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LEADERSHIP STYLE AND ORGANIZATIONAL STRUCTURE ALIGNMENT: IMPACT  
ON INNOVATIVENESS AND BUSINESS PERFORMANCE

BY

CHARLES IFEDI

A Dissertation Submitted in Partial Fulfillment of the Requirements for the Degree

Of

Doctor of Philosophy

In the Robinson College of Business

Of

Georgia State University

GEORGIA STATE UNIVERSITY  
ROBINSON COLLEGE OF BUSINESS

2020

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## ACCEPTANCE

This dissertation was prepared under the direction of the CHARLES IFEDI Dissertation Committee. It has been approved and accepted by all members of that committee, and it has been accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Business Administration in the J. Mack Robinson College of Business of Georgia State University.

Richard Phillips, Dean

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## TABLE OF CONTENTS

LIST OF TABLES .....	vii
LIST OF FIGURES .....	ix
I. INTRODUCTION .....	1
II. BACKGROUND AND LITERATURE REVIEW .....	4
II.1. Definitions .....	4
II.1.1. <i>Organizational Innovativeness and Business Performance</i> .....	4
II.1.2. <i>Leadership Style</i> .....	4
II.1.3. <i>Organizational Structure</i> .....	5
II.2. Academic Literature Review .....	7
III. THEORETICAL FRAMING .....	11
III.1. Congruence Theory and Structural Contingency Theory: Key Concepts and Claims	11
III.2. Hypotheses and Model .....	12
III.2.1. <i>Relating Leadership Style to Innovativeness and Business Performance</i> .....	12
III.2.2. <i>Relating Organizational Structure to Innovativeness and Business Performance</i> .....	13
III.2.3. <i>Relating Organizational Innovativeness and Business Performance to the Leadership Style-Organizational Structure Fit</i> .....	14
III.2.4. <i>The Relationship between Innovativeness and Business Performance</i> .....	17
IV. RESEARCH METHOD .....	19
IV.1. Participants and Procedures .....	19
IV.2. Measures .....	22
IV.2.1. <i>Independent Variables</i> .....	22
IV.2.2. <i>Dependent Variables</i> .....	24
IV.2.3. <i>Control Variables</i> .....	26
V. RESULTS .....	28
V.1. Defining the Empirical Model .....	52
VI. DISCUSSION .....	56
VI.1. Key Findings .....	56
VI.2. Research Contribution and Limitations .....	59
VI.2.1. <i>Contribution to Theory</i> .....	59
VI.2.2. <i>Contribution to Practice</i> .....	60



<b>VI.2.3. Study Limitations &amp; Recommendations for Future Research</b> .....	<b>61</b>
<b>VII.APPENDIX</b> .....	<b>63</b>
<b>VII.1. Summarized Survey Instrument</b> .....	<b>63</b>

## LIST OF TABLES

<b>Table 1. Number of employees in the organizations studied .....</b>	<b>21</b>
<b>Table 2. CEO Tenure.....</b>	<b>22</b>
<b>Table 3. Cronbach’s Alpha (<math>\alpha</math>) Coefficients of Reliability for the Leadership Style Measures.....</b>	<b>24</b>
<b>Table 4. Cronbach’s Alpha (<math>\alpha</math>) Coefficients of Reliability for Innovativeness Measure.....</b>	<b>25</b>
<b>Table 5. Descriptive Statistics and Correlations Among Study Variables (ALL) .....</b>	<b>29</b>
<b>Table 6. Descriptive Statistics and Correlations Among Study Variables for the Companies with Functional Organizational Structure .....</b>	<b>30</b>
<b>Table 7. Descriptive Statistics and Correlations Among Study Variables for the Companies with Divisional Organizational Structure .....</b>	<b>30</b>
<b>Table 8. Descriptive Statistics and Correlations Among Study Variables for the Companies with Matrix Organizational Structure .....</b>	<b>31</b>
<b>Table 9. Regression Results for CEO Leadership Style and Organizational Innovativeness .....</b>	<b>32</b>
<b>Table 10. Regression Results for Leadership Style and Business Performance .....</b>	<b>33</b>
<b>Table 11. Mean and Standard Deviation of Innovativeness for the Different Organizational Structure Types (ALL).....</b>	<b>34</b>
<b>Table 12. Mean and Standard Deviation of Business Performance for the Different Organizational Structure Types (ALL).....</b>	<b>36</b>
<b>Table 13. P-value Results of Comparative Performance Score for Different Organization Sizes.....</b>	<b>38</b>
<b>Table 14. Regression Results for Leadership Style and Innovativeness for Functional Organizations .....</b>	<b>42</b>
<b>Table 15. Regression Results for Leadership Style and Innovativeness for Divisional Organizations .....</b>	<b>43</b>
<b>Table 16. Regression Results for Leadership Style and Innovativeness for Matrix Organizations .....</b>	<b>44</b>
<b>Table 17. Regression Results for Leadership Style and Business Performance for Functional Organizations.....</b>	<b>45</b>

<b>Table 18. Regression Results for Leadership Style and Business Performance for Divisional Organizations .....</b>	<b>47</b>
<b>Table 19. Regression Results for Leadership Style and Business Performance for Matrix Organizations .....</b>	<b>49</b>
<b>Table 20. Hypotheses and Results Summary .....</b>	<b>51</b>
<b>Table 21. Path-Analytic Regression Results of the Entire Model .....</b>	<b>53</b>

## LIST OF FIGURES

<b>Figure 1. Characteristics of leaders with low versus high microinvolvement preference....</b>	<b>10</b>
<b>Figure 2. Leadership Style-Organizational Structure Alignment.....</b>	<b>16</b>
<b>Figure 3. Proposed Conception Model for Leadership Style-Organizational Structure Fit</b>	<b>17</b>
<b>Figure 4. Proposed conceptual model depicting the independent, dependent, and control variables.....</b>	<b>27</b>
<b>Figure 5. Empirical model showing the relationship between organizational structure, organizational innovativeness and business performance .....</b>	<b>54</b>
<b>Figure 6. Mediation path of CEO transformational and comparative performance through organizational innovativeness.....</b>	<b>55</b>
<b>Figure 7. Mediation path of CEO transformational and employee commitment through organizational innovativeness.....</b>	<b>55</b>
<b>Figure 8. Mediation path of CEO transformational and employee job satisfaction through organizational innovativeness.....</b>	<b>55</b>

## ABSTRACT

### Leadership Style and Organizational Structure Alignment: Impact on Innovativeness and Business Performance

by

Charles Ifedi

April 2020

Committee Chair: Naveen Donthu

Major Academic Unit: Doctorate in Business Administration

Organizations strive to achieve competitive advantage and deliver superior performance by adequately utilizing and coordinating the resources available to them. Employees are a key resource in an organization, but it is the chief executive officer (CEO) in particular, who leads and coordinates all the resources of the organization, that has the most impact on the organization's fortunes. Even though the CEO may utilize many leadership styles and behaviors, each CEO has an innate or preferred leadership style. Organizations are structured differently, which has an impact on the way their activities are coordinated.

In this paper, I argue that if an organization is structured in a way that does not align with the CEO's leadership style, then it will not be a high-performing organization. Conversely, if an organization is structured in a way that aligns with the CEO's leadership style, then it will be a high-performing organization. The leadership styles evaluated are transactional and transformational leadership, and the organizational structures reviewed are functional, divisional, and matrix structures.

I shed light on this issue by undertaking a quantitative study of 448 employees of small- to medium-sized companies (with 1-3,000 employees) in the technology industry operating in

the United States of America. My findings show that irrespective of the organizational structure used by a technology company, the CEO's transformational leadership style has a direct and indirect impact on organizational innovativeness and business performance. Contrary to some of my hypotheses, I did not find that the CEO's transactional leadership style has an impact on organizational innovativeness or on business performance for any of the organizational structure types. Additionally, I found no relationship between organizational structure and innovativeness, or between organizational structure and business performance.

My academic contribution is demonstrated by applying CEO leadership style as a contingency factor in the structural contingency theory, and my contribution to practice stems from identifying which CEO leadership style is important in the achievement of organizational innovativeness, superior performance, employee commitment, and job satisfaction.

**INDEX WORDS:** Organizational Structure, CEO Leadership Style, Innovativeness, Business Performance, Job Satisfaction, Employee Commitment, Technology Company, Structural Contingency Theory, Congruence Theory, Fit, Misfit

## I. INTRODUCTION

Many factors influence the business performance of an organization. In business fora and literature, the factors that are most commonly considered are the size of the organization and its market power (Ahuja, Lampert, & Tandon, 2008; Bate, Khan, & Pye, 2000; Dhillon & Gupta, 2015; Rowe, 2001; Schumpeter, 1942), the competence of the chief executive officer (CEO) and top management team (Liebersson & O'Connor, 1972), the organization's strategy (Yıldız, Baştürk, & Boz, 2014), organizational culture (Hartnell et al., 2016; Wilkins & Ouchi, 1983), employees' satisfaction (Blanco-Oliver, Veronesi, & Kirkpatrick, 2018; Wood & Ogbonnaya, 2018), market orientation and organizational learning (Narver & Slater, 1990, 1995), and other environmental factors (Drazin & Van de Ven, 1985; Gavrea, Ilies, & Stegorean, 2011). A lot of research has been done on the relationship between leadership style and innovativeness (Raj & Srivastava, 2016; Wu, Chiang, & Jiang, 2002), between leadership style and business performance (Bass, Avolio, Jung, & Berson, 2003; Ejere & Abasilim, 2013; Tran, 2017), and between innovativeness and business performance (Colbert, Barrick, & Bradley, 2014; Yıldız et al., 2014). Some research has been done on the relationship between organizational structure and innovativeness (Dedahanov, Rhee, & Yoon, 2017; Tushman & Nadler, 1986) and the relationship between organizational structure and business performance (Andersen & Jonsson, 2006; Burton, Lauridsen, & Obel, 2002); however, very little is known about how the interaction of organizational structure and leadership style impacts innovativeness and business performance.

Organizations differ in their organizational structure, and CEOs differ in their leadership styles. According to Koohborfardhighi and Altmann (2017, p. 46), "organizational structure can be defined as a network of roles with a special arrangement; they relate to one another based

on an organizational hierarchy and act in line with organizational goals.” DuBrin (2016, p. 124) described “leadership style as the relatively consistent and predictable pattern of behavior that characterizes a leader.” I opine that an optimal organizational structure is required to achieve organizational goals, and the leadership style of the CEO, who typically has the most power and authority within the organization, has a significant impact on the achievement of the organizational goals. Literature appears to be silent on if there needs to be an alignment between organizational structure and CEO leadership style. In this research, I studied the impact of the fit between the CEO’s leadership style and the organizational structure in achieving organizational goals. I focused on technology companies in the United States to set the boundaries of the study on an industry in which this topic has not been studied. The primary aim of this research was to answer the question, “What is the optimal fit between the CEO’s leadership style and the organizational structure, in order for companies to be more innovative and achieve better business performance?”

To answer this question, I engaged with employees of technology companies via an extensive online questionnaire to answer questions about their CEO, the CEO’s leadership style, their organization, and its organizational structure, as well as the employees’ perspectives about the innovativeness and performance of their organization. I then analyzed the responses from the employees through quantitative methods. The results show that the CEO transformational leadership style fits with all the organizational structure types. Based on the findings, I was unable to conclude on the impact of the fit between the CEO transactional leadership style and any of the organizational structure types on organizational innovativeness and business performance. Considered alone, organizational structure was not seen as a significant predictor of organizational innovativeness and business performance.



For academia, this engaged scholarship research contributes to the body of knowledge by empirically applying CEO leadership style as a contingency factor in structural contingency theory, which has not been considered in prior research. For practitioners, the study provides practical insights to CEOs of tech companies about the importance of the transformational leadership style if the CEO's objective is to improve organizational innovativeness and business performance. The findings also deemphasize the need for CEOs that utilize transformational leadership styles to have perfect organizational structures, because any chosen structure can work.

I now present the structure of this paper. In Chapter I, I provide the introduction to the study, the area of concern, the motivation for the study, an overview of the entire study, and the research question. Chapter II contains the background of the study, the definition of the constructs used throughout the study, and a review of the extant literature on the topic. In Chapter III, I discuss the theories applied and their claims, articulate my hypotheses, and define the model that was tested. In Chapter IV, I explain the research method, the source and reliability of the data, and the data collection and analysis approach. Chapter V presents the results of the analysis, and in Chapter VI, I bring the study to a close by answering the research question, explaining key findings and implications, presenting the research contribution and limitations, and then proposing future research.

## **II. BACKGROUND AND LITERATURE REVIEW**

### **II.1. Definitions**

#### ***II.1.1. Organizational Innovativeness and Business Performance***

Raj and Srivastava (2016) defined organizational innovativeness as the ability of the organization to develop new products/services/processes. Innovativeness reflects an organization's willingness and capacity to pursue new opportunities to adopt and implement innovations successfully (Hurley & Hult, 1998). In the changing business environment, innovation is required to attain competitive advantage (Rubera & Kirca, 2012).

Business performance can be measured in financial and nonfinancial measures. Financial measures of business performance are more common, and they include measures of profitability, gross profit, return on assets (ROA), return on investment (ROI), return on equity (ROE), revenue growth, and stock price. Nonfinancial measures focus mostly on internal achievements of the organization, such as market share, customer growth rate, employee job satisfaction, employee commitment, staff attrition rate, customer satisfaction, and net promoter score, among others.

#### ***II.1.2. Leadership Style***

Some literature categorizes leaders as either managerial or visionary leaders (Rowe, 2001), some as having a high level or low level of microinvolvement (Burton & Obel, 1998), some as detail-oriented or big-picture leaders, and some as task-oriented or relationship-oriented leaders (Fiedler, 1967), and other literature describes them as transactional or transformational leaders (DuBrin, 2016; Raj & Srivastava, 2016). Based on the definitions used in these studies, one could argue that these distinctions are not too dissimilar. The transactional leadership style is

a lot like the managerial leadership style, task-oriented leadership style, high level of microinvolvement, and detail-oriented leadership, whereas the transformational leadership style is like the visionary leadership style, relationship-oriented leadership style, low level of microinvolvement, and big-picture leadership. I chose to use transactional and transformational leadership categorizations to evaluate easily distinguishable leadership styles. In the transactional leadership style, “the leader focuses on supervision, organization, and performance of routine activities” (DuBrin, 2016, p. 89), establishes objectives, and monitors and controls results (Bass & Avolio, 2004). For this study, I used the multifactor leadership questionnaire (MLQ) – form 5X-short, developed by Bass and Avolio (1995), which breaks transactional leadership style into Contingent Reward (rewards achievement) and Management by Exception: Active (monitors mistakes), and breaks transformational leadership style into Idealized Influence: Attributes (builds trust), Idealized Influence: Behaviors (acts with integrity), Inspirational Motivation (inspires others), Intellectual Stimulation (encourages innovative thinking), and Individual Consideration (coaches people). Transformational leaders challenge the status quo (intellectual stimulation), articulate a compelling vision of the future (inspirational motivation), engage in behaviors that build followers’ trust in and identification with their leaders (charisma or idealized influence), and listen to followers’ needs and concerns (individualized consideration) (Bass, 1985).

### ***II.1.3. Organizational Structure***

Various researchers have looked at organizational structure in different ways. Donaldson (2001) used dimensions such as specialization, standardization, formalization, hierarchical levels, and span of control to describe how organizational structures can be differentiated. Ansoff

and Brandengurg (1971) categorized organizational structures as centralized functional form, decentralized divisional form, adaptive (project) form, and innovative form. Mintzberg (1980) identified ideal types of organizational structures as simple form, machine form, professional bureaucracy, divisional form, and adhocracy. I chose the distinctions used by Koohborfardhaghighi and Altmann (2017), who described organizational structures as functional, divisional, matrix, and project organizational structure, because these terms are more commonly used in the business world today.

For this study, functional organizations are defined as organizations in which employees are grouped by function (e.g., sales, marketing, engineering, and operations), and the responsibility to deliver aspects of the organization's products and services cuts across the multiple functions working together to deliver organizational goals. A divisional organization is structured around its products (or a cluster of products) or by geography, whereby each division has all the functions (e.g., sales, marketing, engineering, and operations) required to run independently. Matrix organizations are a combination of functional and divisional structure, wherein most employees have more than one supervisor—a functional manager and an additional manager—for example, a divisional manager, product manager, project manager, or industry manager (depending on the focus of the organization). The main objective of the matrix structure is to combine the benefit of day-to-day functional activities and other focus areas of the organization. In project organizational structures, to deliver on various tasks, groups are formed comprising employees with the requisite complimentary competences, and the groups disband after the tasks have been concluded. In this research, I focused primarily on organizations with functional, divisional, and matrix structures. I excluded companies with a project organizational structure because the types of companies that I researched (i.e., technology companies) seldom

use this structure. It should be noted that it is possible for an organization not to have one of these “pure” forms of organizational structure but to have aspects of multiple organizational forms.

## **II.2. Academic Literature Review**

Leadership style is a well-researched topic. Prior researchers agree that the leadership style affects the level of innovativeness (Raj & Srivastava, 2016; Wu et al., 2002) and business performance (Colbert et al., 2014; Yıldız et al., 2014) of organizations. Most leaders possess both transactional and transformational leadership style and exhibit both behaviors to varying degrees (Bass, 1999). In more specific terms, some research shows that a positive relationship exists between transactional leadership style and organizational effectiveness factors such as innovativeness, business performance, employee organizational commitment, and employee job satisfaction (Afshari & Gibson, 2016; Jabeen, Behery, & Elanain, 2015; Rahman, Islam, Ahad Abdullah, & Sumardi, 2018), whereas others conclude that transactional leadership behaviors have a negative impact on organizational success factors (Masi & Cooke, 2000; You-De, You-Yu, Kuan-Yang, & Hui-Chun, 2013). On the other hand, researchers generally agree that transformational leadership style always has a positive effect on innovativeness, business performance, worker execution, employee organizational commitment, and employee job satisfaction (Garg, & Ramjee, 2013; Jia, Song, Li, Cui, & Chen, 2007; Rahman et al., 2018). A combination of aspects of transactional and transformational behaviors to fit certain situations has been described as delivering the most effective results in organizations (Bass, 1999; Chen & Chen, 2009; Mosley & Patrick, 2011). Researchers sometimes suggest that the transformational leadership style is more beneficial than transactional leadership style with respect to its impact

on organizational or employee effectiveness (Chen & Chen, 2009; Clinebell, Skudiene, Trijonyte, & Reardon, 2013; Emery & Barker, 2007; Rathnaraj & Vimala, 2018).

An organizational structure, whether formalized or not, is required for an organization to exist and be effective (Mintzberg, 1980). It is a generally held belief that the right organizational structure enables competitiveness, innovativeness, learning, effectiveness, or performance (Baligh, Burton, & Obel, 1996; Dedahanov et al., 2017; Khandwalla, 1973; Twomey, 2002), but some researchers have found that there is no direct or indirect relationship between organizational structure and organizational effectiveness, profitability, or performance (Andersen & Jonsson, 2006). My interest in this research was to identify which organizational structure has a positive impact on organizational success factors and which of the organizational forms (functional, divisional, or matrix structure) is better. The literature presents conflicting views on this topic. Ansoff and Brandenburg (1971) posited that each organizational structure type has advantages and shortcomings, as well as conditions in which it is effective and less effective. Some researchers have argued that divisional structures are better than functional structures (Hamilton & Shergill, 1992), particularly as the size of the organization increases and/or the number of products delivered by the company increases (Chandler, 1962) or the company expands into more geographies (Egelhoff, 1982). Some researchers suggested that divisionalization and increased diversification, particularly into unrelated businesses, lead to higher cost and lower performance (Bettis, 1981; Luffman & Reed, 1982; Rumelt, 1984) and that the more diversified a company is (i.e., the more products a company offers), the harder it is to manage (Hitt & Ireland, 1987). My opinion is that this is likely the case during the initial phases of the divisionalization, but as the new business area stabilizes and begins to contribute, the divisionalization and diversification may lead to higher returns. Dedalhanov et al. (2017) argued

that centralization and formalization (which are attributes of a functional organization) have a negative relationship with organizational innovativeness. Looking at the industry at large, it is evident that there are several innovative and high-performing functional-structured organizations, and there are several innovative and high-performing divisional organizations. Apple, Google, and Microsoft (after 2013) use functional structures, whereas General Electric, Microsoft (before 2013), and Sony use divisional structures (Dhillon & Gupta, 2015; Rowe, 2001). One may therefore conclude that organizational structure alone is unable to determine the innovativeness and business performance of a company.

In the preceding paragraphs, I discussed some of the current knowledge of how leadership style and organizational structure uniquely impact innovativeness and business performance. When it comes to the factors that influence organizational structure's impact on innovativeness and business performance, the most researched are size, strategy, and environment. Studies that evaluated the interaction of leadership style and organization's impact on innovativeness and business performance are quite scarce. Burton and Obel (1998) posited that leaders have a preference for either high or low levels of microinvolvement with differing attributes (see Figure 1). They argued that high microinvolvement leadership preference, which is similar to transactional leadership style, is a misfit for matrix organizational structure, divisional organizational structure, and low centralization. They also argued that low microinvolvement leadership preference, which is quite like transformational leadership style, is a misfit for functional organizational structure, and high centralization.

Low microinvolvement leader preferences	High microinvolvement leader preferences
<ul style="list-style-type: none"> <li>• Does not like to delegate</li> <li>• Gives specific directions</li> <li>• Is reactive</li> <li>• Focuses on the short-term</li> <li>• Is risk-averse</li> <li>• Applies controls</li> </ul>	<ul style="list-style-type: none"> <li>• Prefers to delegate</li> <li>• Gives generic directions</li> <li>• Is proactive</li> <li>• Focuses on the long-term</li> <li>• Can assume risk</li> <li>• Motivates through inspiration</li> </ul>

Adapted from Burton and Obel (1998, p. 98)

**Figure 1. Characteristics of leaders with low versus high microinvolvement preference**

It is a commonly held belief that organizational innovativeness has a direct and positive impact on business performance, and this has been confirmed in several empirical studies (Chien-Huang, Ching-Huai, & Kao, 2008; Colbert et al., 2014; Yıldız et al., 2014). For an entire organization to be innovative, someone or something must create a culture that fosters innovativeness across most parts of the organization. In this study, I argue that the interaction of CEO leadership style and organizational structure impacts organizational innovativeness. Then, I suggest that higher organizational innovativeness leads to higher business performance.

In the next chapter, I provide an overview of the theories that I applied in the study and present the hypotheses and model developed for the study.



### III. THEORETICAL FRAMING

#### III.1. Congruence Theory and Structural Contingency Theory: Key Concepts and Claims

Morton and Hu (2008) state that “Structural contingency theory posits that business performance is achieved by matching organizational characteristics to contingencies.” According to Donaldson (2001, p. 7), *contingency* is defined as “any ‘variable’ or ‘factor’ that moderates the effect of an organizational characteristic on business performance.” Donaldson (2001) argued “that size, environment, and technology are the underlying contingencies in the structural contingency literature.” Donaldson (2001, as cited in Morton & Hu, 2008, p. 393) stated that “three main elements form the core paradigm of structural contingency theory: (1) there is an association between the contingency and the organizational structure; (2) contingency impacts the organizational structure; and (3) there is a fit of some level of the structural variable to each level of the contingency, where high fit leads to effectiveness and low fit leads to ineffectiveness.”

Nadler and Tushman (1980) described congruence as the measure of how well pairs of components fit together. They defined the congruence between two components as “the degree to which the needs, demands, goals, objectives, and/or structures of one component are consistent with the needs, demands, goals, objectives, and/or structures of another component” (Nadler & Tushman 1980, p. 45).

The core concept of these theories is “fit” (Drazin & Van de Ven, 1985). Congruence theory focuses on various aspects of an organization being aligned for effectiveness, while structural contingency theory focuses on one of the contingent factors being organizational structure. Both theories agree with the proposition that an organization whose characteristics (e.g., needs, demands, goals, objectives, and structures) fit with the contingencies, factors, or

variables in its situation will perform more effectively than an organization whose characteristics do not fit with the contingencies in its situation (Nadler & Tushman, 1980), thereby leading to better business performance. In this paper, I focus on leadership style as a contingency variable because it has not been adequately researched. Fiedler's (1967) contingency model holds that the best style of leadership is determined by the situation in which the leader is working. Similarly, I reason that once CEOs understand their leadership style, they should adapt it to fit the organizational structure, or adapt their organizational structure to align with their leadership style.

Throughout this paper, I use congruence, fit, match, and alignment interchangeably. I also use organization and company interchangeably.

## **III.2. Hypotheses and Model**

### ***III.2.1. Relating Leadership Style to Innovativeness and Business Performance***

As discussed in section II.2, prior researchers agree that leadership style impacts organizational innovativeness and business performance. They, however, disagree on the direction, positive or negative, of its impact. Because I focus on transactional and transformational leadership style, I evaluate their impact as well as the direction of their impact on innovativeness and business performance, and therefore propose the following hypotheses:

*Hypothesis 1:* CEO transformational leadership style and CEO transactional leadership style are significant predictors of organizational innovativeness.

*Hypothesis 2:* CEO transformational leadership style and CEO transactional leadership style are significant predictors of companies' business performance.

### ***III.2.2. Relating Organizational Structure to Innovativeness and Business Performance***

Prior researchers also presented differing views on whether there is a direct (or indirect) relationship between organizational structure and organizational effectiveness. Organizational structure is at the center of structural contingency theory, so it is pertinent to verify if there is an association between organizational structure and organizational innovativeness, and between organizational structure and business performance for technology companies in the US. I also wanted to identify which organizational form is better.

As organizations grow larger, they tend to move from functional to divisional or matrix structures to remain focused and nimble. Based on this, I can assume that it is a commonly held belief that if functional organizations do not move to divisional structures, they will become less innovative. Due to the multiple reporting lines in matrix organizational forms, it is assumed that matrix organizational structures are more complex than functional and divisional structures; as such, they are not as efficient. To test these assumptions, I assessed the following:

*Hypothesis 3a:* Companies with divisional structures are more innovative than companies with functional structures.

*Hypothesis 3b:* Companies with divisional structures are more innovative than companies with matrix structures.

*Hypothesis 3c:* Companies with matrix structures are more innovative than companies with functional structures.

*Hypothesis 3d:* Organizational structure is a significant predictor of company innovativeness.

Because I argue that innovativeness leads to business performance, I therefore expected that organizational structure would have the same impact on innovativeness and business performance. As such, I also tested the following hypotheses:

*Hypothesis 4a:* Companies with divisional structures achieve better business performance than companies with functional structures.

*Hypothesis 4b:* Companies with divisional structures achieve better business performance than companies with matrix structures.

*Hypothesis 4c:* Companies with matrix structures achieve better business performance than companies with functional structures.

*Hypothesis 4d:* Organizational structure is a significant predictor of business performance.

### ***III.2.3. Relating Organizational Innovativeness and Business Performance to the Leadership Style-Organizational Structure Fit***

For any organizational structure to be effective, the ability to coordinate all activities and collaborate across the boundaries of function or structure is required for effectiveness. The CEO of an organization has the overall responsibility of coordinating and driving collaboration, particularly for medium-sized organizations. My primary claim in this paper is that the appropriate (or inappropriate) alignment between a CEO's leadership style and organizational structure increases (or decreases) organizational innovativeness and business performance.

In functional organizations, each of the functional teams performs different specialized tasks and activities. For a CEO to adequately manage such an organization, the CEO needs to be able to coordinate the different activities of the functional teams and pay attention to detail.

Transactional CEOs innately pay attention to detail, whereas transformational CEOs are typically “big picture” minded, so I deduced that there would be a fit between transactional CEOs and functional organizations, and a misfit between transformational CEOs and functional organizations. Divisional organizations, on the other hand, have divisions that are semiautonomous that can run effectively on their own without much interference. Overseeing a divisional organization would require a CEO who can paint a vision and motivate the divisions, which are traits exhibited by transformational CEOs and less so by transactional CEOs. The transactional CEO is very competent in coordinating and directing, which are not very necessary in a divisional organization and as such could lead to micromanaging and possible disruption of the independent activities of divisions. I therefore deduced that there would be a fit between a transformational CEO and a divisional organization, but a lesser fit (or even misfit) between a transactional CEO and a divisional organization. An organization with a matrix structure requires a lot of coordination, like a functional organization, as well as the ability to present a clear strategy for the organization and motivate employees. The transactional CEO would be able to better handle the coordination but poor at motivating the team, whereas the transformational CEO would be able to paint a clear vision but poor at coordinating. Because a matrix organizational structure is primarily a functional structure organization with an additional reporting line, I argue that the matrix organization is a better fit for a transactional CEO than for a transformational CEO. Figure 2 summarizes the expected alignments between the CEO leadership styles and organizational structure forms.

	Functional	Divisional	Matrix
Transactional	10	0	6
Transformational	0	10	4

*Note.*

- 10 = congruent = matched = aligned = fit
- 0 = incongruent = mismatched = not aligned = misfit
- 6 = likely congruent / likely mismatched
- 4 = likely incongruent / likely mismatched

**Figure 2. Leadership Style-Organizational Structure Alignment**

I evaluated the following hypotheses with respect to company innovativeness:

*Hypothesis 5a:* For companies with functional structures, the CEO transactional leadership style is a greater predictor of company innovativeness than the CEO transformational leadership style.

*Hypothesis 5b:* For companies with divisional structures, the CEO transformational leadership style is a greater predictor of company innovativeness than the CEO transactional leadership style.

*Hypothesis 5c:* For companies with matrix structures, the CEO transactional leadership style is a greater predictor of company innovativeness than the CEO transformational leadership style.

Similarly, for business performance, I evaluated the following hypotheses:

*Hypothesis 6a:* For companies with functional structures, the CEO transactional leadership style is a greater predictor of the company's business performance than the CEO transformational leadership style.

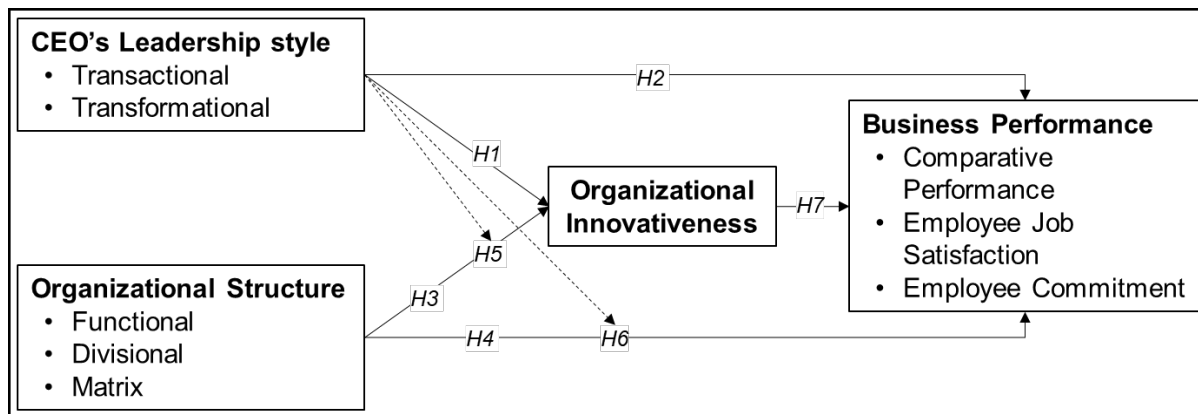
*Hypothesis 6b:* For companies with divisional structures, the CEO transformational leadership style is a greater predictor of the company’s business performance than the CEO transactional leadership style.

*Hypothesis 6c:* For companies with matrix structures, the CEO transactional leadership style is a greater predictor of the company’s business performance than the CEO transformational leadership style.

### III.2.4. The Relationship between Innovativeness and Business Performance

To validate previous studies that showed a relationship between innovativeness and business performance, such as that of Rubera and Kirca (2012), I hypothesized the following:

*Hypothesis 7:* There is a positive relationship between organizational innovativeness and business performance.



**Figure 3. Proposed Conception Model for Leadership Style-Organizational Structure Fit**

I defined a model (see Figure 3) in which leadership style is the contingency of focus. The conceptual model theorizes that specific CEO leadership style and organizational structure factors, individually and together, lead to organizational innovativeness and business

performance. For business performance, I used three dimensions: one external dimension (comparative performance) and two internal dimensions (employee job satisfaction and employee commitment).

In Chapter IV, I provide details on how the data were collected, information about the quantitative survey and the respondents, and the variables used in the study.



## IV. RESEARCH METHOD

### IV.1. Participants and Procedures

I obtained the data utilized for the research by surveying respondents who work in technology companies in the United States. As a member of the Technology Association of Georgia (TAG), I obtained the list of the 37,383 TAG members in the US, which comprised the member name, company name, and e-mail address of each member. The TAG website (<https://www.tagonline.org/about/>) states that TAG has “over 35,000 members representing over 2,000 tech and tech-enabled companies.” Because I was interested in organizations with fewer than 3,000 employees, that had been in operation for at least 2 years, and that were based in the US, I utilized the LinkedIn.com profiles, company website information, and other resources on the Internet to prune the list down to 5,346 TAG members who worked in organizations that met these criteria, and I sent the survey to only these potential respondents. I sent the survey introduction and follow-up e-mails to each of the members via Qualtrics to ensure that responses were adequately tracked. I sent a total of four e-mails to each potential respondent over an 8-week period between July 31, 2019, and September 27, 2019. Upon receipt of the survey e-mail, respondents were expected to read the research overview, review the survey instructions, and then complete the online questionnaire. Each respondent was required to start and finish the survey in one or multiple sittings within a 7-day period from when the respondent clicked on the survey link to start the survey. Of the 5,346 respondents e-mailed, 1,126 e-mails bounced back, 24 respondents declined to participate, 142 respondents had partial or inaccurate data (which made their responses ineligible), and 448 respondents fully completed the survey (11.05% response rate). Inaccurate data included recipients who worked in ineligible organizations where their organizational structure had changed less than 2 years prior to the time of completing the

survey. No incentives were given for the survey completion; however, respondents were promised that they would receive a summary of the research findings at the completion of the study.

Of the respondents, 275 (61.4%) identified as male, 172 (38.4%) as female, and one (0.2%) as “Other.” In terms of the respondents’ highest level of education, one (0.2%) had not completed high school, 26 (5.8%) had completed high school, 45 (10%) had not completed college, 151 (33.7%) had a college degree, 32 (7.1%) had completed some graduate school, and 193 (43.1%) had completed graduate school. Eighteen respondents (4.0%) were between the ages of 18 and 24 years, 107 respondents (23.9%) were between the ages of 25 and 34 years, 178 respondents (39.7%) were between the ages of 35 and 44 years, 105 respondents (23.4%) were between the ages of 45 and 54 years, 28 respondents (6.3%) were between the ages of 55 and 64 years, and the remaining 12 respondents (2.7%) were 65 years old and older. Thirteen respondents (2.9%) had worked with their organizations for less than a year, 98 respondents (21.9%) had worked with their organizations for 1–3 years, 159 respondents (35.5%) had worked for 4–6 years, 57 respondents (12.7%) had worked for 7–9 years, 62 respondents (13.8%) had worked for 10–12 years, 12 respondents (2.7%) had worked for 13–14 years, and 47 respondents (10.5%) had worked with their organizations for 15 years or more.

Only organizations headquartered in the US and that had been in operation for 2 or more years were considered in the study. The organizations studied were headquartered in 41 out of the 50 US states (see Figure A1 for the US regions represented). Thirty-nine of the organizations (8.7%) studied had been in operation for 2–5 years, 123 (27.5%) had been in operation for 6–10 years, 49 (10.9%) had been in operation for 11–14 years, and 237 (52.9%) had been in operation for 15 years or more. Table 1 presents the number of employees in the organizations studied, and

it shows that 36.8% of the companies (165) had fewer than 500 employees, 33.7% of the companies (151) had between 501 and 1,000 employees, and 29.5% (132) had more than 1,000 employees.

**Table 1. Number of employees in the organizations studied**

<b>No. of employees</b>	<b>No. of organizations</b>	<b>% of organizations</b>
1-50	18	4.0%
51-100	46	10.3%
101-200	39	8.7%
201-300	15	3.3%
301-400	16	3.6%
401-500	31	6.9%
501-600	43	9.6%
601-700	10	2.2%
701-800	22	4.9%
801-900	17	3.8%
901-1,000	59	13.2%
1,001-3,000	132	29.5%
	448	100.0%

The survey also obtained information about the CEOs of the companies. Of the CEOs, 378 identified as male (84.4%), 66 as female (14.7%), one as “Other”, and three elected not to respond to this question. Six of the CEOs (1.3%) had worked with their organizations for less than a year, 42 (9.4%) had worked with their organizations for 1–3 years, 159 (35.5%) had worked for 4–6 years, 58 (12.9%) had worked for 7–9 years, 81 (18.1%) had worked for 10–12 years, 22 (4.9%) had worked for 13–14 years, and 80 (17.9%) had worked with their organizations for 15 years or more. I distinguished between how long the CEOs had worked with the organizations and how long the CEOs had been CEOs at the organizations, which is presented in Table 2.

**Table 2. CEO Tenure**

No. of years	No. of years as CEO	% of CEOs
Less than 1 year	7	1.6%
1 year	2	0.4%
2 years	7	1.6%
3 years	47	10.5%
4 years	46	10.3%
5 years	92	20.5%
6 years	39	8.7%
7 years	30	6.7%
8 years	18	4.0%
9 years	14	3.1%
10 years	66	14.7%
11 years	7	1.6%
12 years	8	1.8%
13 years	6	1.3%
14 years	4	0.9%
15 years or more	55	12.3%
	448	100.0%

For representativeness of the leadership style, I compared the CEO leadership style score with the U.S. public, and they were not very divergent (see Table A1 for details).

## **IV.2. Measures**

For each of the constructs, validated scales created in previous research were employed where available. Cronbach's alpha coefficients were used to determine the reliability of the constructs. Statistical significance was set at a 95% confidence interval level ( $p < .05$ ).

### ***IV.2.1. Independent Variables***

For organizational structure, a question was used to ascertain which organizational structure (i.e. functional, divisional, or matrix) the organization used. The question asked was

“Please characterize the form of your organizational structure based on the definitions provided below.” The definitions provided were “Functional – employees are grouped on the basis of their area of specialization (e.g., sales, marketing, or R&D)”; “Divisional – employees are grouped on the basis of product, service, geography, etc., and each division has the resources (sales, product managers, etc.) required for it to operate semiautonomously. Support functions (HR, finance, etc.) may be shared”; and “Matrix – combination of functional and divisional, where most employees have two managers (e.g., a functional manager and a divisional manager).” The options provided to the respondents were “Functional,” “Divisional,” “Matrix,” and “Other,” and respondents who chose “Other” had the ability to provide additional information about their organizational structure. Of the data collected, 245 companies (54.7%) were functional, 90 companies (20.1%) were divisional, 110 companies (24.6%) were matrix, and three companies (0.7%) were described as “Other.”

The leadership style measure sought to assess the CEOs’ transactional and transformational leadership qualities, which was assessed using 28 out of the 45 items of Bass and Avolio’s (1995) Multifactor Leadership Questionnaire (MLQ Form 5x-Short). The MLQ uses four items each (totaling eight items) to measure contingent reward and management by exception (active) relating to transaction leadership. In addition, MLQ uses four items each (totaling 20 items) to measure idealized attributes, idealized behaviors, inspirational motivation, intellectual stimulation, and individualized consideration relating to transformational leadership. I averaged the item scores for each scale to form the respective scores each scale. I also averaged all the items related to transactional leadership style and transformational leadership style to form their respective scores. Cronbach’s alpha coefficients of reliability for transactional

leadership styles and transformational leadership style, as well as each of their subconstructs, are presented in Table 3.

**Table 3. Cronbach's Alpha ( $\alpha$ ) Coefficients of Reliability for the Leadership Style Measures**

<b>Construct</b>	<b>Scales</b>	<b>Description</b>	<b>Cronbach's alpha</b>	<b>Cronbach's alpha</b>
<b>CEO Transactional Leadership Style</b>	Contingent reward	Rewards achievement	0.851	<b>0.811</b>
	Management-by-exception: active	Actively manages by exception	0.758	
<b>CEO Transformational Leadership Style</b>	Idealized attributes	Builds trust	0.756	<b>0.946</b>
	Idealized behaviors	Acts with integrity	0.750	
	Inspirational motivation	Inspires others	0.809	
	Intellectual stimulation	Encourages innovative thinking	0.816	
	Individualized consideration	Coaches people	0.839	

#### ***IV.2.2. Dependent Variables***

To ascertain organizational innovativeness, I adopted Shoham, Vigoda-Gadot, Ruvio, and Schwabsky's (2012) scale to evaluate various dimensions (i.e., creativity, openness to change, future orientation, risk-taking, and proactiveness of the organizations). I averaged the item scores for each scale to form the respective scores for each scale, and I averaged all the items to form the organizational innovativeness score. Cronbach's alpha coefficients of reliability for organizational innovativeness, as well as each of their subconstructs, are presented in Table 4.

**Table 4. Cronbach's Alpha ( $\alpha$ ) Coefficients of Reliability for Innovativeness Measure**

<b>Construct</b>	<b>Scales</b>	<b>No. of Items</b>	<b>Cronbach's alpha</b>	<b>Cronbach's alpha</b>
<b>Organizational Innovativeness</b>	Creativity	5	0.902	
	Openness to change	4	0.900	
	Future orientation	4	0.916	<b>0.961</b>
	Risk-taking	4	0.836	
	Proactiveness	4	0.865	

For business performance, I chose to assess one external dimension (comparative financial performance) and two internal dimensions (employee job satisfaction and employee commitment) independently. For comparative financial performance, I asked the respondents “How would you rate your company’s overall financial performance compared to competition?” and provided the options: *far below average*, *somewhat below average*, *average*, *somewhat above average*, and *far above average*. I chose to use this measure for financial performance because I was targeting responses from nonpublic organizations, which would be unwilling to provide confidential financial information to a third party. To augment the nonavailability of detailed financial performance, I added two nonfinancial business performance scales (employee commitment and employee job satisfaction) adapted from Shoham et al. (2012). For employee commitment, there were four items, and I averaged the item scores to form the employee commitment score. The Cronbach’s alpha coefficient of reliability for employee commitment was 0.884. For employee job satisfaction, there were five items, and I averaged the item scores to

form the employee job satisfaction score. The Cronbach's alpha coefficient of reliability for employee job satisfaction was 0.844.

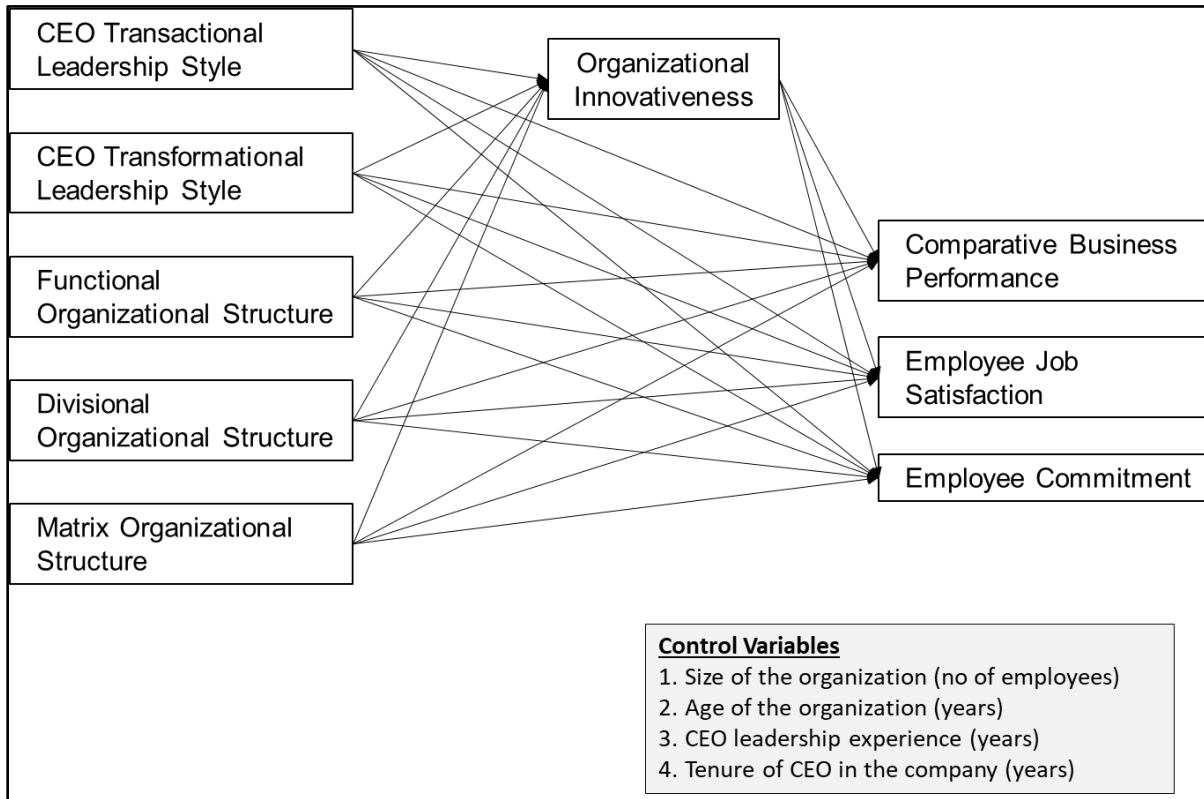
#### ***IV.2.3. Control Variables***

To ascertain the influence of leadership style and organizational structure on innovativeness and business performance, it was important to control for certain variables that could otherwise explain the dependent variables. The control variables considered were size of the organization, age of the organization, CEO leadership experience, and number of years the CEO had been in the company. I controlled for organization size because it is likely going to have a high correlation with comparative performance, and it is a frequently researched predictor of business performance. I controlled for the age of the organization because I also expected it to correlate highly with the age of the organization and comparative performance. I controlled for CEO leadership experience and the CEO tenure in the organization to avoid the clouding the effects of CEO leadership style on the results.

To determine the size of the organization, the question "How many employees are employed in your company?" was asked, and the options 1–50, 51–100, 101–200 . . . 901–1,000, and 1,000+ were provided. For the age of the organization, the question "How long has the CEO been employed in this organization?" was asked, and the options provided ranged from "less than 1 year" to "15 years or more." The CEO tenure was determined by asking, "How long has the CEO held the CEO position in your company?" and providing the options "less than 1 year" to "15 years or more." In addition, the CEO experience with the company was determined by asking "How long has the CEO been employed in this organization?" and the options ranged from "less than 1 year" to "15 years or more."



Using each of the variables that would be evaluated, I revised the model in Figure 3 and produced Figure 4.



**Figure 4. Proposed conceptual model depicting the independent, dependent, and control variables.**

The analysis strategy, approach, and the results are presented in Chapter V.

## V. RESULTS

The statistical analysis was performed using IBM SPSS Statistics Version 25 (2017). Descriptive statistics (e.g., mean and standard deviation) and Pearson's correlations were used to analyze the data and evaluate the relationships between the variables. Multiple regression is used to determine how well the independent variables are able to predict the dependent variables. The independent *t*-test was used to determine whether a statistically significant difference in organizational innovativeness and business performance exists between the organizational structure forms. The Baron and Kenny (1986) method (described in Miles & Shevlin, 2001, pp. 187–190) is used to analyze the mediation path of the model (i.e., innovativeness–performance).

Tables 5–8 show descriptive statistics and correlations among the independent, dependent, and control variables for all the respondents, and then for respondents in organizations with functional, divisional, and matrix structures. Looking at the correlations, which include all the organizations studied, transactional leadership style correlated positively with transformational leadership style ( $r = 0.757, p < .01$ ), organizational innovativeness ( $r = 0.589, p < .01$ ), comparative performance ( $r = 0.313, p < .01$ ), employee job satisfaction ( $r = 0.505, p < .01$ ), and employee commitment ( $r = 0.466, p < .01$ ). Transactional leadership style also correlated positively with the same variables across all the organization structure types. Similarly for all the organizations studied, transformational leadership style correlated positively with organizational innovativeness ( $r = 0.739, p < .01$ ), comparative performance ( $r = 0.433, p < .01$ ), employee job satisfaction ( $r = 0.630, p < .01$ ), and employee commitment ( $r = 0.617, p < .01$ ). Similarly, transformational leadership style also correlated positively with the same variables across all the organization structure types. Comparing innovativeness with the business

performance dimensions for all the organizations, organizational innovativeness correlated positively with comparative performance ( $r = 0.429, p < .01$ ), employee job satisfaction ( $r = 0.793, p < .01$ ), and employee commitment ( $r = 0.752, p < .01$ ). Organizational leadership style also correlated positively with these same variables across all the organization structure types. Not surprisingly, organizational innovativeness had a negative correlation with company age ( $r = -0.117, p < .05$ ) for all the organizations and for organizations with functional structures. Organizational innovativeness was not related to organizational size, CEO company experience, and CEO tenure in all the organizations, as well as in each specific organizational structure type. As expected, comparative performance correlated positively with organization size ( $r = 0.193, p < .05$ ) in all the organizations, as well as for the functional and divisional organizations. Employee job satisfaction had a negative correlation with CEO tenure ( $r = -0.193, p < .05$ ) with only the data of all the organizations but did not correlate for each of the specific organization forms. Employee job satisfaction did not have a relationship with any of the other control variables.

**Table 5. Descriptive Statistics and Correlations Among Study Variables (ALL)**

Variable	Mean	SD	1	2	3	4	5	6	7	8	9
1. Transactional	2.558	0.795									
2. Transformational	2.846	0.798	0.757**								
3. Organizational Innovativeness	3.995	0.806	0.589**	0.739**							
4. Comparative Performance	3.920	0.955	0.313**	0.433**	0.429**						
5. Employee Job Satisfaction	4.004	0.897	0.505**	0.630**	0.793**	0.383**					
6. Employee Commitment	4.118	0.918	0.466**	0.617**	0.752**	0.359**	0.787**				
7. Organization Size	7.890	3.898	0.135**	0.043	0.074	0.193*	0.059	0.046			
8. Company Age	13.060	3.714	-0.091	-0.096*	-0.117*	0.003	-0.068	-0.044	0.343**		
9. CEO company experience	8.270	4.288	-0.068	-0.096*	-0.043	0.030	-0.061	-0.040	0.066	0.443**	
10. CEO Tenure	8.380	3.960	-0.145**	-0.162**	-0.077	0.007	-0.102*	-0.069	0.002	0.353**	0.827**

Note. \*  $p < .05$ . \*\*  $p < .01$ .  $n = 448$ .

**Table 6. Descriptive Statistics and Correlations Among Study Variables for the Companies with Functional Organizational Structure**

Variable	Mean	SD	1	2	3	4	5	6	7	8	9
1. Transactional	2.561	0.799									
2. Transformational	2.848	0.780	0.748**								
3. Organizational Innovativeness	4.005	0.775	0.611**	0.740**							
4. Comparative Performance	3.910	0.939	0.265**	0.370**	0.384**						
5. Employee Job Satisfaction	3.994	0.871	0.505**	0.612**	0.754**	0.335**					
6. Employee Commitment	4.128	0.900	0.450**	0.602**	0.717**	0.333**	0.771**				
7. Organization Size	7.52	4.033	0.231**	0.128*	0.165**	0.268**	0.101	0.077			
8. Company Age	12.74	3.697	-0.084	-0.096	-0.136*	0.030	-0.102	-0.039	0.314**		
9. CEO company experience	8.020	4.296	-0.078	-0.117	-0.049	0.031	-0.056	-0.009	0.011	0.427**	
10. CEO Tenure	8.240	4.105	-0.120	-0.155*	-0.041	-0.021	-0.081	-0.004	-0.049	0.334**	0.854**

Note. \*  $p < .05$ . \*\*  $p < .01$ .  $n = 245$ .

**Table 7. Descriptive Statistics and Correlations Among Study Variables for the Companies with Divisional Organizational Structure**

Variable	Mean	SD	1	2	3	4	5	6	7	8	9
1. Transactional	2.564	0.734									
2. Transformational	2.865	0.751	0.697**								
3. Organizational Innovativeness	3.995	0.809	0.523**	0.683**							
4. Comparative Performance	3.820	0.907	0.313**	0.457**	0.409**						
5. Employee Job Satisfaction	4.023	0.939	0.423**	0.621**	0.815**	0.386**					
6. Employee Commitment	4.094	0.992	0.402**	0.558**	0.740**	0.291**	0.799**				
7. Organization Size	8.540	3.601	0.128	-0.006	-0.014	0.209*	-0.052	-0.058			
8. Company Age	13.710	3.494	-0.213*	-0.137	-0.153	-0.077	-0.121	-0.141	0.233*		
9. CEO company experience	8.740	4.494	-0.139	-0.156	-0.137	-0.033	-0.180	-0.230*	0.128	0.437**	
10. CEO Tenure	8.540	3.935	-0.258*	-0.194	-0.225*	0.046	-0.193	-0.272**	0.110	0.397**	0.800**

Note. \*  $p < .05$ . \*\*  $p < .01$ .  $n = 90$ .

**Table 8. Descriptive Statistics and Correlations Among Study Variables for the Companies with Matrix Organizational Structure**

Variable	Mean	SD	1	2	3	4	5	6	7	8	9
1. Transactional	2.543	0.845									
2. Transformational	2.821	0.888	0.812**								
3. Organizational Innovativeness	3.981	0.873	0.597**	0.778**							
4. Comparative Performance	4.040	1.004	0.417**	0.557**	0.533**						
5. Employee Job Satisfaction	4.013	0.909	0.572**	0.678**	0.854**	0.492**					
6. Employee Commitment	4.109	0.903	0.552**	0.700**	0.832**	0.489**	0.816**				
7. Organization Size	8.240	3.714	-0.055	-0.092	-0.018	0.020	0.064	0.112			
8. Company Age	13.350	3.775	-0.023	-0.067	-0.034	-0.025	0.047	0.068	0.422**		
9. CEO company experience	8.540	4.074	-0.002	-0.012	0.035	0.031	0.026	0.076	0.111	0.471**	
10. CEO Tenure	8.650	3.651	-0.133	-0.163	-0.054	-0.011	-0.078	-0.040	0.020	0.354**	0.781**

Note. \*  $p < .05$ . \*\*  $p < .01$ .  $n = 110$ .

The preliminary results of the correlations, which considers neither the combined effect of the independent variables nor the effect of the control variables, showed the CEO transformational leadership style had a stronger correlation than the CEO transactional leadership style against organizational innovativeness, comparative performance, employee job satisfaction, and employee commitment across all the organizational structure types.

Hierarchical multiple regression was used to assess the ability of the CEO transformational leadership style and CEO transactional leadership style to predict organizational innovativeness, after controlling for the control variables. The control variables explained 2.5% of the variance in organizational innovativeness, and with the inclusion of CEO transformational leadership style and CEO transactional leadership style, the total variation explained by the model as a whole was 55.2%,  $F(6,441) = 92.658$ ,  $p < .001$ . Of the control variables, organization size ( $b = 0.014$ ,  $\beta = 0.069$ ,  $p < .05$ ), and company age ( $b = -0.021$ ,  $\beta = -0.097$ ,  $p < .05$ ) were statistically significant. Transformational leadership style also made a unique statistically significant contribution ( $b = 0.705$ ,  $\beta = 0.698$ ,  $p < .001$ ), while transactional leadership style was not statistically significant. Therefore, H1 is partially supported (refer to Table 9).

**Table 9. Regression Results for CEO Leadership Style and Organizational Innovativeness**

<b>Predictors</b>	<b>Dependent Variable</b>
	<b>Organizational Innovativeness</b>
Transactional	0.054
Transformational	0.705**
<i>Organization Size</i>	0.014*
<i>Company Age</i>	-0.021*
<i>CEO Company Experience</i>	0.001
<i>CEO Tenure</i>	0.015
<i>Control Variables Adjusted R<sup>2</sup></i>	0.025**
Model Adjusted R <sup>2</sup>	0.552**

Note. Tabled values are unstandardized regression (*b*) coefficients.

\* $p < .05$ . \*\* $p < .01$ .  $n = 448$ .

Next, hierarchical multiple regression was used to assess the ability of the CEO transformational leadership style and CEO transactional leadership style to predict business performance (using the comparative performance score), after controlling for the control variables. Using the adjusted R<sup>2</sup> (Table 10), the control variables explained 3.6% of the variance in business performance, and with the inclusion of CEO transformational leadership style and CEO transactional leadership style, the total variation explained by the model as a whole was 21.8%,  $F(6,441) = 21.782$ ,  $p < .001$ . Of the control variables, only organization size ( $b = 0.50$ ,  $\beta = 0.203$ ,  $p < .001$ ) was statistically significant. Transformational leadership style also made a unique statistically significant contribution ( $b = 0.592$ ,  $\beta = 0.495$ ,  $p < .001$ ), whereas transactional leadership style was not statistically significant. Therefore, H2(i) is partially supported.

**Table 10. Regression Results for Leadership Style and Business Performance**

<b>Predictors</b>	<b>Dependent Variables</b>		
	<b>Comparative Performance</b>	<b>Employee Commitment</b>	<b>Employee Job Satisfaction</b>
Transactional	-0.098	-0.005	0.062
Transformational	0.592**	0.719**	0.654**
<i>Organization Size</i>	0.050**	0.005	0.008
<i>Company Age</i>	-0.016	0.000	-0.005
<i>CEO Company Experience</i>	0.004	-0.006	-0.001
<i>CEO Tenure</i>	0.020	0.012	0.003
<i>Control Variables Adjusted R<sup>2</sup></i>	0.036**	0.001	0.011
<i>Model Adjusted R<sup>2</sup></i>	0.218**	0.374**	0.392**

Note. \*  $p < .05$ . \*\*  $p < .01$ .  $n = 448$ .

Hierarchical multiple regression was used to assess the ability of the CEO transformational leadership style and CEO transactional leadership style to predict employee commitment, after controlling for the control variables. Using the adjusted  $R^2$  (Table 10), the control variables explained 0.1% of the variance in employee commitment, and with the inclusion of CEO transformational leadership style and CEO transactional leadership style, the total variation explained by the model as a whole was 37.4%,  $F(6,441) = 45.425$ ,  $p < .001$ . None of the control variables were statistically significant. Transformational leadership style made a unique statistically significant contribution ( $b = 0.719$ ,  $\beta = 0.625$ ,  $p < .001$ ), whereas transactional leadership style was not statistically significant. Therefore, H2(ii) is partially supported.

Hierarchical multiple regression was used to assess the ability of the CEO transformational leadership style and CEO transactional leadership style to predict employee job satisfaction, after controlling for the control variables. Using the adjusted  $R^2$  (Table 10), the control variables explained 1.1% of the variance in employee job satisfaction, and with the

inclusion of CEO transformational leadership style and CEO transactional leadership style, the total variation explained by the model as a whole was 39.2%,  $F(6,441) = 49.040, p < .001$ . None of the control variables were statistically significant. Transformational leadership style made a unique statistically significant contribution ( $b = 0.654, \beta = 0.586, p < .001$ ), whereas transactional leadership style was not statistically significant. Therefore, H2(iii) is partially supported. As a whole, H2 is partially supported.

An independent sample *t*-test was conducted to evaluate the hypotheses that organizations with divisional structures, functional structures, and matrix structures differ significantly from one another in their innovativeness. The mean innovativeness scores for the different organization structure types are listed in Table 11.

**Table 11. Mean and Standard Deviation of Innovativeness for the Different Organizational Structure Types (ALL)**

<b>Construct</b>	<b>Organizational Structure</b>	<b><i>N</i></b>	<b>Mean</b>	<b><i>SD</i></b>
<b>Organizational Innovativeness</b>	Functional	245	<b>4.0047</b>	0.7749
	Divisional	90	<b>3.9952</b>	0.8078
	Matrix	110	<b>3.9810</b>	0.8728

*Note.*  $n = 445$ .

The results of the *t*-tests for Hypothesis 3a-c are presented in the paragraphs below.

The organizational innovativeness score of functional organizations ( $M = 4.045, SD = 0.7749$ ) was not statistically significantly different ( $t = 0.098, df = 333, \text{two-tailed } p = .922$ ) from that of divisional organizations ( $M = 3.995, SD = 0.8078$ ). The magnitude of the differences in the means (mean difference = 0.009, 95% CI [-0.18, 0.20]) was very small (eta squared = 0.00003) according to Cohen's (1988, pp. 284–7) terms. Based on these results, H3a is not supported.



The organizational innovativeness score of divisional organizations ( $M = 3.995$ ,  $SD = 0.8078$ ) was not statistically significantly different ( $t = 0.119$ ,  $df = 198$ , two-tailed  $p = .905$ ) from that of matrix organizations ( $M = 3.981$ ,  $SD = 0.8723$ ). The magnitude of the differences in the means (mean difference = 0.014, 95% CI [-0.22, 0.25]) was very small (eta squared = 0.00007). Based on these results, H3b is not supported.

The organizational innovativeness score of functional organizations ( $M = 4.045$ ,  $SD = 0.7749$ ) was not statistically significantly different ( $t = 0.256$ ,  $df = 353$ , two-tailed  $p = .798$ ) from that of matrix organizations ( $M = 3.981$ ,  $SD = 0.8723$ ). The magnitude of the differences in the means (mean difference = 0.023, 95% CI [-0.16, 0.21]) was very small (eta squared = 0.00019). Based on these results, H3c is not supported.

Tests and analysis were performed of organizational innovativeness comparison between functional, divisional, and matrix organizational structure types for the organizations with fewer than 1,000 employees, as well as for the organizational with more than 1,000 employees. The results also showed no statistically significant difference in organizational innovativeness exists amongst organizations with functional, division, and matrix organizational structures with fewer than 1,000 employees, and similarly for organizations with more than 1,000 employees.

The organizational structure type (comprising functional, divisional, and matrix structures) was the nominal variable, which I converted to dummy variables and used in a regression analysis. A standard multiple regression was performed between company innovativeness as the dependent variable and the dummy variables for functional, divisional, and matrix organizational structure types as the independent variables. Using the  $R^2$ , the total variation explained by the model was 0%,  $F(2,445) = 0.024$ , n.s. None of the organizational structure dummy variables were statistically significant, therefore, H3d is not supported. I

performed similar tests and analysis to ascertain how well organizational structure predicts organizational innovativeness for organizations with fewer than 1,000 employees, as well as for organizations with more than 1,000 employees; similarly, none of the organizational structure dummy variables were statistically significant.

An independent sample *t*-test was conducted to evaluate the hypothesis that organizations with divisional structures, functional structures, and matrix structures differ significantly from one another in their business performance. The constructs used to measure business performance are (a) comparative performance, (b) employee commitment, and (c) employee job satisfaction. The mean comparative performance, employee commitment, and job satisfaction scores for the different organization structure types are listed in Table 12.

**Table 12. Mean and Standard Deviation of Business Performance for the Different Organizational Structure Types (ALL)**

<b>Construct</b>	<b>Organizational Structure</b>	<b><i>N</i></b>	<b>Mean</b>	<b><i>SD</i></b>
<b>Comparative Performance</b>	Functional	245	<b>3.910</b>	0.939
	Divisional	90	<b>3.820</b>	0.902
	Matrix	110	<b>4.040</b>	1.004
<b>Employee Commitment</b>	Functional	245	<b>4.128</b>	0.900
	Divisional	90	<b>4.094</b>	0.992
	Matrix	110	<b>4.109</b>	0.903
<b>Employee Job Satisfaction</b>	Functional	245	<b>3.994</b>	0.871
	Divisional	90	<b>4.027</b>	0.939
	Matrix	110	<b>4.013</b>	0.909

*Note.* *n* = 445.

The results of the *t*-tests for Hypothesis 4a–c are presented in the paragraphs below.

The comparative performance score of functional organizations ( $M = 3.910$ ,  $SD = 0.939$ ) was not statistically significantly different ( $t = 0.803$ ,  $df = 333$ , two-tailed  $p = .423$ ) from that of divisional organizations ( $M = 3.820$ ,  $SD = 0.902$ ). The magnitude of the differences in the means (mean difference = 0.092, 95% CI [-0.13, 0.32]) was very small (eta squared = 0.00193) according to Cohen's (1988, pp. 284–7) terms. Based on these results, H4a(i) is not supported.

The comparative performance score of divisional organizations ( $M = 3.820$ ,  $SD = 0.902$ ) was not statistically significantly different ( $t = -1.567$ ,  $df = 198$ , two-tailed  $p = .119$ ) from that of matrix organizations ( $M = 4.040$ ,  $SD = 1.004$ ). The magnitude of the differences in the means (mean difference = -0.214, 95% CI [-0.48, 0.06]) was small (eta squared = 0.01225). Based on these results, H4b(i) is not supported.

The comparative performance score of functional organizations ( $M = 3.910$ ,  $SD = 0.939$ ) was not statistically significantly different ( $t = -1.108$ ,  $df = 353$ , two-tailed  $p = .268$ ) from that of matrix organizations ( $M = 4.040$ ,  $SD = 1.004$ ). The magnitude of the differences in the means (mean difference = -0.122, 95% CI [-0.34 to 0.10]) was very small (eta squared = 0.00347). Based on these results, H4c(i) is not supported.

I performed similar tests and analysis to compare the comparative performance of the different organizational structure types for the organizations with fewer than 1,000 employees, as well as for the organizational with more than 1,000 employees. The results from Table 12 and Table 13 show that for organizations with fewer than 1000 employees, the matrix organizational structure delivers more performance than the divisional organizational structure; none of the other comparisons were statistically significantly different.

**Table 13. *P*-value Results of Comparative Performance Score for Different Organization Sizes**

<b>Construct</b>	<b>Comparison</b>	<b>Organizational Size (employee count)</b>	<b>Sig. (2-tailed)</b>
<b>Comparative Performance</b>	Functional vs. Divisional	ALL	0.423
		< 1,000	0.373
		1,000+	0.537
	Divisional vs. Matrix	ALL	0.119
		< 1,000	<b>0.040*</b>
		1,000+	0.989
	Functional vs. Matrix	ALL	0.268
		< 1,000	0.100
		1,000+	0.541

The employee commitment score of functional organizations ( $M = 4.128$ ,  $SD = 0.900$ ) was not statistically significantly different ( $t = 0.290$ ,  $df = 333$ , two-tailed  $p = .772$ ) from that of divisional organizations ( $M = 4.094$ ,  $SD = 0.992$ ). The magnitude of the differences in the means (mean difference = 0.033, 95% CI [and -0.19, 0.26]) was very small (eta squared = 0.00025) according to Cohen's (1988, pp. 284–7) terms. Based on these results, H4a(ii) is not supported. The employee commitment score of divisional organizations ( $M = 4.094$ ,  $SD = 0.992$ ) was not statistically significantly different ( $t = -0.109$ ,  $df = 198$ , two-tailed  $p = 0.913$ ) from that of matrix organizations ( $M = 4.109$ ,  $SD = 0.903$ ). The magnitude of the differences in the means (mean difference = -0.015, 95% CI [-0.28, 0.25]) was very small (eta squared = 0.00006). Based on these results, H4b(ii) is not supported. The employee commitment score of functional organizations ( $M = 4.128$ ,  $SD = 0.900$ ) was not statistically significantly different ( $t = 0.179$ ,  $df = 353$ , two-tailed  $p = .858$ ) from that of matrix organizations ( $M = 4.109$ ,  $SD = 0.903$ ). The magnitude of the differences in the means (mean difference = 0.018, 95% CI [-0.18, 0.22]) was very small (eta squared = 0.00009). Based on these results, H4c(ii) is not supported. I performed

similar tests and analysis to compare the employee commitment of the different organizational structure types for organizations with fewer than 1,000 employees, as well as for organizations with more than 1,000 employees. The results from all the comparisons were not statistically significantly different.

The employee job satisfaction score of functional organizations ( $M = 3.994$ ,  $SD = 0.871$ ) was not statistically significantly different ( $t = -0.303$ ,  $df = 333$ , two-tailed  $p = .762$ ) from that of divisional organizations ( $M = 4.027$ ,  $SD = 0.939$ ). The magnitude of the differences in the means (mean difference =  $-0.033$ , 95% CI [ $-0.25$ ,  $0.18$ ]) was very small (eta squared =  $0.00028$ ) according to Cohen's (1988, pp. 284–7) terms. Based on these results, H4a(iii) is not supported. The employee job satisfaction score of divisional organizations ( $M = 4.027$ ,  $SD = 0.939$ ) was not statistically significantly different ( $t = 0.106$ ,  $df = 198$ , two-tailed  $p = .915$ ) from that of matrix organizations ( $M = 4.013$ ,  $SD = 0.909$ ). The magnitude of the differences in the means (mean difference =  $0.014$ , 95% CI [ $-0.24$ ,  $0.27$ ]) was very small (eta squared =  $0.00006$ ). Based on these results, H4b(iii) is not supported. The employee job satisfaction score of functional organizations ( $M = 3.994$ ,  $SD = 0.871$ ) was not statistically significantly different ( $t = -0.190$ ,  $df = 353$ , two-tailed  $p = .849$ ) from that of matrix organizations ( $M = 4.013$ ,  $SD = 0.909$ ). The magnitude of the differences in the means (mean difference =  $-0.019$ , 95% CI [ $-0.22$ ,  $0.18$ ]) was very small (eta squared =  $0.00010$ ). Based on these results, H4c(iii) is not supported. I performed similar tests and analysis to compare the employee job satisfaction of the different organizational structure types for organizations with fewer than 1,000 employees, as well as for organizations with more than 1,000 employees. The results from all the comparisons were not statistically significantly different.

The organizational structure type (comprising functional, divisional, and matrix structures) was a nominal variable that I converted to dummy variables and used in a regression analysis. A standard multiple regression was performed between business performance (using the comparative performance score) as the dependent variable and the dummy variables for functional, divisional, and matrix organizational structure types as the independent variables. Using the  $R^2$ , the total variation explained by the model was 0.6%,  $F(2,445) = 1.347$ , n.s. None of the organizational structure dummy variables were statistically significant; therefore, H4d(i) is not supported. I performed similar tests and analysis to ascertain how well organizational structure predicts business performance for organizations with fewer than 1,000 employees, as well as for organizations with more than 1,000 employees. The results showed that for organizations with fewer than 1000 employees, when referencing against divisional structure, the model explained 1% (adjusted  $R^2$ ) of business performance,  $F(2,313) = 2.609$ ,  $p = .075$ , with the matrix organizational structure ( $b = 0.357$ ,  $\beta = 0.164$ ,  $p < .05$ ) being a predictor of business performance, whereas functional organizational structure was not statistically significant. A standard multiple regression was performed between employee commitment as the dependent variable and the dummy variables for functional, divisional, and matrix organizational structure types as the independent variables. Using the  $R^2$ , the total variation explained by the model was 0%,  $F(2,445) = 0.056$ , n.s. None of the organizational structure dummy variables were statistically significant; therefore, H4d(ii) is not supported. I performed similar tests and analysis to ascertain how well organizational structure predicts employee commitment for organizations with fewer than 1,000 employees, as well as for organizations with more than 1,000 employees. Similarly, none of the organizational structure dummy variables was statistically significant. A standard multiple regression was performed between employee job satisfaction as the dependent

variable and the dummy variables for functional, divisional, and matrix organizational structure types as the independent variables. Using the  $R^2$ , the total variation explained by the model was 0%,  $F(2,445) = 0.060$ , n.s. None of the organizational structure dummy variables were statistically significant; therefore, H4d(iii) is not supported. I performed similar tests and analysis to ascertain how well organizational structure predicts employee job satisfaction for organizations with fewer than 1,000 employees, as well as for organizations with more than 1,000 employees. Similarly, none of the organizational structure dummy variables were statistically significant.

For organizations with the functional organizational structure, hierarchical multiple regression was used to assess the ability of the CEO transformational leadership style and CEO transactional leadership style to predict organizational innovativeness, after controlling for the control variables. The control variables explained 5.2% of the variance in organizational innovativeness, and with the inclusion of CEO transformational leadership style and CEO transactional leadership style, the total variation explained by the model as a whole was 56.9%,  $F(6,238) = 54.716$ ,  $p < .001$ . Of the control variables, organization size ( $b = 0.021$ ,  $\beta = 0.009$ ,  $p < .05$ ), company age ( $b = -0.028$ ,  $\beta = -0.050$ ,  $p < .01$ ), and CEO tenure ( $b = 0.031$ ,  $\beta = 0.164$ ,  $p < .05$ ) were statistically significant. Transformational leadership style also made a unique statistically significant contribution ( $b = 0.658$ ,  $\beta = 0.662$ ,  $p < .001$ ), while transactional leadership style was not statistically significant. Therefore, H5a is not supported (see Table 14).

**Table 14. Regression Results for Leadership Style and Innovativeness for Functional Organizations**

<b>Organization Structure Type</b>	<b>Predictors</b>	<b>Dependent Variable</b>
		<b>Organizational Innovativeness</b>
<b>Functional</b>	Transactional	0.093
	Transformational	0.658**
	<i>Organization Size</i>	0.021*
	<i>Company Age</i>	-0.028*
	<i>CEO Company Experience</i>	-0.009
	<i>CEO Tenure</i>	0.031*
	<i>Control Variables Adjusted</i>	0.052**
	<i>R<sup>2</sup></i>	
	Model Adjusted <i>R<sup>2</sup></i>	0.569**

*Note.* Tabled values are unstandardized regression (*b*) coefficients.

\**p* < .05. \*\**p* < .01. *n* = 245.

For organizations with the divisional organizational structure, hierarchical multiple regression was used to assess the ability of the CEO transformational leadership style and CEO transactional leadership style to predict organizational innovativeness, after controlling for the control variables. The control variables explained 2% of the variance in organizational innovativeness, and with the inclusion of CEO transformational leadership style and CEO transactional leadership style, the total variation explained by the model as a whole was 44.6%,  $F(6,83) = 12.936, p < .001$ . None of the control variables were statistically significant. Transformational leadership style made a unique statistically significant contribution ( $b = 0.676$ ,  $\beta = 0.629, p < .001$ ), whereas transactional leadership style was not statistically significant. Therefore, H5b is supported (see Table 15).



**Table 15. Regression Results for Leadership Style and Innovativeness for Divisional Organizations**

<b>Organization Structure Type</b>	<b>Predictors</b>	<b>Dependent Variable</b>
		<b>Organizational Innovativeness</b>
<b>Divisional</b>	Transactional	0.054
	Transformational	0.676**
	<i>Organization Size</i>	-0.001
	<i>Company Age</i>	-0.010
	<i>CEO Company Experience</i>	0.023
	<i>CEO Tenure</i>	-0.036
	<i>Control Variables Adjusted</i>	0.020
	<i>R<sup>2</sup></i>	
	<i>Model Adjusted R<sup>2</sup></i>	0.446**

*Note.* Tabled values are unstandardized regression (*b*) coefficients.

\**p* < .05. \*\**p* < .01. *n* = 90.

For organizations with the matrix organizational structure, hierarchical multiple regression was used to assess the ability of the CEO transformational leadership style and CEO transactional leadership style to predict organizational innovativeness, after controlling for the control variables. The control variables explained 1.5% of the variance in organizational innovativeness, and with the inclusion of CEO transformational leadership style and CEO transactional leadership style, the total variation explained by the model as a whole was 59.7%,  $F(6,103) = 27.862, p < .001$ . None of the control variables were statistically significant. Transformational leadership style made a unique statistically significant contribution ( $b = 0.869$ ,  $\beta = 0.884, p < .001$ ), whereas transactional leadership style was not statistically significant. Therefore, H5c is not supported (see Table 16).

**Table 16. Regression Results for Leadership Style and Innovativeness for Matrix Organizations**

<b>Organization Structure Type</b>	<b>Predictors</b>	<b>Dependent Variable</b>
		<b>Organizational Innovativeness</b>
<b>Matrix</b>	Transactional	-0.106
	Transformational	0.869**
	<i>Organization Size</i>	0.017
	<i>Company Age</i>	-0.007
	<i>CEO Company Experience</i>	-0.008
	<i>CEO Tenure</i>	0.027
	<i>Control Variables Adjusted R<sup>2</sup></i>	-0.015
	<i>Model Adjusted R<sup>2</sup></i>	0.597**

*Note.* Tabled values are unstandardized regression (*b*) coefficients.

\**p* < .05. \*\**p* < .01. *n* = 104.

For organizations with the functional organizational structure, hierarchical multiple regression was used to assess the ability of the CEO transformational leadership style and CEO transactional leadership style to predict business performance (using the comparative performance score), after controlling for the control variables. Using the adjusted R<sup>2</sup> (Table 17), the control variables explained 6.8% of the variance in business performance, and with the inclusion of CEO transformational leadership style and CEO transactional leadership style, the total variation explained by the model as a whole was 17.9%,  $F(6,238) = 9.839, p < .001$ . Of the control variables, only company size ( $b = 0.059, \beta = 0.254, p < .001$ ) was statistically significant. Transformational leadership style also made a unique statistically significant contribution ( $b = 0.506, \beta = 0.420, p < .001$ ), whereas transactional leadership style was not statistically significant. Therefore, H6a(i) is not supported.

**Table 17. Regression Results for Leadership Style and Business Performance for Functional Organizations**

Organization Structure Type	Predictors	Dependent Variables		
		Comparative Performance	Employee Commitment	Employee Job Satisfaction
Functional	Transactional	-0.128	-0.002	0.102
	Transformational	0.506**	0.713**	0.599**
	<i>Organization Size</i>	0.059**	0.002	0.007
	<i>Company Age</i>	-0.015	-0.002	-0.017
	<i>CEO Company Experience</i>	0.033	-0.011	0.009
	<i>CEO Tenure</i>	-0.015	0.030	0.000
	<i>Control Variables</i>	0.068**	-0.005	0.017
	<i>Adjusted R<sup>2</sup></i>			
	<i>Model Adjusted R<sup>2</sup></i>	0.179**	0.356**	0.368**

Note. Tabled values are unstandardized regression (*b*) coefficients.

\* $p < .05$ . \*\* $p < .01$ .  $n = 245$ .

For organizations with the functional organizational structure, hierarchical multiple regression was used to assess the ability of the CEO transformational leadership style and CEO transactional leadership style to predict employee commitment, after controlling for the control variables. Using the adjusted  $R^2$  (Table 17), the control variables explained 0.5% of the variance in employee commitment, and with the inclusion of CEO transformational leadership style and CEO transactional leadership style, the total variation explained by the model as a whole was 35.6%,  $F(6,238) = 23.486$ ,  $p < .001$ . None of the control variables were statistically significant. Transformational leadership style made a unique statistically significant contribution ( $b = 0.713$ ,  $\beta = 0.617$ ,  $p < .001$ ), whereas transactional leadership style was not statistically significant. Therefore, H6a(ii) is not supported.

For organizations with the functional organizational structure, hierarchical multiple regression was used to assess the ability of the CEO transformational leadership style and CEO transactional leadership style to predict employee job satisfaction, after controlling for the control variables. Using the adjusted  $R^2$  (Table 17), the control variables explained 1.7% of the variance in employee job satisfaction, and with the inclusion of CEO transformational leadership style and CEO transactional leadership style, the total variation explained by the model as a whole was 36.8%,  $F(6,238) = 24.685, p < .001$ . None of the control variables were statistically significant. Transformational leadership style made a unique statistically significant contribution ( $b = 0.599, \beta = 0.536, p < .001$ ), whereas transactional leadership style was not statistically significant. Therefore, H6a(iii) is not supported.

For organizations with the divisional organizational structure, hierarchical multiple regression was used to assess the ability of the CEO transformational leadership style and CEO transactional leadership style to predict business performance (using the comparative performance score), after controlling for the control variables. Using the adjusted  $R^2$  (Table 18), the control variables explained 3.4% of the variance in business performance, and with the inclusion of CEO transformational leadership style and CEO transactional leadership style, the total variation explained by the model as a whole was 24.1%,  $F(6,83) = 5.720, p < .001$ . Of the control variables, only company size ( $b = 0.059, \beta = 0.233, p < .05$ ) was statistically significant. Transformational leadership style also made a unique statistically significant contribution ( $b = 0.601, \beta = 0.498, p < .001$ ), whereas transactional leadership style was not statistically significant. Therefore, H6b(i) is supported.

**Table 18. Regression Results for Leadership Style and Business Performance for Divisional Organizations**

Organization Structure Type	Predictors	Dependent Variables		
		Comparative Performance	Employee Commitment	Employee Job Satisfaction
Divisional	Transactional	-0.045	0.003	-0.025
	Transformational	0.601**	0.693**	0.775**
	<i>Organization Size</i>	0.059*	-0.010	-0.009
	<i>Company Age</i>	-0.029	0.003	0.002
	<i>CEO Company Experience</i>	-0.036	-0.007	-0.013
	<i>CEO Tenure</i>	0.068	-0.036	-0.006
	<i>Control Variables</i>	0.034	0.032	-0.004
	<i>Adjusted R<sup>2</sup></i>			
	<i>Model Adjusted R<sup>2</sup></i>	0.241**	0.293**	0.351**

Note. Tabled values are unstandardized regression (*b*) coefficients.

\*  $p < .05$ . \*\*  $p < .01$ .  $n = 90$ .

For organizations with only the divisional organizational structure, hierarchical multiple regression was used to assess the ability of the CEO transformational leadership style and CEO transactional leadership style to predict employee commitment, after controlling for the control variables. Using the adjusted  $R^2$  (Table 18), the control variables explained 3.2% of the variance in employee commitment, and with the inclusion of CEO transformational leadership style and CEO transactional leadership style, the total variation explained by the model as a whole was 29.3%,  $F(6,83) = 7.148$ ,  $p < .001$ . None of the control variables were statistically significant. Transformational leadership style made a unique statistically significant contribution ( $b = 0.693$ ,  $\beta = 0.525$ ,  $p < .001$ ), while transactional leadership style was not statistically significant. Therefore, H6b(ii) is supported.

For organizations with the divisional organizational structure, hierarchical multiple regression was used to assess the ability of the CEO transformational leadership style and CEO transactional leadership style to predict employee job satisfaction, after controlling for the control variables. Using the adjusted  $R^2$  (Table 18), the control variables explained 0.4% of the variance in employee job satisfaction, and with the inclusion of CEO transformational leadership style and CEO transactional leadership style, the total variation explained by the model as a whole was 35.1%,  $F(6,83) = 9.020, p < .001$ . None of the control variables were statistically significant. Transformational leadership style made a unique statistically significant contribution ( $b = 0.775, \beta = 0.620, p < .001$ ), while transactional leadership style was not statistically significant. Therefore, H6b(iii) is supported.

For organizations with the matrix organizational structure, hierarchical multiple regression was used to assess the ability of the CEO transformational leadership style and CEO transactional leadership style to predict business performance (using the comparative performance score), after controlling for the control variables. Using the adjusted  $R^2$  (Table 19), the control variables explained 3% of the variance in business performance, and with the inclusion of CEO transformational leadership style and CEO transactional leadership style, the total variation explained by the model as a whole was 29.1%,  $F(6,103) = 8.455, p < .001$ . None of the control variables were statistically significant. Transformational leadership style made a unique statistically significant contribution ( $b = 0.759, \beta = 0.671, p < .001$ ), while transactional leadership style was not statistically significant. Therefore, H6c(i) is not supported.

**Table 19. Regression Results for Leadership Style and Business Performance for Matrix Organizations**

Organization Structure Type	Predictors	Dependent Variables		
		Comparative Performance	Employee Commitment	Employee Job Satisfaction
Matrix	Transactional	-0.123	-0.064	0.058
	Transformational	0.759**	0.788**	0.670**
	<i>Organization Size</i>	0.027	0.041*	0.027
	<i>Company Age</i>	-0.012	0.005	0.011
	<i>CEO Company Experience</i>	-0.017	0.002	-0.008
	<i>CEO Tenure</i>	0.042	0.015	0.011
	<i>Control Variables</i>	-0.030	0.002	-0.009
	<i>Adjusted R<sup>2</sup></i>			
	<i>Model Adjusted R<sup>2</sup></i>	0.291**	0.500**	0.449**

Note. Tabled values are unstandardized regression (b) coefficients.

\*  $p < .05$ . \*\*  $p < .01$ .  $n = 110$ .

For organizations with the matrix organizational structure, hierarchical multiple regression was used to assess the ability of the CEO transformational leadership style and CEO transactional leadership style to predict employee commitment, after controlling for the control variables. Using the adjusted  $R^2$  (Table 19), the control variables explained 0.2% of the variance in employee commitment, and with the inclusion of CEO transformational leadership style and CEO transactional leadership style, the total variation explained by the model as a whole was 50%,  $F(6,103) = 19.197, p < .001$ . Of the control variables, only company size ( $b = 0.041$ ,  $\beta = 0.169, p < .05$ ) was statistically significant. Transformational leadership style also made a unique statistically significant contribution ( $b = 0.788$ ,  $\beta = 0.775, p < .001$ ), while transactional leadership style was not statistically significant. Therefore, H6c(ii) is not supported.

For organizations with the matrix organizational structure, hierarchical multiple regression was used to assess the ability of the CEO transformational leadership style and CEO transactional leadership style to predict employee job satisfaction, after controlling for the control variables. Using the adjusted  $R^2$  (Table 19), the control variables explained 0.9% of the variance in employee job satisfaction, and with the inclusion of CEO transformational leadership style and CEO transactional leadership style, the total variation explained by the model as a whole was 44.9%,  $F(6,103) = 15.918, p < .001$ . None of the control variables were statistically significant. Transformational leadership style made a unique statistically significant contribution ( $b = 0.670, \beta = 0.655, p < .001$ ), while transactional leadership style was not statistically significant. Therefore, H6c(iii) is not supported.

As presented in Table 5, I found a medium positive correlation between organizational innovativeness and business performance (measured using comparative performance score;  $r = 0.429; p < .01$ ); thus H7(i) is supported. I also found a high positive correlation between organizational innovativeness and employee commitment ( $r = 0.752, p < .001$ ); thus, H7(ii) is also supported. Finally, there was a high positive correlation between organizational innovativeness and employee job satisfaction ( $r = 0.793, p < .001$ ); thus, H7(iii) is supported. Tables 6–8 had already shown that, for the different organizational structure types (functional, divisional, and matrix structure), organizational innovativeness had a medium to high correlation with comparative performance, employee commitment, and employee job satisfaction.



**Table 20. Hypotheses and Results Summary**

<b>Hypotheses</b>	<b>Claim</b>	<b>Claim supported?</b>	<b>Hypothesis supported?</b>
H1	Transactional → Innovativeness	No	Partially
	Transformational → Innovativeness	Yes	
H2	Transactional → Performance	Comparative – No Commitment – No Job Satisfaction – No	Partially
	Transformational → Performance	Comparative – Yes Commitment – Yes Job Satisfaction – Yes	
H3a	Innovativeness: Divisional > Functional	No	Not supported
H3b	Innovativeness: Divisional > Matrix	No	Not supported
H3c	Innovativeness: Matrix > Functional	No	Not supported
H3d	Organizational Structure → Innovativeness	No	Not supported
H4a	Comparative: Divisional > Functional	No	Not supported
	Job Satisfaction: Divisional > Functional	No	
H4b	Commitment: Divisional > Functional	No	Not supported
	Comparative: Divisional > Matrix	No*	
H4c	Commitment: Divisional > Matrix	No	Not supported
	Job Satisfaction: Divisional > Matrix	No	
H4d	Comparative: Matrix > Functional	No	Not supported
	Commitment: Matrix > Functional	No	
H4e	Job Satisfaction: Matrix > Functional	No	Not supported
	Organizational Structure → Performance	Comparative – No Commitment – No Job Satisfaction – No	
H5a	Functional: Transactional > Transformational	Innovativeness – No	Not supported
H5b	Divisional: Transformational > Transactional	Innovativeness – Yes	Supported
H5c	Matrix: Transactional > Transformational	Innovativeness – No	Not supported
H6a	Functional: Transactional > Transformational	Comparative – No Commitment – No Job Satisfaction – No	Not supported
	Divisional: Transformational > Transactional	Comparative – Yes Commitment – Yes Job Satisfaction – Yes	
H6b	Matrix: Transactional > Transformational	Comparative – No Commitment – No Job Satisfaction – No	Not supported
H6c	Organizational Structure → Performance	Yes	Supported

*Note.* For organizations with less than 1000 employees, the matrix structure delivered a better comparative performance than the divisional structure.

## V.1. Defining the Empirical Model

Hierarchical multiple regression was used to assess the ability of the CEO transformational leadership style, CEO transactional leadership style, and organizational structure (converted to the dummy variables for functional, divisional, and matrix organizational structure types) to predict organizational innovativeness, after controlling for the control variables. Using the adjusted  $R^2$  (Table 21), the control variables explained 1.1% of the variance in organizational innovativeness, and with the inclusion of CEO transformational leadership style, CEO transactional leadership style and the dummy variable for organizational structure, the total variation explained by the model as a whole was 54.6%,  $F(8,439) = 68.079$ ,  $p < .001$ . None of the control variables were statistically significant. Transformational leadership style made a unique statistically significant contribution ( $b = 0.696$ ,  $\beta = 0.689$ ,  $p < .001$ ), while transactional leadership style and the organizational structure variables were not statistically significant.

**Table 21. Path-Analytic Regression Results of the Entire Model**

<b>Predictors</b>	<b>Dependent Variables</b>			
	<b>Organizational Innovativeness</b>	<b>Comparative Performance</b>	<b>Employee Commitment</b>	<b>Employee Job Satisfaction</b>
Transactional	0.072	-0.071	-0.052	0.015
Transformational	0.696**	0.372**	0.192**	0.090
Functional	0.010	-0.080	-0.010	-0.040
Divisional	-0.001	-0.206	-0.048	-0.006
Matrix	<i>comparative</i>	<i>comparative</i>	<i>comparative</i>	<i>comparative</i>
<i>Organization Size</i>	0.000	0.022*	-0.001	-0.001
<i>Company Age</i>	-0.015	0.002	0.014	0.010
<i>CEO Company Experience</i>	0.001	0.001	-0.006	-0.002
<i>CEO Tenure</i>	0.013	0.011	0.001	-0.009
Organizational Innovativeness	-	0.288**	0.753**	0.804**
<i>Control Variables</i>	0.011	0.005	-0.002	0.005
<i>Adjusted R<sup>2</sup></i>				
Model Adjusted R <sup>2</sup>	0.546**	0.222**	0.568**	0.628**

Note. Tabled values are unstandardized regression (*b*) coefficients.

\*  $p < .05$ . \*\*  $p < .01$ .  $n = 448$ .

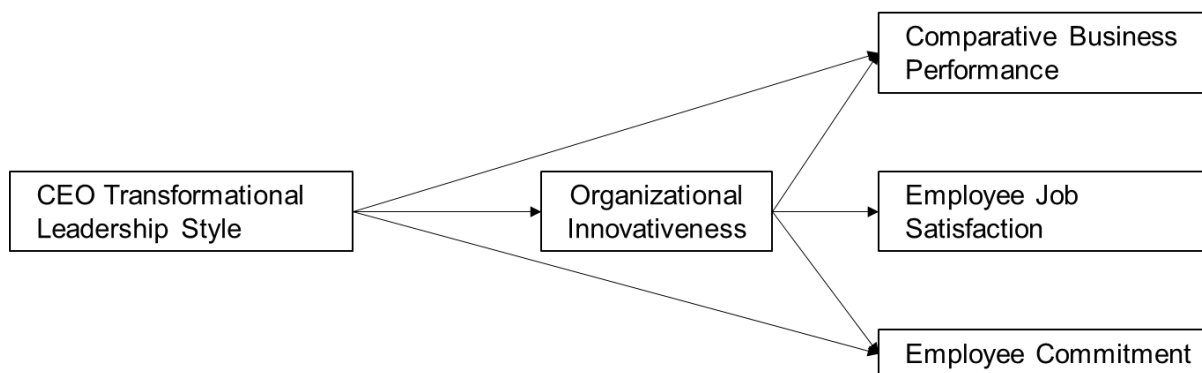
Hierarchical multiple regression was used to assess the ability of the CEO transformational leadership style, CEO transactional leadership style, organizational structure (converted to the dummy variables for functional, divisional, and matrix organizational structure types), and organizational innovativeness to predict (i) comparative business performance, (ii) employee commitment, and (iii) employee job satisfaction, after controlling for the control variables.

The results (as presented in Table 21), show that:

- (i) For comparative business performance (adjusted  $R^2 = 22.2\%$ ,  $F(9,438) = 15.139$ ,  $p < .001$ ): company Size ( $b = 0.022$ ,  $\beta = 0.114$ ,  $p < .05$ ), transformational

- leadership style ( $b = 0.372$ ,  $\beta = 0.311$ ,  $p < .001$ ), and innovativeness ( $b = 0.288$ ,  $\beta = 0.243$ ,  $p < .001$ ) were statistically significant, while other independent variables and control variables were not statistically significant
- (ii) For employee commitment (adjusted  $R^2 = 56.8\%$ ,  $F(9,438) = 66.415$ ,  $p < .001$ ): transformational leadership style ( $b = 0.192$ ,  $\beta = 0.167$ ,  $p < .01$ ) and innovativeness ( $b = 0.753$ ,  $\beta = 0.661$ ,  $p < .001$ ) were statistically significant, while other independent variables and control variables were not statistically significant
- (iii) For employee job satisfaction (adjusted  $R^2 = 62.8\%$ ,  $F(9,438) = 84.903$ ,  $p < .001$ ): Only innovativeness ( $b = 0.804$ ,  $\beta = 0.727$ ,  $p < .001$ ) was statistically significant, while other independent variables and control variables were not statistically significant.

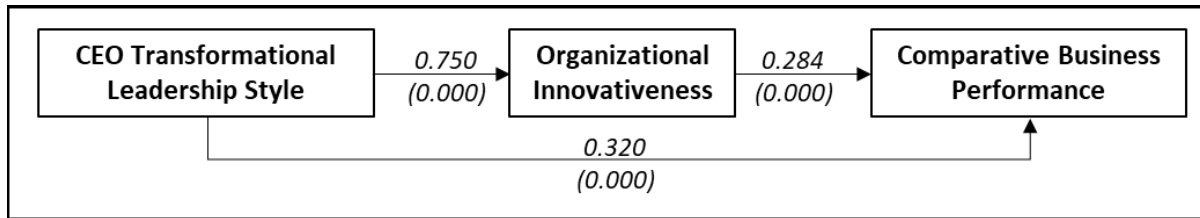
Figure 5 illustrates the empirically supported model for my findings.



**Figure 5. Empirical model showing the relationship between organizational structure, organizational innovativeness and business performance**

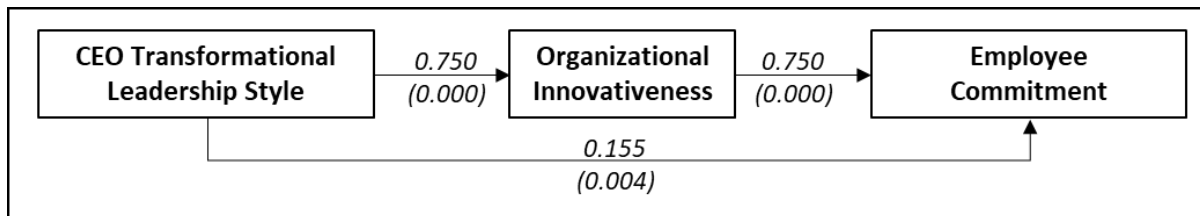
As a final step in my analysis, I analyzed the mediation path between CEO transformational leadership style and each of the business performance dimensions, through

organizational innovativeness. This was done following the steps described by Baron and Kenny (1986). The results (Figures 6–8) demonstrate that organizational innovativeness is only a partial mediator of the relationship between CEO transformational leadership style, and each of the business performance dimensions – comparative business performance, employee commitment, and employee job satisfaction.



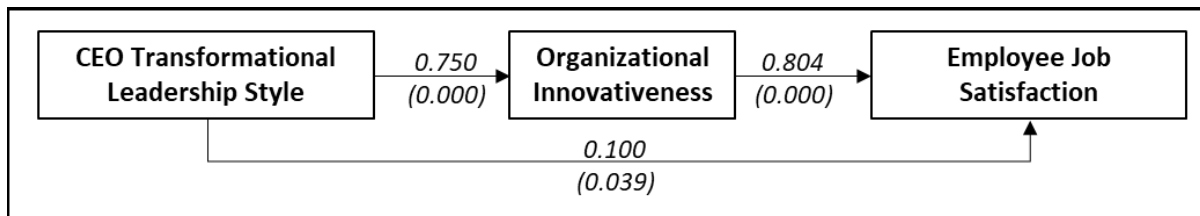
*Note.* The values presented in the models below are the unstandardized regression coefficients (*b*), and *p*-values in brackets

**Figure 6. Mediation path of CEO transformational and comparative performance through organizational innovativeness**



*Note.* The values presented in the models below are the unstandardized regression coefficients (*b*), and *p*-values in brackets

**Figure 7. Mediation path of CEO transformational and employee commitment through organizational innovativeness**



*Note.* The values presented in the models below are the unstandardized regression coefficients (*b*), and *p*-values in brackets

**Figure 8. Mediation path of CEO transformational and employee job satisfaction through organizational innovativeness**

## VI. DISCUSSION

With a focus on the technology companies in the United States of America, this study addressed the research question, “What is the optimal fit between the CEO’s leadership style and the company’s organizational structure, to make companies more innovative and achieve better business performance?” I expected to expand on contingency and congruence theory by empirically establishing leadership style as a contingent factor on organizational structure, and identifying the ideal fits between the respective leadership styles and organizational structure types that enhance innovativeness and business performance.

Generally speaking, the results showed that CEO transformational leadership style is aligned with each of the organizational structure types and thereby leads to improved company innovativeness and business performance. On the other hand, there was no fit between CEO transactional leadership style and any of the organizational structure types to enhance company innovativeness and business performance. In the following sections, I detail the key findings and discuss the implications of the study results.

### VI.1. Key Findings

*Key Finding #1: CEO transactional leadership style is NOT a significant predictor of company innovativeness or business performance*

My findings are consistent with other research findings that transformational leadership style is a predictor of organizational innovativeness, and the findings also supported prior research on the relationship between transformational leadership and the business performance dimensions studied (i.e., comparative performance, employee commitment, and employee job satisfaction. Different prior studies presented conflicting results on the relationship between

transactional leadership style and organizational success factors, with some finding a positive relationship and some others finding a negative relationship; however, my findings were unable to determine whether CEO transactional leadership has an impact on organizational innovativeness and business performance. I therefore conclude that CEO transformational leadership style is a greater predictor of organizational and employee effectiveness than CEO transactional leadership style is.

Implications: As CEOs adopt both transactional and transformational leadership styles, to varying degrees, CEOs who focus on the transactional leadership style may not be able to determine the innovativeness and performance of their organizations. On the other hand, CEOs who continue to apply their transformational leadership capabilities have a better chance of driving the innovativeness and performance of their organizations.

*Key Finding #2: Unable to conclude that organizational structure is a significant predictor of company innovativeness or business performance*

In most scenarios, my results were unable to demonstrate organizational structure as a predictor of organizational innovativeness, comparative performance, employee commitment, and employee job satisfaction. However, for organizations with less than 1000 employees, the results showed that companies with matrix organization structures achieve superior business performance to companies with divisional organizational structures, relative to their competitors. The inability of my results to definitively show that organizational structure has an impact on organizational and employee effectiveness does not mean that organizational structure is not important. Instead, I reached the conclusion that “any organizational structure works.” Provided

that there is a defined way that an organization is structured and coordinated, the organization has a chance to perform. There are a number of possible explanations of why the organizational structure type was not identified as a predictor of organizational innovativeness and business performance. It may be because: (a) the organization design (i.e. what is documented) is very different from what is being practiced in the organization (Ferner, 2000); (b) organizational structures are dynamic, and they evolve (Bate et al., 2000); (c) organizations do not necessarily adopt a 'pure' organizational form (like functional, divisional, and matrix, or (d) that, even where the company has chosen a pure organizational structure form, the employees are not performing the roles assigned to them, due to reasons within or beyond their control. Whatever the reason is, I can conclude that there are other factors at work, beyond organization structure, that determine the effectiveness of employees and organizations.

Implications: CEO or top-management teams of tech organizations in the United States are unable to use organizational structure as a lever to improve organizational innovativeness, comparative performance, employee commitment, and employee job satisfaction.

*Key Finding #3: Transformational leadership style is key to achieving improved company innovativeness and business performance, irrespective of the organizational structure used by the organization*

The primary objective of this study is to identify an organizational structure and leadership style fit that delivers superior customer innovativeness and business performance. The results show that transformational leadership style fits well with each of the organization



structure types (i.e. functional, divisional, or matrix) in the delivery of company innovativeness, comparative performance, employee job satisfaction, and employee commitment.

Implications: Similar to key finding #1, there is certainly some value in CEOs utilizing transactional leadership styles; however if the CEO's objective is to improve innovativeness, comparative performance, employee job satisfaction and employee commitment, the CEO should focus on developing and applying his or her transformational leadership style capabilities.

## **VI.2. Research Contribution and Limitations**

### ***VI.2.1. Contribution to Theory***

Little was known about the interaction between organization structure and leadership style to impact innovativeness and business performance. This study contributed to the body of knowledge by demonstrating that, for all the studied organizational structure types (i.e. functional, divisional, and matrix), CEO transformational leadership style has an impact on innovativeness and business performance when controlling for organization size (i.e. number of employees) and organization age (i.e. number of employees).

Prior research showed differing results (positive and negative) on the impact transactional leadership style on innovativeness and business performance. This study added to the discuss as it was unable to determine whether CEO transactional leadership style has a significant impact on organizational innovativeness, whether positive or negative.

Some prior studies depicted organizational structure as having a positive impact on company effectiveness, while some others showed that there was no relationship. For the technology companies studied in the United States, my results squared with the latter, showing

that neither of the organizational structures predicted organizational innovativeness or business performance; this study was also unable to identify, in general terms, any organizational structure as better than another.

Finally, I presented a model that demonstrates that CEO transformational leadership style is a direct predictor of organizational innovativeness, comparative performance, employee satisfaction, and also has an indirect impact (through organizational innovativeness) on comparative performance, employee job satisfaction, and employee satisfaction. This model, on its own, is not new; its contribution stems from the fact that these relationships held true even when controlling for organization size and organization age.

### ***VI.2.2. Contribution to Practice***

One of the aims of this study was to determine whether any one organizational structure type was better than another. The results, however, did not find that any organizational structure type was better than others. This therefore provides a contribution to executives of technology companies, who previously believed that changing from one organizational structure to other helps improve their organization's innovativeness or organizational effectiveness. Although it is good to have a good structure, there is no need for companies to spend time changing from one organizational structure to another, because the change in itself is disruptive to the business and does not add to its innovativeness and bottom-line

The findings of this research recommend that practitioners, particularly entrepreneurs and business executives, focus on developing their transformational leadership capabilities, instead of their transactional leadership capabilities, if their objective is to improve organizational innovativeness, comparative performance, employee commitment, or employee job satisfaction.

Several studies have shown that the transformational leadership behaviors can be learned (Castiglione, 2006, Russell & Mizrahi, 1995).

### ***VI.2.3. Study Limitations & Recommendations for Future Research***

As with any research, this research has limitations. One such limitation is that the measure used for comparative performance was neither objective nor a validated measure. Knowing that the respondents work with private companies, I concluded that the respondents would be uncomfortable providing financial performance metrics about their organizations, such as revenue, sales volumes, EBITDA (earnings before interest, tax, depreciation, and amortization), or return on total assets (ROTA). For the comparative performance measure, I had initially proposed using *ROTA-change over a 3-year period* to be able to compare companies of varying capital structure, debt structures, and geography; however, it was not favorably received by the test respondents to the survey. Future research can consider targeting organizations with publicly available financial data to achieve a more objective measure for comparative performance.

To obtain additional context about the organizations, future researchers can include more qualitative questions on the survey and possibly do interviews, thereby conducting mixed-method study, which was not this study's approach. Another way to obtain additional contextual or qualitative information is to target specific organizations and obtain information directly from the CEO, as well as from different people in the organization. These approaches may resolve one of the limitations of this study, which was its incapacity to distinguish if the respondent was the CEO or not. It would be valuable to be able to differentiate the responses by level (i.e., separate responses given by CEOs, from responses given by those in top-management positions, and from

responses given by other employees). This separation would enable researchers to evaluate any biases in the responses and consider response scores by level, against the transactional and transformational norms.

An interesting extension of this study may be to evaluate whether transformational leadership style is better in a functional, divisional, or matrix organization. Researchers may also undertake my same research, but on non-tech companies, in other countries, or on smaller or larger organizations.

## VII. APPENDIX

### VII.1. Summarized Survey Instrument

#### About the Company

- Please characterize the form of your organizational structure based on the definitions provided below (Functional: ; Divisional: ; Matrix: ; Other: \_\_\_\_\_).
- In which US State is your company headquartered?
- How many years has the company been in operation since its founding date or date it commenced operations (whichever is more recent)?
- How many employees are employed in this company?

#### Business Performance:

Dimensions: Comparative Performance, Employee Commitment, and Employee Job Satisfaction

#### Comparative Performance

*Options: Far below average – 1; Somewhat below average – 2; Average – 3; Somewhat above average – 4; Far above average – 5*

- How would you rate your company's overall financial performance compared to competition?

#### Employee Commitment - Shoham, Vigoda-Gadot, Ruvio and Schwabsky (2012)

*Options: Strongly Disagree – 1; Somewhat Disagree – 2; Neither Disagree nor Agree – 3; Somewhat Agree – 4; Strongly Agree – 5*

- On the average, employees of the company:
  - Are willing to put in a great deal of effort beyond that normally expected in order to help the organization be successful
  - Talk up this organization to their friends as a great place to work
  - Find that their values and the organization's values are very similar
  - Really care about the fate of this organization

#### Employee Job Satisfaction – Shoham, Vigoda-Gadot, Ruvio and Schwabsky (2012)

*Options: Strongly Disagree – 1; Somewhat Disagree – 2; Neither Disagree nor Agree – 3; Somewhat Agree – 4; Strongly Agree – 5*

- On the average, employees of the company...
  - Are satisfied with their jobs
  - Are satisfied with their supervisors
  - Are satisfied with their co-workers
  - Are satisfied with their pay
  - Are satisfied with their promotion opportunities

#### Organizational Innovativeness - Shoham, Vigoda-Gadot, Ruvio and Schwabsky (2012)

*Options: Strongly Disagree – 1; Somewhat Disagree – 2; Neither Disagree nor Agree – 3; Somewhat Agree – 4; Strongly Agree – 5*

- Creativity:
  - Creativity is encouraged here
  - Managers here expect us to be resourceful problem solvers
  - We are constantly looking to develop and offer new or improved services
  - Our ability to function creatively is respected by the leadership

- We are encouraged to use original approaches when dealing with problems in the workplace
- Openness
  - This organization is always moving toward the development of new answers
  - This organization is open and responsive to changes
  - Assistance in developing new ideas is readily available
  - People here are always searching for fresh, new ways of looking at problems
- Future Orientation – This organization...
  - Establishes a realistic set of future goals for itself
  - Effectively ensures that all managers and employees share the same vision of the future
  - Conveys a clear sense of future direction to employees
  - Has a realistic vision of the future for all departments and employees
- Risk-taking – This organization...
  - Believes that higher risks are worth taking for high payoffs
  - Encourages innovative strategies, knowing well that some will fail
  - Likes to take big risks
  - Does not like to “play it safe”
- Proactiveness
  - We are constantly seeking new opportunities for the organization
  - We take the initiative in an effort to shape the environment to our advantage
  - We are often the first to introduce new services
  - We usually take the initiative by introducing new administrative techniques

#### Competition in the Industry

*Options: Fast Decline - 1, Slow Decline -2; Not Declining / Not Growing - 3; Slow Growth - 4; Fast Growth - 5*

- In your opinion, what is the current direction of growth of your industry

#### About the CEO

- How long has the CEO held the CEO position in your company?
- How long has the CEO been employed in this organization?

#### CEO Leadership Style - MLQ Form 5x-Short (Bass & Avolio, 1995)

*Options: Not at all – 0; Once in a while – 1; Sometimes – 2; Fairly often – 3; Frequently, if not always - 4*

- Our company’s CEO:
  - Talks optimistically about the future.
  - Spends time teaching and coaching.
  - Avoids making decisions

#### Type of tech company

What type of technology company do you work in? Please select all that apply.

- We buy technology for our use
- We consult in technology deployment and usage
- We sell technology (hardware or software) to customers for their use
- We are a technology hosting company
- We provide technology support

- We develop or manufacture technology
  - We provide technology-as-a-service to clients (corporates and consumers)
- (respondents that did not select any of the last 5 options were considered ineligible as I did not feel that they work in the type of technology company that I was interested in for my study)*

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**Multifactor Leadership Questionnaire**

The three sample items only from this instrument as specified below may be included in your thesis or dissertation. Any other use must receive prior written permission from Mind Garden. The entire instrument may not be included or reproduced at any time in any other published material. Please understand that disclosing more than we have authorized will compromise the integrity and value of the test.

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Sample Items:**

As a leader ....

I talk optimistically about the future.  
I spend time teaching and coaching.  
I avoid making decisions.

The person I am rating ....

Talks optimistically about the future.  
Spends time teaching and coaching.  
Avoids making decisions

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**Table A1. Comparing the CEO Leadership Style Scores with US Norms**

<b>Construct</b>	<b>Scales</b>	<b>This Study</b>	<b>US Norm (total)<sup>Φ</sup></b>	<b>US Norm (lower)<sup>Ψ</sup></b>
<b>Transactional Leadership Style</b>	Contingent Reward	2.83	2.87	2.84
	Management-by-Exception: Active	2.28	1.67	1.67
<b>Transformational Leadership Style</b>	Idealized Attributes	2.85	2.94	2.93
	Idealized Behaviors	2.89	2.77	2.73
	Inspirational Motivation	3.11	2.92	2.97
	Intellectual Stimulation	2.73	2.78	2.76
	Individualized Consideration	2.64	2.85	2.78

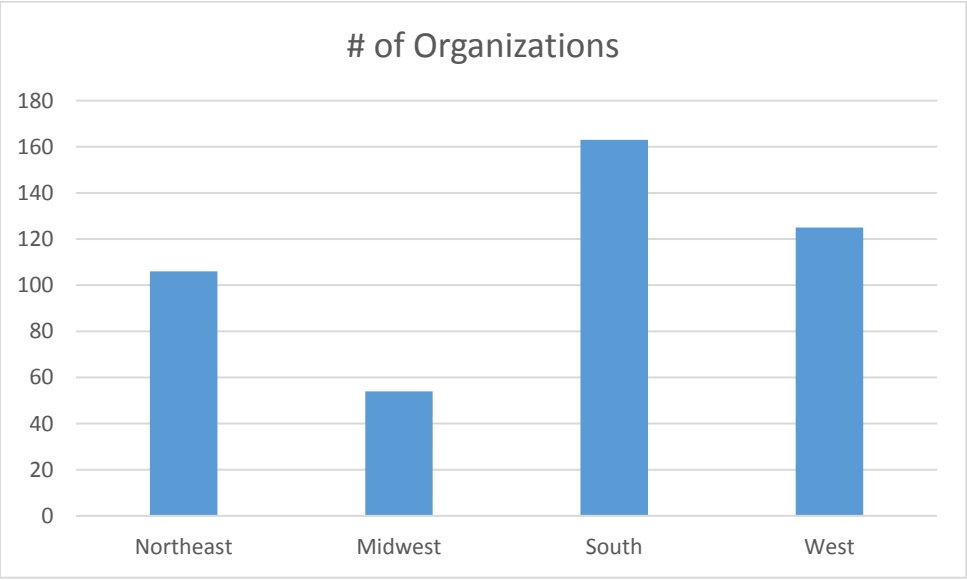
*Note.* The figures in the table show the mean scores of the respondents

<sup>Φ</sup> all the respondents in the sample, including the leader being evaluated and his/her peers, superiors, and subordinates

<sup>Ψ</sup> respondents were junior to the leader being evaluated

Source: Bernard, Bass, B. & Avolio, B. (2002). Table 10a (US) - Descriptive Statistics for MLQ 5X 2004 Normative Sample. Published by Mind Garden, Inc. [www.mindgarden.com](http://www.mindgarden.com)





**Figure A1. Location of the headquarters of the organizations studied**

## References

- Afshari, L., & Gibson, P. (2016). How to increase organizational commitment through transactional leadership. *Leadership & Organization Development Journal*, 37(4), 507-519.
- Ahuja, G., Lampert, C. M., & Tandon, V. (2008). Moving beyond Schumpeter: Management research on the determinants of technological innovation. *The Academy of Management Annals*, 2(1), 1-98.
- Andersen, J. A. & Jonsson, P. (2006). Does organization structure matter? On the relationship between structure, functioning and effectiveness. *International Journal of Innovation and Technology Management*, 3(2), 237-263.
- Ansoff, H. I., & Brandenburg, R. G. (1971). A language for organizational design: Part I-II. *Management Science*, 17(12), B705-731.
- Baligh, H. H., Burton, R. M. & Obel, B. (1996). Organizational consultant: Creating a useable theory for organizational design. *Management Science*, 42(12), 1648-1662.
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173-1182.
- Bass, B. M. (1985). *Leadership and performance beyond expectations*. New York: Free Press.
- Bass, B. M. (1999). Two decades of research and development in transformational leadership. *European Journal of Work and Organizational Psychology*, 8(1), 9-32.
- Bass, B. M., & Avolio, B. J. (1995). *MLQ: Multifactor leadership questionnaire for research*: permission set. Mind Garden.
- Bass, B. M., Avolio, B. J., Jung, D. I., Berson, Y. (2003). Predicting unit performance by assessing transformational and transactional leadership. *Journal of Applied Psychology*, 88(2), 207-218.
- Bate, P., Khan, R., & Pye, Á. (2000). Towards a culturally sensitive approach to organization structuring: Where organization design meets organization development. *Organization Science*, 11(2), 197-211.
- Bettis, R. A. (1981). Performance differences in related and unrelated diversified firms. *Strategic Management Journal*, 2(4), 379-393.
- Blanco-Oliver, A., Veronesi, G., & Kirkpatrick, I. (2018). Board heterogeneity and organisational performance: The mediating effects of line managers and staff satisfaction. *Journal of Business Ethics*, 152(2), 393-407.
- Burton, R.M. & Obel, B. (1998). *Strategic organizational diagnosis and design: Developing theory for application*. Boston, MA: Kluwer Publishers.
- Burton, R. M., Lauridsen, J., & Obel, B. (2002). Return on assets loss from situational and contingency misfits. *Management Science*; 48(11), 1461-1485.
- Castiglione, J. (2006). Organizational learning and transformational leadership in the library environment. *Library Management*, 27(4/5), 289-299.
- Chandler Jr, A. D. (1962). *Strategy and structure: Chapters in the history of american industrial enterprise*. Cambridge, MA.: MIT Press.

- Chen, J. & Chen, I. (2009). An empirical study of the relationships between leader, member, and innovative operation in the high tech industry. *Journal of Organizational Culture, Communications and Conflict*, 13(1), 21-33.
- Chien-Huang, L., Ching-Huai Peng, & Kao, D. T. (2008). The innovativeness effect of market orientation and learning orientation on business performance. *International Journal of Manpower*, 29(8), 752-772.
- Clinebell, S., Skudiene, V., Trijonyte, R., & Reardon, J. (2013). Impact of leadership styles on employee organizational commitment. *Journal of Service Science*, 6(1), 139-152.
- Cohen, J. W. (1988). *Statistical power analysis for the behavioral sciences (2nd ed.)*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Colbert, A. E., Barrick, M. R., & Bradley, B. H. (2014). Personality and leadership composition in top management teams: Implications for organizational effectiveness. *Personnel Psychology*, 67(1), 351-387.
- Dedahanov, A. T., Rhee, C., & Yoon, J. (2017). Organizational structure and innovation performance. *Career Development International*, 22(4), 334-350.
- Dhillon, I., & Gupta, S. (2015). Organizational restructuring and collaborative creativity: The case of Microsoft and Sony. *The IUP Journal of Business Strategy*, 12(1), 53-65.
- Donaldson, L. (2001). *The contingency theory of organizations*. Thousand Oaks, CA: Sage Publications.
- Drazin, R., & Van de Ven, A. H. (1985). Alternative forms of fit in contingency theory. *Administrative Science Quarterly*, 30(4), 514-539.
- DuBrin, A.J. (2016). *Leadership: Research findings, practice, and skills (8<sup>th</sup> ed.)*. Boston, MA.: Cengage Learning.
- Egelhoff, W. G. (1982). Strategy and structure in multinational corporations: An information-processing approach. *Administrative Science Quarterly*, 27(3), 435-458.
- Ejere, E. I., & Abasilim, U. D., 2013. Impact of transactional and transformational leadership styles on organisational performance: Empirical evidence from Nigeria. *The Journal of Commerce*, 5(1), 30-41.
- Emery, C. R., & Barker, K. J., 2007. The effect of transactional and transformational leadership styles on the organizational commitment and job satisfaction of customer contact personnel. *Journal of Organizational Culture, Communications and Conflict*, 11(1), 77-90.
- Ferner, A. (2000). The underpinnings of 'bureaucratic' control systems: HRM in European multinationals. *Journal of Management Studies*, 37(4), 521-539.
- Fiedler, F. E. (1967). *A theory of leadership effectiveness*. New York: McGraw-Hill.
- Garg, A. K., & Ramjee, D. (2013). The Relationship between leadership styles and employee commitment at a parastatal company in South Africa. *The International Business & Economics Research Journal*, 12(11), 1411-1436.
- Gavrea, C., Ilies, L., & Stegorean, R. (2011). Determinants of organizational performance: The case of Romania. *Management & Marketing Challenges for the Knowledge Society*, 6(2), 285-300.

- Hamilton, R. T., & Shergill, G. S. (1992). The relationship between strategy-structure fit and financial performance in New Zealand: Evidence of generality and validity with enhanced controls. *Journal of Management Studies*, 29(1), 95-113
- Hartnell, C. A., Schurer, L. L., Kinicki, A. J., Fugate, M., Doyle C. P., & Lambert, L. S. (2016). Do similarities or differences between ceo leadership and organizational culture have a more positive effect on firm performance? A test of competing predictions. *Journal of Applied Psychology*, 101(6), 846-861.
- Hitt, M. A., & Ireland, R. D. (1987). Peters and Waterman revisited: The unended quest for excellence. *Academy of Management Perspectives*, 1(2), 91-98.
- Hurley, R., & Hult, G. T. M. (1998). Innovation, market orientation, and organizational learning: An integration and empirical examination. *Journal of Marketing*, 62(3), 42-54.
- Jabeen, F., Behery, M., & Elanain, H. A. (2015). Examining the relationship between the psychological contract and organisational commitment. *International Journal of Organizational Analysis*, 23(1), 102-122.
- Jia, L., Song, J., Li, C., Cui, R., & Chen, Y. (2007). Leadership styles and employees' job-related attitudes: An empirical study on the mediating effects of reciprocity and trust. *Frontiers of Business Research in China*, 1(4), 574-605.
- Khandwalla, P.N. (1973). Viable and effective organizational design of firms. *Academy of Management Journal*, 16(3), 481-495.
- Koohborfardhighighi, S., & Altmann, J. (2017). How organizational structure affects organizational learning. *Journal of Integrated Design and Process Science*, 21(1), 43-60.
- Liebersohn, S., & O'Connor J. F. (1972). Leadership and Organizational Performance: A study of Large Corporations. *American Sociological Review*, 37:117-130.
- Luffman, G. A., & Reed, R. (1982). Diversification in British Industry in the 1970s. *Strategic Management Journal*, 3(4), 303-314.
- Masi, R. J., & Cooke, R. A. (2000). Effects of transformational leadership on subordinate motivation, empowering norms, and organizational productivity. *International Journal of Organizational Analysis, suppl. Special Issue: Experiment in Developing Scholars*, 8(1), 16-47.
- Miles, J., & Shevlin, M. (2001). *Applying regression and correlation: A guide for students and researchers*. SAGE Publications.
- Mintzberg, H. (1980). Structure in 5'S: A synthesis of the research on organization design. *Management Science*, 26(3), 322-341.
- Morton, N. A., & Hu, Q. (2008). Implications of the fit between organizational structure and ERP: A structural contingency theory perspective. *International Journal of Information Management*, 28(5), 391-402.
- Mosley, D. C., & Patrick, D. K. (2011). Leadership and Followership: The Dynamic Process of Building High Performance Cultures. *Organization Development Journal*, 29(2), 85-100.
- Nadler, D., & Tushman, M. (1980). A model for diagnosing organizational behavior. *Organizational Dynamics*, 9(2), 35-51.

- Narver, J. C., & Slater, S. F. (1990). The effect of a market orientation on business profitability. *Journal of Marketing*, 54(4), 20-35.
- Narver, J. C., & Slater, S. F. (1995). Market orientation and the learning organization. *Journal of Marketing*, 59(3), 63-74.
- Pallant, J. (2016). *SPSS survival manual (6<sup>th</sup> Edition)*. New York: McGraw-Hill Education.
- Rahman, S., Islam, M. Z., Ahad Abdullah, A. D., & Sumardi, W. A. (2018). Empirical investigation of the relationship between organizational factors and organizational commitment in service organizations. *Journal of Strategy and Management*, 11(3), 418-431.
- Raj, R., & Srivastava K. B. L. (2016). Transformational leadership and innovativeness. *Journal of Management Research*, 16(4), 201-219.
- Rathnaraj, S. N.; Vimala, A. (2018). Role of transformational and transactional leaderships in job satisfaction: In an select public sector organisation. *SCMS Journal of Indian Management*, 15(3), 91-97.
- Rowe, W. G. (2001). Creating wealth in Organizations: The role of Strategic Leadership. *The Academy of Management Executive*, 15(1), 81-94.
- Rubera, G., & Kirca, A. H. (2012). Firm Innovativeness and its Performance outcomes: A meta-analytic review and theoretical integration. *Journal of Marketing*, 76(3), 130-147.
- Rumelt, R. P. (1984). *Towards a strategic theory of the firm*. In B. Lamb (Ed.), *Competitive strategic management* (pp. 556–570). Englewood Cliffs, NJ: Prentice-Hall.
- Russell, R. G. & Mizrahi, R. (1995). Development of a situational model for transformational leadership. *Journal of Leadership Studies*, 2(3), 154-163.
- Schumpeter J. A. (1942). *Socialism, capitalism and democracy*. New York: Harper & Brothers.
- Shoham, A., Vigoda-Gadot, E., Ruvio, A., & Schwabsky, N. (2012). Testing an organizational innovativeness integrative model across cultures. *Journal of Engineering and Technology Management*, 29(2), 226-240.
- Tran, X. (2017). Effects of leadership styles on hotel financial performance. *Tourism and Hospitality Management*, 23(2), 163-183.
- Tushman, M., & Nadler, D. (1980). Organizing for innovation. *California Management Review*, 28(3), 74-92.
- Twomey, D. F. (2002). Organizational competitiveness: Building performance and learning. *Competitiveness Review*, 12(2), 1-12.
- Wilkins, A. L., & Ouchi, W. G. (1983). Efficient cultures: Exploring the relationship between culture and organizational performance. *Administrative Science Quarterly*, 28, 468-481.
- Wood, S., & Ogbonnaya, C. (2018). High-Involvement Management, Economic Recession, Well-Being, and Organizational Performance. *Journal of Management*, 44(8), 3070-3095.
- Wu, W. Y., Chiang, C. Y., & Jiang, J. S. (2002). Interrelationships between TMT management styles and organizational innovation. *Industrial Management & Data Systems*, 102(3), 171-183.

Yıldız, S., Baştürk, F., & Boz, I. T. (2014). The effect of leadership and innovativeness on business performance. *Procedia - Social and Behavioral Sciences*, 150, 785-793.

You-De, D., You-Yu, D., Kuan-Yang, C., Hui-Chun, W. (2013). Transformational vs transactional leadership: Which is better?: A study on employees of international tourist hotels in Taipei City. *International Journal of Contemporary Hospitality Management*, 25(5), 760-788.

## VITA

Charles Ifedi is a business executive, financial technology consultant, and entrepreneur, with over 20 years of experience. His experience encompasses strategy formulation and execution, product development and management, client and partner relationship management, business development and sales, new market entry, investment due diligence; he also has in-depth expertise in the development and management of fintech initiatives, including switching, processing, integration, transfers (ACH and P2P), bill presentment, eCommerce/POS acquiring, cards (debit, credit, prepaid, charge and multi-purpose), multi-channel platforms, and emerging solutions utilizing QR, digital wallets, and tokenization.

Charles is currently the CEO and co-founder of eBanqo, Inc., an Atlanta-based technology company that helps organizations enhance their customer engagement, using artificial intelligence (AI) and conversational commerce. Prior to founding eBanqo, Charles was the pioneer CEO of Verve International (Africa's leading payments card brand), and a co-founder of Interswitch Limited. He has payments and consulting experience in Africa, Europe, and the United States, having worked at American Express, PwC, and Accenture.

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