

## **Board Effectiveness, Entrepreneurial Orientation and Corporate Culture: Evidence from an Emerging Economy**

Deshani A.L.<sup>1</sup>, Ajward A.R.<sup>2</sup>

<sup>1</sup>University of Ruhuna, Sri Lanka

<sup>2</sup>University of Sri Jayewardenepura, Sri Lanka

<sup>1</sup>algewaththalakma@gmail.com, <sup>2</sup>ajward.sjp.ac.lk

### **Abstract**

There is a dearth and mixed empirical evidence regarding the relationship between corporate board effectiveness and entrepreneurial orientation in a large-scale organizational setting. The purpose of this paper is to address this deficiency by investigating the link between board effectiveness and entrepreneurial orientation including the possible moderators that influence such a connection in an emerging country context. A quantitative survey was conducted representing the top 100 listed non-financial companies in Sri Lanka. Correlation and hierarchical regression analysis were employed in testing the hypotheses of the study. Study findings indicated that entrepreneurial orientation is significantly associated and predicted by board effectiveness in Sri Lankan context. The relationship between board effectiveness and firm innovative behavior is significantly moderated by the corporate cultural characteristics measured via competing value framework. The study is noteworthy due to, (1) the adoption of a multi-theoretic perspective to conceptualize board effectiveness, (2) an attempt to link resource-dependency theory and the resource-based view of entrepreneurship to understand the aforementioned link between board effectiveness and entrepreneurial orientation, (3) an attempt to understand the role of corporate culture to strengthen the aforementioned link. The study has a momentous value for theoretical advancement in corporate governance and entrepreneurship literature. The study findings provide a notable practical value for board members, senior decision-makers, and policymakers in emerging countries.

**Keywords:** *Board Effectiveness, Entrepreneurial Orientation, Corporate Culture, Sri Lankan Listed Companies*

**Copyright:** © 2021 Deshani A.L, Ajward A.R. This is an open-access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

**Correspondence:** [algewaththalakma@gmail.com](mailto:algewaththalakma@gmail.com)

**ORCID of authors:** Deshani A.L. -  <https://orcid.org/0000-0001-8272-7825>

Roshan Ajward -  <https://orcid.org/0000-0002-7001-9335>

**DOI:** <http://doi.org/10.4038/kjm.v10i1.7628>



## Introduction

As a result of several notable corporate scandals that took place nationally (e.g., Pramuka Bank, Vanik Corporation) and internationally (e.g., Enron, WorldCom), corporate transparency, accountability, and the effectiveness of the board of directors' has received increased attention (Senarathne, 2017). These corporate failures significantly affected the daily lives of countless innocent depositors, which ultimately led to an erosion of public faith in the Sri Lankan financial sector (Senarathne, 2017). Thus, the effectiveness of the board of directors, as the central internal governance mechanism, plays a central role in guiding companies towards success.

On the other hand, the lack of entrepreneurial characteristics embedded in organizations has been recognized as a reason for corporate failures (Olori & Sylva, 2017). Accordingly, increased market competition coupled with a contemporary dynamic business environment highlights the need for organizations to become outward-oriented by adopting an entrepreneurial management approach (Covin & Lumpkin, 2011). Such entrepreneurial firm behavior encompasses the creation of innovations to proactively exploit profitable business opportunities, by accepting a certain level of risk (Costa, 2014; Miller, 2011). Scholars argue that it is the responsibility of the effective board members to strike a balance between good governance (compliance aspect) and entrepreneurial initiatives (performance aspect) to enhance long term firm performance while enabling sustained competitive advantage (Tricker, 2015). To solve the governance issues of corporate organizations, it is crucial to enhance the effective behavior of the corporate board members who are well attuned in controlling, advising and strategizing the company's operations; at the same time, it is important to develop entrepreneurial strategies to succeed in an environment of increased competition, bearing in the mind

the influence of a virtuous corporate culture (Aloulou & Fayolle, 2005). The main reason behind the emergence of corporate culture as a key consideration is that it touches every aspect of the organization, from strategy to compliance. Regardless of the capacity of an organization, if the top management expects to change the strategic direction of the company, it is required to make necessary changes to the corporate cultural boundaries (Bischoff, 2016).

However, academic scholarship in this area of investigation has several limitations. Firstly, although the mainstream literature supports the relationship between effective board behavior as an internal governance mechanism and entrepreneurial orientation, there are limited studies on the topic (Olori & Sylva, 2017); of the studies which do exist, the evidence is mixed and warrants further investigation. Secondly, research recognizing key board characteristics largely focused on board demographic factors aligned with a single theoretical perspective to the detriment of effective behavioral characteristics of corporate boards (Shukla & Limbasiya, 2015). Thirdly, the influence of corporate culture as a potential contingency variable on the relationship between board effectiveness and entrepreneurial orientation has been largely overlooked (Szczepańska-Woszczyna, 2015; Mervelskemper et al., 2018).

To address the aforementioned research gaps, this paper adopts a multi-theoretic perspective to understand the relationship between board effectiveness and entrepreneurial orientation, with special reference to Sri Lankan listed non-financial companies. Accordingly, this paper seeks to address the following research questions:

*RQ1.* What is the level of board effectiveness and level of entrepreneurial orientation in Sri Lankan listed non-financial companies?

*RQ2.* Is there a relationship between board effectiveness and entrepreneurial orientation (innovativeness, proactiveness, risk-taking,



competitive aggressiveness and autonomy) in Sri Lankan listed non-financial companies?

*RQ3.* Is there a moderating effect of corporate culture on the relationship between board effectiveness and entrepreneurial orientation in Sri Lankan listed non-financial companies?

To find answers to these questions, the study collected and analyzed data from board members and senior decision-makers representing the top 100 listed non-financial companies in Colombo Stock Exchange, Sri Lanka. The study findings add significant value to the existing literature on both corporate governance and entrepreneurship. This is achieved using a multi-theoretical perspective to operationalize board effectiveness while recognizing a link between resource dependency theory and the resource-based view of entrepreneurship. Further, the study contributes to the limited empirical research on the relationship between these two concepts in an emerging country context.

This study adds significant practical insights for the board of directors and top-level decision-makers of listed companies in Sri Lanka; it prompts these decision-makers to adopt effective entrepreneurial strategies for organizational long term success (while complying with the governance rules and regulations), by taking into consideration the wide range of underlying determinants/characteristics of board effectiveness. The rest of this paper discusses existing literature (including key concepts and key theoretical perspectives), the development of study hypotheses, the current study methodology and findings. The discussion of results and conclusion identify the implications of this research, along with its limitations and future research directions.

## Literature Review

### Concepts

#### *Corporate Governance*

There are various definitions of corporate governance, based on the perspective: operational, relationship, stakeholder, financial, economic, and societal (Tricker, 2015). According to Sir Adrian Cadbury's Report on the Financial Aspects of corporate governance (1992), the first definition for corporate governance is "the system by which companies are directed and controlled" (p. 14). In an in-depth expression of governance structures, Brickley and Zimmerman (2010) define corporate governance as "the system of laws, regulations, institutions, markets, contracts and corporate policies and procedures that direct and influence the actions of the top-level decision-makers" (p. 236). This definition integrates the role of top-level management and the core competence of the organization, assuring the processes and decisions act to benefit the organization.

By taking into consideration the purpose and objectives of this study, the above-mentioned view of corporate governance was taken as the basis for this research. This perspective clearly emphasizes top-level leadership, management and control mechanisms for decision making and monitoring; these mechanisms facilitate the BE and commitment to engage in strategic entrepreneurial actions.

#### *Board Effectiveness*

The governing board is central to the corporate governance system. Based on Agency Theory, the focal role of the governing board is decision management and decision control for the benefit of the organization (Windsor, 2009). According to Forbes and Milliken (1999), a board is considered as "an elite, and episodic decision-making group that face[s] complex tasks pertaining to strategic-issue processing" (p. 492). Therefore, the governing board has been recognized as a firm-level work team. The team's compliance with board-related governing



principles (encompassing board characteristics) plays a central role in guiding organizations towards success. In this context, board effectiveness is defined as “a combination of committed, collaborative, competent, creative and achievement-oriented individual board of directors who possesses a strong self-character in performing their responsibilities” (Tricker, 2015, p. 314). However, extant literature provides a limited understanding of the use of corporate governance principles to achieve effective board compliance, with best practices of governance (e.g., board index based on board characteristics) (Shukla & Limbasiya, 2015). Hence, this study adopted 19 dimensions encompassing both demographic and behavioral principles (e.g., board independence, board size, board human capital, Chief executive officer (CEO) duality, board shareholding, board diversity, audit committee existence, audit committee size, audit committee independence, remuneration committee existence, nomination committee existence, board expertise, board commitment, board cohesiveness, meeting practices, board power, board control role, board advisory role, board strategic role). Using these dimensions this study seeks to develop a comprehensive index to capture the effective compliance of internal governance principles and behavior of corporate boards in Sri Lankan listed non-financial companies.

#### *Entrepreneurial Orientation*

An Entrepreneurial organization is a firm “which engages in product market innovation, undertakes somewhat risky ventures, and is first to come up with proactive innovations, by beating competitors to the punch” (Miller, 1983, p. 771). According to Miller (1983), and Lumpkin and Dess (1996), entrepreneurial orientation consists of an organization’s entrepreneurial decision-making method, style, and practices. Accordingly, entrepreneurial orientation is defined as “the

processes, practices, and decision-making activities that lead to a new entry as characterized by one, or more of the following dimensions: a propensity to act autonomously, a willingness to innovate and take risks, and a tendency to be aggressive toward competitors and proactive relative to marketplace opportunities” (Lumpkin & Dess, 1996, p. 136). The primary dimensions of entrepreneurial orientation are, therefore: innovativeness, proactiveness, risk-taking, competitive aggressiveness and autonomy recognized as central to the entrepreneurial decision-making process (Urban, 2010). Based on the above explanation, this paper mainly focuses on exploring the relationship between crucial dimensions of entrepreneurial orientation and board effectiveness, notwithstanding the autonomous of entrepreneurial orientation dimensions.

#### *Corporate Culture*

Corporate culture is defined as “the pattern of shared values and beliefs that help individuals understand organizational functioning and provide them with the norms for behavior in organizations” (Deshpande & Webster, 1989, p. 4). Corporate culture impacts on the behavior and interaction between individuals in an organizational context (Schein, 1983). This reflects a pattern of underlying assumptions which are either invented, discovered, or developed by a given group, as it learns to cope with its problems of external adaptation and internal integration; these assumptions have worked well enough to be considered valid, and are therefore taught to new members as the correct way to perceive, think and feel (Schein, 1983).

Studies argue that it is the board of directors’ role to determine the purpose of the company and to ensure the company’s values, strategies and business model are well aligned (Bischoff, 2016). Furthermore, scholars recognize that the organizational structure, leadership, and culture are crucial drivers of entrepreneurial orientation. Thus,



the culture of an organization could strongly influence the entrepreneurial posture within an organization (Aloulou & Fayolle, 2005). However, the role of corporate culture in influencing board behavior and entrepreneurial decision making has received limited attention in the extant literature, with reference to an emerging country context. Thus, this study focuses on extending such knowledge deficiency in Sri Lankan context.

### **Broader Theoretical Perspectives in Corporate Governance: Agency Theory, Stewardship Theory, Stakeholder Theory and Resource Dependency Theory**

Agency theory (which highlights the controlling and monitoring function of the corporate board), has dominated historical research (Donaldson & Davis, 1991). The board of directors can assist with agency issues by managing and monitoring the decision-making process of executives, and therefore ensure a better return on investment to owners (Alchian & Demsetz, 1972). Accordingly, the focus of agency theory is to minimize the agency cost to the principals by establishing adequate internal controls such as board independence, CEO duality, effective board size, board meeting frequency and board structure (Molokwu et al., 2013; Finkelstein & Mooney, 2003).

However, agency theory alone cannot guarantee effective board behavior without paying significant attention to other organizational factors. By focusing on other non-economic organizational factors, additional theories can further explain the principal-agent relationship. Among these, Stewardship theory holds an optimistic view of human (managerial) behavior and asserts that agents are not essentially motivated by self-centric goals. Rather, it claims that agents are intrinsically reliable, are not predisposed to embezzle corporate resources, and are motivated to work in the interest of their principals and other stakeholders (Donaldson & Davis, 1991; Muth & Donaldson, 1998). Furthermore, this theory recommends that the optimal

stewardship role can only be exercised when the board has the ultimate power and authority (Donaldson & Davis, 1991).

Furthermore, Jones and Wicks (1999) explained that organizations have a variety of stakeholders who are interested in internal operations, and there is a responsibility to serve these stakeholders. The emergence of stakeholder theory is based on the idea that the corporate board need to focus on serving a variety of stakeholder expectations (Jones & Wicks, 1999). Accordingly, a board comprised of directors who possess the right background and experience to serve such a variety of stakeholders is the key to establishing good governance (Tricker, 2015). Particularly, the social capital and human capital of the directors are critically important in stakeholder theory (Tricker, 2015).

Similarly, resource dependency theory claims that organizations own unique resources and can exercise control over the dynamic environment by co-opting those strategic resources to their advantage (Hillman et al., 2009). Hence, a director's social capital (e.g., network connections) is recognized as one of the critical strategic resources that can give the company a competitive advantage; it is considered one of the most valuable attributes that a director can bring to the company (Stevenson & Radin, 2009). For example, Ike (2012) explained that directors who are prestigious and renowned in their professions can contribute timely information to the organization. Further, resource dependency theory suggests that active board involvement is important to enhance effective board performance (Hillman et al., 2009).

Although the above discussed theoretical perspectives recognize several internal mechanisms which influence effective board behavior, extant scholarship in the field of agency theory has largely progressed by limiting the number of board characteristics under investigation. However, some studies suggest a broader explanation of effective



board behavior, encompassing a variety of demographic and behavioral dimensions aligned with a multi-theoretic perspective (Olori & Sylva, 2017). Aligned with the above theoretical perspectives, extant literature, and the corporate governance code (2017) issued by the Institute of Chartered Accountants of Sri Lanka, this study develops a comprehensive index of 19 board characteristics. This index will be used to understand the effective compliance of board behavior and the relationship between such behavior with entrepreneurial decision-making processes in Sri Lankan listed non-financial companies.

### **Broader Theoretical Perspective in Entrepreneurship: Resource Base View of Entrepreneurship**

The focus of the resource-based view (RBV) is to understand the competitive advantages derived from the firm's unique set of resources (Wernerfelt, 1984; Barney, 1991). Such resources can be categorized as tangible (e.g., capital, access to capital, location etc.) or intangible (knowledge, skills, and reputation, entrepreneurial orientation among employees etc.) in nature (Ferreira, Azevedo, & Ortiz, 2011). According to Mosakowski (1998), the propensity of an individual to behave creatively, act with foresight, use intuition and be alert to new opportunities, are considered entrepreneurial resources. Such resources are held within the organizational context in two ways: either with a single manager-entrepreneur or distributed among the individuals of an entrepreneurial team (p. 627).

### **Theoretical link between resource base view of entrepreneurship and resource dependency theory**

Concerning the theoretical link between board effectiveness and entrepreneurial orientation, scholars argue that if an organization owns a strong governance system that is controlled and strategically advised by a vigilant, effective board

member, that the company can come up with innovations, and thus become more entrepreneurial oriented (Molokwu et al., 2013). The idiosyncrasy, tacit knowledge, uncertainty, resource assembly and changes in the resource base seem central to entrepreneurship, just as they are to resource-based strategy (Conner & Prahalad, 1996). According to Miller (2003), there is a natural connection between the resources a firm owns and the decision-making process, where it necessary to harness those resources for a profitable purpose. The effective utilization of organizational internal (human capital, innovative behavior, financial resources, technology, internal processes systems) and external (external links of organization) resources is the responsibility of firm decision-makers enabling the long-term survival of the company (Nemati et al., 2010).

Furthermore, RBV is more concerned with the effective utilization of internal resources, while resource dependency theory is more concerned with the effective utilization of external resources (Nemati et al., 2010). Therefore, as a key decision-making body, the corporate board needs to consider both views of resources rather than focusing on one perspective (Nemati et al., 2010). Resource dependency theory combined with resource-based view of entrepreneurship thus facilitates to establish the link between effective compliance of board principles/characteristics and the entrepreneurial decision-making process. This balances the conformance and performance aspects of corporate governance.

### **Conceptual model and hypotheses development**

*Relationship between board effectiveness and entrepreneurial orientation: Innovativeness, proactiveness, risk-taking, autonomy and competitive aggressiveness*



Following on from the concept definitions and theoretical perspectives, this section focuses on reviewing extant literature in the areas of entrepreneurial orientation and corporate governance, with a special focus on board research; this will help to develop the conceptual model for the study.

The role and effectiveness of the board of directors in initiating entrepreneurial work processes within the firm has received scant attention in the extant literature. Highlighting the Nigerian banking sector, Olori and Sylva (2017) claimed that when the board is comprised of more effective, committed, and knowledgeable members, such board members tend to actively participate in initiating innovative business practices. They also found that such board members proactively seek external business opportunities while taking a modest risk in their corporate decision-making process. The study focused on the behavioral characteristics of the corporate board as an internal corporate governance system.

A similar study based on the South African Oil and Gas Industry, claims a significant positive relationship between board effectiveness, board knowledge, board commitment, board involvement in decision making and entrepreneurial orientation (encompassing innovative, proactive and risk-taking characteristics) (Molokwu et al., 2013). Further, studies recorded a strong positive influence on the organization's value creation ability from an active board and executives, through effective participation in developing an entrepreneurial posture (Gabrielsson, 2007; Arzubiaga et al., 2017; Albu & Mateescu, 2015). Organizations with board members and executives who depict a higher level of entrepreneurial intensity claim to be more efficient and effective in setting strategic goals and championing novel initiatives than those organizations that adopt an attitude of 'wait and see' (Diochon & Diochon, 2010). Moreover, Zahra et al. (2000) claim that the commitment to establish entrepreneurial strategy (product, process and organization)

is high when the chief executive officer and Chairman positions are separated, the board size is medium, and the board possess a considerable shareholding in medium-sized companies.

Similarly, Stevenson and Radin (2009) claim that board experience and knowledge is important to establish an entrepreneurial decision-making process surveying boards and executives in multi-national companies. This argument complements research by Wu (2008), who investigated the behavior of board members and executives as risk-takers in pursuing organizational innovativeness; Wu (2008) claim that smooth and effective board behavior shapes the introduction of new products and services in entrepreneurial firms.

Furthermore, a study investigating whether compliance with corporate governance practices hinders corporate entrepreneurial initiatives in large and medium-sized listed companies in the United Kingdom found there is no such negative impact. Compliance with governance principles did not hinder the organizational decision-making process encompassing innovative, proactive, risk-taking, competitively aggressive, and autonomous behavior (Elgharbawy & Abdel-kader 2016, p. 778). For this study, the researcher used both demographic and behavioral dimensions to operationalize board effectiveness. It is therefore worth understanding the relationship between board demographic factors and entrepreneurial dimensions from the existing literature.

Likewise, studies have depicted a positive relationship between the contingency behavior of the board of directors (characterized by CEO duality, the number of independent directors, level of board diversity, level of expertise such as educational qualifications, commitment for strategic decision-making encompassing advisory, strategic and controlling behavior) and firm-level product and process



innovation (Zona et al., 2013; Daellenbach et al., 1999; Gabrielsson & Politis, 2006; Camelo et al., 2010; Jaskyte, 2017).

The existing scholarship is limited in identifying the relationship between board characteristics and competitive aggressiveness. In this context, He and Mahoney (2006) found a weak positive relationship between CEO duality, board size and independence, and organizational competitive behavior. With regards to the autonomous decision-making style, studies claim that when the board is effective in performing their tasks, the board tends to develop an autonomous working culture; the board values this autonomous culture as it provides the freedom to enhance the entrepreneurial tendency in achieving competitive advantages (Erskine, 2016). Extant literature has conceptualized the corporate governance system and board behavior in different ways. However, few studies have identified the overall effectiveness of the board by taking into consideration a wider scope of board characteristics reflecting compliance principles (comprised of both demographic and behavioral aspects). Aligned with resource-dependency theory, resource-based view of entrepreneurship and the foregoing discussion, this study hypothesizes the following:

H1: There is a significant relationship between board effectiveness and entrepreneurial orientation

H1a: There is a significant relationship between board effectiveness and innovativeness

H1b: There is a significant relationship between board effectiveness and proactiveness

H1c: There is a significant relationship between board effectiveness and risk-taking

H1d: There is a significant relationship between board effectiveness and competitive aggressiveness

H1e: There is a significant relationship between board effectiveness and autonomy

### *The moderating role of the corporate culture*

Although mainstream literature supports the direct impact of firm-level cultural background in fostering entrepreneurial posture (Brettel et al., 2015; Cherchem, 2017; Behram et al., 2014), extant literature is limited in understanding the moderating role of corporate culture on the relationship between compliance principles of the board and entrepreneurial orientation. Among the scant literature, Szczepańska-Woszczyzna (2015) recognizes the influence of supportive corporate culture to strengthen the relationship between leader behavior and innovation processes in Polish large-scale private companies.

Correspondingly, Omar et al. (2014) developed a conceptual model recognizing how different culture types such as family-like culture, entrepreneurial culture, regulated and market-oriented culture impact the link between the board of director attributes and small and medium firm growth in Malaysia; this research, however, is not empirically validated. Other studies also claim that the link between organizational governance systems and risk-taking behavior in Banks is significantly moderated by family-like firm cultures (clan) and cultures with a greater number of rules and regulations (e.g., hierarchical) (Mervelskemper et al., 2018).

Additionally, Arzubiga et al. (2017) found an organisation's internal culture does and does not significantly moderate the relationship between strategic involvements of the board of directors in nurturing the organization's innovation practices. The study found a special influence on family firms when there are differences in generational involvement. Huybrechts et al. (2012) also claim that the effective compliance of board principles reduces the selection of risky projects particularly in a family-like cultural environment that reflects cohesiveness and belonging among members. According to the foregoing



discussion, the study hypothesizes the following based on different cultural characteristics reflect in competing value framework:

H2: Corporate culture moderates the relationship between board effectiveness and entrepreneurial orientation

H2a: Corporate culture moderates the relationship between board effectiveness and innovativeness

H2b: Corporate culture moderates the relationship between board effectiveness and proactiveness

H2c: Corporate culture moderates the relationship between board effectiveness and risk-taking

H2d: Corporate culture moderates the relationship between board effectiveness and competitive aggressiveness

H2e: Corporate culture moderates the relationship between board effectiveness and autonomy

Accordingly, the conceptual model is depicted in Figure 01. The model conjectures that effective compliance with board principles (both demographic and behavioral) is significantly related to developing a firm-level orientation towards innovativeness, proactiveness, risk-taking, competitive aggressiveness and autonomy reflecting a broader entrepreneurial strategic orientation. This relationship is expected to be moderated by firm-level cultural background. Further, organizational age and size are taken as the control variables, aligned with extant literature (Boone et al., 2007; Dess & Lumpkin, 2005).

## Methodology

### Research Philosophy and Research Approach

Based on 'Research Onion' by Saunders et al. (2009), this study adopted the positivist research philosophy following the deduction/theory-testing research approach.

### Research Strategy and Time Horizon

The study was based on a cross-sectional quantitative survey research strategy utilizing both primary and secondary data. Such a methodology is in line with prior research in this area (Olori & Sylva, 2017).

**Sampling Procedure** *Population:* 226 publicly quoted companies registered under Colombo Stock Exchange, Sri Lanka except for Banking, Finance and Insurance sector due to the highly regulated nature of the organizational activities and differing nature of the business activities in this sector (Tomasic & Andrews, 2007).

*Sample size:* Top 100 publicly quoted companies based on highest market capitalization registered under Colombo Stock Exchange, Sri Lanka.

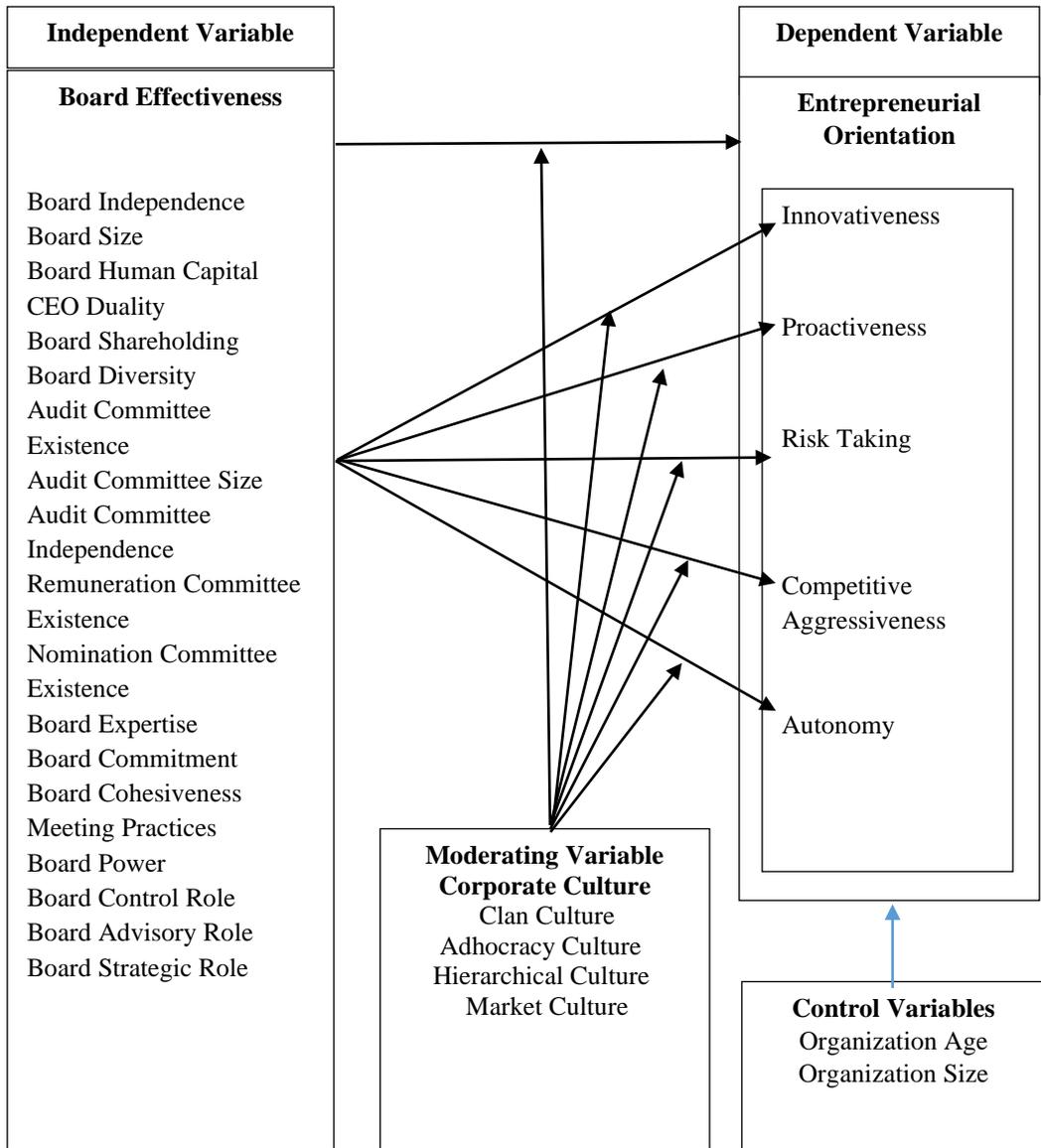
*Sample unit of Analysis:* The unit of analysis was 'an organization'.

*Sampling technique:* Stratified sampling technique was adopted to select the study sample by considering the sector classification of listed companies in the Colombo Stock Exchange, Sri Lanka. This represents the probability sampling approach.

### Operationalization and Measurement of Variables

The conceptual model was operationalized using existing measures based on extant literature (See Appendix A: measurement items). Entrepreneurial orientation was measured using the original semantic differential scale by Covin and Slevin (1989), along with some modifications based on Lumpkin and Dess (2000) and Hughes and Morgan (2007) scales. The multidimensionality of the construct encompassing innovativeness, proactiveness, risk-taking, competitive aggressiveness, and autonomy was taken into consideration while performing the operationalization.





**Figure 01: Conceptual Framework on Board Effectiveness and Entrepreneurial Orientation**

The board effectiveness construct was measured by adopting 19 board characteristics encompassing both demographic and behavioral measures intending to create a comprehensive index to identify the level of effective compliance and behavior (See Appendix A: measurement items). Concerning the scoring process, first, a relevant numerical or ratio measure was calculated for each demographic board characteristic per organization based on the information provided in company annual reports. Then an industry median value was calculated for each board demographic characteristic. A response number or ratio for an organization was given a score as a dichotomous measure, with a score of one (1) assigned to a board characteristic of a company if the value is (i.e., presence of the required board characteristic) greater than or equal to the industry median value, and a score of zero (0) if the value for a company is less than the industry median. Then an average value was calculated per organization for the responses relating to the board demographic characteristics.

For the behavioral dimensions, an average value was calculated by summing up the responses for each question (as given by the organization within the survey questionnaire) based on 1 – 7 Likert scale items. To construct the final score of board effectiveness for an individual organization, an average score was calculated by summing up the average scores for individual organizations in both demographic and behavioral dimensions, calculated as explained above. This procedure is in line with extant research (Perdomo, 2017; Elgharbawy & Abdelkader, 2016; Mapitiya et al., 2016). The moderating variable was measured based on the competing value framework developed by Cameron and Quinn (2011) and recorded on a 1 – 7 Likert scale (See Appendix A: measurement items).

**Data Collection**

Data collection was carried out using company annual reports (as at 31<sup>st</sup> March 2018) and a self-administered survey questionnaire reflecting both primary and secondary data sources. The survey questionnaire was distributed among board members, the chief executive officer, chairman and a selection of senior managers of the respective organizations who possessed considerable knowledge and understanding about board processes and firm-level entrepreneurial behavior (Molokwu et al., 2013). The survey questions were kept short to increase the response rate (Lietz, 2008). Content and face validity were established by refining the items with expert opinion from two senior academics representing both accounting and entrepreneurship field of studies as suggested in best practices (Saunders et al., 2009). Moreover, a pilot test with 15 respondents was carried out to establish the reliability and validity of the instrument. All the dimensions denoted an interim consistency, with the Cronbach’s Alpha value being greater than 0.7 (Hair et al, 2019). The test results are depicted in Table 01.

Further, an average time to fill the questionnaire along with possible problematic questions (e.g., uncertain and ambiguous questions) were monitored during the pilot study.

**Table 01: Cronbach’s Coefficient Alpha Measure of the Dimensions of Main Variables**

Variable and Dimension	Number of Items	Cronbach’s Alpha
Board Human Capital	05	0.899
Board Commitment	05	0.867
Board Cohesiveness	06	0.761
Meeting Practices	04	0.765
Board Power	06	0.837
Board Control	05	0.746



Role		
Board Advisory Role	05	0.857
Board Strategic Role	06	0.934
Innovativeness	03	0.781
Proactiveness	03	0.921
Risk-taking	03	0.847
Competitive Aggressiveness	02	0.853
Autonomy	05	0.723
Clan Culture	05	0.712
Adhocracy Culture	06	0.977
Hierarchical Culture	05	0.763
Market Culture	04	0.869

Source: Author constructed based on survey data 2018

**Analytical Strategies**

Before the main analysis, the collected data was made ready for analysis using coding and editing. The categorization scheme was settled before typing the data. Outliers, blank responses, and inconsistencies were handled carefully. The study used SPSS (Statistical Package for Social Sciences) Version 23.0 to extensively analyze the primary data. Analytical strategies and tests were adopted based on the key objectives of the study, representing the intended research questions as depicted in Table 02.

**Table 02: Analytical Strategies**

Objective	Test/ Analysis
Validity and Reliability	Expert Advice Rigorous Literature Review Cronbach’s Alpha Factor Analysis
Objective 01 - To identify the level of board effectiveness and the level of entrepreneurial orientation	Descriptive Statistics, One sample t-test
Objective 02 - To identify the	Correlation Analysis

relationship between board effectiveness and entrepreneurial orientation with sub-dimensions	
Objective 03 - To identify the moderating effect of corporate culture on the relationship between board effectiveness and entrepreneurial orientation	Hierarchical Regression Analysis with Interaction effects  Regression Assumptions: Normality – Shapiro-Wilk test, Linearity – Lack of fit test, Multicollinearity – Variance Inflation Factor, Independence – Durbin-Watson test

Source: Author constructed

**Findings**

**Sample Characteristics**

The overall response rate depicted a value of 42 percent, representing a higher number of companies from Beverage Food and Tobacco along with diversified holdings sectors. A somewhat lower response rate is justifiable as the key informants are professionals with busy work schedules along with their inherent negative perception of providing strategic firm-level information to outside parties (Manawaduge, 2012; Minichilli et al., 2012). A large portion (e.g., 39.2 percent) of the sample was comprised of organizations operating in the range of 1 – 30-year age category.

**Reliability and Validity**

The reliability of a measure is explained as the extent to which it is free from random error components (Hair et al., 2019). As depicted in Table 01, the variables denoted an interim consistency in the respective number of items measured. Since Kaiser-



Meyer-Olkin Measure values exceeded the yardstick 0.5, sample adequacy was established. Furthermore, principal component analysis results denoted that for every sub-dimension, only one component has been extracted, thus construct validity was established.

### Univariate Descriptive Statistics

Univariate descriptive statistics results for the key variables are depicted in Table 03. Accordingly, the composite measure of entrepreneurial orientation reports a mean score of 5.05. This score denotes the level of entrepreneurial orientation of the sample. Compared with the seven-point Likert scale for the ratings, this value is above its *neutral* value 4 and below the *agree* value 6. Further to that, to confirm the results, a one-sample *t*-test was carried out. The results confirmed that the mean value is higher at a 5 percent significance level with a difference of 1.059. Thereby, it can be stated that magnitude wise, and statistically, the level of entrepreneurial orientation is higher than the neutral value. Concerning the sub-dimensions, the highest mean value occurs for autonomy (5.66), whereas the lowest mean value is depicted by competitive aggressiveness (4.70). Innovativeness, proactiveness and risk-taking denoted their means as 4.72, 5.40 and 4.80 respectively.

Following the analysis results, the construct board effectiveness reported a mean score of 3.41 (based on the comprehensive scoring index). This mean score denotes the level of board effectiveness of the sample under consideration. Compared with the maximum and minimum values of the average measure, this value was above its *neutral* value of 2.5, and was confirmed with significant results of the one-sample *t*-test. Accordingly, magnitude wise and statistically the level of board effectiveness is higher than the neutral value. The skewness (- 2.0 to + 2.0) and kurtosis (- 7.0 to + 7.0) values lie within the expected range for the variables (Bryman, 2016), satisfying the normality assumption.

### Correlation Analysis and Hierarchical Regression Analysis

To answer research question two and three, Pearson product-moment correlation and hierarchical regression analysis were carried out. According to the test results depicted in Table 04, a significant positive relationship between board effectiveness and entrepreneurial orientation was found with a coefficient of 0.309 at a 5 percent significance level. Further, innovativeness, proactiveness and autonomy denoted a significant relationship with board effectiveness at a 5 percent significance level. However, the results are not supported concerning the predicted relationship between BE, risk-taking, and competitive aggressiveness. Multivariate hierarchical regression analysis facilitated an understanding of how the explanatory power changed when performing the analysis with independent, control and moderator variables in a sequential manner. Upon testing for regression assumptions (see Appendix B: Regression Assumptions), the test results are depicted in Table 05, 06, 07, 08, 09 and 10. To identify the moderation effect, an interaction variable was computed by multiplying the independent variable with corporate culture (*BE\_CC*). According to the test results depicted in Table 05, the explanatory power of model four ( $R^2$  - 46.6 percent) significantly improved compared to other models with the existence of corporate culture as the moderator. However, corporate culture as a unified variable does not moderate the relationship between board effectiveness and entrepreneurial orientation.

According to the test results depicted in Table 06, corporate culture denotes a significant moderation effect in the relationship between board effectiveness and innovativeness at a 5% significance level. Further, the explanatory power of model four ( $R^2$  - 59.2 percent) significantly improved with the existence of culture variable. However, as depicted in Table 07, 08, 09, 10, although the model explanatory power has been significantly improved, the results do not support a significant moderation for the relationship between board effectiveness and proactiveness, risk-

taking, competitive aggressiveness and autonomy.

## Discussion

The primary focus of this study is threefold. First, to recognize the level of board effectiveness and entrepreneurial orientation in large-scale organizations in Sri Lankan context.

Second, to recognize the possible relationship between board effectiveness and entrepreneurial orientation. Third, to recognize the moderation role of corporate culture on the relationship between board effectiveness and entrepreneurial orientation. Accordingly, by denoting a higher level of board effectiveness score; the results of this study confirm the past research indicating a higher level of effectiveness in board compliance and behavior in national (Manawaduge, 2012) and international contexts (Pastra, 2017; Ike, 2012). For example, Manawaduge (2012) claims that the degree of board practices and effectiveness in Sri Lankan listed companies is 58 percent, which is slightly higher than the mid-value; an indication of such level of board procedures and effectiveness can be identified as a supportive finding.

Recognizing the level of entrepreneurial orientation, the study findings demonstrated a mean value of 5.05 which is statistically slightly higher than the neutral value in Sri Lankan listed non-financial companies. Moreover, the results denoted somewhat higher mean values for innovativeness, proactiveness, risk-taking, competitive aggressiveness and autonomy. Therefore, the results of this study confirm the past research recognizing the higher level of entrepreneurial orientation in large scale organizations, including the sub-dimensions of this construct (Molokwu et al., 2013; Fairoz et al., 2010; Rtanam, 2015; Gupta & Gupta, 2015; Kraus, 2013).

Thereby, achieving objective one, it is claimed that the overall board effectiveness and strategic entrepreneurial posture among publicly quoted non-financial companies in Sri Lanka depict a higher and somewhat higher level. To identify the possible

relationship between board effectiveness and entrepreneurial orientation, including its sub-dimensions, correlation analysis was performed, and the results of the hypotheses are depicted in Table 11. Significant relationships between board effectiveness and entrepreneurial orientation, board effectiveness and innovativeness, board effectiveness and proactiveness, board effectiveness and autonomy were found, supporting the main hypotheses. However, hypotheses representing the relationship between board effectiveness and risk-taking along with board effectiveness and competitive aggressiveness are not supported.

The findings of this study are in line with the previous research, emphasizing that an organization-wide entrepreneurial decision-making posture that encompasses the firm's board members and complies with governance principles can result in a higher level of commitment towards strategic decision-making process (Molokwu et al., 2013; Olori & Sylva, 2017; Gabrielsson, 2007).

Additionally, board human capital and social capital are recognized as key factors to establish an entrepreneurial posture within organizations, facilitating strategic rejuvenation (Burkemper, 2016). Studies recognize that board independence, CEO duality, considerable shareholding, and a medium size board assist boards in developing a higher entrepreneurial strategic posture for the company (Albu, 2015; Zahra et al., 2000).

Further to that, a study conducted by collecting data from 194 Taiwanese companies, Wu (2008) found that the effectiveness of the internal governance mechanisms (in terms of knowledge, skills, competence of the board of directors and managerial ownership) positively and significantly influenced the new product introduction process.



**Table 03: Descriptive Statistics**

	N	Min	Max	Mean	Median	SD	Skewness	Kurtosis
n								
l (EO)	42	1	7	5.05	5.16	0.631	- 1.127	1.557
ess	42	1	7	4.72	4.33	0.817	- 0.008	- 0.746
ess	42	1	7	5.40	5.66	0.825	- 0.826	0.830
g	42	1	7	4.80	4.66	0.923	0.013	- 0.861
veness	42	1	7	4.70	5.00	0.868	- 0.948	1.611
y	42	1	7	5.66	5.80	0.672	- 0.852	0.265
ess (BE)	42	0	4	3.41	3.44	0.261	- 0.428	- 0.195
re (CC)	42	1	7	5.43	5.40	0.591	- 0.508	- 0.009

Source: Author Constructed based on survey data 2018

**Table 04: Pearson Correlation Coefficient Table**

		1	2	3	4	5	6	7	8	9	10
Org. Age	1	1									
Org. Size	2	0.046	1								
Innovativeness	3	-0.070	0.061	1							
Proactiveness	4	-0.161	-0.066	0.736**	1						
Risk taking	5	0.083	-0.307**	0.369**	0.410**	1					
Com.Aggressiveness	6	-0.098	-0.177	0.387**	0.493**	0.578**	1				
Autonomy	7	-0.153	-0.063	0.514**	0.767**	0.313**	0.346**	1			
Corporate Culture	8	-0.017	-0.090	0.310**	0.489**	0.196	0.174	0.556**	1		
Ent.Orientation	9	-0.096	-0.153	0.775**	0.871**	0.721**	0.746**	0.733**	0.432**	1	
Board Effectiveness	10	-0.108	0.051	0.221*	0.416*	0.010	0.131	0.502*	0.539**	0.309*	1

a. \*\* $p < 0.01$ ; \* $p < 0.05$

Source: Author Constructed based on survey data 2018



**Table 05: Multivariate Hierarchical Regression Analysis for entrepreneurial orientation**

Dependent Variable: EO	Model 01			Model 02			Model 03			Model 04	
	Coeff.	Std.Error	VIF	Coeff.	Std.Error	VIF	Coeff.	Std.Error	VIF	Coeff.	Std.Error
BE	0.746*	0.236	1.000				0.753*	0.236	1.015	-0.138	0.143
OAge				-0.002	0.002	1.002	-0.001	0.002	1.015	-0.001	0.002
OSize				0.043	0.029	1.002	-0.048	0.028	1.005	-0.038	0.027
CC										-0.456	1.409
BE_CC										0.280	0.421
Constant			2.510			6.072			3.579		-6.125
R <sup>2</sup>			0.086			0.031			0.099		0.466
F			10.007			1.520			4.501		8.612
Sig.			0.002			0.224			0.005		0.000

a. \*\* $p < 0.01$ ; \* $p < 0.05$

Source: Author Constructed based on survey data 2018

**Table 06: Multivariate Hierarchical Regression Analysis for Innovativeness**

Dependent Variable: Innovativeness	Model 01			Model 02			Model 03			Model 04	
	Coeff.	Std.Error	VIF	Coeff.	Std.Error	VIF	Coeff.	Std.Error	VIF	Coeff.	Std.Error
BE	0.692*	0.313	1.000				0.668*	0.318	1.015	-0.816	3.004
OAge				-0.002	0.003	1.002	-0.001	0.003	1.015	-0.002	0.002
OSize				0.024	0.038	1.002	0.019	0.038	1.005	0.012	0.025
CC										-0.660	1.897
BE_CC										0.247*	0.566
Constant			2.360			4.291			2.080		7.760
R <sup>2</sup>			0.039			0.009			0.023		0.592
F			4.889			0.425			1.762		13.652
Sig.			0.029			0.655			0.006		0.000

a. \*\* $p < 0.01$ ; \* $p < 0.05$

Source: Author Constructed based on survey data 2018



**Table 07: Multivariate Hierarchical Regression Analysis for Proactiveness**

Dependent Variable: Proactiveness	Model 01			Model 02			Model 03			Model 04	
	Coeff.	Std.Error	VIF	Coeff.	Std.Error	VIF	Coeff.	Std.Error	VIF	Coeff.	Std.Error
BE	0.314*	0.295	1.000				0.289*	0.296	1.015	0.828	3.257
OAge				-0.004	0.003	1.002	-0.003	0.002	1.015	-0.002	0.002
OSize				-0.222	0.038	1.002	-0.031	0.035	1.005	-0.019	0.027
CC										0.547	1.754
BE_CC										0.032	0.524
Constant			0.917			6.072			1.804		-2.501
R <sup>2</sup>			0.164			0.029			0.167		0.529
F			19.891			1.421			7.431		10.790
Sig.			0.000			0.247			0.000		0.000

a. \*\*p<0.01; \*p<0.05

Source: Author Constructed based on survey data 2018

**Table 08: Multivariate Hierarchical Regression Analysis for Risk Taking**

Dependent Variable: Risk Taking	Model 01			Model 02			Model 03			Model 04	
	Coeff.	Std.Error	VIF	Coeff.	Std.Error	VIF	Coeff.	Std.Error	VIF	Coeff.	Std.Error
BE	0.010	0.363	1.000				0.094	0.350	1.015	0.380*	4.477
OAge				0.003	0.003	1.002	0.003	0.003	1.015	-0.002	0.003
OSize				-0.130	0.041	1.002	-0.131*	0.041	1.005	-0.111*	0.038
CC										0.342	2.162
BE_CC										-0.272	0.645
Constant			4.805			7.520			7.210		-34.348
R <sup>2</sup>			-0.011			0.084			0.075		0.289
F			0.000			5.421			3.603		4.553
Sig.			0.999			0.006			0.016		0.000

a. \*\*p<0.01; \*p<0.05

Source: Author Constructed based on survey data 2018



**Table 09: Multivariate Hierarchical Regression Analysis for Competitive Aggressiveness**

Dependent variable: Competitive Aggressiveness	Model 01			Model 02			Model 03			Model 04	
	Coeff.	Std.Error	VIF	Coeff.	Std.Error	VIF	Coeff.	Std.Error	VIF	Coeff.	Std.Error
BE	0.434	0.338	1.000				0.437	0.337	1.015	0.585	4.358
OAge				-0.002	0.003	1.002	-0.002	0.003	1.015	-0.002	0.003
OSize				-0.068	0.040	1.002	-0.071	0.040	1.005	-0.068	0.037
CC										0.999	2.114
BE_CC										0.232	0.631
Constant			3.220			6.296			4.849		-10.091
R <sup>2</sup>			0.007			0.019			0.026		0.237
F			1.648			1.929			1.856		3.711
Sig.			0.202			0.151			0.143		0.000

a. \*\* $p < 0.01$ ; \* $p < 0.05$

Source: Author Constructed based on survey data 2018

**Table 10: Multivariate Hierarchical Regression Analysis for Autonomy**

Dependent Variable: Autonomy	Model 01			Model 02			Model 03			Model 04	
	Coeff.	Std.Error	VIF	Coeff.	Std.Error	VIF	Coeff.	Std.Error	VIF	Coeff.	Std.Error
BE	0.292*	0.229	1.000				0.277*	0.230	1.015	-0.650	3.081
OAge				-0.003	0.002	1.002	-0.002	0.002	1.015	-0.002	0.002
OSize				-0.017	0.031	1.002	-0.026	0.027	1.005	-0.016	0.026
CC										0.508	1.317
BE_CC										0.625	0.393
Constant			1.247			6.179			1.950		8.557
R <sup>2</sup>			0.244			0.006			0.245		0.366
F			31.993			1.282			11.394		6.029
Sig.			0.000			0.282			0.000		0.000

a. \*\* $p < 0.01$ ; \* $p < 0.05$

Source: Author Constructed based on survey data 2018



**Table 11: Results on Hypotheses**

Hypotheses	Result
H1: There is a significant relationship between board effectiveness and entrepreneurial orientation	Supported
H1(a): There is a significant relationship between board effectiveness and innovativeness	Supported
H1(b): There is a significant relationship between board effectiveness and proactiveness	Supported
H1(c): There is a significant relationship between board effectiveness and risk-taking	Unsupported
H1(d): There is a significant relationship between board effectiveness and competitive aggressiveness	Unsupported
H1(e): There is a significant relationship between board effectiveness and autonomy	Supported
H2: Corporate culture moderates the relationship between board effectiveness and entrepreneurial orientation	Unsupported
H2(a): Corporate culture moderates the relationship between board effectiveness and innovativeness	Supported
H2(b): Corporate culture moderates the relationship between board effectiveness and proactiveness	Unsupported
H2(c): Corporate culture moderates the relationship between board effectiveness and risk-taking	Unsupported
H2(d): Corporate culture moderates the relationship between board effectiveness and competitive aggressiveness	Unsupported
H2(e): Corporate culture moderates the relationship between board effectiveness and autonomy	Unsupported

*Source: Author Constructed*



Other studies recognize a significant relationship between CEO duality, board size, board independence, board diversity, board expertise, board strategic role, control role and firm innovative behavior (Zona et al., 2013; Camelo et al., 2010; Jaskyte, 2017; Daellenbach et al., 1999).

The existing literature is limited concerning the link between effective board behavior and competitively aggressive firm behavior. However, based on limited board characteristics such as board size, independence and CEO duality, He and Mahoney (2006) found a weak relationship between such factors and competitive behavior; this relationship was not statistically significant, thus supporting the findings of this study. Similarly, Ferrero-Ferrero et al. (2012) found that the effectiveness of board members is not significantly related to corporate risk-taking during periods of economic growth. This study's findings can also be verified by Gabrielsson and Huse (2004) who found that many effective board members and executives are unwilling to damage their reputation by excessively focusing on undergoing high-risk projects which intern providing uncertain returns on investment in future which indicates insignificance results. Moreover, studies claim that when the board is effective in performing their tasks, such behavior tends to enhance an autonomous working culture, as they value this kind of freedom to improve their work behavior.

The final research objective focused on identifying a possible moderation of corporate culture on the relationship between board effectiveness and entrepreneurial orientation including its sub-dimensions. Accordingly, the results of the hypotheses are depicted in Table 11. Study results were not supported for the main hypotheses (H2) along with other sub-dimensions of entrepreneurial orientation, namely proactiveness, risk-taking, competitive aggressiveness, autonomy. Such an outcome is supported by the findings of

Zouhayer (2013), who found an insignificant result for the possible moderation of corporate culture (clan culture, adhocracy culture, hierarchical and market culture) in the relationship between leadership behavior and entrepreneurial orientation in Tunisian Companies.

However, justifying the study results for the significant moderation effect of corporate culture on the relationship between board effectiveness and innovativeness, studies claim that visionary and effective organizational leaders possess the capacity to nurture the innovation process and that corporate culture plays a significant moderating role in motivating and shaping the creative and innovative behavior among employees (Szczepańska-Woszczyzna, 2015). In this context, Arzubiaga et al. (2017) also claim that the internal culture of an organization significantly moderates the strategic involvement of the board of directors in nurturing the organization's innovation practices, with special reference to family firms.

Besides, the overall explanatory power of the conceptual models was increased based on the test results of hierarchical regression analysis, after the introduction of the moderator variable. The regression models denoted significant results, thus having an overall model fit with each dependent variable under consideration. Therefore, the conceptual model of the study is justified based on the test results and extant literature.

## Implications

The study provides a significant theoretical contribution, by (1) developing a multi-theoretic conceptual model and (2) empirically validating it to understand the link between board effectiveness in terms of board characteristics and firm entrepreneurial orientation. The theoretical link between resource dependency theory and the resource-based view of



entrepreneurship is further confirmed with empirical findings.

The study provides a significant empirical contribution to both corporate governance (e.g., board research) and entrepreneurship literature; it contributes to the prevailing understanding of the link between board effectiveness and entrepreneurial orientation in an emerging country context. The study also provides a comprehensive index to recognize the effective compliance of board characteristics across both demographic and behavioral measures, for listed non-financial companies. Moreover, this study seems the first to identify the relationship between board effectiveness and entrepreneurial orientation concerning the large-scale companies in the Sri Lankan context. At the same time, the study findings have a significant empirical value by conceptualizing and empirically validating the role of corporate culture in shaping entrepreneurial and effective board behavior.

The study provides several important insights for practitioners. Firstly, the study findings deliver a clear direction to the board of directors and senior decision-makers of listed companies to recognize the overall effectiveness of the board performance encompassing a comprehensive number of demographic and behavioral characteristics. This encourages the measurement of such principles to establish well developed internal governance systems. Secondly, by linking board effectiveness with entrepreneurial orientation, the study encourages firm-level key decision-makers to acquire skills in being more innovative, proactive, competitive, risk-taking and autonomous in managing their companies amidst today's turbulent environment. This highlights the need for a balancing act of both conformance and performance aspects.

Thirdly, the study recognizes the importance of corporate culture as a facilitator of firm-level innovative behavior led by an effective

governing board. This, therefore, encourages practitioners to carefully balance internal cultural values for long term competitive performance. Furthermore, policymakers will benefit from the study findings by having a comprehensive understanding of the characteristics which drive effective board performance; this will help encourage policymakers to incorporate such measures into existing corporate governance policies and practices where corporate boards should comply, without harming the flexibility of strategic entrepreneurial firm behavior.

### **Limitations and Future Research**

Amidst the important findings, the study also has a few limitations, opening avenues for future research directions. Firstly, the respondent sample is relatively small, as it is drawn by taking into consideration the top hundred listed non-financial companies. Secondly, the cross-sectional nature of the study limits the extent of causal inferences that can be made between the variables. Thirdly, the observation of board behavior is recognized as the ideal method to obtain first-hand information. However, behavioral observation is not a largely adopted method due to the rules and regulations of the organizations in terms of privacy policies, thus resulting in a limitation of the study.

Based on such limitations, it would be interesting if future work could use the adopted theoretical model to investigate the entire list of publicly quoted companies, as well as focus on the specific categorizations of small and medium organisations. Furthermore, longitudinal data will add a significant value in validating the findings of the study over time; this is thus recommended as a future research direction. Further testing for potential moderators and mediators among the relationship between board effectiveness and entrepreneurial orientation is suggested, such as CEO tenure, leadership style, perceived organizational support.



## Conclusion

Corporate scandals nationally and internationally have led to increased attention surrounding the effectiveness of corporate board performance. Entrepreneurial oriented organizations are capable of driving towards success within the contemporary dynamic business environment. Adopting a quantitative research approach, this study used a multi-theoretic perspective to draw the link between board effectiveness and entrepreneurial orientation in an emerging country context. The study claims that organizations can address the issues of dynamic environmental challenges by scrutinizing the firm-level internal governance mechanisms and ensuring alignment with the vision, mission, goals, objectives, and strategies of the organization. This can be achieved through an effective, well-structured board of directors who work along with management to monitor, direct, and support entrepreneurial initiatives to achieve long term performance while considering the righteous corporate cultural characteristics.

## Appendices

### Appendix A: Measurement Items

<b>Board Human Capital (1-7 Likert scale)</b>
<i>The governing board of my organization,</i>
<i>has enough experience to detect problems in the organizational context</i>
<i>has enough training to detect problems in the organizational context</i>
<i>has expertise sufficient to allow the board to add value to the decision-making process</i>
<i>is well versed in the organizational and strategic issues of the company</i>
<i>is well experienced in the industry environment in which the company operates</i>
<b>Board Commitment (1-7 Likert scale)</b>
<i>holds meetings regularly</i>
<i>is always well prepared when meetings</i>

<i>are attended</i>
<i>is always conduct substantive and thorough discussions of key issues during meetings</i>
<i>usually debates strategic decisions openly and constructively during meetings</i>
<i>governing board members actively provide insight, advice and support on key decisions</i>
<b>Board Cohesiveness (1-7 Likert scale)</b>
<i>periodically reviews how they works together with the management</i>
<i>has rare misunderstandings when dealing with the management</i>
<i>is able to resolve a conflict between the board and the management constructively</i>
<i>is able to resolve conflict between board members constructively</i>
<i>governing board members respect and trust each other</i>
<i>governing board members socialize with each other outside board meetings</i>
<b>Meeting Structure (1-7 Likert scale)</b>
<i>runs the meetings well, and start/end on time</i>
<i>focus on strategy formulation, policy making, providing accountability and supervision of executive activities during the meetings</i>
<i>use an adequate time to ask questions and explore issues during the meetings</i>
<i>receives the required information necessary to make informed decisions at the meetings</i>
<b>Board Power (1-7 Likert scale)</b>
<i>has formal authority or power regarding establishing long-term goals and strategies</i>
<i>has formal authority or power regarding policy formation</i>
<i>has formal authority or power regarding planning for top leadership succession</i>
<i>has formal authority or power regarding evaluating the performance of key</i>



<i>executives and CEO</i>
<i>has formal authority or power regarding being accountable to the company stakeholders</i>
<i>has formal authority or power regarding the establishment of management and accounting control systems</i>
<b>Board Control Role (1-7 Likert scale)</b>
<i>ensure the availability of adequate financial systems and procedures</i>
<i>monitor organizational performance and taking actions where necessary</i>
<i>monitor the organization's chief executive and top management</i>
<i>ensure that the organization fulfills its legal obligations</i>
<i>ensure accountability to the organization's stakeholders</i>
<b>Board Advisory Role (1-7 Likert scale)</b>
<i>provides advice on management issues (e.g. organizational structure or strategy)</i>
<i>provides advice on financial issues (e.g. leverage or relationships with banks and other financial institutions)</i>
<i>provides advice on technical issues (e.g. new technologies or new products)</i>
<i>provides advice on market issues (e.g. entry in new industries or consumer behavior)</i>
<i>provides advice on legal issues and taxation</i>
<b>Board Strategic Role (1-7 Likert scale)</b>
<i>sets the organization's mission and values</i>
<i>reviews and decides the organization's strategic direction</i>
<i>determines and reviews company objectives to match the mission and values, and to form the basis of company strategy</i>
<i>determines, supports, and enforces company policies</i>
<i>reviews and evaluates present and future opportunities, threats, and risks in the external environment, and current future strengths, weaknesses, and risks</i>
<i>adopts performance measures to</i>

<i>monitor the implementation of strategy, policies and plans, and the legal/fiduciary obligations affecting the business and the board</i>
<b>Corporate Culture (1-7 Likert scale)</b>
<i>My organization is like an extended family in that it is a very personal place</i>
<i>People seem to share a lot of themselves</i>
<i>Commitment to loyalty and mutual trust runs high</i>
<i>My organization emphasizes human development, openness, participation, teamwork, and consensus</i>
<i>The top managers of my organization are generally considered to be mentors, sages, or father or mother figures</i>
<i>My organization is a very dynamic and entrepreneurial place</i>
<i>People are willing to stick their necks out and take risks</i>
<i>Commitment to innovation and development runs high</i>
<i>My organization emphasizes acquiring new sources and creating new challenges</i>
<i>There is an emphasis on being first</i>
<i>The top managers of my organization are generally considered to be entrepreneurs, innovators, or risk takers</i>
<i>My organization is considerably controlled and a structured place</i>
<i>Formal procedures generally govern what people do</i>
<i>Commitment to formal rules and policies runs high</i>
<i>My organization emphasizes stability, efficiency, and control</i>
<i>My organization takes a one-way, top-down approach to communication</i>
<i>My organization is a highly result oriented place</i>
<i>People are very competitive and achievement oriented</i>
<i>Commitment to aggressiveness and</i>



<i>winning runs high</i>
<i>My organization emphasizes hitting stretch target (high and difficult level of target) and outpacing the competition</i>
<b>Entrepreneurial Orientation (1-7 Semantic Differential Scale)</b>
<b>Innovativeness</b>
<i>In general, the top managers of my firm favor: (i) A strong emphasis on the marketing of tried-and-true (existing and good) products or services... A strong emphasis on R&amp;D, technology leadership, and innovations</i>
<i>How many new lines of products or services has your firm marketed in the past five years (or since its establishment)? (i) No new lines of products or services...very many new lines of products or services, (ii) Changes in product or service lines have been mostly of a minor nature...changes in product or service lines have usually been quite dramatic</i>
<b>Proactiveness</b>
<i>In dealing with its competitors, my firm: (i) Typically responds to actions which competitors initiate...typically initiate actions to which competitors then respond, (ii) Is very seldom the first business to introduce new products/services, administrative techniques, operating technologies, etc...is very often the first business to introduce new products/services, administrative techniques, operating technologies, etc., (iii) Has a strong tendency to "follow the leader" in introducing new products or ideas...has a strong tendency to be ahead of other competitors in introducing novel ideas or products</i>
<b>Risk Taking</b>
<i>In general, the top management of my firm have: (i) A strong proclivity (tendency) for low-risk projects (with normal and certain rates of return)...a strong proclivity (tendency) for high-risk projects (with chances of very high returns), (ii) In general, the top</i>

<i>managers of my firm believe that: Owing to the nature of the environment, it is best to explore it gradually via cautious, incremental behavior...owing to the nature of the environment, bold, wide-ranging acts are necessary to achieve the firm's objectives, (iii) When confronted with decision-making situations involving uncertainty, my firm: Typically adopts a cautious, "wait-and-see" posture in order to minimize the probability of making costly decisions...typically adopts a bold, aggressive posture in order to maximize the probability of exploiting potential opportunities</i>
<b>Competitive Aggressiveness</b>
<i>In dealing with its competitors, my firm: (i) Makes no special effort to take business from the competition...is very aggressive and intensely competitive, (ii) typically seeks to avoid competitive clashes, preferring a "live-and-let-live" posture...typically adopts a very competitive "undo-the-competitors" posture</i>
<b>Autonomy</b>
<i>In general, the top management of my firm: (i) Do not permit to act and think without interference...permit to act and think without interference, (ii) Do not give freedom and independence to decide employees on their own on how to go about doing their work...give freedom and independence to decide employees on their own on how to go about doing their work, (iii) Do not give freedom to communicate without interference...give freedom to communicate without interference, (iv) Do not give authority and responsibility to act alone if employees think it to be in the best interest of the business...give authority and responsibility to act alone if employees think it to be in the best interest of the business, (v) Do not give access to all vital information...give access to all vital information</i>
<b>Board Demographic Characteristics</b>
<i>Board Independence: outcome - numeric (percent), Transformation: Values &gt;= than the industry median = 1; 0 otherwise, % of</i>



*independent board members as reported by the company*

*CEO Duality: Outcome: nominal (Yes/No), Transformation:  $Y = 0, N = 1$ , CEO also holds the position of the chairman*

*Board Diversity: Outcome: numeric (percent), Transformation: values  $\geq$  than the industry median = 1; 0 otherwise, Percentage of women on the board of directors*

*Board Expertise: Outcome: numeric (percent), Transformation: values  $\geq$  than the industry median = 1; 0 otherwise, Percentage of number of directors possess MBA, Professional Qualification, or Higher Education Qualification in the field of Business, Finance and Accounting*

*Board Size: Outcome: numeric (integer), Transformation: values  $\geq$  than the industry median = 1; 0 otherwise, Total number of board members at the end of the fiscal year*

*Board Shareholding: Outcome: numeric (percent), Transformation: Values  $\geq$  than the industry median = 1; 0 otherwise, % of common stock own by board members*

*Audit Committee Existence: Outcome: nominal (Yes/No), Transformation:  $Y = 1, N = 0$ , Existence of the audit committee*

*Audit Committee Independence: Outcome: numeric (percent), Transformation: Values  $\geq$  than the industry median = 1; 0 otherwise, Percentage of independent non-executive directors in audit committee*

*Audit Committee Size: Outcome: numeric (integer), Transformation: values  $\geq$  than the industry median = 1; 0 otherwise, Number of directors comprises within audit committee*

*Nomination Committee Existence: Outcome: nominal (Yes/No), Transformation:  $Y = 1, N = 0$ , Existence*

*of nomination committee*

*Remuneration Committee Existence: Outcome: nominal (Yes/No), Transformation:  $Y = 1, N = 0$ , Existence of remuneration committee*

**Control Variables**

*Org.Age: Number of years that an organization has been in operation from its start date (Ike, 2012)*

*Org.Size: Sales Revenue of the organization (Ike, 2012)*

## Appendix B: Regression Assumptions

*Linearity: Lack of Fit Tests*  
 Dependent Variable: Entrepreneurial Orientation

Source	Sum .of Squares	Df	Mean Square	F	Sig
Lack of Fit	21.4	55	0.389	1.1	0.2
Pure Error	13.2	40	0.331		

Source: Survey Data 2018

Lack of fit test does not denote statistically significant results not satisfying  $p < 0.05$  or  $p < 0.01$  conditions and thus can be stated that linearity of the model is ensured.

*Normality:* The assessment of normality test needs to meet the two criteria—namely, skewness and kurtosis. The value of skewness requires to lie within the range of  $-2.0$  to  $+2.0$  to indicate normal distribution. The second criterion is the kurtosis, which requires to be in the range of  $-7.0$  to  $+7.0$  (Byrne 2001, p, 99). Thereby, the skewness value of EO is  $-1.127$  and Kurtosis is  $1.557$  which falls under the above ranges denoting of satisfying the normality assumption

*Independence:*



Durbin- Watson Statistic					
Mo del	R	R Squ are	Adjust ed R Square	Std. Erro r of Esti mat e	Dur bin - Wat son
1	0.4	0.2	0.17	0.57	1.68

Source: Survey Data 2018

Durbin Watson Statistic 1.681 is in between the accepted 1.50 - 2.50. Hence the independence of the variables is ensured when all independent, control and moderating variables are entered into test the model.

*Multicollinearity:* When the variables are forwarded for the regression model without the moderation effect of corporate culture, all the VIF values were below 10 as per the general norm to ensure the non-availability of the issue of multicollinearity (Refer Section 5.7: Multivariate Hierarchical Regression Analysis).

## References

Albu, N., & Mateescu, R. A. (2015). The relationship between entrepreneurship and corporate governance: The case of Romanian listed companies. *Amfiteatru Economic*, 17(38), 44–59. Available at <https://www.researchgate.net>

Alchian, A., & Demsetz, H. (1972). Production, information costs, and economic organization. *The American Economic Review*, 62(5), 777-795. Retrieved from <http://www.jstor.org/stable/1815199>

Aloulou, W., & Fayolle, A. (2005). A conceptual approach of entrepreneurial orientation within small business context. *Journal of Enterprising Culture*, 13(1), 21–45. <https://doi.org/10.1142/S0218495805000045>

Arzubiaga, U., Maseda, A., & Iturralde, T. (2017). Entrepreneurial orientation in family

firms: New drivers and the moderating role of the strategic involvement of the board. *Australian Journal of Management*, 44(1), 128–152.

<https://doi.org/10.1177/0312896218780949>

Barney, J. (1991). Firm Resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120. <https://doi.org/10.1177/2F014920639101700108>

Behram, N. K., Özdemirci, A., Namık, R., & Sokak, İ. (2014). The empirical link between environmental conditions, organizational culture, corporate entrepreneurship and performance: The mediating role of corporate entrepreneurship. *International Journal of Business and Social Science*, 5(2), 264–276. Retrieved from [https://ijbssnet.com/journals/Vol\\_5\\_No\\_2February\\_2014/30.pdf](https://ijbssnet.com/journals/Vol_5_No_2February_2014/30.pdf)

Bischoff, W. (2016). *Corporate culture and the role of boards*, Culture Report, 1-28. Retrieved from <https://www.frc.org.uk/getattachment/d246eacb-5774-4912-98e1-c03f1c8f692f/Corporate-Culture-and-the-Role-of-Boards-Report-of-Observations-tagged.pdf>

Boone, A. L., Casares, L., Karpoff, J. M., & Raheja, C. G. (2007). The determinants of corporate board size and composition: An empirical analysis. *Journal of Financial Economics*, 85, 66–101.

<https://doi.org/10.1016/j.jfineco.2006.05.004>

Brettel, M., Chomik, C., & Flatten, T. C. (2015). How organizational culture influences innovativeness, proactiveness, and risk-taking: Fostering entrepreneurial orientation in SMEs. *Journal of Small Business Management*, 53(4), 868–885. <https://doi.org/10.1111/jsbm.12108>

Brickley, J. A., & Zimmerman, J. L. (2010). Corporate governance myths: Comments on Armstrong, Guay, and Weber. *Journal of*



- Accounting and Economics*, 50(2–3), 235–245.  
<https://doi.org/10.1016/j.jacceco.2010.10.002>
- Burkemper, A. C. (2016). *The Influence of Director Human and Social Capital and Firms' Entrepreneurial Orientation on Corporate Entrepreneurship*. University of Missouri-Kansas City. Retrieved from <https://hdl.handle.net/10355/59254>
- Bryman, A. (2016). *Social research methods* (fifth ed). Oxford; New York: Oxford University Press.
- Cadbury, A. (1992). *The Financial Aspects of Corporate Governance (Cadbury Report)*. London, UK. Retrieved from <https://ecgi.global/sites/default/files//codes/documents/cadbury.pdf>
- Camelo, C., Fernández-Alles, M., & Hernández, A. B. (2010). Strategic consensus, top management teams, and innovation performance. *International Journal of Manpower*, 31(6), 678–695. <https://doi.org/10.1108/01437721011073373>
- Cameron, K. S., Quinn, R. E. (1999). *Diagnosing and Changing Organizational Culture. Based on the Competing Values Framework*. Addison-Wesley, MA.
- Cherchem, N. (2017). The relationship between organizational culture and entrepreneurial orientation in family firms: Does generational involvement matter? *Journal of Family Business Strategy*, 8(2), 87–98. <https://doi.org/10.1016/j.jfbs.2017.04.001>
- Conner, K. R., & Prahalad, C. K. (1996). A resource-based theory of the firm: knowledge versus opportunism. *Organization Science*, 7(5), 477–501. <https://doi.org/10.1287/orsc.7.5.477>
- Costa, C. (2014). In search of an entrepreneurial culture a step towards reshaping banking for changing times. *26th Anniversary Convention Report*, 221–231. Retrieved from <https://www.semanticscholar.org/paper/in-search-of-an-entrepreneurial-culture-a-step-for-Costa/db95b2053e3cd70d03dfe2a71b649dc5b7e4da4#citing-papers>
- Covin, J. G., & Lumpkin, G. T. (2011). Entrepreneurial orientation theory and research: Reflections on a needed construct. *Entrepreneurship Theory and Practice*, 35(5), 855–872. <https://doi.org/10.1111/j.1540-6520.2011.00482.x>
- Covin, J. G., & Slevin, D. P. (1989). Strategic management of small firms in hostile and benign Environments. *Strategic Management Journal*, 10(1), 75–87. <https://doi.org/10.1002/smj.4250100107>
- Daellenbach, U. S., Mccarthy, A. M., & Schoenecker, T. S. (1999). Commitment to innovation: the impact of top management team characteristics. *Research and Development Management*, 29(3), 199–208. <https://doi.org/10.1111/1467-9310.00130>
- Deshpande, R., & Webster, F. E. (1989). Organizational culture and marketing: Defining the research agenda. *Journal of Marketing*, 53, 3–15. <https://doi.org/10.2307/1251521>
- Dess, G. G., & Lumpkin, G. T. (2005). The role of entrepreneurial orientation in stimulating effective corporate entrepreneurship. *Academy of Management Executive*, 19(1). <https://doi.org/10.5465/ame.2005.15841975>
- Diochon, M. C., & Diochon, M. C. (2010). Governance, entrepreneurship and effectiveness: exploring the link. *Social Enterprise Journal*, 6(2), 93–109. <https://doi.org/10.1108/17508611011069248>
- Donaldson, L., & Davis, J. H. (1991). Stewardship theory or agency Theory: CEO governance and shareholder returns.



- Australian Journal of Management*, 16(1), 49–64.  
<https://doi.org/10.1177/031289629101600103>
- Elgharbawy, A., & Abdel-kader, M. (2016). Does compliance with corporate governance code hinder corporate entrepreneurship? Evidence from the UK. *Corporate Governance*, 16(4), 765–784.  
<https://doi.org/10.1108/CG-12-2015-0169>
- Erskine, J. A. (2016). *Charter School Governance: An Exploration of Autonomy and Board Effectiveness*. Electronic Theses and Dissertations. Georgia Southern University. Retrieved from <https://digitalcommons.georgiasouthern.edu/etd/1503>
- Fairoz, F. M., Hirobumi, T., & Tanaka, Y. (2010). Entrepreneurial orientation and business performance of small and medium scale enterprises of hambantota district Sri Lanka. *Asian Social Science*, 6(3), 34–46.  
<https://doi.org/10.5539/ass.v6n3p34>
- Ferreira, J., Azevedo, S. G., & Ortiz, R. F. (2011). Contribution of resource-based view and entrepreneurial orientation on small firm growth. *Cuadernos de Gestion*, 11(1), 95–116. <https://doi.org/10.5295/cdg.100185jf>
- Ferrero-Ferrero, I., Fernández-Izquierdo, M. Á., & Muñoz-Torres, M. J. (2012). The impact of the board of directors characteristics on corporate performance and risk-taking before and during the global financial crisis. *Review of Managerial Science*, 6(3), 207–226.  
<https://doi.org/10.1007/s11846-012-0085-x>
- Finkelstein, S., & Mooney, A. C. (2003). Not the usual suspects: How to use board process to make boards better. *Academy of Management Executive*, 17(2), 101–113.  
<https://doi.org/10.5465/AME.2003.10025204>
- Forbes, D. P., & Milliken, F. I. (1999). Cognition and corporate governance: Understanding boards of directors as strategic decision-making groups. *Academy of Management Review*, 24(3), 489–505.  
<https://doi.org/10.2307/259138>
- Gabrielsson, J. (2007). Boards of directors and entrepreneurial posture in medium-size companies: Putting the board demography approach to a test. *International Small Business Journal*, 25(5), 511–537.  
<https://doi.org/10.1177/0266242607080657>
- Gabrielsson, J., & Huse, M. (2004). Context, behaviour, and evolution: Challenges in research on boards and governance. *International Studies of Management and Organization*, 34(2), 11–36.  
<https://doi.org/10.1080/00208825.2004.11043704>
- Gabrielsson, J., & Politis, D. (2006, May 17–20). *Board control and corporate innovation: an empirical study of small technology-based firms*. The European Academy of Management (EURAM) Annual Conference 2006, Oslo, Norway. <http://urn.kb.se/resolve?urn=urn:nbn:se:hh:diva-5738>
- Gupta, V. K., & Gupta, A. (2015). Relationship between entrepreneurial orientation and firm performance in large organizations over time. *Journal of International Entrepreneurship*, 13, 7–27.  
<https://doi.org/10.1007/s10843-014-0138-0>
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate Data Analysis* (8th Editio). Hampshire: Cengage Learning EMEA WCN.
- He, J., & Mahoney, J. T. (2006). *Firm Capability, Corporate Governance, and Firm Competitive Behavior: A Multi – Theoretic Framework*. Working papers, University of Illinois at Urbana-Champaign, College of Business. Available at <https://Econpapers.repec.org/RePEc:ecl:illbus:06-0103>
- Hillman, A. J., Withers, M. C., & Collins, B.



- J. (2009). Resource dependency theory: A Review. *Journal of Management*, 35(6), 1404–1427. <https://doi.org/10.1177/0149206309343469>
- Shukla, H., & Limbasiya, N. R. (2015). Board effectiveness: An evaluation based on corporate governance score. *International Journal of Business Ethics in Developing Economies*, 4(1), 41–47. <https://doi.org/10.21863/ijbede/2015.4.1.006>
- Hughes, M., & Morgan, R. E. (2007). Deconstructing the relationship between entrepreneurial orientation and business performance at the embryonic stage of firm growth. *Industrial Marketing Management*, 36, 651–661. <https://doi.org/10.1016/j.indmarman.2006.04.003>
- Huybrechts, J., Voordeckers, W., & Lybaert, N. (2012). Entrepreneurial risk taking of private family firms: The influence of a nonfamily CEO and the moderating effect of CEO tenure. *Family Business Review*, 20(10), 1–19. <https://doi.org/10.1177/0894486512469252>
- Ike, O. C. (2012). *Key Determinants of Effective Boards Of Directors - Evidence From Nigeria*. Brunel University. Retrieved from <http://bura.brunel.ac.uk/handle/2438/7667>
- Jaskyte, K. (2017). Board Effectiveness and innovation in nonprofit organizations. *Human Service Organizations: Management, Leadership & Governance*, 41(5), 453–463. <https://doi.org/10.1080/23303131.2017.1309331>
- Jones, T. M., & Wicks, A. C. (1999). Convergent stakeholder theory. *The Academy of Management Review*, 24(2), 206–221. <https://doi.org/10.2307/259075>
- Kraus, S. (2013). The role of entrepreneurial orientation in service firms: empirical evidence from Austria. *The Service Industries Journal*, 33(5). <https://doi.org/10.1080/02642069.2011.622373>
- Lietz, P. (2008). *Questionnaire design in attitude and opinion research: current state of an art*. Priorisierung in der Medizin FOR 655 Nr. 13 / 2008. Available at [www.jacobs-university.de](http://www.jacobs-university.de)
- Lumpkin, G. T., & Dess, G. G. (1996). Clarifying the entrepreneurial Orientation construct and linking It to performance. *The Academy of Management Review*, 21(1), 135–172. <https://doi.org/10.2307/258632>
- Lyon, D. W., Lumpkin, G. T., & Dess, G. G. (2000). Enhancing entrepreneurial orientation research: Operationalizing and measuring a key strategic decision making process. *Journal of Management*, 26(5), 1055–1085. <https://doi.org/10.1177/014920630002600503>
- Manawaduge, A. S. P. G. (2012). *Corporate governance practices and their impacts on corporate performance in an emerging market: The case of Sri Lanka*. University of Wollongong. Retrieved from <https://ro.uow.edu.au/theses/3676/>
- Mapitiya, G. S., Ajward, A. R., & Seneratne, S. (2016). Ownership concentration and degree of compliance with corporate governance best practices of public listed companies in Sri Lanka. *NSBM Journal of Management*, 1(1), 103–118. <https://doi.org/10.4038/nsbmjm.v1i1.6>
- Mervelskemper, L., Moller, R., & Schumacher, S. (2018). How does corporate culture affects banks' risk-taking? Evidence from the european banking sector. *Journal of Banking and Finance*, 10(5), 1–58. <https://doi.org/10.2139/ssrn.3101660>
- Miller, D. (1983). The Correlates of entrepreneurship in three types of firms. *Management Science*, 29(7), 770–791.



<https://doi.org/10.1287/mnsc.29.7.770>

Miller, D. (2003). An asymmetry-based view of advantage: Towards an attainable sustainability. *Strategic Management Journal*, 24(10), 961–976. <https://doi.org/10.1002/smj.316>

Miller, D. (2011). Miller (1983) Revisited : A Reflection on EO research and some for the future. *Entrepreneurship Theory and Practice*, 35(5), 873–894. <https://doi.org/10.1111/j.1540-6520.2011.00457.x>

Minichilli, A., Zattoni, A., Nielsen, S., & Huse, M. (2012). Board task performance : An exploration of micro and macro-level determinants of board effectiveness. *Journal of Organizational Behaviour*, 33, 193–215. <https://doi.org/10.1002/job.743>

Molokwu, V. B., Barreria, J., & Urban, B. (2013). Entrepreneurial orientation and corporate governance structures at the firm level in the South African oil and gas industry. *SA Journal of Human Resource Management*, 11(1), 1–16. <https://doi.org/10.4102/sajhrm.v11i1.443>

Mosakowski, E. (1998). Entrepreneurial resources, organizational choices, and competitive outcomes. *Organization Science*, 9(6), 625–644. <https://doi.org/10.1287/orsc.9.6.625>

Muth, M. M., & Donaldson, L. (1998). Stewardship theory and board structure : a contingency approach. *Scholarly Research and Theory Papers*, 6(1), 5–28. <https://doi.org/10.1111/1467-8683.00076>

Nemati, A. R., Maqsal, M., & Bhatti, A. M. (2010). Impact of resource based view and resource dependence theory on strategic decision making. *International Journal of Business and Management*, 5(12), 110–115. <https://doi.org/10.5539/ijbm.v5n12p110>

Olori, W. O., & Sylva, W. (2017). Corporate

governance system and entrepreneurial orientation in the banking sector : Evidence from a developing country. *International Journal of Innovation and Economic Development*, 2(6), 29–48. <https://doi.org/10.18775/ijied.1849-7551-7020.2015.26.2003>

Omar, R., Lim, K. Y., & Basiruddin, R. (2014). Board of directors and small medium enterprise's firm growth with firm culture as moderating factor in Malaysia. *Procedia - Social and Behavioral Sciences*, 164(August), 315–323. <https://doi.org/10.1016/j.sbspro.2014.11.082>

Pastra, A. S. (2017). *Board of Directors' Dynamics, Board Effectiveness and Organisational Performance: The case of Nordic Region*. Brunel University. Retrieved from <https://bura.brunel.ac.uk/handle/2438/15791>

Perdomo, E. A. H. (2017). *Three Essays in Corporate Governance and Corporate Finance : International Evidence*. University of Hull. Retrieved from <https://hydra.hull.ac.uk/resources/hull:15698>

Rtanam, E. (2015). Entrepreneurial orientation and organizational performances (with special reference to tourist hotel and hospitality industry in jaffna district). *Journal of Economics and Sustainable Development*, 6(1), 126–131. Retrieved from [https://www.iiste.org/Journals/index.php/JE\\_DS/article/view/18972](https://www.iiste.org/Journals/index.php/JE_DS/article/view/18972)

Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research Methods for Business Students* (5th Edition). Pearson India Education Services Pvt Ltd.

Schein, E. H. (1995). The role of the founder in creating organizational culture. *Family Business Review*, 8(3), 221–238. <https://doi.org/10.1111/j.1741-6248.1995.00221.x>



- Senarathne, S. (2017). Corporate governance development in Sri Lanka: Prospects and problems. *Research Gate*, (January). Available at <https://www.researchgate.net>
- Stevenson, W. B., & Radin, R. F. (2009). Social capital and social influence on the board of directors. *Journal of Management Studies*, 46(1). <https://doi.org/10.1111/j.1467-6486.2008.00800.x>
- Szczepańska-Woszczyna, K. (2015). Leadership and organizational culture as the normative influence of top management on employee's behaviour in the innovation process. *Procedia Economics and Finance*, 34(December 2015), 396–402. [https://doi.org/10.1016/s2212-5671\(15\)01646-9](https://doi.org/10.1016/s2212-5671(15)01646-9)
- The Institute of Chartered Accountants of Sri Lanka. (2017). *Code of Best Practice on Corporate Governance*. Retrieved from [https://www.casrilanka.com/casl/image/s/stories/2017/2017\\_pdfs/code\\_of\\_best\\_practice\\_on\\_corporate\\_governance\\_2017\\_final\\_for\\_web.pdf](https://www.casrilanka.com/casl/image/s/stories/2017/2017_pdfs/code_of_best_practice_on_corporate_governance_2017_final_for_web.pdf)
- Tomasic, R., & Andrews, N. (2007). Minority shareholder protection in China's top 100 listed firms, 9, Retrieved from <https://ssrn.com>
- Tricker, B. (2015). *Corporate Governance: Principles, Policies and Practices*, Oxford University Press, Oxford.
- Urban, B. (2010). Technology and entrepreneurial orientation at the organisational level in the johannesburg area. *South Asian Journal of Human Resource Management*, 8(1), 1–10. <https://doi.org/10.4102/sajhrm.v8i1.212>
- Wernerfelt, B. (1984). A resource-based view of the Firm. *Strategic Management Journal*, 5(2), 171–180. <https://doi.org/10.1002/smj.4250050207>
- Windsor, D. (2009). Tightening corporate governance. *Journal of International Management*, 15(3), 306–316. <https://doi.org/10.1016/j.intman.2009.02.003>
- Wu, H. (2008). When does internal governance make firms innovative? *Journal of Business Research*, 61(1), 141–153. <https://doi.org/10.1016/j.jbusres.2007.06.010>
- Zahra, S. A., Neubaum, D. O., & Huse, M. (2000). Entrepreneurship in medium-size companies: Exploring the effects of ownership and governance systems. *Journal of Management*, 26(5), 947–976. <https://doi.org/10.1177/014920630002600509>
- Zona, F., Zattoni, A., & Minichilli, A. (2013). A contingency model of boards of directors and firm innovation: The moderating role of firm size. *British Journal of Management*, 24, 299–315. <https://doi.org/10.1111/j.1467-8551.2011.00805.x>
- Zouhayer, M. (2013). Entrepreneurial culture, profile of the leader and entrepreneurial orientation: Empirical application in the case of the Tunisian companies. *Management Strategies*, VI(3),18–25. Retrieved from <http://www.strategiimanageriale.ro/english.html>

