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Board Structure as an Antecedent to Effective Board Leadership, Board Responsibility, and Sound Board-Management Relationship

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Abstract

This study examines the influence of board structure both on board responsibilities and board-management relations in the context of the Ethiopian banking sector. It also attempts to add to the existing empirical evidence by analyzing the relationship between board structure and board leadership and determining whether board leadership mediates the relationship between board structure and board responsibilities, as well as between the boards and the top management team. The researchers used 106 sampled respondents from the boards of directors and CEOs of both private and public banks for the study. The study used the partial least square (PLS) structural equation modeling technique of data analysis. The test results showed that the board structure is a good predictor of board responsibility, board-management relationships, and board leadership. Furthermore, the findings revealed the direct and significant influence of board leadership on board responsibility and board-management relationships. The test also demonstrated the mediating role of the board leadership between the board structure and both board responsibilities and the board-management relationship. The model, analysis, and findings will shed light on the empirical results and could be mainly useful in assessing corporate governance in the context of emerging economies.

Keywords: Corporate governance, board of directors, board structure, board leadership

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Introduction

Corporate governance as a system of directing and controlling corporate forms of organization is the most debated research agenda. It is a critical and essential tool for corporate structures. There are a number of corporate governance mechanisms, among which, theoretically, the board of directors' mechanism is believed and expected to address the agency problem between owners and managers (Jensen, 1993; Wubie, 2015).

A board of directors as a governance tool applies to corporate forms of business where ownership and management are detached, as it bridges the gap between the owners and management. It is considered to be central and a major driving force of governance in corporate forms of organizations (Grove & Clouse, 2015; Huse, 1994; Jensen, 1993; Tricker, 2009; Tricker & Tricker, 2015) as it is entrusted with the power to lead and control business entities on behalf of the shareholders. Boards of directors are greatly responsible for the failure or success of an organization (Ahmed & Gabor, 2012; Wubie, 2015).

Notwithstanding the established importance of corporate governance, there is limited and equivocal empirical evidence about the relationship between the board structure, board leadership, board responsibilities, and board-management relationships in general and in the context of different ownership structures in particular (Ahmed & Gabor, 2012). Furthermore, research in the past has heavily focused on agency theory, emphasizing mainly the relationship between board composition and financial performance (Minichillin et al., 2009; Wan & Ong, 2005; Ong & Wan, 2001; Huse, 1994). Though the influence of board structure on board leadership, board responsibility, and board-management relations is apparent, academic inquisition targeted at comprehending the relationships among these variables is limited. It is, therefore, important to fill this gap by investigating how the board structure is related to these variables.

The purpose of this paper is, therefore, to examine the influence of board structure both on board responsibilities and board management relations in the context of the Ethiopian banking sector. It also attempts to add to the existing empirical evidence by analyzing the relationship between board structure and board leadership as a reflection of the former and determining whether board leadership mediates the relationship between board structure and board responsibilities and between the boards and top management teams. The study focuses on the board structure measured in terms of board composition, board independence, and

board committee and sees their specific implication on board leadership, board responsibility, and the board-management relationship. The study is distinct from most past studies in that the hypothesized relationships are tested using primary data collected from the board of directors, who are believed to be inaccessible. It used the partial least square (PLS) structural equation modeling technique of data analysis. The study is guided by governance theories that include agency, stewardship, and resource dependence theories.

The study is structured as follows: First, the authors discussed the dominant governance theories that guide the research and reviewed existing prior studies together with the development of hypotheses. This is followed by the research method, research findings, and discussion in light of empirical pieces of evidence and associated theories. Finally, a conclusion is reached, and contributions are forwarded.

Theoretical and Empirical Reviews

The causes of corporate failure—be it accounting fraud, auditing lapses, concealment of losses, or excessive executive remuneration—are all linked to a lack of effective corporate governance (Ahmed, 2015; Monks & Minov, 2011; Mallin, 2010). Lack of effective governance may be explained by improper board structure, poor board leadership, irresponsibility, and a weak board-management relationship. The board of directors is one of the key players responsible for bringing about and ensuring sound corporate governance in a company (Tricker and Tricker, 2015). Of course, a failure in a company is also attributed to a failure in corporate governance. Ayogu (2001, 5) substantiates this by stating, "A crisis of governance is basically a crisis of the board of directors". Colley et al. (2003) also concur with the above view and state that the collective problems of business today are seen in many instances as a failure of corporate governance, which in turn is caused by failures of a board of directors to effectively execute their duties and responsibilities, both collectively and individually.

The collapse of Enron, WorldCom, and others demonstrates the need for integrity, honesty, and transparency in boards of directors (Mallin, 2010). A board of directors needs to be transparent, show a high level of integrity at all times, and be responsible and accountable for their actions in order to restore confidence and achieve the desired results. This is possible when a board is structured with the right mix, is independent, works with committees, is responsible, provides sound leadership, and can establish sound relationships with the top

management team. Board of directors and top management human capital are crucial for the survival of enterprises (Le et al. 2012).

To ensure that boards have the requisite human capital, one needs to pay attention to the entire mechanism of how boards are brought to their seats. Specifically, this refers to the board structure that encompasses their composition, independence, and services to the board's subcommittees (Wubie, 2015). The composition, independence, and various subcommittees of the board of directors are likely to influence its leadership, its responsibilities, and its relationship with the top management team. It will especially influence the policies, strategies, acquisitions, and retention of top management (Le et al., 2012).

There are different theories to understand the relationships between board structure and board leadership, board responsibility, and board management in the course of effective corporate governance that maximizes wealth and benefits for shareholders. Agency and stewardship theories emphasize board structure and board leadership, whereas resource dependency theory focuses on board structure and board-management relations in enhancing performance. In fact, the agency theory was dominant in corporate governance and drew much attention and support from academia until it was challenged in recent times by the stewardship theory, in which the management and board's independence is predicted by the latter, contrary to the prediction by the agency theorists (Muth and Donaldson, 1998; Donaldson and Davis, 1991). The three widely known governance theories are further discussed below.

The board structure and agency theory

Among the different issues of corporate governance, board structure is one of the dimensions that drew the attention of researchers (Ebrahim & Fattah, 2015; Pamburai et al., 2015). Prior studies on board structure focused on insider-outsider ratio, size, and CEO duality (Huse, 1994). However, this study goes beyond these elements by encompassing board composition, board independence, and board committees. One of the roles entrusted to boards is to monitor management. This role is grounded in the agency theory, which advocates that there is an inherent conflict of interest between the two main parties, the principals (owners) and managers (agents), due to the separation of corporate ownership and control (Fama & Jensen, 1983; Jensen, 1993).

The agency theory argues that shareholders cannot exercise effective control over their corporations due to their large size. The day-to-day operation is left to the managers, who have the specialized knowledge to manage the corporation and eventually gain effective control. This gap will increase the power of managers and allow them to be free to pursue their own interests. According to this perspective, shareholders' interests can be marginalized if both control and management are left to the managers, because the latter cannot be trusted and will strive to maximize their interests (Huse, 1994; Muth and Donaldson, 1998). To alleviate this problem, the proponents of the agency theory argue that the separation of ownership and management results in an agency problem and propose to have a board of directors structure as a monitoring device to protect shareholders' interests from the self-serving opportunistic behavior of management (Mallin, 2010; Jensen & Meckling, 1976). In this regard, the main responsibility of the board of directors is to reduce the agency problem between the owners and managers (Jensen and Meckling, 1976). The following are attributes of the board structure that are explained in terms of board composition, board independence, and board committees (Fauzi & Locke, 2012).

Board composition, board independence, and board committee as dimensions of the board structure

The composition of the board refers mainly to the number, type, qualification, and experience of board members (Wubie, 2015; Dalton et al., 1998), and this can signal the quality of the board (Higgins and Gulati, 2006). Members of the board of directors are heterogeneous by their very nature and vested with board capital expressed in terms of experience, expertise, reputation, and network with external entities (Hillman & Dalziel, 2003).

In the discourse of the board of directors as one governance mechanism, the way boards are structured comes out to be an important issue (Fauzi & Locke, 2012). This is because such issues have implications for board leadership, board responsibilities, and board-management relations. That is, the way boards are appointed, their background, experience, independence, and how they function will have an influence on the above-mentioned dimensions. A growing literature considers board composition as an important corporate dimension in alleviating the agency problem (Andres & Vallelado, 2008; Fauzi & Locke, 2012), though prior empirical studies on the implications of board composition show mixed results.

For instance, Pamburia et al. (2015), Ghosh (2006), and Coles et al. (2001) showed a positive relationship between the number of non-executive employees and firm performance. Weisbach (1988) and Wyatt and Rosenstein (1990) also stated that outsider-dominated boards tend to add value to firm performance. In line with the above, empirical evidence from Kang et al. (2007) and Sheridan and Milgate (2005) evinced a positive correlation between board composition and firm financial performance. Contrary to the above, Azofra and Lopez's (2005) and Hermaline and Weisbach (1991) findings showed no relationship between board composition and firm performance. Different from the above are Arosa et al. (2013) and Garg (2007) results, which showed an inverse relationship between board composition and firm value.

Another structural dimension believed to alleviate the agency problem is board independence. Board independence is more pronounced when the board is dominated by outside (non-executive) members (Huse, 1994). Boards can be composed of non-executive (independent) and executive (dependent) directors. The agency perspective advocates for an independent board of directors as they are more effective at enforcing their control activities (Agrawal & Chandha, 2005; Byrd & Hickman, 1992; Weisbach, 1988; Fama & Jensen, 1983). Jensen (1993) noted that, compared to executive directors, independent (non-executive) directors exercise their monitoring role effectively due to a lower conflict of interest. In line with this, Fama and Jensen (1983) also noted that independent directors are more inclined toward safeguarding the shareholders' interests and reducing the influence of management on the board (Becht et al., 2005). Nyamongo and Temesgen (2013) and Anderson et al. (2007) also argued that firm performance is enhanced by the existence of independent boards. Similarly, Gabrielsson et al. (2007) believe that to protect shareholders' interests and increase the effectiveness of the board, it is imperative to work towards enhancing the independence of the board members.

Independent directors play a significant role in the process of formulation and implementation of strategies by providing advice and counsel to be used by management. This is because independent directors, who are mostly non-executive directors, are expected to bring external knowledge and experience to the firm (Daily & Dalton, 1993). However, a board composed of only independent directors may lack firm-specific knowledge, which is necessary to complement and enhance the capacity of the entire board. Fama and Jensen (1983) also concur that executive directors are valuable to organizations as they have

experience with company operations and also have more firm-specific knowledge than independent directors.

Another aspect to deal with when examining the board structure is the functioning of the board through committees. Boards execute their duties and responsibilities by establishing different standing committees. Doing so would allow them to have a division of work and use the board's experience and expertise (Wubie, 2015). The standing committees have a clear task with a reporting obligation to the full board (Tricker, 2009; Tricker & Tricker, 2015; Colley et al., 2003; Klein, 1998). Andres et al. (2005) explain the importance of board committees as one factor that facilitates the boards' jobs and their impacts on firm performance. In this line, Locke and Fauzi's (2012) study revealed that board committees have a positive and significant impact on firm performance.

The board structure and stewardship theory

The stewardship theory is based on a humanistic approach to human behavior and provides opposing views to the agency theory regarding structuring the board of directors. This theory is based on the notion that managers are stewards rather than opportunistic, self-interested individuals of the agency theory. This theory recognizes a number of non-financial motives for effective managerial actions, like the need for achievement and recognition, the need for satisfaction, and work ethics (Herzberg, 1966; McClelland, 1961). The theory views managers as stewards of company assets, responsible and loyal to their work, who strive to maximize shareholders' interests.

Donaldson and Davis (1991) and Donaldson (1990) reaffirm the notion that executive directors and managers act in the best interest of their firm to ensure the wealth maximization interests of shareholders by continually working on improving organizational performance and therefore are not opportunistic and self-serving. As a result, the theory argues that when managing a complex company, shifting corporate control from owners to managers is appropriate as inside-dominated (executive) boards have better company knowledge and commitment (Muth and Donaldson, 1998). Thus, contrary to the agency theory, which predicts performance on the basis of independent boards, this theory predicts the maximization of shareholder wealth when the corporate structure provides managers with the ability to play an effective control role.

Board leadership as a reflection of the board structure

Board leadership reflects the board's structure. A well-structured board with appropriate composition and independence and functioning with a board committee is expected to exercise sound leadership that ought to steer the boat in the right direction. Prior studies of corporate board leadership focused mainly on CEO duality and firm performance, and the evidence in this regard is inconclusive, and several other studies also found no significant impact on firm performance (Braun & Sharma, 2007; Arosa et al., 2013). The agency theorists are of the opinion that the CEO and board chairmanship should be separated, as the chairperson's role is to monitor the actions of top management as well as evaluate their performance. On the other hand, stewardship theorists argue that CEO duality results in less confusion, effective strategic decision-making, and implementation (Chahine & Tohme, 2009). The argument is that the structural leadership arrangement might have a positive effect on performance in a situation where resources are scarce, especially in emerging economies (Chahine & Tohme, 2009).

One way or another, regardless of the argument, the assumption is that board leadership is directly related to the board structure, which in turn can affect board responsibility and board-management relationships. The ability of the board to work together as a team and establish a smooth relationship with itself and top management could depend on the board's structure and leadership. In this regard, Gabrielsson et al. (2007) stated the role and status of the board leadership in the boardroom by arguing that leadership in the boardroom is a less understood phenomenon and that it is crucial to have effective team leadership so as to turn the group of independent board members into an interacting and collective team. The board of directors is the highest decision-making body in a corporation, and the role of the chairperson in this regard is immense.

Cascio (2004) explains that if the board of directors works as a team, then the chairperson must play a leading role in the team. The chairperson is a member of the team with additional responsibility but not greater authority. Unlike the CEO, who has instructional authority over his or her subordinates, the board chairperson has no instructional authority over the board members as the board tasks are shared by the entire group. However, to ensure effective group work, the chairperson has an additional responsibility to motivate the members and work as a group towards making a collective contribution and attaining the shareholders' interest. Among the different responsibilities, the board chairperson is expected to construct

cohesiveness, creativity, openness, criticality, and commitment among the group members (Arosa et al., 2013). Furthermore, the chairperson has to be skilled in leading meetings, motivating the members, using the competence of the members, and adopting participatory leadership, to name a few skills (Arosa et al., 2013; Huse, 2007).

Though the primary responsibility of the chairperson as a team leader is to help focus the board members on core corporate issues, he or she also has the additional responsibility of building consensus among the members. That is, the chairperson should have the ability to communicate, inspire, and create a cohesive group so that a sound relationship prevails among the group members and also with top management. The chairperson is not limited to performing only those core functions mentioned above; he or she also needs to actively engage in setting the board agenda, be well prepared for board meetings, manage information flow to the board, and continually work towards developing a working structure and process for the board (Wubie, 2015; Huse, 2007).

Responsibilities of the board as ultimate end of board structure and leadership

The overall responsibility of a board of directors is to strategically guide, govern, and control a corporation. Specifically, the monitoring function, which is derived from the agency theory, is the primary responsibility of directors to monitor the behavior of managers to safeguard the interests of shareholders (Hillman and Dalziel, 2003; Eisenhardt, 1989; Fama & Jensen, 1983; Jensen & Meckling, 1976). A set of board responsibilities is laid out in the OECD Principles of Corporate Governance (2004), which state the board has the responsibility to oversee organizational systems that conform to applicable legislation, act in the best interest of shareholders, and are held accountable to the same and the company. Their responsibility is not limited to the shareholders; they are also required to account for the interests of other stakeholder groups that include employees, creditors, customers, suppliers, and local communities.

Further to the OECD, a number of codes of corporate governance were developed in order to promote sound corporate governance practices, including the Cadbury Report, the Basel Committee on Banking Supervision, and the King III Code of South Africa. Specifically, the Cadbury Report was developed to promote key governance elements on a 'comply or explain' basis (Cadbury report, 1992). The Basel Committee was established by issuing principles and regulations to ensure best practices in banking supervision and a sound

financial system (Basel Committee, 1999). King III, which includes major corporate governance components in its guidelines, advocates that governance issues that are legislated have to be accepted as a minimum baseline so as to enhance transparency, accountability, and integrity by companies or ethical leadership (Institute of Directors in South Africa, 2009).

Moreover, the board has the responsibility of ensuring that an appropriate structure (with a sufficient number of non-executive board members) is in place so that boards can exercise objective and independent judgment on corporate affairs. In general, board members should be able to commit themselves effectively to the responsibilities entrusted to them. The authors contend that such responsibilities can be carried out effectively when the board is entrusted with sound leadership; when it is structured with appropriate board composition; when it maintains its independence; and when it works with appropriate board subcommittees.

Resource Dependence theory and Board-Management relationship

A healthy and work-oriented relationship between the board and management is crucial to ensure good governance, effectiveness, and the wealth maximization interests of shareholders (Shen, 2003). After all, both parties have a shared vision and objective that they strive to achieve. From a point of view of optimal corporate performance, both the board and management must work together as a team with mutual respect, taking into account the different roles they assume. The relationship must be of a business nature, where professional and personal trust and mutual respect are important in an environment of opportunities and challenges (Gabrielsson & Huse, 2005; Huse, 1994).

Central to a sound board-management relationship is a clear and mutual understanding of roles, delegation, defined boundaries of authority and responsibilities for each party, a trust-based team approach, mutual respect, and clearly defined contributions and expectations, to mention at least a few. Furthermore, to maintain a sound relationship between the two parties, there has to be an open and timely flow of relevant information in both directions. According to Erakovic and Goel (2008), the resource dependence theory provides a compelling explanation of the board-management relationship, illuminating both parties as important resources for an organization's organization and the organization’s governance system (Goel and Erakovic, 2003), whereas the agency theory sees the board-management relationship

primarily as a means of controlling opportunistic and self-serving behavior of management (Johnson et al., 1996).

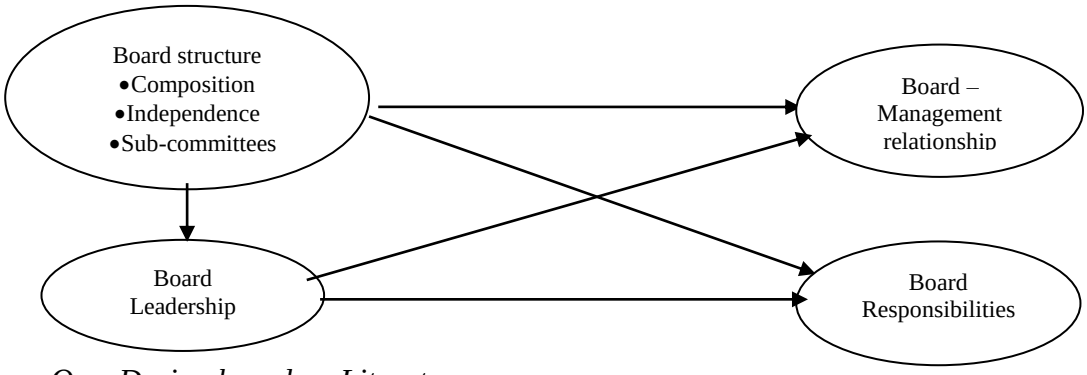
Resource dependence theory is one of the core approaches considered in analyzing board-management behavior (Hillman et al., 2000; Geletkanycz & Hambrick, 1997). This perspective is important in understanding how resource dependencies best explain the relationship between the board and management in the formal organization structure. In this regard, it explains how the board and management, as organizational decision-makers, play an active role in seeking alternative resources, reducing environmental uncertainties (Zahra & Pearce, 1989; Pfeffer, 1972), and establishing links and arrangements with different organizations in the environment (Pfeffer, 1978). This means the theory emphasizes the importance of board and management relationships within and outside organizational boundaries (Erakovic and Goel, 2008; Erakovic and Goel, 2004).

Resource dependency theory sees boards as key organizational players in bringing critical resources to the organization and protecting it from environmental uncertainties. Non-executive directors, in this regard, play a special role in providing critical resources, accessing external and influential institutions, and injecting expert knowledge and advice (Erakovic and Goel, 2008; Huse, 2005; Lynall et al., 2003; Pfeffer & Salanick, 1978; Mueller & Barker III, 1997). Boards as boundary spanners engage in inter-organizational relationships in an attempt to bring critical resources and moderate the influence of external pressure upon their organization (Tricker, 2009; Daily & Dalton, 1993; Pfeffer & Salanick, 1978). Therefore, in order to access critical resources from the environment and thereby ensure sound inter-organization relationships, the board structure plays a dominant role by having outside boards that serve as a link with the outside world.

Despite differences in their areas of emphasis with regard to board structure, theories of agency, stewardship, and resource dependence suggest that board structure may affect board leadership, board responsibility, and inter-organizational relationships. Furthermore, the discussions made above revealed that the need for corporate governance and the dynamics of the board of directors cannot be easily captured by any of the theories. The theories complement rather than contradict each other, and none of them question the importance of board governance in corporate organizations.

Analytical framework and hypothesis development

Figure 1
Analytical Model of Board Structure as Antecedents



Source: Own Design based on Literature

Based on the theoretical and empirical reviews, the authors contend that board structure (composition, independence, and sub-committees) has an influence on board leadership, board responsibility, and board-management relationships. It is also understood that board leadership plays a critical role in enhancing board responsibility and board-management relationships. As board leadership reflects the board structure, we also assume that board leadership mediates the relationship between the board structure, board responsibilities, and board-management relationships. We, therefore, hypothesize the following:

H1: Board structure is directly and positively related to board responsibility.

H2: Board structure is directly and positively related to a sound board-management relationship.

H3: Board structure is directly and positively related to board leadership.

H4: Sound board leadership characteristics have a positive contribution to enhancing board responsibility.

H5: Sound board leadership characteristics are positively related to a healthy board-management relationship.

H6: Sound board leadership mediates the relationship between board structure and board responsibility.

H7: Sound board leadership mediates the relationship between board structure and board-management relationships.

Methodology

Method and Variables

The unit of analysis in this study is banks. Sampled respondents are boards of directors and CEOs from both private and public banks. The study used primary data collected from the targeted respondents using a survey. A total of 154 questionnaires were distributed by the researchers, of which 106 responses were returned, representing a response rate of 69%. A partial least squares path model (PLS-PM) was used to analyze the sample data. The minimum sample size requirement for an analysis using PLS-PM is based on the 10 times rule of thumb, which requires that the minimum sample size should be at least 10 times larger than the largest number of structural paths directed at a particular construct in the structural model (Hair et al., 2016; Henseler et al., 2009). Previous empirical studies proposed a sample size of 100–200 as a good starting point for studies based on path modeling (Wong, 2013). In this research, the study is carried out with a sample size of 106, which satisfies the 10-fold rule and practices in prior studies.

The study examines the relationships among four major constructs: board structure, board leadership, board responsibilities, and board-management relationships. These constructs involve a total of 27 items, of which board structure comprises 9, board leadership comprises 5, board responsibilities comprise 5 items, and board-management relationships comprise 8 items (see Appendix 4.1). The items measure the latent variables on a five-point Likert scale, using a "strongly disagree" to "strongly agree" format. Accordingly, in the analysis, a higher average score could mean a higher level of achievement in the latent variables.

Board responsibilities and board-management relationships were treated as endogenous variables, whereas corporate structure (board composition, board independence, and board committee) and board leadership were treated as exogenous variables. The board structure latent variables' items were validated and taken from prior studies (Wubie, 2015), whereas the rest of the latent variables' items are largely formulated based on theoretical foundations and were not validated in prior research, therefore, are validated below.

Assessment of the Uni-dimensionality of items was undertaken using principal component analysis (PCA) to make sure that the actual scale item on an instrument measures a single construct. To ensure the robustness of the scale, a factor loading of at least 0.50 was used. The new components brought about by the PCA were further evaluated using the PLS

measurement model to establish their reliability and validity. The tests that were performed at both item and construct levels are shown below.

Table 1

Principal Component Analysis (EFA)

	Rotated Component Matrix [a]		
	Component		
	1	2	3
BrdR_1	.332	.109	**.601**
BrdR_2	.010	.111	**.889**
BrdR_3	.222	.216	**.747**
BrdR_4	.290	.140	**.714**
BrdR_5	.169	.145	**.826**
BrdL_1	.363	**.703**	.189
BrdL_2	.328	**.773**	.104
BrdL_3	.283	**.839**	.174
BrdL_4	.353	**.794**	.175
BrdL_5	.179	**.783**	.162
BrdMR_1	**.780**	.261	.220
BrdMR_2	**.698**	.253	.093
BrdMR_3	**.702**	.326	.197
BrdMR_4	**.779**	.330	.254
BrdMR_5	**.728**	.087	.323
BrdMR_6	**.836**	.268	.196
BrdMR_7	**.764**	.329	.155
BrdMR_8	**.690**	.387	.150

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

Source: Own computations

Table 2:
Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.821	49.007	49.007	8.821	49.007	49.007	5.282	29.344	29.344
2	1.946	10.810	59.817	1.946	10.810	59.817	3.675	20.415	49.759
3	1.412	7.844	67.661	1.412	7.844	67.661	3.222	17.902	67.661
4	.797	4.427	72.088						
5	.689	3.826	75.914						
6	.622	3.454	79.368						
7	.596	3.312	82.680						
8	.512	2.842	85.522						
9	.450	2.500	88.021						
10	.397	2.206	90.227						
11	.303	1.686	91.913						
12	.296	1.647	93.560						
13	.290	1.611	95.171						
14	.226	1.255	96.426						
15	.192	1.066	97.492						
16	.175	.973	98.465						
17	.154	.854	99.318						
18	.123	.682	100.000						

Extraction Method: Principal Component Analysis.

Source: Own Computation

Eighteen items that refer to board responsibility, board leadership, and the board-management relationship were assessed for dimensionality. Five items were loaded onto component 3 (labeled as board responsibility), five items onto component 2 (labeled as board leadership), and eight items onto component 1 (labeled as board-management relationship) with eigen values greater than 1.0, accounting for 67.66 percent of the total variance explained. Above, an assessment of factorial validity was undertaken through exploratory factor analysis (EFA) to determine the factor structure of each of the theoretical constructs. Then, the next step was to conduct an outer model evaluation that provides evidence of reliability and construct validity. These evaluations are performed through the confirmatory factor analysis (CFA) of the partial least squares path modeling (PLS-PM) approach. CFA confirms how well the model fits the data. This assessment precedes the assessment of the structural model and the test of the research hypothesis (Hair et al., 2016; Hair et al., 2014; Mande et al., 2013).

To measure internal consistency and reliability, Cronbach's alpha reliability coefficient was calculated for items measuring the variables. This section, therefore, addresses the assessment of the indicator's (manifest variable) reliability, construct reliability, and validity (i.e., convergent validity and discriminant validity). These tests are performed using a partial least squares (PLS) measurement model evaluation approach.

Table 3

PLS Outer (Measurement) Model Analysis

LVs and indicators	Loadings	AVE	Composite Reliability	Cronbach's Alpha	R Square
Board Structure			0.81	0.74	
Board composition		0.58			
SComp_1	0.84				
SComp_2	0.70				
SComp_4	0.75				
Board Independence		0.64			
SBInd_1	0.84				
SBInd_2	0.80				
SBInd_3	0.76				
Board Committee		0.67			
SComm_2	0.87				
SComm_3	0.87				
SComm_4	0.71				
Board Leadership (BrdL)		0.73	0.93	0.91	0.26
BrdL_1	0.83				
BrdL_2	0.84				
BrdL_3	0.90				
BrdL_4	0.89				
BrdL_5	0.80				
Board Responsibility		0.64	0.90	0.86	0.26
BrdR_1	0.72				
BrdR_2	0.83				
BrdR_3	0.81				
BrdR_4	0.80				
BrdR_5	0.84				
Board-Management Relationship (BrdMR)		0.68	0.94	0.93	0.63
BrdMR_1	0.86				
BrdMR_2	0.74				
BrdMR_3	0.81				
BrdMR_4	0.89				
BrdMR_5	0.76				
BrdMR_6	0.90				
BrdMR_7	0.84				

The above results of the PLS computational process show that the measurement model is adequate when each of the manifest variables has a factor loading of at least 0.70, all latent variables result in AVEs above 0.57, and the composite reliability is greater than 0.80. In other words, the measurement model has passed the tests of indicator reliability (factor

loadings of 0.70 or more), internal consistency (the construct), reliability (a composite reliability value of at least 0.70), and convergence validity (an AVE of 0.50), in which the construct explains 50% of the variance of its reflective indicators.

The other measure of construct validity is discriminant validity, which refers to the degree to which a dimension is demonstrably different from other constructs (Hair et al., 2016). To evaluate discriminant validity, the Fornell-Larcker criterion is used. The Fornell-Larcker criterion uses AVEs to assess discriminant validity. To pass the discriminant validity test, the square root of AVE should be greater than all the correlation values in the row and column of the latent variable (Fornell & Larcker, 1981). This process is presented in Table 4.

Table 4
Discriminant Validity Assessment: Fornell- Larcker Criterion

LATENT VARIABLES	**1**	**2**	**3**	**4**	**5**	**6**
Board Committee (1)	**0.80**					
Board Independence (2)	0.34	**0.85**				
Board Leadership (3)	0.41	0.44	**0.80**			
Board Responsibility (4)	0.33	0.36	0.44	**0.80**		
Board composition (5)	0.40	0.41	0.29	0.32	**0.76**	
Board- Management relation (6)	0.48	0.58	0.68	0.53	0.51	**0.82**

Note: diagonal values (bold) are the square root of the variance shared between the LVs and their indicators (AVEs) and the off-diagonal elements are the correlations among the LVs. For discriminant validity, diagonal elements shoulder be greater than off-diagonal elements

As can be observed from the above table, the diagonal values (square root of AVEs) exceed their corresponding off-diagonal values (correlation of the latent variables with other latent variables in the model), providing good evidence of discriminant validity.

The authors mainly used structural equation modeling (SEM), which is a family of statistical models that attempts to explain the proposed relationships among multiple variables in a model. The data analysis was performed using the partial least squares technique (PLS), which is a second-generation regression analysis and an assumption-free technique that does not require normality or independence assumptions (Vinzi et al., 2010; Chin and Newsted, 1999). PLS is used for outer model evaluation (to handle reliability and validity tests) and for inner model evaluations to formally test the hypothesis generated above. Before testing the hypothesis, it is important to check for collinearity problems and the quality or goodness of the structural model.

To test for a collinearity problem among the exogenous latent variables, a tolerance level of above 0.20 and variance inflation factor (VIF) values below 5 were considered (Hair et al., 2016), as shown below.

Table 5

Collinearity Assessments (Tolerance and VIF Values Of SPSS Output)

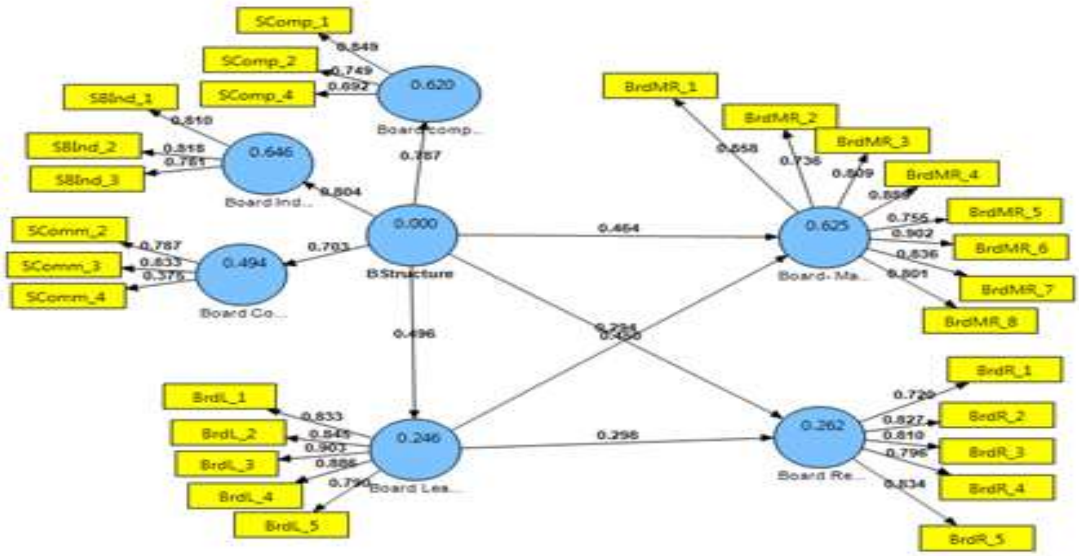
First order exogenous latent variables	Collinearity Statistics		Second order exogenous construct	Collinearity Statistics	
	Tolerance	VIF		Tolerance	VIF
SComp (Board Composition)	.800	1.250	Board Structure (Board Composition, Independence and Committee)	.764	1.309
SBInd (Board Independence)	.750	1.334			
SComm (Board Committee)	.778	1.285			
BrdL (Board Leadership)	.741	1.349			

Note: Dependent Variable: BrdR (board responsibility) or BrdMR (Board-Management Relationship)

The above table displays that all predictor variables scored tolerance levels above 0.20 and VIF levels below 5, implying that there are no collinearity problems in the structural model. Thus, the study can continue by examining the significance of the path coefficients in order to evaluate or determine the quality of the structural model. The figures below give a graphical representation of the full model, on the basis of which the structural model results are reported.

Figure 1

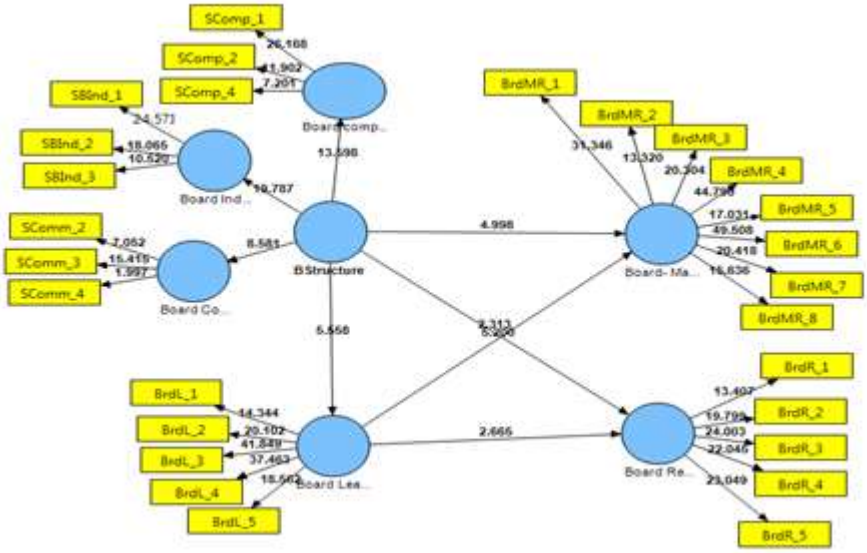
Full PLS- PM with Path Coefficients



Source: Own Computation

Figure 2

Full PLS- PM With Bootstrap Results Showing the Significance of Coefficients



In a PLS structural model, the path coefficient represents a directional relationship between constructs, and the coefficients are similar to the standardized beta coefficients (values between -1 and +1) in a regression relationship (Hair et al., 2016; Gotz et al., 2010). A general rule of thumb is that structural path coefficients with standardized values above 0.20 are significant, indicate the extent of influence of the independent variable on the dependent variable, and also determine the strength of predictability of the independent variable (Hair et al., 2016). However, the significance (goodness) of the path coefficients estimated in the measurement model of the PLS has to be tested by the empirical t-values for their goodness. The t-values are obtained by means of the bootstrapping process of the PLS. A review of the t-statistics from the above diagram (Figure 3.2) shows that all the reflective indicator loadings (outer model) are highly significant at 5%. It is also observed that all the path coefficients in the inner model are statistically highly significant at the 5% level. The above exercises evaluated the PLS-SEM model in terms of outer model loadings, construct reliability and validity, and significance of the inner path, and the results demonstrated that the model is meaningful. Once the model passes the goodness of fit test, the next thing is testing the research's hypothesis considering the PLS inner (structural) model results.

Hypotheses Testing Based on PLS Structural Results

Direct effect of board structure on board responsibility, board-management relationship, and board leadership:

The structural model that addresses the research's major hypotheses is considered in the hypotheses testing process. The figures of the inner model results are presented in the Appendix section. The figures in the appendix section reveal that all five of the theorized structural paths and estimated coefficients are significant at 1%, and they are also in the predicted directions, providing further support for the validity and acceptability of the structural model.

Furthermore, as can be seen from the figures, hypotheses H1 to H5 are all strongly supported ($p<0.01$) by the empirical outputs (coefficients of the predictive paths) of the structural model. To further determine the predictive relevance (Q^2) of the theoretical/structural path model (Q^2), the blindfolding procedure of the SmartPLS technique is applied. The blindfolding procedure calculates Q^2 (predictive relevance), where $Q^2 > 0$ indicates predictive relevance, and $Q^2 < 0$ shows a lack of predictive relevance of the exogenous construct on the specified endogenous construct (Hair et al., 2016; Chin, 2010). Predictive relevance (Q2)

values of 0.02, 0.15, and 0.35, respectively, signify that an exogenous construct has a small, medium, or large predictive relevance for an endogenous latent variable (Hair et al., 2016; Wong, 2013; Chin, 2010).

Table 6

Summary of blindfolding (Cross-validated Redundancy, Q^2) results for the endogenous constructs

Endogenous Construct	SSO	SSE	Q^2 = 1-SSE/SSO
Board Responsibility	530.00	445.97	0.16
Board-management relationship	848.00	495.60	0.42
Board Leadership	530.00	439.93	0.17

SSE= Sum of squared observations; SSE= Sum of squared prediction errors

All Q^2 results in the above table are considerably high and above zero, providing further evidence that the model has, in general, a good predictive relevance to the endogenous latent variables. Once the predictive relevance is verified, an examination of the hypothesis can be undertaken. The path coefficients of the structural (inner) model suggest the strength and direction of relationships. Those path coefficients that are very close to zero indicate a weak relationship between the constructs, and those that are not close to zero indicate strong relationships between the constructs.

Table 7

Summary of the structural model results of Appendices 3.2 and 3.3

Path From -> to	Path coeff.	T-stat	P-value	Direction of hypothesis	Hypothesis supported or not
Board structure ->Board-management relationship	0.691	7.689	0.000*	H2+	Supported
Board structure ->Board responsibility	0.444	2.448	0.000*	H1+	Supported
Board structure ->Board leadership	0.497	3.874	0.000*	H3+	Supported

*Significant at p<0.01 (one-tailed). Values were calculated using the bootstrapping method with 5,000 bootstrap samples.

Based on Appendices 4.2, 4.3, and Table 4.7, the path estimates of the relationship between board structure and board-management relationship (without the inclusion of the mediator, i.e., board leadership) are 0.691, which demonstrates the significance of the relationship. This is substantiated by the empirical t-value of 7.689, which is considerably above 1.96 at a 5% level of significance. The coefficient of determination (R^2) value stands reasonably moderate at 0.477 for the board-management relationship construct, showing the predictive validity of the structural model. Hair et al. (2016) and Wong (2013) consider the magnitude of the R^2 as a criterion to determine the predictive power of an exogenous variable and describe R^2 values of 0.25, 0.50, and 0.75 as having weak, moderate, and substantial explanatory powers, respectively.

Considering the same diagram, the assessment of the structural model, without the inclusion of the mediator, board leadership, shows that the direct effect of board structure on board responsibility is significant with a t-value of 3.448 ($p<0.05$) at the path-coefficient value of 0.444 with weak predictive power ($R^2 = 0.197$). Similarly, the direct effect of board structure onboard leadership is significant at a path-coefficient of 0.497 with a t-value of 3.874 ($p<0.05$) and weak predictive relevance of $R^2 = 0.247$. Thus, these values give support to H1, H2, and H3 which state the direct and positive effect of board structure on board responsibility, board-management relationship, and board leadership.

Direct effect of board leadership on board responsibility and board-management relationship

Table 8

Summary of the structural model results of Appendices 4.4 and 4.5

Path From -> to	Path coeff.	T-stat.	P-value	Direction of hypothesis	Hypothesis supported or not
Board leadership -> Board responsibility	0.444	9.932	0.000*	H4+	Supported
Board leadership -> Board-management relationship	0.684	4.443	0.000*	H5+	Supported

*Significant at $p<0.01$ (one-tailed). Significance levels were calculated with 5,000 bootstrap samples.

From Appendices 4.4, 4.5, and Table 4.8, it is clear that board leadership is directly and significantly related to both board responsibility and the board-management relationship,

with path coefficients of 0.444 and 0.684, respectively. These direct effects are significant, with t-values of 9.932 and 4.443 ($p<0.05$), respectively. Thus, these values give support to H4 and H5 which state the direct and positive effect of board leadership on board responsibility and the board-management relationship.

The Mediating Effect of the Board Leadership

The mediator of the structural model is board leadership. If the indirect effect has to be significant, the paths between board structure and board leadership and between board leadership and the board-management relationship should also be significant. In the same way, the significance of the relationship is expected between board structure and board leadership, as well as between board leadership and board responsibility. The products of the coefficient for the paths board structure->board leadership->board-management relationship and between board structure->board leadership->board responsibility represent the indirect effect. This could mean the indirect effect will absorb a part of the direct effect, making the magnitude of the direct effect of the board structure on both the board-management relationship and board responsibility smaller. In this way, the direct effect of board structure on both board responsibility and the board-management relationship (Appendix 4.6), as indicated by the path co-efficient values of 0.444 and 0.691, has been reduced to 0.294 and 0.464, respectively.

Table 9

Summary of the structural model results of Appendices 4.6 and 4.7

Indirect path (Total Effects) From -> To	Path coeff.	T-Stat	P-value	Direction of hypothesis	Hypothesis supported or not
Structure -> Board responsibilities	0.294	2.331	0.0*	H6+	Supported
Structure -> Board-management relationship	0.464	4.998	0.0*	H7+	Supported

** Significant at p<0.01 (one-tailed). Significance levels were computed with 5000 bootstrap samples.*

H6 and H7 both test the indirect relationship of the board structure to board responsibility and the board-management relationship mediated through the board leadership. Specifically, H6 theorizes that a properly structured board is indirectly positively related to the board responsibility mediated through the board leadership, and H7 hypothesizes that a properly

structured board is indirectly positively related to the board-management relationship mediated through the board leadership.

Appendices 4.6, 4.7 (full model), and Table 3.9 of the PLS output show that board structure indirectly and significantly influences both board responsibility and the board-management relationship at t-values of 2.313 and 4.998, respectively, which are above the threshold value of 1.96 at 5% level of significance. Hence, both H6 and H7 are strongly supported. That is, the board structure has a significant effect on both board responsibilities and board-management relationships when board leadership serves as a mediator. On the other hand, the board leadership construct, in turn, also shows significance in its relationship with board responsibility and the board-management relationship, with t-values of 2.665 and 5.20, respectively, at the 5% level of significance, further substantiating the mediating effect of board leadership.

To further confirm the extent of influence (substantial or not) of the exogenous variable on the endogenous variables, it is necessary to determine the 'effect size, f^2. The following effect size categories, f^2, values are used for assessment: 0.02 to 0.15 weak, 0.16 to 0.35 moderate, and greater than 0.35 strong (Cohen, 1988; Gotz et al., 2010).

$$\textbf{Effect size: } f^2 = R^2_{included} - R^2_{excluded} / 1 - R^2_{included}$$

The inner path coefficients (total effect) are larger than the mediated path coefficients, which means that the mediator variable (board leadership) absorbs some of the total effects. Hence, the effect size (strength) of the mediator variable has to be determined by including it in the PLS path model, as shown below, and observing the changes in the path coefficients and the R^2s.

Table 10

Relative explanatory power (effect size) of mediator for board responsibility

Construct (Mediator)	R^2included (with mediator)	R^2excluded (without mediator)	Effect size (f^2)
Board leadership	0.262	0.197	0.09

Source: Own Computation

Table 11

Relative explanatory power of mediator for board management relationship

Construct (Mediator)	R^2included	R^2excluded	Effect size (f^2)
Board leadership	0.625	0.477	0.40

Source: Own Computation

Both Tables (10 and 11) reveal that the effect sizes (f^2) of the board leadership on the two endogenous variables, board responsibility, and board-management relationship, are 0.09 and 0.40, respectively. These values suggest that the board leadership latent variable serving as a mediator has a weak and substantial effect size (influence) in explaining the board responsibility and board-management relationship latent variables, respectively. Thus, the board leadership's mediating role is supported.

Furthermore, the indirect effect (see Table 12) coefficients are also significant, implying that the mediator absorbs some of the direct effects. It is, therefore, crucial to determine the relative size of the mediating effects of the board leadership (mediator) in relation to the total effect (board structure latent variable) to determine the amount that the mediator absorbs and also decide whether the board leadership fully or partially mediates the situation. The VAF (Variance Accounted For) is used to determine the relative size of the mediating effect. According to Hair et al. (2016), VAF determines the amount of the variance of target constructs that is explained by the indirect relationship through the mediator variable or the proportion of the variance of the dependent variable explained by the independent variable. The following criteria are set to determine mediation effects (Hair, 2016): VAF > 80%, full mediation; 20% ≤ VAF≤ 80, Partial mediation; and VAF < 20%, no mediation.

VAF = Indirect effect/ Total effect

Table 12

The relative size of the mediating effects of the board process

	Indirect effect	Total Direct + Indirect)	VAF
Board Structure -> Board responsibility	0..50*0.30= 0.15	0.294+0.15= 0.444	0.34
Board Structure -> board-management relationship	0.50*0.45= 0.23	0.464+0.23= 0.694	0.33

Source: Own Computation

The above table shows that the board leadership latent construct partially mediates the relationship between the board structure and both board responsibility and board-management relationship latent variables with VAF values of 34% and 33%, respectively. Consequently, it can be inferred that 34% and 33% of the board structure's effect on the board responsibility and board-management relationship constructs, respectively, are explained through the partial mediation of the board leadership latent variable. This also magnifies the relevance of the board structure's direct effects in explaining the endogenous variables.

Discussion of Findings and Conclusion:

This section discusses the findings from the perspectives of the conceptual model, corporate governance theories, and prior empirical findings.

Board Structure, Board leadership, Board responsibility, and Board-management relationship: H1, H2, H3, H4, and H5

According to agency theory, the board of directors, as one corporate governance mechanism, plays an important role in bringing about and ensuring sound corporate governance in an organization (Tricker, 2009; Millan, 2010). To carry out this key role, organizations must maintain a sound board structure explained in terms of composition, independence, and committee functioning (OCED, 2004; Millan, 2010; Fauzi & Locke, 2012; Arif & Syed, 2015). As has been stated elsewhere in this study, a properly structured board is expected to exercise good leadership, carry out appropriately his or her responsibilities, and establish a sound board-management relationship. Against these desiderata, seven hypotheses have been formulated to test associations and mediating effects. Based on the agency, stewardship, and resource dependence theories, direct and significant relationships are expected between: (1) the board structure and board responsibility (H1), (2) the board structure and board-management relationship (H2), (3) the board structure and board leadership (H3), (4) the board leadership and board responsibility (H4), and (5) the board leadership and board-management relationship (H5).

The results of the hypotheses are in the expected direction. The PLS results give strong support to hypotheses H1, H2, H3, H4, and H5, namely, that there is a positive and significant relationship between the board structure and the board responsibility role, the board-management relationship, and board leadership. The predictive path coefficients of

0.294, 0.464, and 0.496 between board structure and board responsibility; between board structure and board-management relationship; and between board structure and board leadership, respectively, imply that the board structure is a good predictor of the board responsibility, board-management relationship, and board leadership. This suggests that the board structure has a significant contribution to make in explaining the variances in the above-mentioned endogenous constructs. Andres and Vallelado (2008), Fauzi and Locke (2012) are of the opinion that board composition as one component of a structure is an important corporate dimension in alleviating agency problems and putting in place an effective, responsible, and harmonized board that strives to maximize shareholders' interests. The results specifically show that a board with a workable size and the right mix of expertise and background that operates with appropriate sub-committees and maintains its independence will exercise effective leadership, affect its role responsibly, and help prevail healthy relationships in a company.

To help strengthen the hypothesis test results, a descriptive analysis is drawn and triangulated. The descriptive statistics show an overall average score of 4.10 (82%) for the board structure, which is a high achievement rate for the items measuring the same, which in turn has resulted in the mean achievements of 4.23 (85%), 4.15 (83%) and 3.99 (80%) for board responsibility, board-management relationship, and board leadership, respectively. This high achievement, as Buchanan and Huczynski (1997) argue, reflects that a group's performance is as much a function of its structure and leadership. That is, a properly structured board is expected to deliver appropriate leadership, carry out its task properly, and work harmoniously as a team. This is in line with the studies of Wubie (2015), Higgins and Gulati (2005), and Hillman and Dalziel (2003), which found that a board with the appropriate size, qualifications, and experience signals the quality of the board and the benefits that can be reaped from it. Aligned with the results of the study, the agency perspective considers the independence of the board as an important structural variable that reduces the agency problem and conflict of interest, enabling the board to carry out its duty and safeguard shareholder's interests (Nyamongo & Temesgen, 2013; Anderson et al., 2007; Gabrielsson et al., 2007; Becht et al., 2005; Agrawal & Chandha, 2005; Fama & Jensen, 1983).

An equally important dimension of the board's structure is its subcommittees. These are formed based on the division of work, considering members' experience and expertise (Wubie, 2015). As Andres, Azofra, and Lopez (2005) and Locke and Fauzi (2012)

demonstrated the importance of the board committee in facilitating the board's duties and impacting performance, this study has also evidenced its significant influence on board responsibilities and board-management relationships.

Given the strong association, the descriptive statistics show higher achievements for board responsibility, board-management relationship, and board leadership, as the predictive path coefficients between board structure and board responsibility (0.30), between board structure and board-management relationship (0.46), and between board structure and board leadership (0.50) are higher for both board leadership and board-management relationship. These results show that the boards of directors are more oriented towards implementing sound leadership and establishing a harmonious relationship within themselves and with management.

Similarly, the test result shows a positive association between board leadership and both board responsibility and board-management relationship (H4 and H5) with a path coefficient of 0.298 and 0.450, respectively. This could mean that a board that is very skilled in formulating proposals for decisions, is well prepared for the board meetings, is skilled in motivating and using its competence, adopts participatory leadership, and continually works towards developing a working structure and process for itself has the potential to be responsible in executing its role and establish a healthy relationship with management. This is consistent with the findings of Wubie (2015) and Huse (2007) and also the assertion of the agency theory that boards as leaders are stewards of corporations that devote sufficient time to carry out their overall responsibilities while considering stakeholder interests as well.

The findings of this study provide support for the agency, stewardship, and resource dependence theories. The proponents of these theories argue that a properly structured board of directors as one internal corporate governance mechanism is important for boards to play their leadership role, carry out their responsibilities, and maintain a healthy relationship with management. Fauzi and Locke (2012) believe that boards with different backgrounds, compositions, and levels of independence are likely to have an influence on the boards' leading role and their ability to perform their overall responsibilities. Empirical pieces of evidence that examined the association between board structure and board leadership, responsibility, and management relationships are difficult to find. Most empirical works focused largely on the relationship between board structures, defined in terms of duality, the proportion of insider/outsider directors, and board size (Coles et al., 2001; Dulewicz & Herbert, 2004; Abdullah, 2004; Andres et al., 2005; Garg, 2007; Fauzi & Locke, 2012; Lee et

al., 2013; Guillet et al., 2013), board demographics, board independence (Rosenstein & Wyatt, 1990; Dulewicz & Herbert, 2004; Sarkar, 2009; Knyazeva et al., 2013; Arif & Syed, 2015), committee structure (Klein,1998), and company performance though the empirical evidences were not conclusive. Using regression analysis, Minichilli et al. (2009) tested the relationship between board structure (board size, CEO duality, outsider ratio) and board performances and found mixed results. Wan and Ong (2005) also examined the relationships between board structure (CEO duality and insider/outsider directorships), process, and performance in publicly listed companies. They found no significant relationships between structural variables and the monitoring, service, and strategic roles.

The Mediation Effect of the Board Leadership on board responsibility and board-management relationship: H6 and H7

H6 and H7 tested the indirect relationship of board structure with board responsibility and the board-management relationship mediated through board leadership. The test results confirm the mediational role of the board leadership. Hence, the board structure indirectly, positively, and significantly influences both the board's responsibilities and the board-management relationship. This implies that board leadership exercises a mediating role in the relationship as a part of the direct effect of board structure on both board responsibility and the board-management relationship and is absorbed by the mediating mechanism of board leadership.

To determine the extent of the influence of the exogenous variable (board structure) on the endogenous variables (board responsibility and board-management relationship), the change in the coefficient of determination with and without the mediator variable is calculated, and the effect size is determined. The effect sizes (f^2) of the board leadership on the two endogenous variables, board responsibility and board-management relationship, are 0.09 and 0.49, respectively. These values of the effect size suggest that the board's latent variable serving as a mediator has a small as well as a large effect size (influence) in explaining the board's responsibility and the board-management relationship, respectively. Thus, the board leader’s mediating role is supported. The relative size of the mediating effect was also determined by calculating VAF (Variance Accounted For) to see whether it partially or fully mediates the relationships. The VAF values between board structure and board responsibility and between board structure and board-management relationship are 34% and 33%, respectively, implying that the board's leadership partially mediates the existing relationships. These values have important implications for explaining the relevance of the board

structure's direct effects in explaining board responsibility and board-management latent variables. Accordingly, the VAF values of 34% and 33% indicate the board structure's effect on the board's responsibility and board-management relationship, explained through the partial mediation of the board leadership latent variable.

As presented above, the results of this study are quite different from the findings in prior empirical studies for two reasons. First, the board structure components used in previous studies centered on the CEO duality and insider/outsider ratio, which are not prevalent in the Ethiopian context. The authors believe that the structural variables used in the previous studies are too distant from the variables used in this study to measure the structural construct. Second, this study has a different focus than usual, measuring the relationship between board structure, board leadership, board responsibility, and board-management relationship, giving a new insight into the governance research agenda.

Conclusion and Recommendation

Recent empirical studies on corporate governance have focused on board structure (size, CEO duality, outsider/insider ratio) and firm performance. However, this study has come up with a different lens for examining the relationship between the board structure, board responsibility, and board-management relationship, with board leadership as an intervening variable. The proxy measures for board structure are different from the usual, which are defined in terms of board composition, board independence, and board committees. Moreover, this study is different in the sense that it investigated the relationships using primary data from boards of directors, who are believed to be inaccessible. Also, unlike the majority of prior studies, this research addressed an emerging market economy context.

Though the influence of board structure on board leadership, board responsibility, and board-management relations is apparent, academic inquisition targeted at comprehending the relationships among these variables is limited. That is why the authors took the initiative to investigate how the board structure is related to these variables. Based on the empirical results discussed in the previous sections, it is concluded that there are: positive and significant relationships between board structure and board responsibility; positive and significant relationships between board structure and board-management relationship; positive and significant relationships between board structure and board leadership; and positive and significant relationships between board leadership and board responsibility.

Furthermore, the study concludes that the relationships (1) between board structure and board responsibility and (2) between board structure and board-management relationships are affected by board leadership. Considering the predictive path coefficients of the structural model and the descriptive statistics of the board leadership and board-management relationship constructs, it can be concluded that the boards of directors are more oriented towards effectuating sound leadership and establishing a harmonious relationship between themselves and management.

Another important conclusion to be drawn from the findings is that the indicator variables of the latent variables of the board leadership, board responsibility, and board-management relationship constructs are acceptable measures of the board leadership, board responsibility, and board-management relationship constructs, respectively, as proved by the reliability and validity test procedures.

Finally, the study contributes to the governance literature in the following ways: It exhibits a governance model that shows relationships, the direct effect of board structure on board responsibility, and board-management relations with a mediating effect of board leadership. It provides evidence and an understanding of the relationship between a properly structured board, board leadership, board responsibility, and board-management relationships. Moreover, it has been proven that the indicator variables of the latent variables of the board leadership, board responsibility, and board-management relationship constructs are reliable and valid measures of the board leadership, board responsibility, and board-management relationship constructs. Finally, the model developed will shed light on the mixed empirical results, serve as a guide for future research, and have implications for theory and practice.

References

Abdullah, S.N. (2004). 'Board composition, CEO duality, and performance among Malaysian listed companies', *Corporate Governance: The International Journal of business in society*, **4**(4): 47-61

Agrawal, A. and Chadha, S. (2005). Corporate Governance and Accounting Scandals. *Journal of Law and Economics*, vol. XLVIII.

Ahmed, A. (2015). 'Exploring the Corporate Governance in Lloyd's and the Co-operative Bank: The Role of the Board', *Journal of Business and Management Sciences*, **3**(1): 6-19.

Ahmed, H. and Gabor, A. (2012). An Examination of the relationship of governance Structure and Performance: Evidence from Banking Companies in Bangladesh. *Society and Economy*, **34**(4): 643-666.

Anderson, D.W., Melanson, S.J. & Maly, J. (2007). 'The Evolution of Corporate Governance; power redistribution brings boards to power ', *Corporate Governance: An International Review*, **15**(5): 780-797.

Andres, P., Azofra, V. & Lopez, F. (2005). 'Corporate Boards in OECD Countries: size, composition, functioning and effectiveness', *Corporate Governance: An International Review Blackwell Publishing*, **13**(2): 197-210.

Andres, P.D. and Vallelado, E. (2008). 'Corporate governance in banking: The role of the board of directors', *Journal of Banking & Finance*, **32**:2570- 2780.

Arif, K and Syed, N. (2015). 'Impact of Corporate Governance on the performance of a Firm: A Comparison between Commercial Banks and Financial Services Companies of Pakistan', *European Journal of Business and Management*, ***7***(10):54-60

Arosa, B., Iturralde, T., & Maseda, A. (2013). The Board Structure and Firm Performance in SME: Evidence from Spain. *Investigaciones Europeas de Dirección y Economía de la Empresa, 19: 127–135*.

Ayogu, D.M. (2001). 'Corporate Governance in Africa: The Record and the Policies for Good Corporate Governance', Economic Research papers No 66, The African Development Bank.

Becht, M. – Bolton, P. and Röell, A. (2005): Corporate Governance and Control. *Financial Working Paper*, 2.

Braun, M. and Sharma, A. (2007). Should the CEO also be chair of the board? An empirical examination of family-controlled firms. *Family Business Review*, 20: 111–126.

Buchanan, D. and Huczynski, A. (1997). *Organizational behavior: an introductory tex*t. London, Prentice Hall

Byrd, J.W., and Hickman, K. A. (1992). Do Outside Directors Monitor Man-agers? Evidence from Tender Offer Bids. *Journal of Financial Economics*, 32: 195–221

Cascio, W. F. (2004). Board governance: A social system perspective. *Academy of Management Executive*, **18**(1), 97-100.

Chahine, S. and Tohme, N. S. (2009). Is CEO duality always negative? An exploration of CEO duality and ownership structure in the Arab IPO context. *Corporate Governance: An International Review*, 17: 123–141.

Chin, W.W. (2010). 'How to Write Up and Report PLS Analyses', in VE Vinzi, WW Chin, J

Chin, W.W. and Newsted, P.R. (1999). Structural equation modeling analysis with small samples using partial least squares. *Statistical strategies for small sample research*, ***1***(1):307-341.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences. 2nd ed.* Hillsdale, New Jersey: Lawrence Erlbaum Associates.

Coles, J. W., McWilliams, V. B. & Sen, N. (2001). 'An examination of the relationship of governance mechanism to performance', *Journal of Management*, **27**: 23–50.

Colley, J. L, Doyle, J. L., Logan, G.W. & Stettinius, W. (2003). *Corporate governance*. New Delhi: Tata McGraw-Hill.

Daily, C.M. and Dalton, D. R. (1993). 'Board of Directors Leadership and Structure: Control and Performance Implications', *Entrepreneurship Theory and Practice*, Blackwell Publishing Limited, 69-81.

Dalton, D. R., C. M. Daily, A. E. Ellstrand, and L. L. Johnson. (1998). Meta-analytic Reviews of Board Composition, Leadership Structure, and Financial Performance. *Strategic Management Journal*, 19: 269

Donaldson, L., & Davis, J. H. (1991). Stewardship theory or agency theory: CEO governance and shareholder returns. *Australian Journal of Management,* **16**(1): 49–64.

Donaldson, L. 1990. The ethereal hand: Organizational economics and management theory. *Academy of Management Review*, 15: 369-381.

Dulewicz,V. and Herbert, P. (2004). 'Does the Composition and Practice of Boards of Directors Bear any Relationship to the Performance of their Companies?', *International Review Blackwell Publishing Ltd,* **12(**3): 263-280

Ebrahim, A. and Fattah, T.A. (2015). 'Corporate governance and initial compliance with IFRS in emerging markets: the case of income tax accounting in Egypt', *Journal of International Accounting, Auditing and Taxation,* **24**: 46-60.

Eisenhardt, K.M. (1989). Building Theories from Case Study Research. *The Academy of Management Review*, **14**(4):532-550.

Erakovic, L. and Goel, S., (2004). Building effective board-management relations: Evidence and prescriptions from New Zealand. The *University of Auckland Business Review*, ***6***(1):20-37.

Erakovic, L. and Goel, S. (2008). Board-management relationships: resources and internal dynamics. *Management Review*, 53-69.

Fama, E. F. and Jensen, M. C. (1983). Agency problems and residual claims. *The Journal of Law and Economics*, **26**(2): 327–349.

Fauzi, F. and Locke, S. (2012). 'Board Structure, Ownership Structure, and Firm Performance: A study of New Zealand Listed-Firms', *Asian Academy of Management Journal of Accounting and Finance,* **8**(2): 43–67.

Fornell, C. and Larcker, D.F. (1981). 'Evaluating structural equation models with unobservable variables and measurement error', *Journal of Marketing Research*, 18: 39-50

Gabrielsson, J., Huse, M. and Minichilli, A. (2007). Understanding the leadership role of the board chairperson through a team production approach. *International journal of leadership studies*, ***3***(1):21-39.

Gabrielsson, J. and Huse, M. (2005). Context, behavior, and evolution: Challenges in research on boards and governance. *International Studies of Management and Organization*, **34**(2): 11-36.

Garg, A.K. (2007). 'Influence of Board Size and Independence on Firm Performance: A Study of Indian Companies', *The Journal of Decision makers*, **32**(3): 39-60.

Geletkanycz, M.A. and Hambrick, D.C. (1997). The external ties of top executives: Implications for strategic choice and performance. *Administrative Science Quarterly*, 42: 654-681.

Ghosh, S. (2006). 'Do board characteristics affect corporate performance? Firm-level evidence for India', *Applied Economics Letters*, 13: 435–443.

Goel, S. and Erakovic, L. (2003). Monitoring versus mentoring: Role ambiguity and contextual tensions in the task of the board of directors. In *Corporate Governance Workshop of European Academy of Management meeting, Milan*.

Gotz, O., Liehr-Gobbers, K. & Kraft, M. (2010). 'Evaluation of Structural Equation Models Using the Partial Least Squares (PLS) Approach', in V. Esposito Vinzi, W.W. Chin, J. Henseler & H. Wang (eds), *Handbook of Partial Least Squares: Concepts, Methods, and Applications*, Springer, Berlin, 691-712

Grove, H and Clouse, M. (2015). 'Corporate Governance and Destruction: A Predictive Model', *Journal of Corporate Ownership & Control*, **12**(2):659-665.

Guillet, B.D., Seo, K., Kucukusta, D. & Lee, S. (2013). 'CEO duality and firm performance in the U.S. restaurant industry: Moderating role of restaurant type', *International Journal of Hospitability Management*, **33**: 339-346

Hair, J.F., Black, W.C., Babin, B.J. & Anderson, R.E. (2014). *Multivariate Data Analysis. 7th* ed. USA: Pearson Education Limited.

Hair Jr, J.F., Hult, G.T.M., Ringle, C. and Sarstedt, M. (2016). *A primer on partial least squares structural equation modeling (PLS-SEM).* Sage publications.

Henseler, J., Ringle, C.M. and Sinkovics, R.R. (2009). The use of partial least squares path modeling in international marketing. In *New challenges to international marketing*, 277-319. Emerald Group Publishing Limited.

Hermalin, B. E. and Weisbach, M. S. (1991). 'The Effects of Board Composition and Direct Incentives on Firm Performance,' *Financial Management,* **20**(4): 101-112.

Herzberg, F. I. (1966). Work and the Nature of Man.

Higgins, M. C. and R. Gulati. (2006). Stacking the Deck: The Effects of Top Management Backgrounds on Investor Decisions. *Strategic Management Journal*, 27: 1-25.

Hillman, A.J. and Dalziel, T. (2003). Boards of Directors and Firm Performance: Integrating Agency and Resource Dependence Perspectives. *The Academy of Management Review*, **28** (3): 383-396

Hillman, A.J., Cannella, A.A. and Paetzold, R.L. (2000). The resource dependence role of corporate directors: Strategic adaptation of board composition in response to environmental change. *Journal of Management Studies*, **37**(2):235-256.

Huse, M. (2007). *Boards, governance and value creation: The human side of corporate governance*. England: Cambridge University Press.

Huse, M. (2005). Accountability and creating accountability: A framework for exploring behavioral perspectives of corporate governance. *British journal of management*, *16* (Special Issue): S65-S79.

Huse, M. (1994). Board-Management Relations in Small Firms: The Paradox of Simultaneous Independence and Interdependence. *Small Business Economics*, **6**(1): 55-72

Jensen, M. C. (1993). 'The modern industrial revolution, exit, and the failure of internal control systems, *Journal of Financial*, **48**(3): 831– 880

Jensen, M. C. and Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, **3**(4): 305–360.

Johnson, J.L., Daily, C.M. and Ellstrand, A.E. (1996). Boards of directors: A review and research agenda. *Journal of Management, **22***(3): 409-438.

Kang, H., Cheng, M. & Gray, S.J. (2007). 'Corporate governance and board composition: Diversity and independence of Australian boards', *Corporate Governance,* **15**(2): 194-207.

Klein, A. (1998). 'Firm Performance and Board Committee Structure', *Journal of Law and Economics*, **41**(1): 275-304.

Knyazeva, A., Knyazeva, D. & Masulis, R.W. (2013). 'The Supply of Corporate Directors and Board Independence: *The Review of Financial Studies*, **26**(6): 1561-1605.

Le, S.A.; Kroll, M. and Walters, B.A. (2012). The Influence of Board Composition on Top Management Team Industry- and Firm-Specific Human Capital in Young IPO Firms. *Journal of Managerial Issues*, **24**(4): 412-432.

Lynall, M.D., Golden, B.R. and Hillman, A.J. (2003). Board composition from adolescence to maturity: A multitheoretic view. *Academy of management review*, **28**(3):416-431.

Mande, B., Ishak, Z., & Idris, K.M. (2013). 'Using Structural Equation Modeling to Relate Enforcement and Board Performance', *Middle-East Journal of Scientific Research,* **18**(8): 1156-1170

Mallin, A. C. (2010). *Corporate Governance*. 3rd ed. New York: Oxford University Press.

McClelland, D. (1961). The achieving Society. The Free press: New York.

Minichilli, A., Zattoni, A. & Zona, F. (2009). 'Making Boards Effective: An Empirical Examination of Board Task Performance', *British Journal of Management,* 20: 55-74

Monks, R.A.G. and Minow, N. (2011). *Corporate Governance*. 5th ed.UK: John Wiley & Sons.

Mueller, G.C. and Barker III, V.L. (1997). Upper echelons and board characteristics of turnaround and non-turnaround declining firms. *Journal of Business Research*, **39**(2):119-134.

Muth, M.M. & Donaldson, L. (1998). Stewardship theory and board structure: a contingency approach. *Corporate Governance: An International Review*,**6**(1):5–28.

Nyamongo, E.M. and Temesgen, K. (2013). 'The effect of governance on the performance of commercial banks in Kenya: a panel study', *Corporate Governance: The international journal of business in society*, **13**(3): 236 – 248.

OECD. (2004). *Principles of Corporate Governance*. FRANCE: OECD Publications Service

Ong, C. H and Wan, T.W.D. (2001). 'Board Structure, Process, and Performance: A Review & Research Agenda', *Journal of Comparative International Management*, **4**(1).

Pamburai, H.H., Chamisa, E., Abdulla, C. & Smith, C. (2015). 'An analysis of corporate governance and company performance: a South African perspective', South African *Journal of Accounting Research, 1-17.*

Pfeffer, J. (1972). Size and composition of corporate boards of directors: The organization and its environment. *Administrative science quarterly*, 17:218-228.

Pfeffer, J. and Salancik, G.R. (1978). The Control of Organizations: A Resource Dependency Perspective, New York: Harper & Row.

Sarkar, J. (2009). 'Board Independence & Corporate Governance in India: Recent Trends & Challenges Ahead': *The Indian Journal of Industrial Relations*, **44**(4): 576-592.

Shen, W. (2003). The Dynamics of the CEO-Board Relationship: An Evolutionary Perspective. *The Academy of Management Review*, **28**(3): 466-476.

Sheridan, A., & Milgate, G. (2005). Accessing board positions: A comparison of female and male board members' views. *Corporate Governance: An International Review*, *13*(6), 847-855.

Tricker, B. (2009). *Corporate governance: Principles, Policies, and Practices*. New York: Oxford University Press Inc.,

Tricker, R.B. and Tricker, R.I. (2015). *Corporate governance: Principles, policies, and practices*. Oxford University Press, USA.

Vinzi, V. E., Chin, W. W., Henseler, J., & Wang, H. (2010). *Handbook of partial least squares* (Vol. 201, No. 0). Berlin: Springer.

Wan, D. and. Ong, C. H. (2005). 'Board Structure, Process, and Performance: evidence from public listed companies in Singapore', Board *Structure, Process and Performance Blackwell Publishing*, **13**(3): 277-290.

Weisbach, M.S. (1988). Outside Directors and CEO Turnover. *Journal of Financial Economics*, 20: 431–60.

Wong, K.K.K. (2013). Partial least squares structural equation modeling (PLS-SEM) techniques using SmartPLS. *Marketing Bulletin*, **24**(1): 1-32.

Wubie, T.M. (2015). *Corporate governance in an emerging economy: the antecedents of board performance and practices in the Ethiopian banks* (Doctoral dissertation).

Zahra, S.A. and Pearce, J.A. (1989). Boards of directors and corporate financial performance: A review and integrative model. *Journal of Management*, **15**(2):291-334.

Appendix 4.1**: Measurement Instrument**

1. Board Structure

1.1 Board Composition

- There is a transparent and clear structure between the board, the President, and executive directors
- The board consists of a workable number of board members to function effectively and efficiently as a group.
- Non-executive board members bring with them important resources (expertise, link to the market, knowhow, technology...) and serve as a link with the external environment

1.2 Board independence

- The board of directors of the bank are independent of the President of the bank
- Board members are independent from the board chairperson as the chairperson will not influence the extension or termination of the directorship
- The board of directors are independent of the controlling (large) shareholders

1 .3 Board-Subcommittees

- Working with committees is useful as this would allow maximum use of the board's expertise and knowledge
- Committee assignments reflect the interests, experience, and skills of individual board members
- Standing and ad hoc committees report regularly to the full board

2. Board Responsibilities

- As a member of the board of directors, I am adequately informed and knowledgeable about my functions and responsibilities
- As a member of the board of directors, I feel responsible and devote sufficient time to carry out my responsibilities
- As a member of the board of directors, I consider fiduciary and stewardship responsibilities in discussions and decision-making
- As a member of the board of directors, I am responsible and take into account stakeholder interests in decisions and actions
- As a member of the board, I am willing to be accountable and responsible for situations that may cost me to the extent of relinquishing my position.

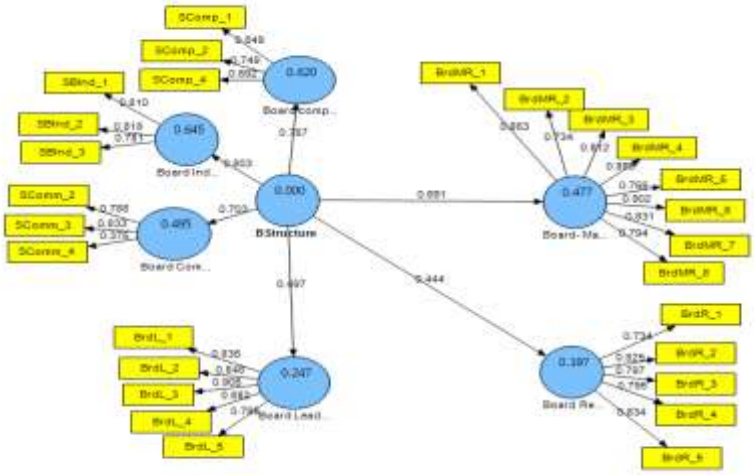
3. Board-Management Relationship

- The board has a sound, open, and harmonious working relationship with the President and other top managers.
- The board assesses the President's performance in a systematic and fair way at least annually
- The respective roles of the board and executive management are clearly defined and understood
- The relationship between the board and management is characterized by a high degree of honesty, trust, and confidence
- The board gives the President enough authority and responsibility to lead the staff and manage the bank effectively
- Management is responsive to appropriate advice and directions from the Board.
- The President keeps the board well-informed on key issues
- Board members refrain from direct interference in the bank's operation

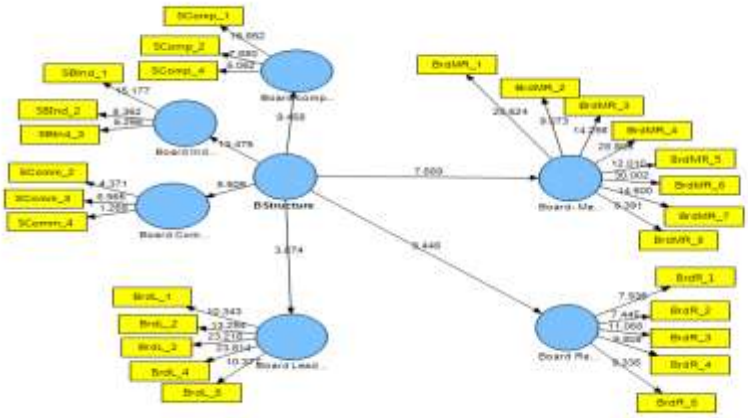
4. Board Leadership

- The board chairperson is very skilful in formulating proposals for decisions and summing up conclusions.
- The board chairperson is always well prepared for the board meetings and also very skilful in leading discussions in the boardroom.
- The board chairperson is very skilful in motivating and using the competence of each member of the board of directors
- The board chairperson adopts a participatory leadership style and members have trust in him/her
- The board chairperson works continually on developing the working structures and processes in the board

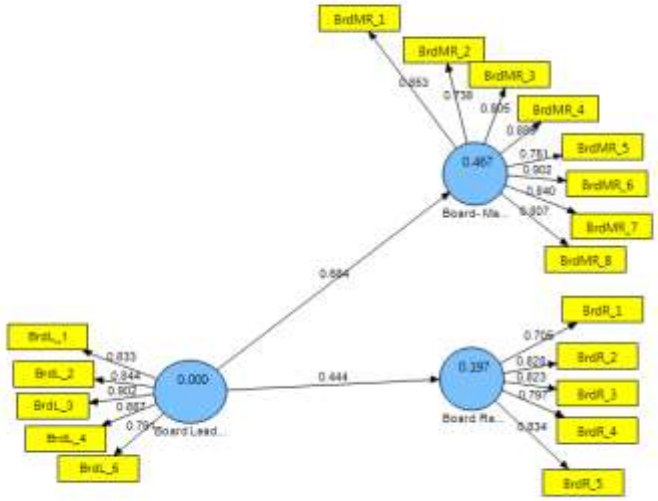
Appendix 4.2: PLS Path modeling showing the direct effect of Board Structure on Board Responsibility, Board-Management Relationship and Board Leadership



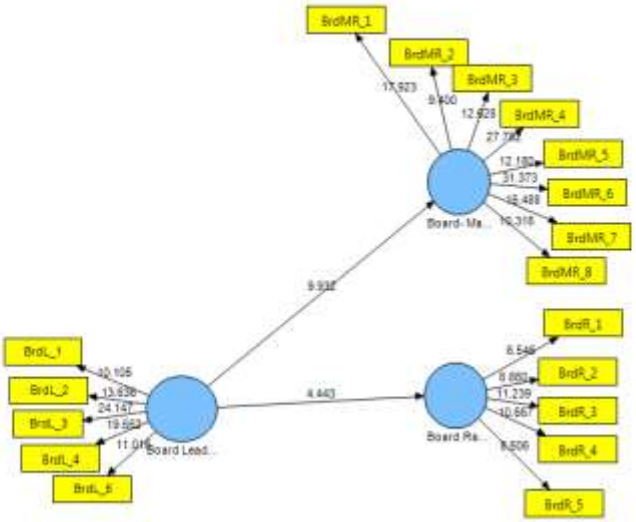
Appendix 4.3: PLS Path modeling showing the significance of the relationship between Board Structure on Board Responsibility, Board-Management Relationship, and Board Leadership



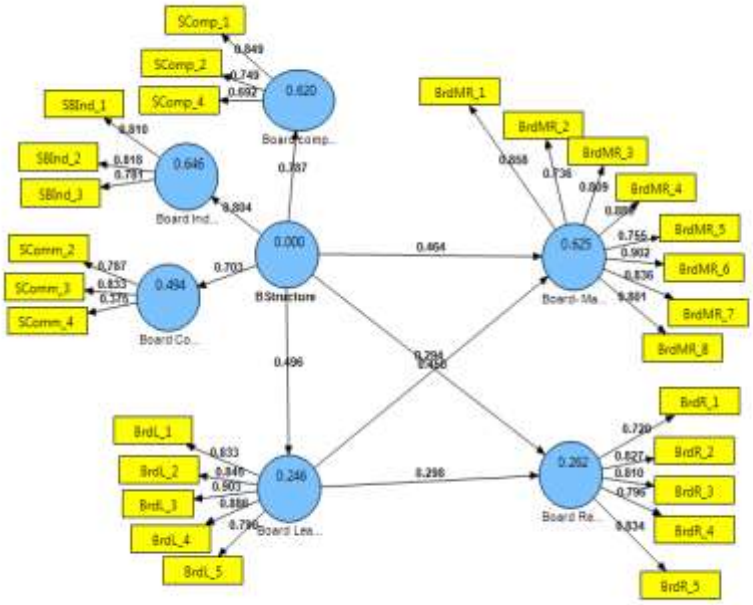
Appendix 4.4: PLS Path modeling showing the direct effect of Board Leadership on Board Responsibility and Board-Management Relationship



Appendix 4.5: PLS Path modeling showing the significance of the relationship between Board leadership, Board Responsibility, and Board-Management Relationship



Appendix 4.6: Full PLS- PM with path coefficients showing the mediating effect of board leadership



Appendix 4.7: Full PLS- PM with bootstrap results showing the significance of the coefficients