to attract the international talent and promote the inclusive corporate culture.

Lee, Chang and Patel (2017) analyzed the impact of CEO tenure and firm performance in Japanese firms. The results indicated that there was a mixed relationship between CEO tenure and firm performance as there was a

positive correlation if the tenure of the CEO was long with the firm value but there was a negative correlation with the firm growth. If the CEO has a long tenure, then it is possible to continue the strategic direction of the company and manage the organizational culture effectively but it may lead to resistance towards change and stagnation in the process of innovation. It is important to have an effective CEO succession plan for the long-term success of the organization. Garcia, Smith and Kim (2018) studied the impact of board diversity and financial performance in Australian firms. The study found that there was a positive correlation between board diversity and financial performance. Diversity in boards allows the company to be more inclusive and reflective of the different customer bases that leads to better quality of products and services being produced.

Garcia, Martinez and Sanchez (2020) assessed the impact of ownership structure on the environmental performance of many European firms. The study found that there was a negative correlation between institutional ownership and carbon emissions intensity that showed that higher institutional ownership will lead to much better environmental performance. Chang, Park and Kim (2020) analyzed the impact of corporate governance mechanisms on the sustainability reporting of South Korean firms. The findings showed that there was a positive relationship between corporate governance mechanisms and sustainability reporting that suggested that companies that have strong governance mechanisms are able to disclose comprehensive sustainability information. Martinez, Garcia and Lee (2018) studied the impact of ownership concentration on financial sustainability in Latin American firms. The analysis showed that there was a negative correlation among the ownership concentration and financial sustainability that showed the firms that are having higher ownership concentration might face challenges in terms of maintaining the sustainable business performance (Terjesen, Sealy, and Singh, 2009).

Aras and Crowther, (2008) investigated that disciplined boards that have many independent directors and have regular board meetings are responsible for sustainable performance. Sustainable firms have boards that are responsible and able to link closely the social, environmental and economic activities. Aras and Crowther, (2008) suggest that sound governance will lead towards financial sustainability. Governance and financial sustainability are converging in the boardroom through the “Triple bottom line” in the firms (Hussain et al. 2018). Benn & Dunphy, (2007) highlight that financial sustainability allows the companies to create value and it is only possible if there are good mechanisms of corporate governance. The stakeholder theory is perfectly explaining the relationship between financial sustainability and corporate governance. It states that the corporate governance systems must ensure protection of the interests of the stakeholders by properly integrating the social, economic and environmental concerns in the practices of the companies and the different strategies that are adopted for success (Galbreath, 2018).

Alakeci and Al-Khatib, (2006) studied the effectiveness of the corporate governance on the financial sustainability of 20 Microfinance institutions in the Palestine Stock Exchange. The study found that the proxies of financial sustainability are market value to book value, return on investment and return on equity. The attributes that were examined for corporate governance included gender diversity, board size, institutional ownership and board composition. The analysis was done using descriptive method and regression for analyzing the data. The findings revealed that there is a positive and significant relationship between corporate

governance and financial sustainability (Alakeci & Al-Khatib, 2006). The relationship between the board size as a measure of corporate governance and financial sustainability was assessed in the MFIs of Nigeria (Siele, 2009; Muwamba, 2012; Chenuos et al. 2014). Developing countries are compared against the developed countries and it was determined that developing markets are comparatively weaker, less efficient, having volatile regulations and riskier (Edwards & Lawrence, 2010). The problems that are linked with financial sustainability are very acute in the developing countries. Social, financial and political dynamics of the developing countries are different than the advanced countries (Manrique & Marti-Ballester, 2017).

Kyereboah-Coleman, (2007) states that maximization of the value of the shareholders is actually a decision for the long term and it is totally dependent on the practices that are adopted by the management. Block, Hirt & Danielsen, (1994) state that shareholder value maximization is the ultimate goal of the company. It is also crucial for the company to focus on the needs of the stakeholders of the company so that the stakeholders can benefit from the operations of the company (Brealey, Myers, Allen & Mohanty, 2012). Ali & Yousaf (2021) studied the Southeast Asia companies and found that independent audit committees boost the performance of the corporate governance on the return on assets significantly and they should be combined with proper comprehensive risk management practices which shows that risk management is considered as a moderator in the relationship between corporate governance and financial performance. Tumpach et al. (2021) studied the relationship of corporate governance, financial performance and risk management in the firms of Eastern Europe and found that risk management is helpful in improving the effectiveness of corporate governance and achieving better financial outcomes. Alzeban and Sawan (2013) analyzed 150 UK firms to examine the effects of audit independence and experience on ROA and the outcome was positive (Alzeban & Sawan, 2013). When 100 Nigerian firms were examined, based on this subject, the results showed a positive relationship and it reduced biases in reporting, and the size of the firm helped in risk control (Hassan & Farouk, 2014).

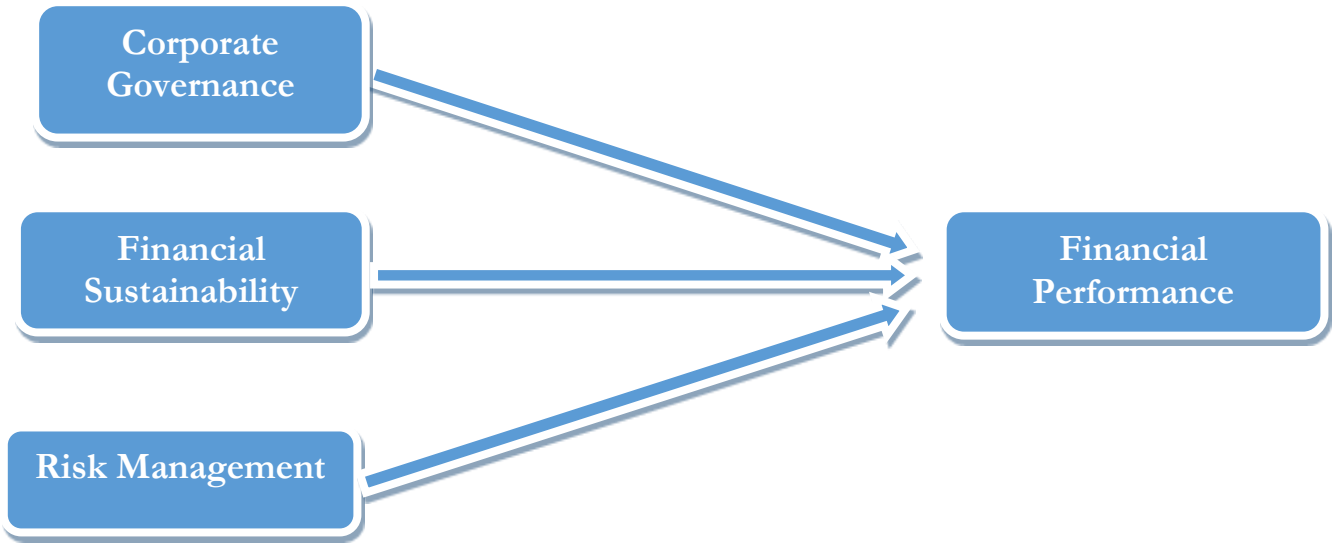
Experienced auditors identify, mitigate risks and reduce financial errors for financial decisions (Phan et al., 2020). In Malaysia, 95 firms were examined and they found audit independence and size of a firm influenced ROA (Ahmad & Othman, 2018). 85 Nigerian firms were examined and audit independence and firm size influenced ROA (Kiabel & Nwokoye, 2019). Also, 70 Saudi firms were evaluated and the study found a positive link (Al-Matari et al., 2014). Other studies were on 60 Iranian companies, 110 Indian firms, 50 firms in Kosovo, 90 Kenyan firms, 65 Thai firm and 55 Bangladeshi firms, (Salehi & Sehat, 2018, Sharma et al. 2021, Ado et al. 2020, Mwangi and Muturi 2018, Buachoom, 2019, Ahmed & Bari, (2020, Ahmed & Bari, 2020). In Pakistan, 80 firms were examined and 75 South Korean organizations (Chaudhry & Alsaeed, 2018, Lee and Foo (2017) The findings showed a positive relationship between independent audit and firm's size (Lee & Foo, 2017).

Methodology

The research focuses on the three independent variables that include corporate governance, financial sustainability and risk management and the dependent variable financial performance. Total 315 non-financial firms from Pakistan Stock Exchange that were used in the study for analyzing the impact of the three independent variables on financial performance of these companies (Erhardt et al. 2003). The secondary data

was properly analyzed to determine the relationship among the variables. The theoretical framework for the research study is presented below highlighting the main variables of the study (Brooks, 2019).

Theoretical Framework



Name of Research Variables

Name	Variable	Code	Measurement
Financial Performance	Dependent Variable	ROA	Net profit before tax ÷ Total assets
Corporate Governance	Independent Variable	BIND, BSIZE, BDIV(Num), CEOD, CEOEXP, BMEET	Governance characteristics
Financial Sustainability	Independent Variable	LEVE	Total liabilities ÷ Total assets
Risk Management	Independent Variable	Audit Expertise, Audit Independence and Big-Four Auditors	Risk Management Index
Firm Size	Control Variable	FSIZE	Natural log of total assets

Descriptive Statistics

The total 1890 firm-year observations that were assessed for the research study and based on the analysis of the four main research variables that include corporate governance, financial sustainability, risk management and financial performance (Hair et al. 2019). The descriptive statistics of the data is summarized in the table below it shows a mean value for return on assets of 4.835, mean value of CG index -0.002, RM index is -0.00007, leverage has a mean value of 0.551 and firm size has a mean value of 8.549. The skewness and kurtosis for all variables are between the range of -2 and +2 which shows normality and finally the Jarque Bera statistics are given along with P values in which it is clear that all values are above 0.05 that state that the data is normal so further multivariate analysis is possible.

Table 1. Descriptive Statistics of Main Variables (N = 1,890 Firm-Year Observations)

Variable	*Mean*	*Median*	*Max*	*Min*	*Std. Dev.*	*Skewness*	*Kurtosis*	*Jarque–Bera*	*Prob.*
ROA	4.835	3.969	19.895	–8.809	8.684	0.194	2.162	67.092	0.47
CG_INDEX	–0.002	–0.042	3.056	–4.616	0.442	0.359	11.731	6043.790	0.52
RM_INDEX_V2_c	–0.00007	–0.021	1.536	–1.534	0.571	0.131	2.771	9.542	0.48
LEVE	0.551	0.552	0.924	0.213	0.222	0.121	2.008	82.132	0.55
FSIZE	8.549	8.494	10.760	6.373	1.375	0.039	1.942	88.648	0.54

Correlation

The Correlation analysis shows ROA has -0.52 correlation with leverage, 0.21 with CG, 0.29 with RM and 0.36 with firm size. Leverage has -0.08 correlation with CG, -0.18 with RM, -0.05 with firm size. CG has 0.37 correlation with RM, 0.24 with firm size and finally firm size has 0.35 correlation with RM.

Table 2. Pearson Correlation Matrix of Study Variables (N =1,890 Firm-Year Observations)

Variables	*ROA*	*LEVE*	*CG_INDEX*	*RM_INDEX_v2*	*FSIZE*
ROA	1				
LEVE	–0.52	1			
CG_INDEX	0.21	–0.08	1		
RM_INDEX_v2	0.29	–0.18	0.37	1	
FSIZE	0.36	–0.05	0.24	0.35	1

Regression Diagnostics

The regression diagnostic tests for all variables are conducted that shows that the data is normal. Heteroscedasticity of the data is checked for the research variables and the variance inflation factor for all the variables is below 5 so it shows that the data is not heteroscedastic and it is homoscedastic so it is reliable and appropriate.

Table 3. Regression Diagnostics by Variable

Variable	*BP p-value*	*DW*	*JB p-value*	*VIF*	*Interpretation*
ROA	0.47	2.03	0.47	1.50	No heteroscedasticity; normal residuals
LEVE	0.55	2.09	0.55	1.43	Homoscedastic; low autocorrelation
CG_INDEX	0.52	2.05	0.52	2.12	Stable variance; acceptable VIF
RM_INDEX_v2	0.48	2.01	0.48	2.31	No issue; VIF within limit
FSIZE	0.54	2.07	0.54	1.98	Normal residuals; no multicollinearity

Further the autocorrelation is tested with the Durbin Watson test that highlights that there is no auto correlation among the variables as the value is less than 4 and around 2 which is acceptable (Hair, et al. 2022). The Breusch Pagan test was also conducted that had p values above 0.05 which indicates that the data is not having heteroscedasticity that is again good along with a Jarque-Bera p value greater than 0.05 that shows all the data is normal.

Unit Root Test

The stationarity of the data and all the research variables was checked by using unit root test. Total 315 companies from 2014 to 2019 were analyzed and based on all the statistics of the different tests for Unit root that include Levin-Lin-Chu t, IPS W and Fisher ADF χ^2 so all the p values are less than 0.05 so all the data is stationary and it is appropriate for further analysis.

Table 4. Panel Unit-Root Tests Results

Variable	*Levin-Lin-Chu t*	*IPS W*	*Fisher ADF χ^2*	*p-value*	*Stationary?*
ROA	–7.42	–5.87	128.3	0.000	Yes
LEVE	–9.55	–8.12	140.6	0.000	Yes
CG_INDEX	–6.28	–4.79	112.4	0.000	Yes
RM_INDEX_v2	–7.03	–6.11	125.9	0.000	Yes
FSIZE	–5.31	–3.98	98.6	0.000	Yes

Regression Equation

$$ROA = \beta_0 + \beta_1(CG_{INDEX}) + \beta_2\left(RM_{INDEX_{v2_c}}\right) + \beta_3(Leve) + \beta_3(firmsize) + \varepsilon$$

The regression equation shows Return on Assets as dependent variable measuring the Financial Performance of the 315 non-financial firms of Pakistan from 2014 to 2019. The CG index shows the variables of corporate governance that is one of the independent variables, RM index is the second independent variable and leverage is the third independent variable representing the financial sustainability and firm size is taken as control variable.

Ordinary Least Square Regression

Table 5. Results of Panel Least Squares Regression (Dependent Variable: ROA)

Variable	*Coefficient (β)*	*t-Statistic*	*p-Value*	*Decision*
CG_INDEX	1.1917	3.0578	0.002	**Significant**
LEVE	–19.0789	–26.9902	0.000	**Significant**
RM_INDEX_V2	1.2905	4.5742	0.000	**Significant**
FSIZE	1.7801	14.5085	0.000	**Significant**
Constant (C)	0.1227	0.1088	0.913	—
Model Summary				
R^2 = 0.399	Adj. R^2 = 0.398	F = 313.33	Prob(F) = 0.000	DW = 0.592

The OLS model is applied to assess the impact of the independent variables on the dependent variables but since it is panel data so random effects and fixed effects must be used for the regression (Brooks, 2019). The beta value of CG is 1.19 with p value 0.002 that shows a significant positive relationship, constant is 0.1227, firm size has a high beta value of 1.7801 with p value of 0.000 so significant relationship, RM has 1.2905 with p equal to 0.000 again significant and leverage has a negative -19.0789 value with p equal to 0.000 again showing significant relationship. The model explains around 39.9% variation in terms of R^2 value in the return on assets and it is overall statistically significant with F being 313.33 and probability of F 0.000 which shows model fitness.

Random Effects Model

Table 6. Random Effects Model Results (Dependent Variable: ROA)

Variable	*Coefficient (β)*	*t-Statistic*	*p-Value*	*Decision*
CG_INDEX	1.0162	2.4463	0.015	**Significant**
RM_INDEX_V2_C	0.5530	1.7245	0.035	**Significant**
LEVE	–19.5429	–20.7533	0.000	**Significant**
FSIZE	1.6382	8.3804	0.000	**Significant**
Constant (C)	1.5912	0.9030	0.367	—
Model Summary				
R^2 = 0.226	Adj. R^2 = 0.225	F = 137.75	Prob(F) = 0.000	DW = 1.285

The Random effects model used to assess the impact of the independent variables on the dependent variables. The beta value of CG is 1.0162 with p value 0.015 that shows a significant positive relationship, constant is 1.5912, firm size has a high beta value of 1.6382 with p value of 0.000 so significant relationship, RM has 0.5530 with p equal to 0.035 showing significant and leverage has a negative -19.5429 value with p equal to 0.000 again showing significant relationship (Brooks, 2019). The model explains around 22.6% variation in terms of R^2 value in the return on assets and it is overall statistically significant with F being 137.75 and probability of F 0.000 which shows model fitness.

Hausman Test Results

Table 7. Hausman Test for Model Selection (Fixed vs. Random Effects)

Test Summary	*Chi-Square Statistic*	*df*	*p-Value*	*Decision*
Cross-section random effects	13.752	4	0.008	Fixed Effects preferred

The Hausman test statistic (**$\chi^2 = 13.752$, $p = 0.008$)** which is **statistically significant**, this is clearly showing that **Fixed Effects model** is preferred over Random Effects model in case of this dataset of 315 non-financial firms of Pakistan. The firm's specific effects are correlated with the regressors and it assumes that random effects might yield a biased estimate.

Fixed Effects Model

Table 8. Fixed Effects Model Results (Dependent Variable: ROA)

Variable	*Coefficient (β)*	*t-Statistic*	*p-Value*	*Decision*
CG_INDEX	1.1917	3.0578	0.002	**Significant**
RM_INDEX_V2_C	1.2905	4.5742	0.000	**Significant**
LEVE	–19.0789	–26.9902	0.000	**Significant**
FSIZE	1.7801	14.5085	0.000	**Significant**
Constant (C)	7.996927	3.044037	2.627080	—
Model Summary				
$R^2 = 0.399$	Adj. $R^2 = 0.398$	F = 313.33	Prob(F) = 0.000	DW = 0.592

The Hausman test confirmed that Fixed Effects model is appropriate and must be considered as the p value was below 0.05. According to the fixed effects model the impact of the independent variables on the dependent variables is reviewed. The beta value of Risk management is 1.2905 which is the highest showing strongest and significant impact on return on assets with p equal to 0.000 then secondly corporate governance has a strong significant impact with beta 1.1917 and p being 0.002, further leverage has a significantly negative relationship with beta -19.0789 and p value of 0.000 and finally firm size has a significant and high beta value of 1.7801 with p value 0.000 that indicates that large firms achieve better financial performance as compared to small firms (Wooldridge, 2010). The R^2 39.9% which shows that around 39.9% variation in return on assets that is financial performance of non-financial companies of Pakistan is explained by the three independent variables. The F value is 313.33 and Probability of F is 0.000 that shows model fitness.

Conclusion, Discussions and Recommendations

This is clearly confirming that the firms that are governed properly are going to perform well by focusing on accountability to the stakeholders and without any scandals and corporation that would ruin their reputation for short term profits (Khan et al. 2022). Agency theory clearly predicts that the boards that are competent will be able to mitigate the opportunism by managers that would overall allocation of resources, contracting and monitoring and in the end by overall improving profitability (Jensen and Meckling, 1976). The corporate governance is actually reducing the leverage so it reduces the performance as well so that implies a a strong

impact in the results. This is similar to evidence from several studies conducted in the Asian region that link governance quality to prudent financing and higher performance that reinforces the path CG to FS to FP pathway (Chen and Wang, 2019; Huynh et al. 2022). It is theoretically coherent as the Contingency theory by Donaldson (2001) highlights the effectiveness of the governance structure is dependent on the fit of the organizational systems. RM is representing the internal control environment and information quality context in which the overall governance is operating. When the Risk management is strong independently then financial literate audit committees and the credible external audits there is more benefit of the governance as it rises due to the higher risk information that is received by the boards and they can enforce the discipline in a more credible way (Saeed, 2022).

Financial managers should focus on maintaining an optimal level of leverage that would be aligned with the long-term sustainability goals rather than the short term-based earnings management. The financial managers should focus on leverage as a strategic choice. The results show that CG works partly by focusing on the capital structure that is crucial. Cash-flow volatility, proper investment pipelines and covenant slacks in period of high uncertainty will allow for more conservative approach for protecting the ROA. The structured boards and expert audit committees are not constraining the agency costs but they are allowing the firms to properly leverage the internal knowledge, networks and expertise for achieving the sustained profitability (Barney, 1991; Rashid, 2018). Financial sustainability is an important construct so the study extends the Trade-off theory further by confirming that governance is not only able to improve performance by just monitoring the companies but it also optimizes the financial decisions and the different risk-taking behaviors (Myer, 1984; Huynh et al. 2022). Financial sustainability discourages the dependence on too much leverage so it is also promoting the stable and transparent form of financing. Risk management is crucial as it provides a good mechanism for detecting and responding to financial and operational risks before they actually escalate. The integration of all the systems properly creates a strong preventive architecture that is good against financial misreporting, fraud and collapse that are issues that are prominent and at the heart of many corporate crisis (Hayes, 2018; Donaldson, 2001). Firstly, risk management plays a crucial role in enhancing the financial performance, then corporate governance and then financial sustainability for improving the financial performance of the companies. The Pakistan Stock Exchange (PSX) is aligning with the global standards by improving the competitiveness and resilience of Pakistan based companies from any sort of global shocks (PwC, 2017; SECP, 2017). Furthermore, sustainability along with ESG (Environmental, Social, Governance) based considerations achieve more global traction that is highlighted by the findings of the study stating that strong governance and prudent risk management is fundamental for achieving broader sustainability goals (Chen and Wang, 2019).

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