Data Article

A comprehensive dataset of board of directors attributes of Pakistan stock exchange listed non-financial firms

Sattar Khan\textsuperscript{a,*}, Yasir Kamal\textsuperscript{b}

\textsuperscript{a}Scholar at Institute of Management Sciences Peshawar, Pakistan
\textsuperscript{b}Associate Professor, at Institute of Management Sciences Peshawar, Pakistan

ARTICLE INFO

Article history:
Received 16 August 2021
Revised 4 January 2022
Accepted 24 January 2022
Available online 28 January 2022

Keywords:
Board of directors
Audit committee
Corporate governance
Panel data
Non-financial firms
Pakistan stock exchange

ABSTRACT

The data set of this article is related to the paper “Do Board of Directors’ Characteristics Matter in Restraining Earnings Manipulation? Empirical Evidence from Pakistan Stock Exchange” Khan and Kamal, (2021) [1]. This data article presents the raw data of 315 non-financial listed firms of the Pakistan Stock Exchange (hereafter, PSX). The data relating to the Board of Directors has been manually extracted from 1890 annual reports of the concerned companies and the financial data were extracted from State Bank of Pakistan sources, business-recorder\textsuperscript{1} and PSX Data portal\textsuperscript{2}. The dataset is an unbalanced panel data consisting of 1882 firms’ year’s observations from 2014 to 2019 based on 315 non-financial listed firms consists of 20 variables. This paper’s dataset is valid and useful for researchers/scholars in many ways such as linking the board of directors to corporate governance, internal governance vs external governance, audit quality, financial reporting quality, firm performance, industry performance, corporate social responsibility and government regulation.

\textsuperscript{*} Corresponding Author at: Scholar Room Institute of Management Sciences, 1-A, Sector E-5, Phase VII, Hayatabad, Peshawar, Khyber Pakhtunkhwa 25000, Pakistan.
\textsuperscript{1} E-mail addresses: phd181811439@imsciences.edu.pk (S. Khan), yasir.kamal@imsciences.edu.pk (Y. Kamal).
\textsuperscript{2} https://markets.brecorder.com/.
\textsuperscript{2} https://dps.psx.com.pk/.

https://doi.org/10.1016/j.dib.2022.107879
2352-3409/© 2022 The Author(s). Published by Elsevier Inc. This is an open access article under the CC BY license (http://creativecommons.org/licenses/by/4.0/)
Specifications Table

Subject: Business, Management and Decision Science (Accounting & Finance)
Specific subject area: Corporate Governance & Board of Directors
Type of data: Panel Data Table in Excel & dta (Stata) File
How the data were acquired: The data relating to the board of directors has been hand-picked from the published annual reports of the concerned non-financial companies of PSX. In the annual reports, the director’s data has been collected from directors’ reports to shareholders, directors’ profiles, statements of compliance and company information. Lastly, the financial data has been extracted from the State Bank of Pakistan (hereafter, SBP) published Balance Sheet Analysis, PSX Data portal and business recorder websites.

Data format: Raw and Analyzed Data
Description of data collection: Board of Directors’ attributes such as expertise, independence, female directorship, CEO Duality, CEO expertise, Audit Committee independence and Audit Committee Expertise data has been manually collected from 1890 annual reports of the 315 non-financial listed firms for the period 6 years ranging from 2014 to 2019.

Data source location: Pakistan, an emerging market economy. The data sources is annual reports of the Pakistan Stock Exchange 315 non-financial listed companies. In particular, in the annual reports the data is collected from directors’ reports to shareholders, directors’ profiles, statements of compliance and company information.

Data accessibility: The Dataset is attached with this article
Related research article: [1] S. Khan and Y. Kamal, “Do Board of Directors’ Characteristics Matter in Restraining Earnings Manipulation? Empirical Evidence from Pakistan Stock Exchange,” City Univ. Res. J., vol. 11, no. 1, pp. 60–83, 2021.

Value of the Data

• This dataset is beneficial for many parties, because it may be considered comprehensive and complete data related to companies’ board structure and making it a valuable resource for Board of Directors (hereafter, BOD) attributes. This dataset may help related researchers to understand the dynamics of BOD in non-financial firms of PSX.
• Researchers/scholars of the Corporate Governance (hereafter, CG) & CG regulations, firms’ managers, investors, minority shareholders and regulator (s) may use this dataset for exploring board of directors’ related issues, drivers and challenges. Moreover, the regulator (SECP) may use it to check the compliance of CG codes in the Pakistani context.
• This dataset related to the board of directors may be used by CG researchers by linking it with firm performance, investment efficiency, firm diversification strategies, audit quality, accrual quality, risk aversion, managerial decision and different CG attributes.
• The dataset related to this article may be used to construct a BOD Index similar to [2] which may be linked with above-mentioned variables. Moreover, the Board Index and Board attributes may be checked with comparative analysis and by using different theoretical lenses.

1. Data Description

The data included in this article is an unbalanced panel that is related to the BOD attributes and firm characteristics. The dataset is consists of 1882 firms’ years’ observation of 315 non-financial listed firms for 27 sectors of PSX. The data collection period is from 2014 to 2019.
Table 1
Procedures of sample selection.

| Description                                                                 | Sample Size |
|----------------------------------------------------------------------------|-------------|
| Total firms listed in the PSX in March 2021                                 | 550         |
| **Less: Financial firms**                                                   | (132)       |
| **Less: Annual Reports Missing, Defaulter and Delisted firms for the said period** | (93)        |
| **Less: Firms with missing Board of Directors & Audit Committee information** | (10)        |
| **Firms selected from the for the study**                                  | 315         |

Table 2
Description of board of directors variables.

| S. No. | Variables               | Type of Data | Variables Description                                                                                                                                                                                                 | Data Source | Symbol in data file |
|--------|-------------------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------------|
| 1      | Board Independence     | Percentage (%) | The Number of Independent directors/ Size of the board                                                                                                                                                                 | Annual Report | BIND                |
| 2      | Board Expertise        | Percentage (%) | Those directors who have accounting and finance-related education/experience in the company board are divided by size of the board                                                                                     | Annual Report | BEXP                |
| 3      | Board Female directorship | Percentage (%) | The Number of Female directors/Size of the board                                                                                                                                                                     | Annual Report | BDIV(Num)           |
| 4      | Board Female directorship (Dummy) | Binary | 1 is taken if there is the presence of female director(s) in the board otherwise zero                                                                                                                                   | Annual Report | BDIV (D)            |
| 5      | Board Size             | Number (count) | The number of directors in the board                                                                                                                                                                                  | Annual Report | BSIZE               |
| 6      | Board meetings         | Number (count) | The number of board meetings in a financial year                                                                                                                                                                     | Annual Report | BMEET               |
| 7      | CEO Duality            | Binary        | An indicator 1 is taken if the CEO and Chairman of the Board are the same persons otherwise zero.                                                                                                                                 | Annual Report | CEOD                |
| 8      | CEO Expertise          | Binary        | An indicator 1 is taken if the CEO has Accounting and Finance experience otherwise zero.                                                                                                                                 | Annual Report | CEOEXP              |

Table 1 shows the sample selection procedure, which shows how the sample is reduced or comes up to 315 non-financial firms of PSX.

In Table 2 the BOD attributes data is given along with description and data source, it is mainly collected from the annual reports of the companies. The annual reports which are freely available on different sources are downloaded from PSX Data portal, concerned companies’ websites and opendoors.pk. In the annual reports, the director’s data has been collected from directors’ reports to shareholders, directors’ profiles, statements of compliance and company information. The data has been extracted to MS excel file, the BOD of variables are presented in the data file from Column F to Column M. The variable BSIZE, BMEET, BIND, and BEXP are taken as it is, while BDIV, CEOD and CEOEXP are calculated during the extraction stage and reported is binary variables. In Table 3 description of the audit committee and financial variables is given which is included in the data file (Excel & dta). The audit committee variables, Firm Age and BIG4 Auditors data has been collected from the companies’ annual reports while the data of financial variables such as Return on Assets (ROA), Financial Leverage and Firm Size has been retrieved from the business recorder website and SBP sources. The variables of Audit Committee and Financial variables are calculated/adjusted before it were included in the dataset. The arrangement of audit committee variables and financial variables in the dataset file is from Column N to Column U.

---

3 https://opendoors.pk/annual-reports-list/.
Table 3
Description of audit committee and financial variables.

| S. No. | Variables          | Type of Data | Variables Description                                                                 | Data Source   | Symbol in file |
|--------|--------------------|--------------|--------------------------------------------------------------------------------------|---------------|----------------|
|        | Audit Committee    | Percentage (%)| Number of Independent directors in audit committee/ Size of the Audit Committee       | Annual Report | ACIND          |
| 1      | Independence       |              | Those directors who have accounting and finance-related education/experience by the size of the audit committee | Annual Report | ACEXP          |
| 2      | Firm Age           | Number (count)| Number of Years since Incorporation of the Firm                                      | Annual Report | FAGE           |
| 3      | BIG 4 Auditors     | Binary       | A firm audited by BIG4 audit firm will take 1 and others it will take 0               | Annual Report | BIG4           |

In addition to, BOD, Audit Committee and financial variables, in the dataset file Column A is for companies Symbol, Column B is for year variable, Column C represents the firm complete name, in Column D the PSX sectors code is given while Column E shows us the Company ID. Moreover, Table 4 shows the sector-wise distribution of the sample, which indicates that the largest observations are from the textile sector and the smallest distribution of the sample is from the woolen & leather sectors.

2. Experimental Design, Materials and Methods

This article contains comprehensive data of BOD attributes and firm characteristics relating to non-financial firms of PSX. The data collection process start from the listed firms of PSX which was 550 on March 2021. Then those 550 companies were separated into financial and non-financial firms, financial firms were excluded due to the reason specified in the literature [1]. Then one by one every non-financial firm(s) was/were taken from the PSX listed firms and searched in PSX Data portal for annual reports downloading, if annual reports were not available there (PSX Data Portal), then each and every company official site are searched out for annual reports, in addition to this, the openddoors.pk has also been used for annual reports downloading.

After downloading the annual reports of the firms, the next step was to screen out and extract the information of BOD attributes from annual reports to excel file similar to the methods adopted in the following studies [3,4] the board related information in annual reports were found in company information, directors’ reports to shareholders, directors’ profiles and statements of compliance. Following the aforementioned method, and screening out 1890 annual reports, we have formed an unbalanced panel dataset of 315 non-financial firms in Excel consisting of BOD variables such as Board Size, Board Meetings, Board Independence, Board Female Directorship, Board Expert Directors, CEO Duality, CEO Expertise, audit committee independence and audit committee expertise for the 6 years data period ranging from 2014 to 2019.
Table 4
Pakistan stock exchange sector wise distribution of sample of the study.

| S. No. | PSX Sector Name               | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Total | Row % |
|--------|------------------------------|------|------|------|------|------|------|-------|-------|
| 1      | Automobles Assembler         | 12   | 12   | 12   | 12   | 12   | 12   | 72    | 3.83  |
| 2      | Automobles Parts & Accessories | 7    | 7    | 7    | 7    | 7    | 7    | 42    | 2.23  |
| 3      | Cable & Electrical Goods     | 5    | 5    | 5    | 5    | 5    | 5    | 30    | 1.59  |
| 4      | Cement                       | 19   | 19   | 19   | 19   | 19   | 19   | 114   | 6.06  |
| 5      | Chemical                     | 27   | 27   | 27   | 27   | 27   | 27   | 162   | 8.61  |
| 6      | Engineering                  | 11   | 11   | 11   | 11   | 11   | 11   | 66    | 3.51  |
| 7      | Fertilizer                   | 5    | 5    | 5    | 5    | 5    | 5    | 30    | 1.59  |
| 8      | Food & Personal Products     | 17   | 17   | 17   | 17   | 17   | 17   | 102   | 5.42  |
| 9      | Glass & Ceramics             | 8    | 8    | 8    | 8    | 8    | 8    | 48    | 2.55  |
| 10     | Leather & Tanners            | 1    | 1    | 1    | 1    | 1    | 1    | 6     | 0.32  |
| 11     | Miscellaneous                | 8    | 8    | 8    | 8    | 8    | 8    | 48    | 2.55  |
| 12     | Oil & Gas Exploration Co     | 4    | 4    | 4    | 4    | 4    | 4    | 24    | 1.28  |
| 13     | Oil & Gas Marketing Co       | 8    | 8    | 8    | 8    | 8    | 8    | 48    | 2.55  |
| 14     | Paper & Board                | 7    | 7    | 7    | 7    | 7    | 7    | 42    | 2.23  |
| 15     | Pharmaceuticals              | 9    | 9    | 9    | 9    | 9    | 9    | 54    | 2.87  |
| 16     | Power Generation & Distribution | 13   | 13   | 13   | 13   | 13   | 13   | 78    | 4.14  |
| 17     | Refinery                     | 5    | 5    | 5    | 5    | 5    | 5    | 30    | 1.59  |
| 18     | Sugar & Allied Industries    | 29   | 29   | 29   | 29   | 29   | 29   | 174   | 9.25  |
| 19     | Synthetic & Rayon            | 7    | 7    | 7    | 7    | 7    | 7    | 42    | 2.23  |
| 20     | Technology & Communication   | 12   | 12   | 12   | 12   | 12   | 12   | 72    | 3.83  |
| 21     | Textile Composite            | 55   | 55   | 55   | 55   | 55   | 55   | 330   | 17.53 |
| 22     | Textile Spinning             | 30   | 32   | 32   | 32   | 32   | 32   | 190   | 10.10 |
| 23     | Textile Weaving              | 5    | 5    | 5    | 5    | 5    | 5    | 30    | 1.59  |
| 24     | Tobacco                      | 2    | 2    | 2    | 2    | 2    | 2    | 12    | 0.64  |
| 25     | Transport                    | 3    | 3    | 3    | 3    | 3    | 3    | 9     | 0.50  |
| 26     | Vanaspati & Allied Industries| 2    | 2    | 2    | 2    | 2    | 2    | 11    | 0.58  |
| 27     | Woolen                       | 1    | 1    | 1    | 1    | 1    | 1    | 6     | 0.32  |
| Total  |                              | 312  | 314  | 314  | 314  | 314  | 314  | 1882  |       |
| Column % |                         | 16.57811 | 16.68438 | 16.68438 | 16.68438 | 16.68438 | 16.68438 | 100.00 |       |

After BOD attributes data collection the second stage was to collect the firm characteristics data from the different sources such as businesscoder, PSX Data Portal and Balance Sheet Analysis issued by SBP. In the first step, data was downloaded in raw form, and after that, it was merged with Board attributes data in STATA 14 by using the merge command. In such a way we formed a comprehensive data set of board attributes with the financial characteristics of the non-financial companies of PSX. Therefore, this dataset may be used to link it to the various CG related topics depending upon the researcher/scholars interest and specific theoretical lenses and perspectives.

Ethics Statement

No Ethical concerns are involved in the data collection, because the data has been collected from the annual reports of the companies. In the annual reports are freely available on the official website of Pakistan Stock Exchange [https://dps.psx.com.pk/](https://dps.psx.com.pk/).

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships which have, or could be perceived to have, influenced the work reported in this article.
CRediT Author Statement

**Sattar Khan:** Conceptualization, Formal analysis, Data curation, Writing – original draft, Visualization; **Yasir Kamal:** Writing – review & editing, Supervision.

Acknowledgments

The authors are grateful to the administration of Institute of Management Sciences, Peshawar, Pakistan and I Sattar Khan being a Ph.D. Scholar at this Institute warmly acknowledged the help they provide us during this research by giving full access in using the Ph.D. Scholar Room. This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Supplementary Materials

Supplementary material associated with this article can be found in the online version at doi:10.1016/j.dib.2022.107879.

References

[1] S. Khan, Y. Kamal, Do board of directors’ characteristics matter in restraining earnings manipulation? empirical evidence from Pakistan stock exchange, City Univ. Res. J. 11 (1) (2021) 60–83.
[2] M. Mansour, H.A. Hashim, Z. Salleh, Datasets for corporate governance index of Jordanian non-financial sector firms, Data Br 30 (2020) 105603.
[3] R.R.R. Singareddy, S. Chandrasekaran, B. Annamalai, P. Ranjan, Corporate governance data of 6 Asian economies (2010–2017), Data Br 20 (2018) 53–56.
[4] A. Adegboye, S.A. Ojeka, K. Adegboye, O. Alabi, M. Afolabi, F. Iyoha, Data on chief financial officer attributes and risk management strategies for Nigerian listed financial institutions, Data Br 27 (2019) 104609.