The mediating role of board size, philanthropy and working capital management between basic corporate governance factors and firm’s performance

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Abstract

Purpose – This study aims to identify the impact of corporate governance on performance of sugar mills. In order to study this relation, a model is constructed in which ownership structure and independent directors are taken as independent variables. Whereas firm performance is analyzed by using proxy variables such as return on asset (ROA), return on equity (ROE) and sales growth. Moreover, size of board, working capital management (WCM) and philanthropy are taken as mediating variables between governance variables and firm performance.

Design/methodology/approach – The data of 32 sugar mills listed at Pakistan Stock Exchange for the period of four years (i.e. 2014–2017) is used for this research. Moreover, to investigate the model, generalized least squares statistical method is used to measure the relationship between variables.

Findings – The results revealed that there is significant but positive relationship between independent directors and ROA while ownership structure and ROE have significant but negative relationship. Thus, the board of directors should make it sure that all stakeholders and organizations should increase the nonfamily ownership in firms for better corporate performance. Moreover, philanthropy and WCM mediate the relationship between corporate governance and firms’ performance.

Practical/implications – This research work will be helpful in the corporate governance, and further researchers can conduct their study by considering executive/nonexecutive director and institutional owners as governance variables.

Originality/value – This paper fulfills an identified need to study how Corporate Governance effect the performance of firm.

Keywords Corporate governance, Firm’s performance, ROA, ROE, Stakeholder, Ownership, Philanthropy

Paper type Research paper
1. Introduction
The corporate sector and Institute of Chartered Accountant of Pakistan (ICAP) [1] are the main controlling bodies of capital market secretarial profession of Pakistan. Securities and Exchange Commission of Pakistan (SECP) [2] is responsible for the monitoring of the profession. International Financial Reporting Standards (IFRS) [3] foundation declares statements, which are used to take help in case of other requirements related to the economic reportage. In 2002, there were major frauds in WorldCom and Enron after that Sarbanes–Oxley act was issued; therefore, a code of conduct regarding the corporate governance (CG) system in Pakistan was introduced by SECP and that code was mentioned compulsory to be adopted within the same year 2002. Later on review of code was taken and revision of the code took place during 2012.

Shareholders/investors always try to get information that can be helpful for them to earn as much return as they can. For that purpose an effective CG system has a vital importance and current issue of discussion in business management. Many studies gained fame in the recent years by studying impact of CG on firms’ performance (Sami et al., 2011; Ammanna et al., 2011; Stefanescu, 2011; Garcia-Meca and Ballesta, 2011; Lam and Lee, 2012; Sheikh and Wang, 2012; Ujaunwa, 2012; Rashid and Islam, 2013; Kumar and Singh, 2013). CG can be counted among the most effecting aspects of firm’s governance; this area is studied at a large scale to get best firm performance. A common mind-set is that the better the CG, better will be the firm performance. CG consists of different areas such as ownership structure, board size, Chief Executive Officer (CEO) compensation, CEO duality, audit committee and ratio of board conferences and so on. These areas are studied by (Bhagat and Black, 1999; Ali and Mohtasham, 2011; Yasser et al., 2011), but they do not find similar results. There are some researchers (Maury, 2006; Rashid et al., 2010; Ali and Mohtasham, 2011) who conducted their studies and found a positive impact of independent board upon the firm performance, whereas others such as Bhagat and Black (1999) concluded that there is no relationship between both variables. We can define the concept of CG with several definitions. CG is defined by Gompers et al. (2003) with respect to investor’s perspective as “both the guarantee to reimburse a reasonable profit for capital investment and the dedication to run a firm”. Corporate governance directly affects the firm performance and ability of firm to access the capital market. Furthermore, the researcher advocated that level of CG of a firm could be helpful in emerging market with minor organizations as it supports to differentiate among firms. CG is a proper set of processes applied in favor of economic agents and urging them to take part in productive process within the social entity (Maati, 1999).

CG is the mechanism approved by the members of the board and its associated committees. The corporations in CG are administrated to ensure that manager runs the organization for the advantages of its stakeholders such as shareholders, creditors, suppliers and employees (Martynova and Renneboog, 2006). The basic principle of CG is the distribution of authority within a corporate, among its stockholders and the members of the board (Brown and Casey, 2012). Cadbury (2000) concluded that the aim and purpose of CG are promoting contest and permitting options to the customers for making a choice and satisfying interest of individuals, corporations and securities, respectively. Shleifer and Vishny (1997) studied that the CG is administered by board members and is implemented and evaluated through various processes within the organizations. The inside directors residing in the corporation are managers of the organization, they are well aware of the company than outside directors and they make improved decisions. The outside independent directors have less value as compared to the inside directors. The outsiders are part-timers and they do not have inside information. Most of the public and private decision-makers prefer the system of independent board (Gordon, 2006). Independent directors are assumed to be custodians of the investors’ interests. Moreover, they are effective in the composition of board. Hermalin and Weisbach (1991) explained that the Board of Directors (BODs) have basic responsibility of monitoring the firms and success of board depends on the majority of independent outside
directors. According to the Wall Street Journal, independent outsiders made up of 66% of all boards and 72% percent of Standard & Poor’s board. The larger number of directors on the board raises the difficulty of decision-making and coordination (Cheng, 2008) but leads to its benefit to better monitoring capability, improvement in organization’s capacity to perform better exterior associations (Coles et al., 2008). A lot of researchers discover an insignificant association between board size and organizational performance (Ghosh, 2007). Erickson (2005) describes that there are two things that are greatly affected by board size; one is difficulty of decision-making and second is effectiveness. The board has chief tasks such as planning and execution of strategy and promoting relationships between the organization and its outer environment (Ruigrok et al., 2006). According to Brennan (2006), board of corporations is essential component of CG because it acts as mediator between the investors and the administrators (Brown, 2007). CG has a great deal of interest to the ownership structure of corporations. Shareholders’ compensation and board are mostly focused on two things; one is organizational performance and other is CG. Thus, the board members act as mediator between owners and their agents (Leech and Leahy, 1991).

The administrative ownership position relates the management interest with the interest of investors, but it is not as much important because of its uncertain effect on organizational performance (Stulz, 1988). Thomsen and Pedersen (2000) study the relationship between organizational performance and ownership concentration. They find that this relationship depends upon uniqueness of the controlling investors. Owner-controlled organizations are more profitable than administrator-controlled organizations. Ownership provides improved monitoring, which leads to enhanced performance (Agrawal and Knoeber, 1996). The family-controlled organization or family ownership is the ordinary form of business firms on the globe, and it accounts for over 80% of all organizations in the United States (Anderson and Reeb, 2003). Family organizations have better performance compared to nonfamily organizations.

In order to judge the ability of company regarding fulfilling its obligation, cash is the foremost important among items of working capital (WC). Moreover, cash holding is crucial for fulfilling the obligations while the idle cash does not help to increase value of the company. Therefore, it’s essential for companies to maintain appropriate cash reserves. The company can enhance their business by optimal level of held reserves, which are also considered as the most important element in analyzing responsibilities of company toward its obligations (Gill and Shah, 2012). CG not only helps in regulating policies, but it also plays active role in controlling WCM, which is abbreviated as WCM (Gill and Biger, 2013).

Similarly, philanthropy is supposed to absolutely impact firm monetary-related efficacy since it supports organizations in sociopolitical welfare, which enables them to rouse consenting results (Dabor et al., 2015). Therefore, the study aims to investigate the impact of basic governance factors on performance of firm via mediating role of board size, philanthropy and WCM. The foremost important and first objective of this study is to identify the impact of ownership structure (OS) and independent directors on board size, WCM and philanthropy of firms (sugar industry) in Pakistan. Second objective of this study is to determine the impact of OS and independent directors on return on equity (ROE), return on asset (ROA) and sales growth of firms. Third objective is to explore the impact of board size, WCM and philanthropy on ROA, ROE and sales growth of firms (sugar industry) in Pakistan.

The study contributes to the existing knowledge in following ways: first, it bridges a gap via providing the evidence of mediating role of board size, philanthropy and WCM between the governance factors and performance. Secondly, it links the WCM with CG to improve the quality of work and better management. Finally, it enhances the need to spend more on philanthropy to highlight the corporate image and hence, better performance. Furthermore, this research will be contribution to corporate sector of Asian countries for analyzing different roles of CG.
Overview of sugar industry

First major contribution was made for sugar by Arabs in 642 and then followed by crusaders until the first sugar cane plant was recorded in 1099 in England. In 1493, Columbus took sugar cane plants to Caribbean, and Portuguese brought sugar cane to Brazil. From 1625 to 1750 with American colonization of Europe, Caribbean became largest producer of sugar. Sugar production was mechanized by the end of 18th century.

Modern form of sugar industry established in the subcontinent in early 1930s. At the time of partition, there were seven sugar mills in Pakistani territory. With brisk economic activities and rapid urbanization, demand increased day by day. There were 35 sugar mills by the end of 1980 in Pakistan, and later this figure rose to 45 in 1990. By 2009, total sugar mills were 86 with an annual capacity of 7 million tons. Present sugar consumption has crossed 4 million tons with a value of US$1.8 billion. It is the second largest agro-based industry in Pakistan, which generates Rs. 22 billion revenue to government. It provides direct and indirect jobs to 1.2 million people.

Sugar cane industry is facing many challenges. The price of sugar is based on weight instead of quality, and this fact is hurdle toward quality production. Moreover, government policies on price fixing for sugar cane are another major issue. Further expansion of the industry merely depends on how these issues will be tackled by government. Sugar purity is mainly determined by its sucrose contents. Sugar was bleached by sulphitation process, which is now replaced by carbon process. Production estimate for current year is 5 million tons where the expected consumption will be around 4.337 million tons (based at 24 kg per capita for 180.71 million population).

2. Literature review

OS of the company, size of board and CEO’s duality are considered as foremost important components of CG (Arora and Sharma, 2016; Butt and Hasan, 2009). Significant consideration has been given to board size of the companies and their performance in current literature of CG. CG mechanisms like the size of the board and independent director for family and nonfamily ownership have an important influence on organizational performance (Ibrahim, 2011). According to prediction of agency theory, there must be difference of opinion between the owners of corporations (Jensen and Meckling, 1976). If there is widespread ownership and control, there might be conflicts between shareholders and company management. However, in a saturated ownership, the conflicts among major shareholders and minority shareholders got importance. According to the study of (Claessens et al., 2000; Lemmon and Lins, 2003), instead of having direct relationships, divergence of ownership and performance of firm are inversely proportional to each other.

It is evident from various Asian countries that ownership divergence and firm’s profitability are in nonlinear relationship with each other (Lin and Lin, 2013; Wiwattanakantang, 2001; Utama et al., 2017). The study of Hanafi et al. (2018) also shows significant relationship between ownership and firm performance, especially the saturated ownership increases the performance. Therefore, the policymakers and other stakeholders should pay great attention toward ownership. Outcome showed the reality of a statistically significant nonlinear relationship between ownership and performance. Many organizations analyzed that there is significant and positive relation between foreign holding and organizational performance (Imam and Malik, 2007).

Mudambi and Nicosia (2009) studied the relation between corporate performance and OS. They found that managerial ownership and family ownership of corporate can improve financial performance of company. Lauterbach and Vaninsky (2011) analyzed the data collected from 280 Israeli firms for exploring the relationship between OS and firm’s performance. Their study revealed that if managers are owners, then firm’s performance will
decrease, and in case of family ownership, the firm’s performance is worst. Therefore, managerial ownership is more important than family ownership. The study of Itturalde et al. (2011) has given new evidence regarding influence of the insider ownership on performance of nonlisted organizations. They distinguished the performance of family and nonfamily organizations by collecting data from 586 Spanish nonlisted organizations, and results of their study highlighted that in family-owned firms, the relationship between insider ownership and organizational performance depends on age group of managers.

Ongore and Owoko (2011) investigated the interrelations among ownership, board and administrator personality by collecting data of firm’s performance from 52 organizations listed at the Nairobi Stock Exchange. They measured ROA, ROE and dividend yield and found that the relationships among ownership concentration, government and organizational performance are negative. Zakaria et al. (2014) studied the effect of different types of OS on firm’s performance. They took four types under consideration including concentrated, foreign, governmental and managerial ownership. The results suggested that managerial or concentrated ownership directly and positively affects firm performance, but government and foreign ownership have less effect on it. There is no specific standard to measure or observe the exact relation between firm performance and OS because for every country and economy, there is sustainable OS. Scholten (2014) examined the data of 80 Dutch companies from 2011 to 2012 and concluded that firms perform better when ownership concentration increases and decrease in ownership concentration will lead to poor firm performance. There is great effect of foreign ownership on inside ownership in decision-making. Foreign ownership has negative and state ownership has positive effect on leverage, whereas managerial ownership also positively affects leverage and OS (Le, 2015). The data of nonfinancial public firms listed in Busra Malaysia taken for five years (2010–2014) highlighted that OS positively affects financial performance (Elvin and Hamid, 2016). Therefore, ownership concentration is directly proportional to firm performance. In order to find the impact of OS on firm performance, (Ahmed and Hadi, 2017) took data of firms located in MENA region (comprising nine countries including Jordan, Bahrain, Oman, Qatar, Tunisia, UAE, Morocco, Kuwait and Egypt). They preferred ROE, ROA and Tobin Q as a standard to measure performance, and results revealed that governmental ownership and insider ownership both positively affect the financial performance of firms in MENA region.

Shahid et al. (2018) explored the relationship between elements of CG and performance of cement industry in Pakistan. They found insignificant but positive relationship between size of board and ROE. Moreover, they found that there is significant but negative relationship between financial leverage and ROE. Latif et al. (2013) took the data from sugar industry of Pakistan and investigated the relationship between CG mechanism and firm performance. They involved size of board, CEO duality and board composition to check CG mechanism. Whereas ROE was used by them to check the firm performance. The result of their study highlighted that CG and firm performance are in significant relationship.

Like many other researchers, Peng (2004) found the positive relation between size of board and firm performance. Whereas some studies have explained this relationship as negative. Kumar and Singh (2013) investigated the relationship of size of the board with organization worth and found positive relationship between board size and the corporate performance. Malik et al. (2014) used Pareto approach in order to investigate the connection between board size and performance of organization, and for this purpose sample of 14 commercial banks was taken from 2008 to 2012. The relationship between bank board size and CG was measured by econometric techniques, and study revealed that there is positive relationship between performance and board size. According to (Jensen, 1993), the financial performance of firm is positively affected by board size. Small board size is more efficient than the big one, and there is strong negative relationship between board size and firm performance (Yermack, 1996). Furthermore, Lehn et al. (2004)
found that performance of firms with smaller board size is better than the firms having large board size. According to Hermalin (2005), due to coordination and communication problems, there is possibility that small boards are more effective than large ones. (Lehn et al., 2004; Guest, 2008) explained that the board size is the specific feature of firm and has profound effect on the performance. Similarly, Connelly et al. (2012) explained that small boards are more valuable and better for firm performance. Klein (1998); Eisenberg et al. (1998); Jell-Ojobor and Windsperger (2014) also found strong negative relationship between board size and profitability of the firm, and large board size leads to miscommunication and poor decision-making. The board size and financial performance of firm have negative relationship (Bennedsen et al., 2010; Adams and Mehran, 2012). Htay (2012) explained that smaller size board is positively associated to financial performance of bank, which is measured by ROE and ROA. In context of Pakistan, the study of Karim and Faiz (2017) investigated positive association between board size and firm performance.

In all types of CG, executive and nonexecutive directors constitute the board comprising nonindependent or independent directors. The nonexecutive directors monitor CEO and other company executive directors’ actions to ensure the safety of shareholder’s interests. Nonexecutive directors have diverse knowledge and skills as compared to other directors (Weir and Laing, 2001; Abdullah, 2004).

Rhoades et al. (2000) measured the impact of outsider or independent directors on financial performance. They found that performance is not dependent on the independency of the directors. Dehaene et al. (2001) highlighted the significant relationship among ROE and independent directors, and this relation actually supported the perception that due to monitoring function of independent directors, the interests of shareholders are well guarded (Johl et al., 2015). The existences of independent directors are important because independent directors have access to source of external environment and information, which is inaccessible by dependent directors (Hermalin, 2005). The proportion of the independent director has positive affect on performance of the firm as well as it also increases the bank debt financing and credit rating (Ashbaugh-Skaife et al., 2006).

In recent times toward corporate board, there is a trend with additional independent director to monitor independently and raise the problem of agency faced by the organization. On the board of banks, the existence of independent directors is supposed to increase the compatible compensation reward to managers and earning management (Cornett et al., 2009). Independent directors can independently monitor the management for the best interest of shareholders (i.e. to protect and maximize owner’s wealth). The effectiveness of independent directors on firm performance is empirically supported but has diverse findings. Literature revealed that independent directors protect shareholder’s interest and mitigate the agency problem (Adams and Mehran, 2012; Hermalin and Weisbach, 1991; Xie et al., 2003). In Pakistan, the study of Khan and Awan (2012) revealed positive association between independent directors and firm’s financial performance by measuring ROA and ROE. There is positive relationship among independent directors and firm performance. If this relationship is negative, then it will jeopardize the performance of independent directors (Sharifah et al., 2016). Opposite to these findings, Adams and Mehran (2012) found a negative correlation between abnormal returns and independent directors.

2.1 Relationship among corporate governance, philanthropy, working capital and firms’ performance
There are only few studies that have explored the relationship between CG mechanisms and the management efficiency of WC. Uchenna et al. (2012) took five top beer manufacturing companies to evaluate the relationship between changes in WC level and its effect on the earning of the firm.
According to Kim et al. (1998), the companies having surplus cash are often considered as weak in CG and this cash has no role in generating profit. Gul et al. (2013) explored the relationship between WCM and operating profit of the firms listed in Pakistan Stock Exchange. They measured the WC efficiency of the companies through C-R, cash turnover ratio and current-asset-to-sales ratio. Average collection period (ACP), Inventory turnover period (ITOP) and average payment period (APP) and ROA were used as dependent variables. They concluded that there exists a significant relationship between measures of WCM and ROA.

Gill and Mathur (2011) collected the data of Canadian companies in order to explore the relation between board size, board duality and net WC. They found that size of board and duality of board reversely affect net WC. Vahid et al. (2012) investigated the impact of WCM (cash holdings) on the performance of firms listed in Tehran Stock Exchange (TSE). They used the data of 83 Iranian companies for the period of 2001–2010. With the application of multiple regression model, they found negative and significant relationship between board size, board duality and net WC. The weakness of CG can lead to inefficient policies of WCM. Moreover, this weakness negatively affects stockholder value. Whereas the influential or strong CG acts as a tool in reserve management system of company (Gill and Biger, 2013). Madishetti and Kibona (2013) determined the impact ACP and APP on the earning before interest and tax (EBIT) or SMEs. They showed that ACP and EBIT are significantly but negatively associated with each other. They found a positive relationship between APP and EBIT.

Jamalinesaria and Soheilib (2015) explained that efficiency of WC is judged by CG mechanisms. “The time taken by a company to pay for the inventory purchased on credit is referred to the average payment period” (Ngwenya, 2012). It is calculated as:

\[
APP = \left(\frac{\text{Average accounts payable}}{\text{Cost of purchases}}\right) \times 365
\]

Philanthropy is a Greek word that describes social and financial welfare. Traditionally philanthropy is known as general public welfare that focuses on human prosperity (Masulis and Reza, 2014). The idea of philanthropy opens the activities for welfare of general public by concentrating on their prosperity. It comprises several dimensions, for example, monetary gifts, improvement of framework, regular affliction and support in administrative activities (Seifert et al., 2004). According to Saiia et al. (2003), philanthropy is proclivity by the organizations working for human welfare.

Executives of companies must possess the ability to show the company’s profitability to patrons, which is result of charitable works. Many studies have discussed that firm-specific variables have great influence on firm’s performance, and these variables include age, firm size and leverage. Dabor et al. (2015) examined that there is significant effect of philanthropy on financial efficacy of firm because organizations are interested in sociopolitical welfare, which leads to favorable results. Mahmood et al. (2018) used the data of firms listed in Pakistan Stock Exchange for the period of 15 years (i.e from 2004 to 2018) and investigated the moderating effect of strategic philanthropy between relation of CG and firm’s performance. Their study revealed that with moderating role of philanthropy, CG significantly affects firm performance.

3. Data and methodology
In this study, independent directors and OS are taken as independent variables while ROA/investment, ROE and sales growth are used as proxy variables for firms’ performance. However, size of the board, philanthropy and WCM (APP = average payment period) mediate the relationship between independent and dependent variables. The data is collected from Balance sheet analysis issued by State Bank of Pakistan and annual reports of 32 food companies and sugar mills listed at Pakistan Stock Exchange of Pakistan for the period of four years, 2014–2017. Generalized least squares statistical method is used to measure the relationship. The study has the following theoretical framework and hypotheses.
H1. There is no relationship between board size and ROA.
H2. There is no relationship between board size and ROE.
H3. There is no relationship between board size and sales growth.
H4. There is no relationship between ownership structure and ROA.
H5. There is no relationship between ownership structure and ROE.
H6. There is no relationship between ownership structure and sales growth.
H7. There is no relationship between independent directors and ROA.
H8. There is no relationship between independent directors and ROE.
H9. There is no relationship between independent directors and sales growth.
H10. There is no relationship between ownership structure and board size.
H11. There is no relationship between independent directors and board size.
H12. There is no relationship between ownership structure and WCM.
H13. There is no relationship between independent directors and WCM.
H14. There is no relationship between ownership structure and philanthropy.
H15. There is no relationship between independent directors and philanthropy.
H16. There is no relationship between WCM and ROA.
H17. There is no relationship between WCM and ROE.
H18. There is no relationship between WCM and sales growth.
H19. There is no relationship between philanthropy and ROA.
H20. There is no relationship between philanthropy and ROE.
H21. There is no relationship between philanthropy and sales growth.

Regression models

\[
\begin{align*}
\text{ROA}_it &= \beta_{1i} + \beta_2 \text{OWN}_{it} + \beta_3 \text{ID}_{it} + \mu_{it} \\
\text{ROE}_it &= \beta_{1i} + \beta_2 \text{OWN}_{it} + \beta_3 \text{ID}_{it} + \mu_{it} \\
\text{Sales Growth}_it &= \beta_{1i} + \beta_2 \text{WCM}_it + \beta_3 \text{PhT}_it + \mu_{it} \\
\text{ROA}_it &= \beta_{1i} + \beta_2 \text{BSize}_it + \beta_3 \text{WCM}_it + \beta_4 \text{PhT}_it + \mu_{it} \\
\text{ROE}_it &= \beta_{1i} + \beta_2 \text{BSize}_it + \beta_3 \text{WCM}_it + \beta_4 \text{PhT}_it + \mu_{it} \\
\text{Sales Growth}_it &= \beta_{1i} + \beta_2 \text{BSize}_it + \beta_3 \text{WCM}_it + \beta_4 \text{PhT}_it + \mu_{it} \\
\text{BSize}_it &= \beta_{1i} + \beta_2 \text{OWN}_{it} + \beta_3 \text{ID}_{it} + \mu_{it}
\end{align*}
\]
\[
\text{WCM}_t = \beta_1 + \beta_2 \text{OWN}_t + \beta_3 \text{ID}_t + \mu_t
\]
\[
\text{PhT}_t = \beta_1 + \beta_2 \text{OWN}_t + \beta_3 \text{ID}_t + \mu_t
\]

where ROA = Return on Assets, ROE = Return on Equity, Board Size = Board Size, OWN = Ownership structure, ID = Independent Directors, PhT = Philanthropy, WCM = Working Capital Management.

4. Results

Table 1 shows that there is significant (p-value = 0.0443) and positive (7.63324) relationship between independent directors and ROA (firms’ performance) showing as the independent directors increase in board of firms, the ROA also increases, thus rejecting H7. It is also found that both board size and OS have negative but insignificant relationship with ROA, thus H1 and H4 can be partially rejected. It is clear from the table that there exists significant and positive relationship between philanthropy and ROA; therefore, H19 is rejected. On the other hand, WCM has significant and negative relationship with ROA, which means as the APP decreases, the ROA of sugar firms increases; thus, Ho16 is also rejected.

Table 2 shows that there is significant (p-value = 0.0013) and negative (−30.647) relationship exists between OS and ROE, which means as more firms are family-owned, the ROE decreases in food industry of Pakistan, thus rejecting H5. On the other hand, H2 and H8 can be partially rejected as both board size and independent directors have positive but insignificant relationship with ROE. It is clear from the table that there exists significant and positive relationship between philanthropy and ROE, which means as the amount of donations increases, ROE also increases; therefore, H20 is rejected. On the other hand, WCM has significant and negative relationship with ROE, which means as the APP decreases, the ROE of sugar firms increases; thus, H17 is also rejected.

Table 3 shows that there is significant (p-value = 0.041) and negative (−10.7912) relationship between board size and sales growth, which means as the board size increases,

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>t-Statistic</th>
<th>p-values</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>11.8287</td>
<td>0.847</td>
<td>0.3986</td>
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<tr>
<td>Board size</td>
<td>−1.7053</td>
<td>−0.8867</td>
<td>0.377</td>
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<tr>
<td>Ownership structure</td>
<td>−6.0766</td>
<td>−1.6555</td>
<td>0.1094</td>
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<tr>
<td>Independent directors</td>
<td>7.63324</td>
<td>2.03223</td>
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<tr>
<td>Philanthropy</td>
<td>0.736536</td>
<td>2.604548</td>
<td>0.0098</td>
</tr>
<tr>
<td>WCM (APP)</td>
<td>−0.03830</td>
<td>−3.827876</td>
<td>0.0002</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>t-Statistic</th>
<th>p-values</th>
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</thead>
<tbody>
<tr>
<td>C</td>
<td>−57.277</td>
<td>−1.6136</td>
<td>0.1092</td>
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<tr>
<td>Board size</td>
<td>7.6953</td>
<td>1.57415</td>
<td>0.118</td>
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<tr>
<td>Ownership structure</td>
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<td>−3.2849</td>
<td>0.0013</td>
</tr>
<tr>
<td>Independent directors</td>
<td>10.4101</td>
<td>1.0904</td>
<td>0.2776</td>
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<tr>
<td>Philanthropy</td>
<td>2.160684</td>
<td>5.557809</td>
<td>0.0000</td>
</tr>
<tr>
<td>WCM (APP)</td>
<td>−0.0529</td>
<td>−0.039096</td>
<td>0.9689</td>
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</table>
the sales growth decreases in food industry, thus rejecting H3. On the other hand, H6 and H9 can be partially rejected as both OS and independent directors have positive but insignificant relationship with sales growth. It is clear from the table that there exists significant and positive relationship between philanthropy and sales growth, which means as the amount of donations increases, sales growth also increases; therefore, H21 is rejected. On the other hand, WCM has significant and negative relationship with sales growth, which means as the APP decreases, the sales growth of sugar firms increases; thus, H18 is also rejected (see Figure 1).

Table 4 presents that OS has positive and insignificant relationship with the board size; thus, board size does not mediate the relationship between OS and dependent variables (ROA, ROE and sales growth). But independent directors have a significant relationship with the board size; thus, board size mediates the relationship between OS and sales growth; however, it does not mediates the relationship between independent directors and other dependent variables (ROA and ROE) because board size has insignificant relationship with ROA and ROE. Table 4 shows that both OS and independent directors have significant relationship with philanthropy and WCM; thus, philanthropy and WCM mediate the relationship between independent variables (OS and independent directors) and dependent variables (ROA, ROE and sales growth) (see Figure 2).

Table 4 presents that OS has positive and insignificant relationship with the board size; thus, board size does not mediate the relationship between ownership structure and dependent variables (ROA, ROE and sales growth). But independent directors have a

<table>
<thead>
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<th>Variable</th>
<th>Coefficient</th>
<th>t-Statistic</th>
<th>p-values</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>49.3654</td>
<td>1.9995</td>
<td>0.0477</td>
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<td>Board size</td>
<td>-10.7912</td>
<td>-1.9932</td>
<td>0.041</td>
</tr>
<tr>
<td>Ownership structure</td>
<td>1.72954</td>
<td>0.26653</td>
<td>0.7903</td>
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<tr>
<td>Independent directors</td>
<td>6.89124</td>
<td>1.0378</td>
<td>0.3014</td>
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<tr>
<td>Philanthropy</td>
<td>0.648599</td>
<td>1.995335</td>
<td>0.0476</td>
</tr>
<tr>
<td>WCM (APP)</td>
<td>-0.06164</td>
<td>-3.382651</td>
<td>0.0011</td>
</tr>
</tbody>
</table>

Table 3.
The impact of board size, ownership structure and independent directors on sales growth

Figure 1.
Theoretical framework: relationship between corporate governance and firms’ performance
significant relationship with the board size; thus, board size mediates the relationship between OS and sales growth; however, it does not mediate the relationship between independent directors and other dependent variables (ROA and ROE) because board size has insignificant relationship with ROA and ROE. Table 4 shows that both OS and independent directors have significant relationship with philanthropy and WCM; thus, philanthropy and WCM mediate the relationship between independent variables (OS and independent directors) and dependent variables (ROA, ROE and sales growth).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>t-Statistic</th>
<th>p-values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ownership structure</td>
<td>6.3467</td>
<td>1.41341</td>
<td>0.118</td>
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<tr>
<td>Independent directors</td>
<td>-11.2279</td>
<td>-1.9989</td>
<td>0.042</td>
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<tr>
<td>Ownership structure</td>
<td>0.25</td>
<td>-2.232</td>
<td>0.026</td>
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<tr>
<td>Independent directors</td>
<td>0.004</td>
<td>-2.275 0.023</td>
<td>-0.036</td>
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<tr>
<td>Ownership structure</td>
<td>0.106</td>
<td>5.491</td>
<td>0.000</td>
</tr>
<tr>
<td>Independent directors</td>
<td>0.088</td>
<td>5.273</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Table 4. The impact of ownership structure and independent directors on board size, philanthropy and WCM

Figure 2. Results of SEM
5. Conclusion

The results are concluded in the framework of sugar mills. The study finds significant and positive relationship between independent directors and ROA (firms’ performance) showing that the increase in independent directors in board of firm will also increase the ROA. Similarly, there exists a significant and negative relationship between OS and ROE, which means that as more firms are family-owned, the ROE will decrease. There is significant and negative relationship between board size and sales growth as the increase in board size will decrease the sales growth, thus rejecting H3, H5 and H7. The OS has positive and insignificant relationship with the board size; thus, board size does not mediate the relationship between OS and outcome variables (ROA, ROE and sales growth). Independent directors have a significant relationship with the board size; thus, board size mediates the relationship between OS and sales growth. However, it does not mediate the relationship between independent directors and other dependent variables (ROA and ROE) because board size has insignificant relationship with ROA and ROE. On the other hand, it is clear from the results that philanthropy has significant and positive relationship with ROA, ROE and sales growth; therefore, H19, H20 and H21 are rejected. WCM has significant and negative relationship with ROA, ROE and sales growth; thus, H16, H17 and H18 are also rejected. It is also clear that both OS and independent directors have significant relationship with philanthropy and WCM; thus, philanthropy and WCM mediate the relationship between independent variables (OS and independent directors) and dependent variables (ROA, ROE and sales growth). The rest of constructed hypotheses can be partially rejected. CG maintains a basic role in the performance of the organization. The results suggest that the board of directors should make sure that the decisions are made for benefit of all stakeholders and the role of independent director should be increased in the sugar sector firms of Pakistan. Finally, the ownership is very important in the organizations. Organizations should increase the nonfamily ownership in firms for better corporate performance.

6. Limitations and future recommendations

This study has several limitations among which first limitation is that this research only focused on sugar industry and in future the researchers can conduct similar research on any other manufacturing industry. Secondly, this research is limited to CG of Pakistani companies. Therefore, this study can be replicated in context of any other Asian country. Moreover, this study can be extended by adding variable of responsible leadership or green financing.

Notes

1. Institute of Chartered Accountant of Pakistan (ICAP) is responsible to regulate the profession of accounting in Pakistan and was established on July 1, 1961 [https://www.icap.org.pk/about-icap/].

2. “Securities and Exchange Commission of Pakistan is governmental entity that has the legal authority to enforce financial reporting requirements and exert other controls over entities that participate in the capital markets within their jurisdiction”.


References


**Further reading**


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