e-ISSN: 2236-0972
https://doi.org/10.5585/gep.v15i2.25248
Received: 23 Sept. 2023
Approved: 31 Jan. 2024
Editor-in-chief: Luciano Ferreira da Silva
Associate Editors: Dr. Nelson Jose Rosamilha e Dr. Roberto Godoy Fernandes

CORPORATE GOVERNANCE DYNAMICS AND PROFITABILITY IN THE TEXTILE INDUSTRIES OF PAKISTAN AND INDIA: AN EXPLORATION OF KEY VARIABLES AND FINANCIAL LEVERAGE MEDIATION

DINÂMICA DE GOVERNANÇA CORPORATIVA E LUCRATIVIDADE NAS INDÚSTRIAS TÊXTEIS DO PAQUISTÃO E DA ÍNDIA: UMA EXPLORAÇÃO DAS PRINCIPAIS VARIÁVEIS E MEDIAÇÃO DE ALAVANCAGEM FINANCEIRA

Muhammad Daniyal
MS Finance
Institution Name - MS scholar in department of Banking and finance HSM (Hassan Murad School of management) at University of Management and technology
Lahore, Punjab, Pakistan
Danial.imran12345@gmail.com

Saba Rafique
MS Finance
Institution Name - MS scholar in department of Banking and finance HSM (Hassan Murad School of management) at University of Management and technology
Lahore, Punjab, Pakistan
Sabarafique0123@gmail.com

Abstract
This study aims to analyze how corporate governance affects the profitability and leverage of textile firms in Pakistan and India. It also explores whether financial leverage mediates the connection between firm profitability and corporate governance. We examined 60 textile companies in both countries, using annual data from 2017 to 2022.To fulfill our goal this study utilizes a dual-phase dynamic panel approach along with a generalized method of moments (GMM) to evaluate how leverage acts as a mediator in the connection between corporate governance and firm performance. The results highlight that in Pakistan, board size (BS), Board independence (BI), and firm size (FS) negatively impact profitability, while board diversity (BD) and firm age (FA) have a positive impact. Board meetings (BM) and expertise (BE) do not affect ROA. Similarly, in India, board size and board expertise negatively influence profitability, while diversity, firm size, and age positively contribute. The role of financial leverage (Fl) as a mediator is evident in Pakistan, whereas India does not show such mediation. These findings offer insights to enhance corporate governance and financial strategies for textile firms in both nations.

Keywords: Corporate governance. Pakistan. India. Financial leverage. Firm performance. Profitability. Mediating role.

Resumo
Este estudo tem como objetivo analisar como a governança corporativa afeta a lucratividade e a alavancagem das empresas têxteis no Paquistão e na Índia. Também explora se a alavancagem financeira medeia a ligação entre a rentabilidade da empresa e a governança corporativa. Examinámos 60 empresas têxteis em ambos os países, utilizando dados anuais de 2017 a 2022. Para cumprir o nosso objetivo, este estudo utiliza uma abordagem de painel dinâmico de fase dupla juntamente com um método generalizado de momentos (GMM) para avaliar como a alavancagem atua como mediadora na a conexão entre governança corporativa e desempenho da empresa. Os resultados destacam que, no Paquistão, o tamanho do conselho (BS), a independência do conselho (BI) e o tamanho da empresa (FS) têm um impacto negativo na rentabilidade, enquanto a diversidade do conselho (BD) e a idade da empresa (FA) têm um impacto positivo. As reuniões do conselho (BM) e a expertise (BE) não afetam o ROA. Da mesma forma, na Índia, o tamanho e a experiência do conselho influenciam negativamente a rentabilidade, enquanto a diversidade, o tamanho da empresa e a idade contribuem positivamente. O papel da alavancagem financeira (Fl) como mediador é evidente no Paquistão, enquanto a Índia não demonstra tal mediação. Estas descobertas oferecem insights para melhorar a governação corporativa e as estratégias financeiras para as empresas têxteis em ambas as nações

Palavras-chave: Governança corporativa. Paquistão. Índia. Alavancagem financeira. Desempenho da empresa. Lucratividade. Papel mediador.

How to cite the article
American Psychological Association (APA)

Daniyal, M., & Rafique, S. (2024, May/Aug.). Corporate governance dynamics and profitability in the textile industries of Pakistan and India: an exploration of key variables and financial leverage mediation. *Revista de Gestão e Projetos (GeP)*, *15*(2), 292-323. https://doi.org/10.5585/gep.v15i2.25248

1 Introduction

1.1 Background and rational of study

There is no agreed definition of corporate governance that is negotiated upon across all contexts and nations. According to their own standpoints, many researchers have examined corporate governance (Drobetz et al., 2004; Fisch, 2012). There are numerous definitions that authors have posited. According to Aliyu, (2014) the definition of governance given by the Central Bank of Nigeria (2014) is the procedures, laws, or regulations that govern how institutions operate. Its main goal is to promote an open, effective system that encourages the rule of law and encourages the division of duties in a responsible and impartial manner. Establishing a corporate governance structure is desirable so that a powerful board structure can help to solve the agency concern. Venture capitalists in capital want to be sure that their investment is being used advantageously and judiciously. The role of effective corporate governance in ensuring the long-term success and sustainability of businesses has garnered significant attention from scholars, practitioners, and policymakers worldwide. Corporate governance mechanisms serve as vital tools for aligning the interests of various stakeholders, enhancing transparency, and minimizing agency conflicts.Corporate governance plays a pivotal role in maintaining transparency, accountability, and ethical conduct within organizations. Failures in corporate governance can have severe consequences, leading to the downfall of prominent companies and even undermining investor confidence in entire industries. According to (Bukhari et al., 2022; Fatima et al., 2021; Montoneri et al., 2003) the cases of the Adani Group, Mehran Gate Scandals, and Zarco Exchange are illustrative examples of how poor corporate governance practices can result in significant financial losses, reputational damage, and legal repercussions. The fall of the Adani Group, Mehran Gate Scandals, and the Zarco Exchange corporate governance failure serve as stark reminders of the far-reaching implications of poor governance practices. Effective corporate governance is not merely a box-ticking exercise but a fundamental aspect of responsible business conduct. It instills confidence among investors, customers, employees, and regulators, enhancing organizational resilience and sustainable growth. By fostering transparency, accountability, and ethical behavior, strong corporate governance contributes to the overall stability and prosperity of businesses and the economies they operate in.The importance of corporate governance in the textile industry cannot be overstated, as it directly influences the sector's performance, reputation, and sustainability. Effective corporate governance practices are vital for ensuring that textile

companies operate with transparency, accountability, and integrity. Here are some key reasons why corporate governance is crucial in the textile industry good corporate governance can significantly impact a textile company's financial performance. Transparent financial reporting, adherence to accounting standards and effective risk management are essential for attracting investors and securing funding for growth and expansion. Strong governance practices instill confidence in stakeholders, leading to increased investment and potential access to capital markets. Second reason is textile industry is built on a complex web of relationships with various stakeholders, including customers, suppliers, employees, and investors. A well-governed company earns the trust of its stakeholders, creating a positive reputation that can lead to brand loyalty and repeat business. Trust is particularly crucial in the textile industry, where product quality, safety, and ethical sourcing are of paramount importance.Financial leverage plays a crucial role in the textile sectors of Pakistan and India. Financial leverage refers to the use of borrowed funds (such as loans or debt) to finance a company's operations and investments, with the expectation that the return on investment will be higher than the cost of borrowed funds, thus amplifying shareholders' returns.In the textile industry, where capital-intensive operations and substantial investments are common, financial leverage can have several implicationsinclude Funding Expansion and Growth, Enhancing Profitability, Corporate Governance Implications and Cost of Capital. Financial leverage can be a double-edged sword for textile companies in Pakistan and India. While it offers opportunities for growth and increased profitability, it also exposes firms to higher financial risks. Effective management of financial leverage, along with sound corporate governance practices, is crucial to ensure the sustainable growth and stability of textile companies in these countries.If we talk about Earlier literature uncovers that corporate administration influences choices with respect to capital design of the organizations, and the impacts can contrast in created and arising nations (Pham & Nguyen, 2019; Zhou et al., 2021). Board freedom additionally influences monetary influence in arising nations (Abobakr & Elgiziry, 2016). Companies' capital choice decisions are influenced by the presence of more non-executive directors on the board. Companies have greater access to resources as a result of their increased knowledge of the organization's responsibilities (Berger et al. 1997)**.** The question of whether financial leverage mediates the connection between corporate governance (CG) and firm performance (FP) arises in light of the contradictory findings of previous research. This specific inquiry has not been tended to in that frame of mind with regards to textile industry.

1.1.2 Problem statement

Despite the extensive body of literature exploring the relationship between corporate governance and financial performance in various contexts, focused research on the textile industries of Pakistan and India is conspicuously lacking. Previous studies (Abdullah & Tursoy, 2023; Le et al., 2023) have primarily investigated individual corporate governance variables and their impact on financial indicators, such as Return on Assets (ROA) and Return on Equity (ROE). However, a comprehensive analysis of multiple corporate governance mechanisms and their collective influence on financial performance remains largely unexplored in the specific context of the Pakistani and Indian textile sector. The existing research primarily revolves around examining the effect of individual governance dimensions, such as board size, board independence, and board diversity, on financial outcomes. Some studies have also explored the association between board expertise and the frequency of board meetings with financial performance. However, the complex interplay between these variables and their combined impact on ROA in the Pakistani and India textile industry remains inadequately understood. Moreover, the potential mediating role of financial leverage in the relationship between corporate governance and financial performance has also not been adequately explored in case of Pakistan and India textile sectors. Examining whether financial leverage acts as a mediator in the relationship between firm performance and corporate governance holds significant importance for several reasons. To begin with, direct effects of corporate governance on firm performance might not be evident. In such cases, investigating the mediating role of financial leverage can lead to varying outcomes. Moreover, analyzing financial leverage as a mediator allows us to gain insights into the implications of this change on both corporate governance and business performance.

1.1.3 Objective of study

The main objective of this study is to analyze the impact of corporate governance on profitability (ROA) and leverage of textile firms of Pakistan and India. Secondly this study investigates whether financial leverage mediates the relation between firm profitability and corporate governance.

1.1.4 Research significance

This research holds substantial importance for various stakeholders within the Pakistani and Indian textile industry. For policymakers, the findings of this study will serve as a guide to formulate effective corporate governance regulations that address the specific needs and challenges faced by textile firms. Implementing well-tailored governance practices can foster investor confidence, attract foreign investment, and strengthen the sector's position in the global market. For boards of directors, the study's results will shed light on the most impactful corporate governance dimensions, enabling them to make informed decisions regarding board structure, composition, and expertise. By embracing effective governance practices, boards can better align their interests with those of shareholders and enhance financial performance.

2 Literature review

Firm execution is expounded as the worth of the firm which ought to be expanded for partners' interests. Further, the literature discusses how corporate administration practices and capital design connect firms' performance.

2.1 Board size and firm's performance:

Studies on the impact of board size on business effectiveness have produced different results. The goal of a study conducted by S. N. Khan et al.(2019) was to ascertain the effects of board independence, board diversity, board size, board meetings, and various board committees on organizational effectiveness in Pakistani textile enterprises while using innovation as a mediating variable. The findings demonstrate that BDV and BSZ have a positive impact on business success. Nevertheless, BID, NBCM, and BM have little impact on how well an organization performs. Chandani & Ahmed, (2021) this research, the effectiveness of listed companies in Pakistan is compared to corporate governance and financial leverage. ROA & ROE variables are utilized in this study to assess business efficiency in the textile sector. Financial leverage is employed as a control variable and is measured together with board size, director salary, and audit committee members as indicators of corporate governance. The study's findings revealed that FL has aninverse relationship with a company's performance, but that there is a positive relationship between board size, the size of the audit committee, director compensation and a company's ROA and ROE.

Le et al.(2023) studies, the impact of CEO duality and BS on company success are examined. To examine the connections between CEO duality, board size, and company success, they look at the biggest 200 firms listed on the Vietnam Stock Exchange between 2014 and 2015. Our results show that CEO duality, board size, and firm performance all have a significant positive impact on business success.The influence of corporate governance elements, such as board size and dividend-paying behavior, on financial success is examined by Abbas et al.(2021). The findings indicate a significant positive association between dividend payment and business success. There is a bad correlation between board size and company performance.

H1: Board size has significant positive impact on Firm's profitability (ROA).

2.1.2 Board independency and firm's performance:

Independent directors are frequently regarded as crucial in guiding and supervising the company's management. They have to defend the organization's interests as a whole and those of all stakeholders. In their study of the influence of corporate governance (CG) on the success or failure of companies that were not listed on the Frankfurt Stock Exchange in Germany between 2002 and 2018, Abdullah & Tursoy, (2023) looked at the period from 2002 to 2018. The results show that the audit committee and board of directors have a large and negative impact on a company's financial performance, whereas CEO dualities have no statistically significant impact. Shan, (2019) discusses the relationship between corporate governance practices and business performance, but comes to diverse and ambiguous results. By examining if there are any determinants of the bi-directional relationships between management ownership, board independence, and firm success, this study seeks to provide incremental understanding. The results show that board independence and management ownership both have a negative impact on business performance. Additionally, managerial ownership and board independence are inversely related to one another.

H2: Board Independence has a significant negative impact on Firm's profitability (ROA).

2.1.3 Board meeting and firm's performance:

In order to ascertain the influence of board size, board independence, board diversity, board meetings and various board committees on organizational efficiency in Pakistani textile companies, by S. N. Khan et al. (2019) conducted a study. The results show that BDV and BSZ

have a beneficial effect on organizational performance. BID, NBCM, or BM have little to no effect on an organization's effectiveness, according to Hussain et al. (2019) examination into the empirical relationship between corporate governance and business success. Board Meetings, Board Independence, and Duality of the CEO The findings show that board independence, board size, and board meetings all significantly affect business success.

H3: Board Meetings has a significant positive *impact on Firm's profitability (ROA).*

2.1.4 Firm's size and firm's performance:

Mubeen et al. (2022) look into the moderating effect of company size and the mediating effect of capital structure on Chinese business performance. The current study also looked at the moderating role that firm size (both small and large) has in the link between product market competitiveness and firm performance. The results showed that large companies can moderate the link between firm performance and product market competitiveness. The correlation between product market competitiveness and firm performance, on the other hand, was significantly impacted negatively by small businesses. 90 textile manufacturers registered on the Pakistan Stock Exchange (PSX) between 2008 and 2017 were examined by Ullah et al. (2020) for the impact of capital structure on financial performance. The results indicate that firm performance is adversely and significantly impacted by company size.

H4: Firm Size has a significant negative impact on Firm's profitability (ROA).

2.1.5 Firm's age and firm's performance:

Rahman et al. (2021) claim that the majority of past studies concentrated on the board's independence, structure, and gender diversity. As a result, the aim of this study is to investigate the effects of a number of understudied board attributes, such as income, education, and experience, on the financial success of the company as evaluated by ROA and ROE. A very slight positive link between ROA and ROE and the directors' experience can be seen., Azhar & Ahmed, (2019) research attempts to investigate the connection between business size and profitability by looking at textile listed enterprises in Pakistan. The findings indicated that in the case of Pakistani textile producers, no meaningful association could be identified.

H5: Firm Age has significant positive impact on Firm's profitability (ROA).

2.1.6 Board diversity and firm's performance:

Pucheta-Martínez & Gallego-Álvarez, (2020) study from 2020 investigates how factors such BS, BI, CEO duality, the number of female directors, and board remuneration effect the effectiveness of multinational firms. Size, degree of independence, and presence of female directors are among the board's characteristics that show a favorable correlation with business success. Contrary to original predictions, CEO dualism surprisingly too has a favorable effect on company performance. The analysis also finds that there is no obvious link between board compensation and business performance. The sensitivity of investor confidence has become a challenge as a result of globalization and market expansion, claim Ahmad et al. (2020) especially in light of issues with stock prices, earnings management (EM), income level stability, and corporate governance (CG) implementation. Examining the connections between board diversity, board size, and earnings management is the goal of this study. According to the research, an enormous board size that has a positive and significant impact on earnings management suggests a loss of control. Additionally, gender diversity and certified public accounting are unrelated to earnings management. A. N. khan et al.(2020), Through the mediating influence of working capital management efficiency (WCME), this study investigates the effects of board gender diversity (BGD) and board financial expertise (BFE) on firm performance using Pakistani listed firms. The findings show that, whereas BGD has no effect on WCME, it has a detrimental effect on business performance. The presence of female directors on boards, particularly in the energy sector, is mostly symbolic and brings little real value to the companies they represent.

H6: Board Diversity has a significant positive impact on Firm's profitability (ROA.

2.1.7 Board expertise and firm's performance:

Rahman et al. (2021) study how several elements of board expertise that are rarely examined affect the financial success of a company as measured by ROA and ROE. According to the research, there is a negligible positive correlation between ROA and ROE and the experience of the directors.

H7: Board Expertise has insignificant impact on Firm's profitability (ROA).

2.1.8 Financial leverage and firm's performance

The main goal of Towo, (2022) is to examine the connection between the financial performance of Tanzania's Savings and Credit Cooperative Societies (SACCOS) and their level of financial leverage. The results show that financial leverage and SACCOS' financial performance are considerably and adversely connected. The goal of this study, conducted by Abubakar, (2020), was to analyze secondary data from the yearly statements of seven publicly traded Nigerian oil and gas companies in order to assess the effect of financial leverage on their business performance. According to the findings, financial influence has a strong negative impact on financial execution.

H8: Financial leverage has a significant negative impact on Firm's profitability (ROA).

2.1.9 Financial leverage and corporate governance:

Balla & Mateus, (2002)who conducted the research in Hungary, discovered a significant correlation between FL and the size of an organization. The size of the board affects financial influence since having a small board may boost financial leverage (Alabdullah et al. 2018) **.**In a study conducted in Hungary by Balla & Mateus, (2002) it was found that there was a significant association between a company's size and its leverage. Furthermore, they tend to favor stronger executive management of the company when there are more independent directors. This benefits the shareholders and helps mitigate some issues that may result from how much the business borrows and invests Vafeas & Vlittis, (2018).

A female CEO or female executive on the board is associated with greater financial success, according to research done by Strøm et al. (2014)**.**Furthermore, according to some experts, women who hold executive positions tend to rely less on internal financing and borrowing (Wang et al. (2021)**.** Additionally, the amount of debt a company has (leverage) affects how board meetings affect performance, but it doesn't fundamentally modify the relationship between board size and performance (A. Bashir & Asad, 2018)**.** According to the study of Marete, (2015) there is a positive, substantial association between firm size and financial leverage. The study by Ebel Ezeoha, (2008) found a negative and substantial correlation between firm size and financial leverage.According to the study of Mallinguh et al. (2020) there is no significant association between firm age and financial leverage.

H9: Board size has a significant impact on financial leverage

H10: Board independence has a significant impact on financial leverage

H11: Board diversity has a significant impact on financial leverage

H12: Board meeting has a significant impact on financial leverage

H13: firm size has a significant impact on financial leverage

H14: Board expertise has a significant impact on financial leverage

H15: firm agehas an insignificant impact on financial leverage

2.1.10 Corporate governance and firm performance including mediating effect of leverage:

According to a study by Santoso & Salim, (2023)corporate governance has a considerable effect on firm success but only when it is combined with financial leverage. The effect of corporate governance quality on the financial leverage of Chinese companies that are not publicly traded is investigated by Zhou et al. (2021) for the years 2000 to 2018. This study investigates how the level of corporate governance affects financial leverage using a panel sample methodology. The findings show that, particularly during recessionary periods, financial leverage has a significant detrimental impact on financial performance. Particularly, improved company governance quality can reduce the negative effects of financial leverage.

H17: Financial leverage mediates the effect of corporate governance on Firm's profitability (ROA).

2.2 Research gap

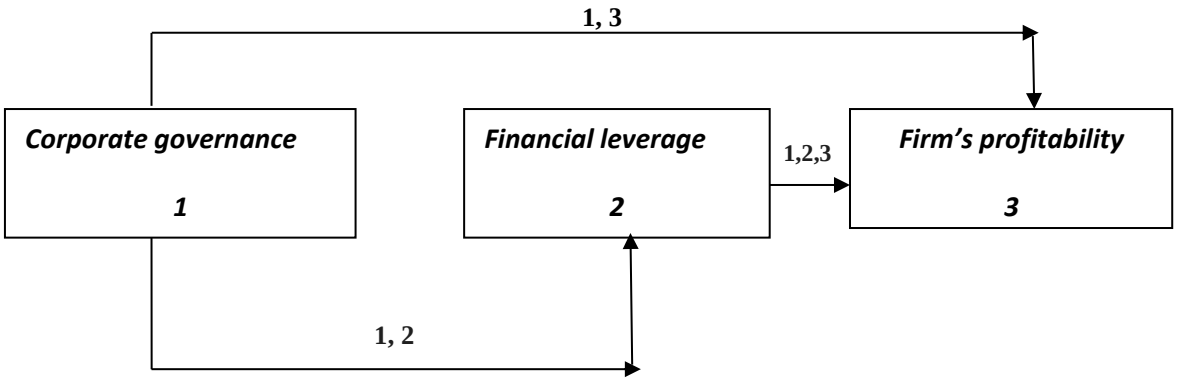
The literature review conducted in Pakistan and India focuses on several key aspects. Firstly, it examines the impact of equity ownership on firms' profitability (Georgakopoulos et al., 2022). Secondly, it investigates the relationship between corporate governance quality and capital structure choice in the cement industry (Huynh et al. 2022). Thirdly, it looks at how corporate governance affects revenue growth across a range of industries, including cement, banking, and pharmaceuticals (Awan & Jamali, 2016; U. Bashir et al., 2018).

There is a significant research gap regarding the thorough examination of the combined effect of multiple corporate governance factors on financial results in this context, even though numerous studies have looked into the relationship between corporate governance mechanisms and financial indicators, such as Return on Assets (ROA). The literature that has already been published has generally concentrated on specific aspects of corporate governance, such as board independence, diversity, and size. There have also been few studies that have evaluated board

expertise and meeting frequency. Moreover, the potential mediating role of financial leverage in the relationship between corporate governance and financial performance has not been adequately explored in case of Pakistan and India textile sectors Therefore, this study aims to bridge this research gap by conducting a comprehensive investigation that simultaneously considers multiple independent variables, including board size, board independence, board diversity, board expertise, firm size, firm age and board meeting frequency, along with examining their collective impact on financial performance metrics like ROA in the Pakistani and Indiantextile industry. Furthermore, the study will also explore whether financial leverage mediate the relationship between corporate governance practices and financial performance. After discussing previous literature and research gap of this study now we move forward toward conceptual framework of study shown in figure 1 below.

Figure 1.

Conceptual Framework of This Study



4 Methodology

This section contains the technical information of study which includes data source, method and model of study. The main objective of this study is to analyze the impact of corporate governance on profitability (ROA) and leverage of textile firms of Pakistan and India. Secondly this study investigates whether financial leverage mediates the relation between firm profitability and corporate governance.First of all we move forward toward data source:

3.1 Data source

Our study is based on 60 textile companies situated in Pakistan and India. The lists of the companies are mentioned in appendix table A that is attached after the references section.

The information gathered for the study is secondary in nature. Secondary data is information that has already been gathered and may be accessed by anybody via the internet, reports, publications, etc. For our analysis in the current study, we are using annual data that covers the period from 2017 to 2022all of the information gathered during the research came from annual reports of textile industries.

3.1.2 Method

In our study, we retrieved all the necessary data from the company's official website. After organizing the data into a panel comprising 60 cross sections, we conducted an analysis using STATA and E-views. The initial steps involved examining correlations, Variance Inflation Factor (VIF), and descriptive statistics. Subsequently, we investigated the influence of corporate governance and financial leverage on firm profitability.This research aims to understand how certain factors (Board size, Board independence, Board meetings, Board Diversity, firm size, firm age, firm leverage, and board expertise) are related to important measure of company performance, ROA. The study focuses on 60 textile companies from Pakistan and India, spanning from 2017 to 2022. Proposing the use of longitudinal (panel data), if we consider a single company the focus would be on time-series information. On the other hand, cross-sectional data can be analyzed across multiple companies, so in our case to obtain extensive results, this research employs panel data that takes into account both time- and company-specific effects.

To fulfill our goal, this research utilizes a dual-phase dynamic panel approach along with a generalized method of moments (GMM) to evaluate how leverage acts as a mediator in the connection between corporate governance and firm performance. The selection of a two-phase dynamic GMM estimation was prompted by various factors. Initially, the variables subject to dependency are likely derived from yearly data, lending an advantage to dynamic panel estimation. Additionally, to control for potential unobserved heterogeneity with regressors, the lagged dependent variable in the two-step dynamic panel data system estimation was utilized. According to De Grauwe & Skudelny, (2000)includes the past dependent variable in the estimation process of a two-step dynamic panel data system effectively addresses the influence of unobserved variables that may change over time. As a result, this approach proves beneficial in mitigating the issue.The GMM approach provides consistent parameters, as supported by previous studies (Arellano & Bond, 1991; Arellano & Bover, 1995). The two-step

GMM estimator was preferred over one-step, as Roodman, (2009)indicated that the latter tends to underestimate standard errors. In this study, the two-step GMM estimator was employed to examine the influence of corporate governance on firm performance, while considering the mediating role of leverage from 2017to 2022. This technique also used by other researchers (Al-Ahdal et al., 2020; Hussain et al., 2019; Kijkasiwat et al., 2022; Van et al., 2022) in their studies.

3.1.3 Models of study

This part of methodology present the models required to obtain the key results of our study. To investigate our research questions, we utilize a two-step dynamic framework estimation to examine the link between corporate governance and firm performance spanning from 2007 to 2022, involving a sample of 60 companies. To ascertain the causal direction and address issues of endogeneity, we introduce a lagged value, which is applied to the variables on the right-hand side. This study includes 4 models which are following:

$$Y\ (ROA) = \beta_0 + (\beta_1 BS_{.it} + \beta_2 BI_{.it} + \beta_3 BE_{it.} + \beta_4 FS_{it.} + \beta_5 BM_{it.} + \beta_6 FA_{.it} + \beta_7 BD_{.it}) -1 + \gamma Z_{it} -1 + \mathcal{E}_{.} \quad \textbf{(1)}$$

$$Y\ (FL) = \beta_0 + (\beta_1 BS_{.it} + \beta_2 BI_{.it} + \beta_3 BE_{it.} + \beta_4 FS_{it.} + \beta_5 BM_{it.} + \beta_6 FA_{.it} + \beta_7 BD_{.it}) -1 + \gamma Z_{it} -1 + \mathcal{E}_{.} \quad \textbf{(2)}$$

$$Y\ (ROA) = \beta_0 + (\beta_1 BS_{.it} + \beta_2 BI_{.it} + \beta_3 BE_{it.} + \beta_4 FS_{it.} + \beta_5 BM_{it.} + \beta_6 FA_{.it} + \beta_7 BD_{.it} + \beta_8 FL_{.it}) -1 + \gamma Z_{it} -1 + \mathcal{E}_{.} \quad \textbf{(3)}$$

$$Y\ (ROA) = \beta_0 + (\beta_1 FL_{it.}) - 1 + \gamma Z_{it} - 1 + \mathcal{E}_{.} \quad \textbf{(4)}$$

Here,

Y= Dependent variables

β_0= Refers to each entity's unidentified intercept.

BS =Board size

BD =Board diversity

BI = Board independence

FS = Size of firm

BE = board expertise

BM = board meeting

FA = firm age

FL= Financial leverage

Ɛ= refers to the error term

Z= refers to vector of firm-level control factors.

i = cross-section dimension

t = time series dimension

In Model 1 we analyze the impact of corporate governance (BS, BI, BE, FS, BM, FA, BD)on ROA (Return on Asset). In model 2 we investigate the impact of corporate governance (BS, BI, BE, FS, BM, FA, BD) on Financial leverage, while in model 3 we investigate the impact of corporate governance and financial leverage(BS, BI, BE, FS, BM, FA, BD, and FL) on ROA and if we talk about model 4 in thismodel we are analyzing the impact of financial leverage on firms profitability (ROA). Now we move forward toward Variables explanation:

3.1.4 Variables explanation

Board size

Board size in corporate governance refers to the number of directors on a company's board. It can vary depending on company size, complexity, and regulations. A smaller board may be more agile, while a larger one may offer diverse expertise. The ideal board size balances efficient decision-making, active participation, and effective governance.

Board independence

Board independence in corporate governance refers to the degree to which directors can make unbiased decisions without being influenced by the company's management or any conflicting interests. Independent directors are not affiliated with the company, its executives, or major shareholders, enabling them to provide objective oversight and act in the best interests of shareholders and stakeholders.

Board meetings

Board meeting in corporate governance is a scheduled gathering of a company's board of directors to discuss and make decisions on strategic matters, financial performance, and important issues related to the company's operations and governance.

Board diversity

Board diversity in corporate governance refers to the inclusion of individuals from varied backgrounds, experiences, and perspectives on a company's board of directors. It aims

to create a more inclusive decision-making process that reflects the diversity of stakeholders and enhances board effectiveness.

Board expertise

In this study we researched in each firm using annual report whether they have the experienced staff or not. It is being concluded that almost every firm has staff expertise in a relative department.

Firm size

Firm size" in corporate governance refers to the scale or magnitude of a company, typically measured by its total assets, revenue, market capitalization, or number of employees. It plays a role in determining the complexity of governance structures and regulatory requirements for the organization.

Firm age

Firm age" in corporate governance refers to the length of time a company has been in operation since its establishment. It is a factor that can influence a company's governance practices, experience, and level of maturity.

Financial leverage

Financial leverage refers to the use of borrowed funds (such as debt) to finance the acquisition of assets or investments with the aim of increasing the potential return on equity.Financial leverage and corporate governance are closely related because the use of leverage can have profound implications for a company's financial stability and performance. Effective corporate governance ensures that decisions related to financial leverage are made prudently, with appropriate risk assessment, transparency, and consideration of long-term interests and shareholder rights.

3.1.5 Component of measuring firm's performance:

ROA

ROA estimates the productivity and adequacy of firm resources in expanding benefitFurthermore, investor interests. ROA is taken from the Fundamental Asset report Investigation given by the State Bank of Pakistan. The functional exhibition measure (ROA) was viewed as higher with organizations with low corporate administration, at the end of the day organizations with lower execution of corporate administration have more profit from resources.

After discussing variables now we move forward toward description of variables present in table 1 below:

Table 1.

Detailed Description of Variables

Variable name	Calculation method	Unit of measurement
ROA	Net profit / Total Asset	Percentage
Board size	No of board members in each company	Number
Board diversity	Female/board size *100	Percentage
Board independence	Independent board members /Total members *100	Percentage
Firm size	Total Asset	In thousands
Firm age	Age of the company since incorporation	Number
Board meetings	Number of board members meetings in a year	Numbers
Board expertise	**NO** =**"0"** if board members have on average < 5 year experience **Yes** =**"1"** if board members have on average >5 year experience	Numbers
Financial leverage	(long term debt/share holder's equity)* (Times)	Percentage

4 Results and discussion

The section contains findings and explanations. Let's begin with the descriptive statistics of Pakistani textile companies. Table 2 illustrates key values. The mean ROA is 6.027, indicating an average profit of 6 units per asset unit. The average board meetings are around 5 annually. Average female board members stand at 10%, while independent directors are 20% on average. Each board comprises roughly 8 members. Board members have an average age (FA) of 49 years and around 7 years of experience (BE). The mean FL is 12%, indicating balanced debt-equity ratios. Mean values for BM, BD, BI, BS, FA, and BE surpass their Std. Dev Values, indicating under-dispersion except for ROA, FS, and FL. The insignificant Jarque-Bera probability value for FA suggests a normally distributed firm age, contrasting with other variables. For medians, variables like ROA, BM, BD, BS, FS, FA, and BE are close to means, barring FL and BI. This implies symmetric distribution for most variables, except financial leverage and board independence.

Table 2.

Descriptive Stats of Pakistan

Descriptive Stats	ROA	BM	BD	BI	BS	FS	FA	FL	BE
Mean	6.027	4.650	10.346	20.123	7.689	2.05E+07	48.694	12.287	6.656
Median	4.030	4.000	12.500	14.290	7.000	1.14E+07	50.000	5.535	7.000
Maximum	307.820	13.000	42.860	62.500	11.000	1.38E+08	77.000	482.530	10.000
Minimum	-30.220	0.000	0.000	0.000	6.000	4.69E+04	10.000	-669.590	3.000
Std. Dev.	23.910	1.764	8.954	12.461	1.120	2.68E+07	16.661	83.505	2.155
Jarque-Bera	150082	248	10	7	58	373	4	7672	12
Probability	0.000	0.000	0.006	0.030	0.000	0.000	0.113	0.000	0.003
Observations	180	180	180	180	180	180	180	180	180

Regarding India, Table 3 displays significant insights. The mean ROA stands at -2.652, depicting an average loss of 3 units per asset unit for Indian textile firms. On average, there are approximately 5 board member meetings per year. Female board members constitute 16% on average, while independent directors comprise 53% of the board. The board generally comprises 8 members. The average FA is 52 years, and board members have around 7 years of experience (BE). The FL averages at 26%, indicating reasonable debt-equity ratios. BM, BD, BI, BS, FA, FS, and BE mean values surpass their respective Std. Dev Values, signifying under-dispersion—excluding ROA and FL. The significant Jarque-Bera probability values for all

variables indicate abnormal distribution. For medians, BM, BD, BS, BI, and BE align closely with means, excluding FL, FA, FS, and ROA. This suggests symmetric distribution for most variables, except for financial leverage, firm age, size, and ROA.

Table 3.

Descriptive Stats of India

Descriptive stats	ROA	BM	BD	BI	BS	FS	FA	FL	BE
Mean	-2.652	5.389	16.489	53.438	7.989	207725.000	52.367	25.696	6.800
Median	38.640	5.000	16.670	50.000	8.000	71537.270	38.500	4.355	7.250
Maximum	95.220	10.000	50.000	83.330	16.000	3236218.000	152.000	2290.970	9.000
Minimum	-1545.950	4.000	0.000	12.500	4.000	1476.238	18.000	-695.120	4.000
Std. Dev.	190.915	1.420	9.522	12.379	2.589	374207.600	35.423	222.903	1.764
Jarque-Bera	11172.870	27.072	30.373	30.346	20.084	6120.620	176.465	38542.950	16.243
Probability	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Observations	180	180	180	180	180	180	180	180	180

After discussing descriptive stats, we now delve into the correlation results presented in Tables 4 and 5. Correlation tests unveil variable relationships. In the context of Pakistan, ROA exhibits positive correlations with BD, BI, BS, FS, FA, FL, and BE. This signifies that as these factors increase, ROA also rises, with respective correlation values of 0.061, 0.008, 0.039, 0.0152, 0.0057, 0.0139, and 0.075. Conversely, Board meetings and ROA share a weak inverse relationship, with a correlation value of -0.0018. Regarding financial leverage, direct positive relationships with BD, BI, BS, BE, and FS exist, reflected in correlation values of 0.0988, 0.1578, 0.0098, 0.0503, and 0.0704. This implies that as board diversity, independence, size, expertise, and firm size increase, financial leverage follows suit. However, firm age and board meetings exhibit an inverse relationship with financial leverage, with correlation values of -0.0703 and -0.033, suggesting that older firms and more board meetings lead to higher financial leverage for Pakistani textile companies. The correlations between other independent variables reveal a mix of positive, negative, strong, and weak relations.

Predicted results in Table 4 also illustrate the VIF (Variance Inflation Factor) magnitude for all independent variables in the case of Pakistan. For instance, VIF values between ROA

and other variables [e.g., VIF (ROA, BM) = 1.00, VIF (ROA, BD) = 1.003, VIF (ROA, BI) = 1.00, VIF (ROA, BS) = 1.001, VIF (ROA, FS) = 1.000, VIF (ROA, FA) = 1.000, VIF (ROA, FL) = 1.000, VIF (ROA, BE) = 1.005]. Similarly, VIF values between FL and other variables [e.g., VIF (FL, BM) = 1.001, VIF (FL, BD) = 1.009, VIF (FL, BI) = 1.025, VIF (FL, BS) = 1.000, VIF (FL, FS) = 1.005, VIF (FL, FA) = 1.005, VIF (FL, BE) = 1.002]. Moreover, VIF values between BM and other variables [e.g., VIF (BM, BD) = 1.002, VIF (BM, BI) = 1.003, VIF (BM, BS) = 1.022, VIF (BM, FS) = 1.005, VIF (BM, FA) = 1.001, VIF (BM, BE) = 1.007]. All other independent variables exhibit VIF values below 10. This test posits that if the calculated VIF value using the formula [1/(1 - R square)] is below 10, explanatory variables are not significantly correlated. Thus, none of ROA, BM, BS, BD, BI, FS, FA, FL, and BE exhibit Multicollinearity issues.

Table 4.

Correlationand VIF Results of Pakistan

Correlation	ROA	BM	BD	BI	BS	FS	FA	FL	BE
ROA	1								
BM	-0.0018	1							
BD	0.0611	0.0513	1						
BI	0.0086	0.0592	0.255	1					
BS	0.039	-0.1487	-0.0654	0.1403	1				
FS	0.0152	0.0711	0.0802	0.2466	-0.0126	1			
FA	0.0057	0.0313	-0.2138	-0.3086	-0.1306	0.2992	1		
FL	0.0139	-0.033	0.0988	0.1578	0.0098	0.0704	-0.0703	1	
BE	0.075	0.0858	0.111	-0.1117	-0.0963	0.1762	0.0224	0.0503	1
VIF	**ROA**	**BM**	**BD**	**BI**	**BS**	**FS**	**FA**	**FL**	**BE**
ROA	-								
BM	1.0000	-							
BD	1.0037	1.0026	-						
BI	1.0001	1.0035	1.0695	-					
BS	1.0015	1.0226	1.0043	1.0201	-				
FS	1.0002	1.0051	1.0065	1.0647	1.0002	-			
FA	1.0000	1.0010	1.0479	1.1053	1.0174	1.0983	-		
FL	1.0002	1.0011	1.0099	1.0255	1.0001	1.0050	1.0050	-	
BE	1.0057	1.0074	1.0125	1.0126	1.0094	1.0320	1.0005	1.0025	-

Turning to Table 5, displaying correlation results for India, ROA exhibits positive correlations with BS, FS, FA, FL, and BE. This suggests that as these factors increase for Indian

textile companies, ROA also raises, with respective correlation values of 0.22, 0.029, 0.035, 0.039, and 0.051. Conversely, BM, BD, and BI share a weak inverse relationship with ROA. This indicates that as BM, BD, and BI increase in Indian textile companies, ROA decreases, with correlation values of 0.08, 0.067, and 0.0518. In terms of financial leverage, direct positive relationships exist between financial leverage and ROA, BS, and FA, with correlation values of 0.0392, 0.0648, and 0.0596. This implies that as ROA, BS, and FA increase, financial leverage also rises for Indian textile companies. On the other hand, BM, BD, BI, FS, and BE exhibit an inverse relationship with financial leverage, indicated by correlation values of 0.0783, 0.0697, 0.0123, 0.0245, and 0.0659. The correlations between other independent variables reveal a mix of positive, negative, strong, and weak relations.

The predicted Table 5 results also display the size of the V. inflation factor across all the independent variables.In case of Indiawe see that all independent variables have been discovered to be under 10. Therefore, ROA, BM, BS, BD, BI, FS, FA, FL and BE no one show report of Multicollinearity problem.

Table 5.

Correlation and VIF results of India

Correlation	ROA	BM	BD	BI	BS	FS	FA	FL	BE
ROA	1.0000								
BM	-0.0818	1.0000							
BD	-0.0670	0.1419	1.0000						
BI	-0.0518	-0.0007	0.2160	1.0000					
BS	0.2200	-0.0505	-0.3650	-0.0949	1.0000				
FS	0.0299	0.1017	-0.1139	-0.2326	0.1186	1.0000			
FA	0.0357	-0.1091	-0.0447	0.2804	0.1927	-0.0341	1.0000		
FL	0.0392	-0.0783	-0.0697	-0.0123	0.0648	-0.0245	0.0596	1.0000	
BE	0.0512	-0.0703	0.0122	-0.0054	0.1634	-0.1743	0.2386	-0.0659	1.0000
VIF	**ROA**	**BM**	**BD**	**BI**	**BS**	**FS**	**FA**	**FL**	**BE**
ROA	-								
BM	1.0067	-							
BD	1.0045	1.0205	-						
BI	1.0027	1.0000	1.0489	-					
BS	1.0508	1.0026	1.1537	1.0091	-				
FS	1.0009	1.0104	1.0131	1.0572	1.0143	-			
FA	1.0013	1.0120	1.0020	1.0854	1.0386	1.0012	-		
FL	1.0015	1.0062	1.0049	1.0002	1.0042	1.0006	1.0036	-	
BE	1.0026	1.0050	1.0001	1.0000	1.0274	1.0313	1.0604	1.0044	-

4.1 The impact of corporate governance factors on ROA of textile companies of Pakistan and India:

After discussing Tables 4 and 5, we precede to GMM regression results for Model 1 in Table 6, employing two-step system dynamic panel estimation. For Pakistan's textile companies, board size, board independence, and firm size significantly negatively impact profitability. Increasing board size by one unit leads to an 18.17 unit ROA decrease, rejecting H1 in line with(Abbas et al., 2021). A 1% rise in board independence results in a 1.28% ROA drop, confirming H2, consistent with (Shan, 2019;Abdullah & Tursoy, 2023). Elevating firm size by a unit leads to a 0.0000000688 unit ROA decrease, accepting H4, aligning (Ullah et al., 2020). The negative impact on ROA could be due to decision-making complexities with growing board and firm sizes, leading to slower processes and strategy challenges. Excessive board independence might result in conflicts, hampering performance. These factors' interplay contributes to the observed negative effects on ROA. Board meetings might not always lead to effective decisions, lessening their impact on financial performance. Expertise might not directly enhance financial outcomes if it's not aligned with industry dynamics or poorly executed. Moreover, the overall business environment, market conditions, and external factors could overshadow these variables' impact on ROA. Conversely, board diversity and firm age positively impact profitability, consistent with (Pucheta-Martínez & Gallego-Álvarez, 2020; Rahman et al., 2021). A unit rise in diversity leads to a 1.75 unit increases in ROA, accepting H6, and a unit rise in age results in a 3.52 unit ROA increase, confirming H5. However, board meetings and expertise don't significantly impact ROA, as (Rahman et al., 2021)indicate. In the case of board expertise and meeting, H7 is accepted, while H3 is rejected. The coefficient of determination (R-squared) is 0.0695, explaining around 6.95% of ROA variability, suggesting potential improvement. The extremely low p-value (0.0000) indicates model significance, lending credibility to the insights beyond chance.

Turning to Indian textile companies, board size and expertise negatively impact profitability, supporting (Abbas et al., 2021) for H1 while rejecting H7. Excessive expertise might hinder consensus, slowing strategic execution, and overlooking holistic perspectives, impacting ROA. In contrast, board diversity, firm size, and age positively impact profitability, as (Pucheta-Martínez & Gallego-Álvarez, 2020; Rahman et al., 2021), and (Azhar & Ahmed, 2019)suggest, accepting H5 and H6, and rejecting H4. However, board independence and

meetings lack significant impact, rejecting H2 and H3. The coefficient of determination (R-squared) is 0.0596, explaining about 5.96% of ROA variability.

Table 6.

Two-Step System Dynamic Panel Estimation

GMM regression results	Pakistan	India
	Equation 1	***Equation 1***
Independent Variables	**Dependent Variable (ROA)**	**Dependent Variable (ROA)**
L1	0.000**	0.000**
	(-.6984707)	(.8827412)
L2	0.000**	0.000**
	(-.716532)	(1.028907)
BS	0.000**	0.003**
	(-18.17244)	(-14.46789)
BD	0.007**	0.023**
	(1.756401)	(1.521361)
BI	0.047**	0.136
	(-1.283244)	(-.8419783)
FS	0.096***	0.000**
	(-6.88e-07)	(.0001633)
FA	0.000**	0.001**
	(3.522825)	(8.715169)
BM	0.663	0.239
	(-1.538713)	(6.069775)
BE	0.770	0.000**
	(8.029163)	(-266.9959)
R^2	0.0695	0.0596
P-Value	0.0000	0.0000

The symbols ** and *** indicate significance at the 5% and 10% levels, respectively.

4.1.2 The impact of corporate governance factors on financial leverage of textile companies of Pakistan and India:

After discussing Table 6, we precede to GMM regression results for Model 2 in Table 7, employing two-step system dynamic panel estimation. This table presents the relationship between corporate governance and financial leverage in textile firms of Pakistan and India. The results reveal that firm age positively impacts financial leverage, while board size negatively impacts financial leverage for Pakistani textile firms. A unit increase in firm age yields a 0.445 unit rise in financial leverage at a 5% significance level, leading to the rejection of H15 and acceptance of the alternative hypothesis on the significant impact of firm age. Our findings contradict (Mallinguh et al., 2020). Conversely, a unit increase in board size results in a 2.285 unit decrease in financial leverage at a 5% significance level, confirming H9 at a 5%

significance level, aligning with (Alabdullah et al., 2018). On the other hand, board diversity, board independence, firm size, board meetings, and board expertise have no association with financial leverage. Thus, we reject H10 to H14, contradicting studies by (Vafeas & Vlittis, 2018;Strøm et al., 2014;A. Bashir & Asad, 2018;Ebel Ezeoha, 2008). The coefficient of determination (R-squared) indicates that 5.63% of the dependent variable's variation is explained by independent variables (Corporate governance), with the remaining variation attributed to error terms. The p-value of 0.000 signifies the overall model's significance.

Regarding India, BD, FS, and FA significantly positively impact financial leverage at a 5% significance level, confirming H11 and H13, while rejecting H15, aligning with (Strøm et al., 2014;Marete, 2015). Conversely, BI, BE, and BM have a significant negative impact on financial leverage at a 5% significance level, accepting H10, H12, and H14, consistent with (Vafeas & Vlittis, 2018;A. Bashir & Asad, 2018). However, BS doesn't impact financial leverage, leading to the rejection of H9, differing from (Alabdullah et al., 2018)**.** The coefficient of determination (R-squared) indicates that 2.99% of the dependent variable's variation is explained by independent variables (Corporate governance), with the remaining variation attributed to error terms.

Table 7.

Two-Step System Dynamic Panel Estimation

GMM regression results	Pakistan	India
	Equation 2	**Equation 2**
Independent Variables	**Dependent Variable (Leverage)**	**Dependent Variable (leverage)**
L1	0.540	0.000**
	(.0067181)	(.0415438)
L2	0.000**	0.001**
	(-.0484346)	(.0071406)
BS	0.028**	0.243
	(-2.284632)	(-2.019479)
BD	0.928	0.005**
	(.0248841)	(.6468864)
BI	0.107	0.005**
	(.3732131)	(-.6218164)
FS	0.138	0.002**
	(-2.31e-07)	(.0000266)
FA	0.006**	0.005**
	(.4457239)	(2.756387)
BM	0.912	0.020**
	(-.2696789)	(-3.043601)
BE	0.977	0.009**
	(-.0777559)	(-400.8305)

GMM regression results	Pakistan	India
R^2	0.0563	0.0299
P-Value	0.0000	0.0000

The symbols ** and *** indicate significance at the 5% and 10\% levels, respectively.

4.1.3 The combine impact of corporate governance and financial leverage on ROA of textile companies of Pakistan and India:

After discussing Table 7, we now move to GMM regression results for Model 3 in Table 8, employing two-step system dynamic panel estimation. This table presents the combined impact of corporate governance and financial leverage on ROA in textile firms of Pakistan and India. For Pakistan's textile companies, board size significantly negatively impacts profitability, with a unit increase leading to a 16.43 unit ROA decrease. Rejecting H1 aligns with (Abbas et al., 2021). Board diversity, firm age, and board expertise positively impact profitability, accepting H5 and H6, and rejecting H7, consistent with (A. N. Khan et al., 2020;Rahman et al., 2021). Conversely, board independence, firm size, board meetings, and financial leverage lack association with ROA. Combining corporate governance and financial leverage's impact on ROA leads to the rejection of H2, H3, H4, and H8.

In the case of India, both BS and BE have a significant inverse impact on profitability, resulting in the rejection of H1 and H7 at a 5% significance level while BD, FS, and FA positively impact profitability, rejecting H4, and accepting H5 and H6. However, BI, BM, and Fl have no association with ROA, leading to the rejection of H2, H3, and H8.

Table 8.

Two-Step System Dynamic Panel Estimation

GMM regression results	Pakistan	India
	Equation 3	***Equation 3***
Independent Variables	**Dependent Variable (ROA)**	**Dependent Variable (ROA)**
L1	0.000**	0.000**
	(-.6685434)	(.8758372)
L2	0.000**	0.000**
	(-.7021279)	(1.017745)
BS	0.000**	0.033**
	(-16.43632)	(-12.12771)
BD	0.047**	0.050**
	(.9859964)	(1.410298)
BI	0.166	0.138
	(-.7204598)	(-.8771616)
FS	0.225	0.001**
	(-3.11e-07)	(.0001517)
FA	0.000**	0.003**
	(3.29608)	(8.112277)
BM	0.125	0.225
	(-2.093722)	(6.241962)
BE	0.008**	0.000**
	(4.927936)	(-258.5385)
FL	0.970	0.428
	(.0010927)	(.0332954)
R^2	0.0695	0.0598
P-Value	0.0000	0.0000

The symbols ** and *** indicate significance at the 5% and 10% levels, respectively.

4.1.4 The impact of financial leverage on ROA of textile companies of Pakistan and India:

After discussing Table 8, we precede to GMM regression results for Model 4 in Table 9, using two-step system dynamic panel estimation. This table presents the impact of financial leverage on ROA in textile firms of Pakistan and India. However, we find that financial leverage doesn't have a significant impact on profitability of Pakistan and India. Consequently, we reject H8 at a 5% significance level. The lack of significant impact could be attributed to factors like fluctuating interest rates, economic instability, industry competition, and management practices. These factors might weaken the direct influence of financial leverage on profitability, leading to an absence of a strong and consistent relationship between the two variables.

Table 9.

Two-Step System Dynamic Panel Estimation

GMM regression results	Pakistan	India
	Equation 4	***Equation 4***
Independent Variables	**Dependent Variable (ROA)**	**Dependent Variable (ROA)**
L1	0.000**	0.000**
	(-.2852902)	(.7015648)
L2	0.000**	0.000**
	(-.2515592)	(1.160469)
FL	0.207	0.178
	(-.0054826)	(.0458032)
R^2	0.0024	0.0014
P-Value	0.0000	0.0000

The symbols ** and *** indicate significance at the 5% and 10% levels, respectively.

4.1.5 Corporate governance and firm performance including mediating effect of leverage:

To assess if financial leverage acts as a bridge between management and performance, specific criteria must be satisfied. Initially, corporate governance should link to financial leverage. Furthermore, corporate governance should relate to ROA, and leverage should impact ROA. If all these conditions are met and an independent variable's effect on a dependent variable loses significance, complete mediation is indicated. In Pakistan, the first condition isn't met, while in India, it is, as shown in Table 7. Both countries satisfy condition 2, depicted in Table 6. Neither case fulfills the third condition. Analyzing condition 4 in Table 8 for Pakistan, adding the mediator (FL) as a dependent variable reduces the impact of corporate governance factors on profitability, rendering it statistically insignificant, providing evidence of mediation. Conversely, India doesn't show evidence of mediation. Therefore, Pakistan accepts **H17**, while India rejects it.

5 Conclusion and policy implication

This study aims to analyze the impact of corporate governance on profitability (ROA) and leverage of textile firms in Pakistan and India. It also explores whether the connection between firm profitability and corporate governance is influenced by financial leverage. Using data from 60 textile companies in Pakistan and India for the period 2017 to 2022, collected from online annual reports, our research employs a two-step dynamic panel and generalized method of moments (GMM) approach. The findings reveal that in Pakistan, board size, board

independence, and firm size negatively impact profitability, while board diversity and firm age have a positive impact. Board meetings and expertise don't impact ROA. In India, board size and expertise negatively affect profitability, while board diversity, firm size, and age have a positive impact. Board independence and meetings don't significantly impact Indian firms. Regarding the mediating role of financial leverage, we find evidence of mediation between corporate governance and ROA in Pakistan but not in India.

5.1 Policy implication

The study's findings have important policy implications for textile companies, regulators, and policymakers in Pakistan and India. Optimizing board composition, emphasizing the significance of older firms, promoting effective board meetings, and managing financial leverage can enhance the impact of corporate governance on profitability. In Pakistan, where financial leverage mediates this relationship, careful management of leverage is crucial. In India, the focus should be on maintaining optimal board size and expertise. Continuous monitoring, sharing best practices, education, and policy awareness can collectively contribute to strengthening corporate governance, financial strategies, and overall profitability in the textile industry of both countries.

5.1.2 Limitations

While this study offers valuable insights into the connections among corporate governance, profitability, and financial leverage in the textile sectors of Pakistan and India, it's crucial to recognize a few limitations. Firstly, the scope of the research is confined to a particular industry, potentially limiting the generalizability of the findings to other sectors. Secondly, the study is based on secondary data primarily extracted from online annual reports. Additionally, due to data availability constraints, a sample of 60 textile companies was selected, which provided the necessary data for conducting the study.

Research funding

We didn’t receive any funding from any source for this study.

References

Abbas, U., Farooq, M. I., Kashif, A. R., Hassan, S., & Scholar, S. M. P. (2021). Effect Of Dividend Paying Behavior And Board Size And Board Composition On Firm's Performance: Evidence From Pakistan. *Academy of Accounting and Financial Studies Journal*, *25*(2), 1-17.

Abdullah, H., & Tursoy, T. (2023). The effect of corporate governance on financial performance: evidence from a shareholder-oriented system. *Iranian Journal of Management Studies*, *16*(1), 79-95.

Abubakar, A. (2020). Financial leverage and financial performance of oil and gas companies in Nigeria. *Open Journal of Management Science (ISSN: 2734-2107)*, *1*(1), 28-44.

Ahmad, S., Khan, A. S., & Zahid, M. (2020). The impact of corporate governance on earnings management: the case of pakistan textile industry. *Journal of Business & Tourism*, *6*(1), 71-87.

Al-Ahdal, W. M., Alsamhi, M. H., Tabash, M. I., & Farhan, N. H. (2020). The impact of corporate governance on financial performance of Indian and GCC listed firms: An empirical investigation. *Research in International Business and Finance*, *51*, 101083.

Alabdullah, T. T. Y., Laadjal, A., Ries, E., & Al-Asadi, Y. A. A. (2018). Board features and capital structure in emerging markets. *Journal of Advanced Management Science*, *6*(2).

Aliyu, S. (2014). Sustainable Islamic banking: A conceptual framework for non-interest banks in Nigeria. *International Journal of Economics, Management and Accounting*, *22*(1).

Arellano, M., & Bond, S. (1991). Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations. *The review of economic studies*, *58*(2), 277-297.

Arellano, M., & Bover, O. (1995). Another look at the instrumental variable estimation of error-components models. *Journal of econometrics*, *68*(1), 29-51.

Awan, A. W., & Jamali, J. A. (2016). Impact of corporate governance on financial performance: Karachi stock exchange, Pakistan. *Business and Economic Research*, *6*(2), 401-411.

Azhar, K. A., & Ahmed, N. (2019). Relationship between firm size and profitability: investigation from textile sector of Pakistan. *International Journal of Information, Business and Management*, *11*(2), 62-73.

Abobakr, M.G., & Elgiziry, K. (2016). The effect of board characteristics and ownership structure on the corporate financial leverage. *Accounting and Finance research*, *5*(1), 1-14.

Balla, A., & Mateus, C. (2002). *An empirical research on capital structure choices.* Paper presented at the Novos desafios na Gestão, Innovação ou renovação?: XII Jornadas Luso-Espanholas de gestão científica.

Bashir, A., & Asad, M. (2018). Moderating effect of leverage on the relationship between board size, board meetings and performance: A study on textile sector of Pakistan. *American Scientific Research Journal for Engineering, Technology, and Sciences (ASRJETS), 39*(1), 19-29.

Bashir, U., Fatima, U., Sohail, S., Rasul, F., & Mehboob, R. (2018). Internal corporate governance and financial performance nexus: A case of banks of Pakistan. *Journal of Finance and Accounting, 6*(1), 11-17.

Berger, P. G., Ofek, E., & Yermack, D. L. (1997). Managerial entrenchment and capital structure decisions. *The journal of Finance, 52*(4), 1411-1438.

Bukhari, S. M. H. B., Khan, M. A., & Kalim, R. K. (2022). The Implementation of Sharī 'ah Governance Framework and Change in Performance of Islamic Banks in Pakistan: Implementation of Sharī 'ah Governance Framework. *Al-Irfan, 7*(13), 34-43.

Chandani, S., & Ahmed, N. (2021). The effect of corporate governance and financial leverage on efficiency of Pakistan textile sector. *Independent Journal of Management & Production, 12*(1), 201-218.

De Grauwe, P., & Skudelny, F. (2000). The impact of EMU on trade flows. *Weltwirtschaftliches Archiv, 136*(3), 381-402.

Drobetz, W., Schillhofer, A., & Zimmermann, H. (2004). Corporate governance and expected stock returns: Evidence from Germany. *European financial management, 10*(2), 267-293.

Ebel Ezeoha, A. (2008). Firm size and corporate financial-leverage choice in a developing economy: Evidence from Nigeria. *The journal of risk finance, 9*(4), 351-364.

Fatima, S., Bilal, M., & Raza, M. M. (2021). Economics Implications of Corporate Frauds for Developing Countries: Disclosure and Prevention. *Economics, 15*(2).

Fisch, J. E. (2012). Leave it to Delaware: why congress should stay out of corporate governance. *Del. J. Corp. L., 37*, 731.

Georgakopoulos, G., Toudas, K., Poutos, E. I., Kounadeas, T., & Tsavalias, S. (2022). Capital structure, corporate governance, equity ownership and their impact on firms' profitability and effectiveness in the energy sector. *Energies, 15*(10), 3625.

Hussain, S., Ahmad, T., & Hassan, S. (2019). Corporate Governance and Firm performance using GMM. *International Journal of Information, Business and Management, 11*(2), 300-316.

Huynh, Q. L., Hoque, M. E., Susanto, P., Watto, W. A., & Ashraf, M. (2022). Does financial leverage mediates corporate governance and firm performance? *Sustainability*, *14*(20), 13545.

Khan, A. N., Yahya, F., Waqas, M., & Hussain, W. (2020). THE MEDIATING ROLE OF WORKING CAPITAL MANAGEMENT EFFICIENCY BETWEEN BOARD DIVERSITY AND FIRM'S PERFORMANCE: EVIDENCE FROM ENERGY SECTOR OF PAKISTAN. *International Journal of Energy, Environment and Economics*, *28*(2), 121-135.

Khan, S. N., Hussain, R. I., Maqbool, M. Q., Ali, E. I. E., & Numan, M. (2019). The mediating role of innovation between corporate governance and organizational performance: Moderating role of innovative culture in Pakistan textile sector. *Cogent Business & Management*.

Kijkasiwat, P., Hussain, A., & Mumtaz, A. (2022). Corporate Governance, Firm Performance and Financial Leverage across Developed and Emerging Economies. *Risks*, *10*(10), 185.

Le, H. T. M., Ting, I. W. K., Kweh, Q. L., & Ngo, H. L. T. (2023). CEO duality, board size and firm performance: evidence in Vietnam. *International Journal of Business Excellence*, *29*(1), 98-120.

Mallinguh, E., Wasike, C., & Zoltan, Z. (2020). The business sector, firm age, and performance: The mediating role of foreign ownership and financial leverage. *International Journal of Financial Studies*, *8*(4), 79.

Marete, D. (2015). *The relationship between firm size and financial leverage of firms listed at Nairobi securities exchange.* University of Nairobi.

Montoneri, E., Savarino, P., Adani, F., Genevini, P., Ricca, G., Zanetti, F., & Paoletti, S. (2003). Polyalkylphenyl-sulphonic acid with acid groups of variable strength from compost. *Waste Management*, *23*(6), 523-535.

Mubeen, R., Han, D., Abbas, J., Raza, S., & Bodian, W. (2022). Examining the relationship between product market competition and Chinese firms performance: the mediating impact of capital structure and moderating influence of firm size. *Frontiers in Psychology*, *12*, 709678.

Pham, H. S. T., & Nguyen, D. T. (2019). The effects of corporate governance mechanisms on the financial leverage–profitability relation: Evidence from Vietnam. *Management Research Review*, *43*(4), 387-409.

Pucheta-Martínez, M. C., & Gallego-Álvarez, I. (2020). Do board characteristics drive firm performance? An international perspective. *Review of Managerial Science*, *14*(6), 1251-1297.

Rahman, H. U., Khan, S., & Zahid, M. (2021). Do directors' compensation, education and experience affect firm financial performance? An evidence from the textile industry of Pakistan. *Journal of Managerial Sciences, 15*(1), 101-114.

Roodman, D. (2009). A note on the theme of too many instruments. *Oxford Bulletin of Economics and statistics, 71*(1), 135-158.

Santoso, E. B., & Salim, S. N. (2023). *Pengaruh profitabilitas, financial leverage, dividen, ukuran perusahaan, kepemilikan institusional, dan kelompok usaha terhadap perataan laba studi kasus pada perusahaan non-finansial yang terdaftar di BEI.* Paper presented at the Conference in Business, Accounting, and Management (CBAM).

Shan, Y. G. (2019). Managerial ownership, board independence and firm performance. *Accounting Research Journal, 32*(2), 203-220.

Strøm, R. Ø., D'Espallier, B., & Mersland, R. (2014). Female leadership, performance, and governance in microfinance institutions. *Journal of Banking & Finance, 42*, 60-75.

Towo, N. N. (2022). Financial Leverage and Financial Performanceof Savings and Credit Co-operative Societiesin Tanzania. *International Journal of Rural Management*, 09730052221077846.

Ullah, A., Pinglu, C., Ullah, S., Zaman, M., & Hashmi, S. H. (2020). The nexus between capital structure, firm-specific factors, macroeconomic factors and financial performance in the textile sector of Pakistan. *Heliyon, 6*(8).

Vafeas, N., & Vlittis, A. (2018). Independent directors and defined benefit pension plan freezes. *Journal of Corporate Finance, 50*, 505-518.

Van, L. T. H., Vo, D. H., Hoang, H. T. T., & Tran, N. P. (2022). Does corporate governance moderate the relationship between intellectual capital and firm's performance? *Knowledge and Process Management, 29*(4), 333-342.

Wang, X., Deng, S., & Alon, I. (2021). Women executives and financing pecking order of GEM-listed companies: Moderating roles of social capital and regional institutional environment. *Journal of Business Research, 136*, 466-478.

Zhou, M., Li, K., & Chen, Z. (2021). Corporate governance quality and financial leverage: Evidence from China. *International Review of Financial Analysis, 73*, 101652.

Appendix

Table A.

List Of Companies Selected for Study

Pakistan	India
Nishat mills	Vardhman Textiles Ltd.
Kohi noor	Welspun India Home Textile
Deewan Farooq Textile mills	Trident Group
Shahzad Textile	KPR Mill Limited
Archroma Textile	Raymond Limited
Gul Ahmad	Page Industries Limited
Colony Textile Mills Limited	Nitin Spinners Limited
The Crescent Textile Mills	Rupa &company Limited
Artistic Denim Mills Limited	Zenith Fibres Limited
Mahmood Textile Mills Limited	Himatsingka Seide Ltd.
Indus Group	Winsome Textile Inds. Ltd
Zahidjee Textile Mills Limited	Bombay Dyeing and Manufacturing Company Limited
Ali Asghar Textile Mills Limited	Subhash Silk Mills Limited
SURAJ COTTON MILLS LIMI	Aarvee Denim & Export
Sapphire Textile Mills Limited	Abhishek Corporation limited
Interloop Limited	Sutlej Textiles &Inds. Ltd
Ahmad hassan Textile Mills Limited	Riba Textile Ltd
Azghar nine limited	Adinath Textile limited
Bhanero textile mill limited	Acknit Industries Limited
Shahtaj Textile Limited	Oswal Yarns Ltd
Shams Textile Mills Limited	Morarjee Textile Ltd
Reliance Weaving Mills Limited	Lambodhara Textile Ltd
Saif Textile Mills Limited	Ambika Cotton Mills Limited
Faisal Spinning MillsLimited	Anjani Synthetics Limited
Ghazi Fabric International Limited	Donear industries Ltd
Jubilee Spinning &Weaving Mills Ltd	Hindoostan Mills Ltd
Khyber Textile Mills Limited	Alok Industries Limited
Fateh Textile Mills Limited	Alps Industries Limited
Masood Textile Mills Limited	GTN Textile
Fazal Cloth Mills Limited	Deepak Spinners Ltd