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THE IMPACT OF AN EXECUTIVE HIGH-PERFORMANCE WORK SYSTEM ON
BUSINESS MODEL INNOVATION

A Dissertation

by

RAVI BALA

Submitted to the Graduate School of
The University of Texas - Rio Grande Valley
In partial fulfillment of the requirement for the degree of

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August 2021

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THE IMPACT OF AN EXECUTIVE HIGH-PERFORMANCE WORK SYSTEM ON
BUSINESS MODEL INNOVATION

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August 2021

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ABSTRACT

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Business model innovation is a phenomenon that has been gaining traction since the 1990s. Recently, a global survey of more than 4,000 senior managers by the Economic Intelligence Unit found that business model innovation was overwhelmingly preferred versus new products and new services (Amit & Zott, 2012). Both executives as well as practitioners suggest that business model innovation is ideal for future competitive advantage (Amit & Zott, 2012; Foss & Saebi, 2017). Increasing competition, globalization, and rapid changes in technology have all provided the impetus for organizations to reconsider the approaches they use to manage their numerous resources and capabilities, in order to achieve and maintain their competitive advantage (Cuskelly et al., 2006). Organizations have to implement strategies to differentiate themselves from competitors so as to create value for their various stakeholders (Ridder et al., 2012). For instance, organizations, such as non-profit organizations (NPOs), are faced with increasing pressure to make efficient use of their resources (Ridder et al., 2012). The top management team in an organization is responsible for creating value in their organizations through their management of organization capabilities and resource allocation. Many scholars (Akinlade & Shalack, 2017; Brown & Yoshioka, 2003; Barkema & Shvyrykov, 2007) have

suggested the importance of human resources, such as top management team knowledge, skills, and abilities for achieving organizational goals.

Although the research has received little attention (Chen et al., 2016), the implementation of an executive high-performance work system is suggested to create an ideal TMT behavior and composition. Compared to high-performance work system at the employee level, high performance work system at the executive level aims to “improve team collaboration and effectiveness among strategic decision makers and thus produce widespread effects on firm strategic and financial results” (Chen et al., 2016: 920). I show how the executive high-performance work system (Lin & Shih, 2008; Chen et al., 2016) creates a top management team that will pursue business model innovation.

My dissertation is intended to contribute to the business model innovation literature (Foss & Saebi, 2017) and the high-performance work system literature (Huselid, 1995; Posthuma et al., 2013). First, I conceptualize executive high-performance work system as an HR system to enhance the effectiveness of TMT to pursue business model innovation. Second, I investigate entrepreneurial orientation, creative climate, and strategic agility as mediators of the executive high-performance work system and business model innovation relationship. I used established scales of entrepreneurial orientation, creative climate and complemented Hock and colleagues’ (2016) strategic agility scale by including the 5 subcomponents for each component of strategic agility: strategic sensitivity, collective commitment, and resource fluidity.

To analyze the model, I collected data from a sample of dean’s office team business schools in USA listed in the Association to Advance Collegiate Schools of Business (AACSB) website to understand how top management teams operate within an independent business unit. I

sent questionnaires to the dean's office team using a Qualtrics survey link via email. Further details are provided in Chapter 4.

In addition to contributing to research, the dissertation contributes to managerial practice. The executive high-performance work system developed in this dissertation should create a top management team who will more likely become strategically agile in order to keep the organization at a competitive advantage. Additionally, the executive high-performance work system should develop and further enhance the skills, knowledge, and abilities of the top management team members as well as influence their decision-making and interaction-processes. Development of skills, knowledge, and abilities of top management team members is crucial in the given context with myriad of uncertainties such as receiving resource support from the Board of Trustees, balancing institutional pressures from the Board of Trustees and the local community.

DEDICATION

This dissertation is dedicated to my mother, Suman Bala and my father Chandran Bala.

I love you.

TABLE OF CONTENTS

	Page
ABSTRACT.....	iii
DEDICATION.....	vi
TABLE OF CONTENTS.....	vii
LIST OF TABLES.....	xii
LIST OF FIGURES.....	xiii
CHAPTER I. INTRODUCTION.....	1
1.1 Executive High-Performance Work System and Business Model Innovation.....	1
1.2 Research Gaps.....	5
1.3 Problem Statement.....	9
1.4 Purpose of Dissertation.....	10
1.5 Research Question.....	12
1.6 Significance and Contributions.....	13
1.7 Organization of Dissertation.....	14
CHAPTER II. LITERATURE REVIEW.....	15
2.1 Business Model Innovation.....	15
2.1.1 Development of BMI.....	16
2.1.2 Innovation/Experimentation.....	19
2.1.3 TMT Decision-Making.....	21
2.1.4 Call for Convergence of BMI Literature.....	22

2.1.5 Empirical Testing	23
2.1.6 Summary	24
2.2 Creativity and Creative Climate.....	24
2.3 Entrepreneurial Orientation	28
2.4 Strategic Agility	30
2.4.1 Development of Strategic Agility	31
2.4.2 The Strategic Agility and BMI Relationship	33
2.4.3 MNE Context	36
2.4.4 Role of HRM for MNEs in Pursuit of Strategic Agility	38
2.4.5 Subsidiaries as a Source of Strategic Agility and Innovation.....	38
2.4.6 Summary	41
2.5 Top Management Teams.....	41
2.5.1 Initial Background	41
2.5.2 Composition, Dynamics, & Characteristics.....	42
2.5.3 Innovation	46
2.5.4 Non-Profit Organizations.....	49
2.5.5 International Context	50
2.5.6 Summary	52
2.6 High Performance Work Systems.....	52
2.6.1 Development of HPWS.....	52
2.6.2 HRM system versus individual HR practices	54
2.6.3 HPWS Bundles of Practices and Prominent Theories	55
2.6.4 Micro-Level Context.....	56

2.6.5 HPWS and Innovation	57
2.6.6 HPWS in Non-Profit Organizations.....	58
2.6.7 Multinational Enterprise Context.....	62
2.6.8 Emerging Markets context.....	63
2.6.9 HPWS at the Executive Level.....	64
2.6.10 Summary	67
2.7 Theoretical Background.....	68
2.7.1 Dynamic Capabilities Defined.....	68
2.7.2 Dynamic Capabilities for MNEs.....	69
2.7.3 Chapter Summary	74
CHAPTER III. HYPOTHESES DEVELOPMENT	76
3.1 Dissertation Research Model	76
3.2 Executive HPWS and Strategic Agility	77
3.3 Strategic Agility and BMI.....	82
3.4 The Mediating Role of Strategic Agility on the Executive HPWS and BMI Relationship	86
3.5 Executive HPWS and Entrepreneurial Orientation.....	87
3.6 Entrepreneurial Orientation and BMI.....	88
3.7 The Mediating Role of Entrepreneurial Orientation on the Executive HPWS and BMI Relationship.....	90
3.8 Executive HPWS and Creative Climate	91
3.9 Creative Climate and BMI.....	93

3.10 The Mediating Role of Creative Climate on the Executive HPWS and BMI	
Relationship	94
3.11 Chapter Summary	95
CHAPTER IV. METHODOLOGY	97
4.1 Pilot Sample	97
4.2 Main Study Sample	98
4.3 Sample Size	100
4.4 Measures and Variable Operationalization	101
4.5 Data Collection and Cleaning	104
4.6 Scale Development and Modification	105
4.6.1 Scale Development of Strategic Agility	105
4.7 Hypotheses Testing	107
4.7.1 Measurement Model	107
4.7.2 Structural Model	109
4.7.3 Description of SEM Steps	110
4.7.4 Tests for mediation	113
4.8 Common Method Bias Assessments	113
4.9 Chapter Summary	114
CHAPTER V. RESULTS	116
5.1 Scale Development	116
5.1.1 Executive HPWS Scale CFA	116
5.1.2 Development of Strategic Agility Scale	117
5.1.3 Entrepreneurial Orientation Scale CFA	121

5.1.4 Creative Climate Scale CFA	122
5.1.5 Business Model Innovation Scale CFA	122
5.2 Hypotheses Testing	122
5.3 Measurement Model Comparisons	123
5.4 Structural Model Comparisons	125
5.5 Assessing Common Method bias on the Data	130
5.6 Post-Hoc Analyses-Individual Mediations	131
5.7 Chapter Summary	132
CHAPTER VI. DISCUSSION AND CONCLUSION	134
6.1 The Relationship of Executive HPWS with BMI	134
6.2 Discussion of Strategic Agility Scale Development	136
6.3 Scholarly Implications	137
6.4 Practical Implications	139
6.5 Limitations and Future Research Avenues	142
6.6 Conclusion	144
REFERENCES	146
APPENDIX	174
BIOGRAPHICAL SKETCH	183

LIST OF TABLES

	Page
Table 1: Business Model Definitions.....	17
Table 2: Cronbach’s Alpha and Composite Scores for Executive HPWS.....	117
Table 3: Exploratory Factor Analysis Results for Strategic Agility Scale Development.....	119
Table 4: Confirmatory Factor Analysis Results for Strategic Agility Scale Development	120
Table 5: Cronbach’s Alpha and Composite Scores for Entrepreneurial Orientation.....	122
Table 6: Measurement Model Comparisons	124
Table 7: Square Root of Average Variance Extracted and Construct Correlations.....	125
Table 8: Structural Model Comparisons	126
Table 9: Direct Effects	127
Table 10: Mediation analysis results.....	129
Table 11: Summary of Hypotheses Tests	130

LIST OF FIGURES

	Page
Figure 1: Business Model Articles in the Business/Management Field	2
Figure 2: Dissertation Research Model: BMI process	77
Figure 3: Direct Effect Results	128

CHAPTER I

INTRODUCTION

1.1 Executive High-Performance Work System and Business Model Innovation

“Day 2 is stasis. Followed by irrelevance. Followed by excruciating, painful decline. Followed by death. And that is why it is always Day 1...” (Jeff Bezos, CEO, Amazon.com)

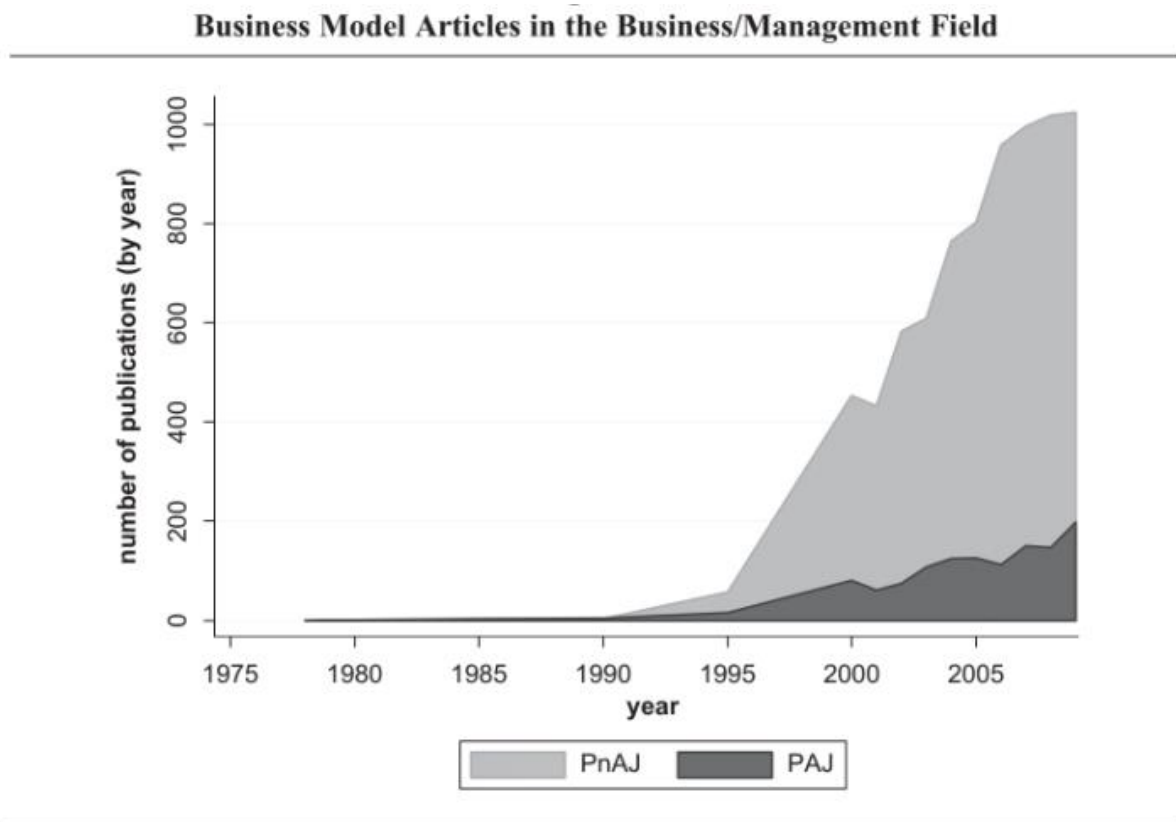
“The name of the game is innovation. We work really hard to try to turn innovation into a strategy and a process...” (A.J. Lafley, Former CEO, Proctor & Gamble)

“Innovation is about much more than new products. It is about reinventing business processes and building entirely new markets that untapped customer demand” (Sam Palmisano, Former CEO, IBM)

The quotes by CEOs of the above companies provides a keen insight of the importance of remaining agile and consistently innovating. However, typical innovations such as product and process innovations are not enough for companies into today's competitive environment. Companies are now in a highly competitive, global, and technologically disruptive environment (Cuskelly et al., 2006) and face disruptions from many forces such as start-up firms and small-medium enterprises. Business model innovation (BMI) is now preferred by managers, compared to other forms of innovation such as products and processes, since BMI is very difficult to mimic. Although the concept of business models (BM; complex architectures through which firms deliver value to customers, meet their needs, entice them to pay for such value, and capture a share of that value as profit; Foss & Saebi, 2017; Schneider & Spieth, 2013) has been around

since the early 1900s (Teece, 2010; Chesbrough, 2010), the concept never really gained traction until the 1990s with the advent of the internet (Zott et al., 2011) as Figure 1 below shows.

Figure 1.



Note: This area graph shows trends in the number of business model articles. PnAJ = articles published in nonacademic journals; PAJ = articles published in academic journals.

Source: Business Source Complete, EBSCOhost database, January 1975–December 2009.

(Source: Zott et al., 2011)

Recently, the concept of BMI (innovation of the design and architecture of the BM; Foss & Saebi, 2018) has gained so much interest from both practitioners and researchers that it has become its own field of inquiry separating itself from the BM literature.

Both practitioners and scholars agree that BMI is important to understand (Foss & Saebi, 2018; Teece, 2018). Practitioners prefer BMI instead of product and process innovations due to the increased profit potential, new markets, new customers, and difficulty of other competitors

copying the innovation, thereby increasing the length of the corporation's competitive advantage (Amit & Zott, 2012). Scholars prefer BMI instead of product and process innovation due to the potential BMI has a theoretical mechanism linking different fields of management together (Priem et al., 2018). However, the BMI literature lacks scholarly consensus on what the concept of BMI entails, which hinders our understanding on how it impacts other fields from entrepreneurship to strategy to international business (Foss & Saebi, 2017, 2018). Due to the interconnected competitive environment, organizations are innovating at a rapid pace. The speed of innovation has increased the uncertainty of how long an organization is likely to stay in business. Brought on by disruption, organizations can expect early demise if they do not consistently innovate. For example, the average lifespan of a company listed on the S&P 500 decreased from 67 years to 15 years (Gittleson, 2012), which means companies are quickly being dropped from the index as they shrink in market capitalization due to disruption. Increasingly, BMI is considered critical for survival of an organization. In fact, a global survey of 4000 senior managers by Economist Intelligence Unit found that 54% favored BMI over product and service innovation as a source of future competitive advantage (Amit & Zott, 2012). Achieving BMI is critical but difficult to accomplish. Researchers suggest that companies become agile organizations in order to be flexible and quickly adapt to the dynamic competitive landscape (Weber & Tarba, 2014; Junni et al., 2015; Teece et al., 2016). Strategic agility (the ability of the organization to renew itself and stay flexible without sacrificing efficiency; Junni et al., 2015: 596) is critical in constantly changing, turbulent environments (Junni et al., 2015) requiring significant investment of resources to maintain the high levels of flexibility & speed necessary to respond to sudden environmental threats & opportunities (Weber & Tarba, 2014). Strategic

agility contains three meta-capabilities (Doz & Kosonen, 2010): strategic sensitivity, collective commitment, and resource fluidity that must be carefully balanced when pursuing BMI.

All three capabilities are required to enable strategic agility for a company. Developing one capability to excellence while neglecting the others may produce suboptimal results (Doz & Kosonen, 2008). For instance, emphasizing resource fluidity may lead to toxic effects on the other components of strategic agility. Resource fluidity without collective commitment may lead to fights among TMT members for resources. Having agile processes may result in TMT members forgoing strategic sensitivity and place excess belief in their fast reaction capability (Doz & Kosonen, 2008).

Organizations face increased risks and uncertainties such as disruptive technologies, global competitors, and rapid market changes (Sapienza et al., 2006; Cuskelly et al., 2006; Ridder et al., 2012). Thus, it is paramount that individuals are placed optimally within the organization based on their abilities and processes & capabilities are carefully balanced against organizational and environmental tensions for execution of BMI. As such I focus on three mediators: strategic agility, entrepreneurial orientation, and creative climate to test the executive HPWS and BMI relationship.

Each of these mediators have been suggested by prior scholars to have an impact on innovation. Strategic agility has been shown as an accelerator of BMI (Doz & Kosonen, 2008, 2010). Entrepreneurial orientation (EO) enables organizations to take risks, be proactive in seeking opportunities, and rejuvenate current offerings in the market (Lumpkin & Dess, 1996). Lastly, creative climate allows for generation of novel and useful ideas, which greatly influences innovation (Hon & Leung, 2011).

In the following section, I provide the current developments for the BMI, strategic agility, TMT, and the HPWSs literatures.

1.2 Research Gaps

BMs are complex architectures through which firms deliver value to customers, meet their needs, entice them to pay for such value, and capture a share of that value as profit (Foss & Saebi, 2017; Schneider & Spieth, 2013). A BM literature review by Zott and colleagues (2011) reveals that BMI is developed according to scholarly research interest, which hinders BMI research from being generalizable and has contributed to the lack of empirical testing of BMI. The BM literature can be classified into three streams: enterprise classification (e.g., understanding e-commerce), antecedent of firm performance, and innovation (Foss & Saebi, 2017).

BMI is a complex process constituting the design of novel and nontrivial changes to the key elements of a firm's BM such as its architecture and design (Foss & Saebi, 2017). The literature on BMI is converging around the notions of design and architecture. Organizations need to choose opportunities "they will pursue and how to pursue them, as well as who they will work with in order to adapt effectively" (Fjeldstad & Snow, 2018; 34). Despite the fledgling convergence in this literature, BMI research is primarily based on scholar interest resulting in a lack of theoretical development (Foss & Saebi, 2017). The lack of theoretical development is primarily due to the BM concept, the origin of BMI, being ill-defined. Despite this major issue, research still progresses.

Recently, strategic agility has been investigated with respect to the BMI process and is suggested to be an enabler of BMI conceptually. Strategic agility as defined by Doz and Kosonen (2010: 371) is the "thoughtful and purposive interplay on the part of top management between

three meta-capabilities: strategic sensitivity, leadership unity (now known as collective commitment; Ivory & Brooks, 2018; Junni et al., 2015), and resource fluidity.” Heightened strategic sensitivity enables firms to be more perceptive and open to opportunities to innovate their business model. Collective commitment allows TMTs to make difficult decisions necessary to innovate the firm’s BM. Lastly, resource fluidity enables firms to reallocate and redeploy resources, such as employees, to new opportunities during the BMI process and in the newly innovated BM (Doz & Kosonen, 2010). Though valuable for BMI, the concept of strategic agility suffers from issues similar to those of the BMI construct. Leadership abilities by the top management team (TMT) are determined by the backgrounds and composition of each member the TMTs, which affect whether strategic agility will be implemented in an organization.

EO is one of the most established constructs in the entrepreneurship literature (Lumpkin & Dess, 1996). It has been defined in variety of manners in past research (see Table 1 pg. 03 in Covin & Wales, 2012). For instance, Anderson and colleagues (2009) suggest EO as a firm’s decision-making practices, managerial philosophies, and strategic behaviors that are entrepreneurial in nature. Miller (1983) suggested that EO as a firm-level strategic process are comprised of innovativeness, proactiveness, and risk-taking.

EO occurs within firms as an organizational state or quality through entrepreneurial processes and behavior (Ireland et al., 2009). Thus, while various types and aspects of organizational strategy exists, EO should be viewed as an essential part of a unique, identifiable strategy. Prior researchers have suggested that there is a set of organizational processes from which strategic decisions evolve. These decisions take the form of patterns that can be characterized and identified across organizations. The concept of a firm’s EO is analogous to Stevenson and Jarillo’s (1990) concept of entrepreneurial management, in that EO reflects the

organizational process, methods, and styles that their firm uses to act entrepreneurially. Miller (1983) suggested that an entrepreneurial firm is one that “engages in product market innovation, undertakes somewhat risky ventures, and is the first to come up with proactive innovations, beating competitors to the punch (1983:771). Thus, the dimensions innovativeness, risk-taking, and proactiveness are used by researchers (Lumpkin & Dess, 1996) to characterize EO. As suggested by Miller’s (1983) definition, the competitive aggressiveness dimension is captured by “beating competitors to the punch.” Autonomy was discovered as another dimension of EO through Burgelman’s 1983 study, which stated that corporate entrepreneurship resides in the autonomous strategic initiatives of individuals in an organization. Thus, scholars such as Lumpkin and Dess (1996) suggest EO is comprised of five factors, which include the risk-taking, innovativeness, proactiveness, autonomy, and competitive aggressiveness behaviors. Prior research suggests that EO can be influenced by human resource management (HRM) practices (Dizgah et al., 2011; Hayton, 2005). For instance, research by Schmelter and colleagues (2010) that found that staff selection, staff development and training as well as staff rewards are crucial for organizations to improve their EO. However, this type of research has yet to develop. The link between HRM practices and EO is in need of further empirical investigations (Dabic et al., 2011). “The present lack of empirical research is problematic since it undermines our understanding of how firm should work strategically with HRM practices to develop an EO” (Floren et al., 2016: 1).

Creative climate is an additional phenomenon important for organizational innovation. Creative climate refers to the psychological conditions prevailing within an organization that fosters creative behaviors. Creative climate influences organizational processes such as problem solving, decision making, communication, and motivation (Ekvall & Ryhammer, 1999). By way

of such influences, creative climate becomes a modifying force that can enhance the effects of an organization's operations and processes. As such, creative climate is an important variable in understanding organizational performance and change.

Despite the importance of climate in shaping the creative environment, researchers have not been able to pinpoint the exact dimensions that are important to innovation (Mumford & Hunter, 2005). The relationship between HRM and creativity with respect to organizational performance has been investigated through the lens of the resource-based view (RBV), a static context (Cooke & Saini, 2010; Wei & Lau, 2010). This static context is limited because it is unable to capture the crucial role of adaptive and creative capabilities, which dynamic capabilities (DC) theory can help explain.

Exploring the factors that enable TMTs to modify BMs can potentially enhance our understanding of TMTs factors necessary to innovate BMs. Since the inception of Hambrick and Mason's (1984) upper echelon's theory, the TMT literature has focused on how executive's background impact firm performance. However, research does not explicit say what demographics, collectively, are specific to innovation in general. TMTs bear responsibility for modify an organization's BM. For example, are more diverse TMTs better at implementing new BMs? What TMT demographics and cognitive factors are most important for implementing BMI? How do TMT composition, backgrounds, and behavior influence the characteristics of the BM that is implemented? (Foss & Saebi, 2018). Very few studies (Chen et al., 2016; Lin & Shih, 2008) have investigated the executive high-performance work system (HPWS), which would address the prior questions. This is surprising. TMTs are an organization's crucial human resource because they are responsible for organizational policies, strategic processes, and resource allocation (Chen et al., 2016).

HPWSs are bundles of practices contained in a system that increased levels of employee productivity and involvement (Arthur, 1992, 1994). Researchers have consistently found benefits with HPWSs and firm/organizational outcomes, especially HPWSs and innovation. A HPWS encourages and enables employees to learn and respond to market changes and engage in innovations (Wei & Lau, 2010). An important and under-researched HPWS, the executive HPWS is critical for organizational outcomes (Lin & Shih, 2008). The executive high-performance work system (HPWS) is a group of HR practices designed to modify the TMT's behavior in order to make them produce beneficial outcomes for their organization (Lin & Shih, 2008). However, not much progress has been made in examining the benefits of a HPWS implemented at the executive level (Chen et al., 2016; Lin & Shih, 2008, Collins & Clark, 2003; Martell & Carroll, 1995). Executive HPWS motivates TMTs to behave with integrity to increase effectiveness of idea development, solution generation, and decision-making (Chen et al., 2016) and is comprised of five HR practices: compensation, performance appraisal, training, selection, and team climate. The Executive HPWS can create a flexible and responsive TMT in order to align with the strategic changes of the firm. In the next section, I discuss the problem statement.

1.3 Problem Statement

Due to the complexity of the business environment, BMI is relevant and important for both for-profit organizations (FPOs) and non-profit organizations (NPOs), although differences can exist among them. However, when a natural disaster or pandemic strikes, businesses need to quickly reevaluate the way they conduct themselves. NPOs such as universities have a tendency to be entrenched legacy systems. The Covid-19 pandemic forced universities to reimagine ways to continue serving its students, faculty, and community. A strategically agile dean's office team

would aid in the BMI process for their business schools. However, the dean's office team of business schools need to strike a delicate balance for each dimension of strategic agility (Doz, 2020) to prevent organizational tensions and hinder future opportunities for BMI.

In this dissertation, I seek to understand how to enable BMI in organizations using business schools of AACSB accredited universities as my sample. Though researchers and practitioners alike agree that BMI is key to a company's longevity, little has been done to cohesively understand BMI in the way of both theoretical and empirical evidence. Researchers have generally used BMI to examine its different facets resulting in multiple case studies that do not advance this stream of research (Foss & Saebi, 2017).

Similarly, researchers (Doz & Kosonen, 2008, 2010; Weber & Tarba, 2014) conceptualized strategic agility as a necessary characteristic for organizations to achieve organizational renewal by responding quickly and flexibly to environmental threats, but little has been done to cohesively understand strategic agility in the way of both theoretical and empirical evidence. Also, both top management teams and HR systems are considered critical for an organization to function coherently, but researchers have seldom investigated the potential connections between the two streams of research for deeper and unique perspectives such as understanding the impact of HRM systems on TMTs. For instance, the strategic agility research by Fourne and colleagues (2014), suggests HRM as a motivating mechanism at the employee level. In the next section, I discuss the primary purpose of the dissertation.

1.4 Purpose of Dissertation

The primary purpose of this dissertation is to explore the relationships among executive HPWS, strategic agility, creative climate, EO, and BMI. Specifically, I will investigate the

relationship between executive HPWS and BMI through three mediating mechanisms: strategic agility, creative climate, and EO (See Figure 2 in Appendix). These relationships will be examined in the context of dean's office teams in AACSB-accredited business schools using DC theory as the underlying theoretical framework to explain these relationships in the research model.

“Dynamic capabilities refer to the (inimitable) capacity firms have to shape, reshape, configure and reconfigure the firm's asset base so as to respond to changing technologies and markets” (Augier & Teece, 2007: 179). Innovation processes in organizations are largely context specific (Foss & Saebi, 2017). Firm specific advantages (FSAs; factors internal to the firm which lead to the development of unique capabilities; Lee & Rugman, 2012: 132; FSAs) help in the development of DCs and allow organizations to compensate for the disadvantage of competing against their competitors.

Two important FSAs discussed in this dissertation are TMTs and strategic human resource management systems (SHRM). The DC literature recognizes top management teams (Teece et al., 1997) execute processes that develop new DCs to innovate products/services and BMs to increase performance (Teece, 2014) by primarily focusing on managerial abilities to innovate and obtain competitive advantage (Teece, 2014). Additionally, strategic human resource management (SHRM) research suggests that SHRM systems, such as HPWSs, can lead to sustained competitive advantage because these “systems of practices are often unique, causally ambiguous, and difficult to imitate” (Collins & Clark, 2003; 740). Therefore, I describe how strategic agility, creative climate, and EO influenced by executive HPWS leads to BMI. I elaborate on the significance of these relationships further in the next section as I discuss the research questions.

1.5 Research Question

Researchers (Foss & Saebi, 2017) often cite Teece's (2010:172) definition of BM as "the design or architecture of the value creation, delivery, and capture mechanisms [a firm] employs." The value creation, delivery, and capture mechanisms are well understood in the BM and BMI literatures (Foss & Saebi, 2017). I use this definition provided by Teece (2010) as the basis for BMI to empirically test the construct using survey data of top management teams. The dean's office team in AACSB-accredited business schools provide a unique context to show the necessity of having an agile organization.

The dissertation research model, Figure 2 in the Appendix, will explore the relationships among executive HPWS, strategic agility, creative climate, EO, and BMI. Specifically, I will test three relationships: 1) mediation of strategic agility on executive HPWS and BMI, 2) mediation of creative climate on executive HPWS and BMI, and 3) the mediation of EO on executive HPWS and BMI. These relationships will be examined in the dean's office teams in AACSB accredited business schools in USA. I will use DC theory as the underlying theoretical framework to explain these relationships in the research model. To empirically test these relationships, I will rely on four established measures. Lin and Shih's (2008) executive HPWS scale will be used to measure the influence executive HPWS has on TMTs ability to be strategically agile. Zott and Amit's scale (2007) will be used to measure BMI. The mediating effects of EO and creativity will be measured using established scales (e.g. Wang, 2008; Sundgren et al., 2005) to test the executive HPWS and BMI relationship.

Lastly, I used and complemented Hock and colleagues' (2016) strategic agility scale by including each of the leadership actions of strategic sensitivity, collective commitment, and resource fluidity. The scale created by Hock and colleagues (2016) provides an overall

perspective of the strategic agility concept. However, it does not provide details as to what leadership actions are driving the force behind strategic agility. Understanding these leadership actions can help scholars understand, with precision, which components and leadership actions are critical and necessary for BMI and in different contexts.

Therefore, I used four established measures: executive HPWS, BMI, creative climate, and EO, along with a strategic agility scale, which I had to develop for reasons that I describe in detail later, to answer the following research question:

1) Does executive HPWS have a relationship with BMI? If so, why?

1.6 Significance and Contributions

The proposed significance and contributions of this dissertation will advance the understanding of the process of strategic agility and BMI bringing cohesion to each of these constructs. Because the competitive landscape is global and rapidly changing (Gittleston, 2012; Amit & Zott, 2012), the findings of this research will be of great importance to practitioners seeking to maintain their organization's competitive edge. In particular, the findings in this research should be generalizable to organizations, both profit and non-profit with a particular emphasis on universities.

In my dissertation, I intend to make the following contributions to the BM and strategic agility literature. By examining the dean's office team in AACSB-accredited business schools, I shed light on the relationship between strategic agility and BMI. By examining the mediating effects of EO, and creative climate, I shed light on how the executive HPWS and BMI relationship can be further enhanced. This dissertation is intended to contribute to practice by introducing executive HPWS. Since TMT actions impact organizational outcomes, introducing

the executive HPWS provides characteristics for creating the TMT composition, actions, and behaviors necessary to foster necessary organizational goals. Additionally, these TMT actions will manifest themselves through strategic agility. If the HPWS influences TMT members to focus on one component of strategic agility, organization tensions and issues will arise. Thus, creating an HPWS ideal for TMTs to pursue strategic agility is a delicate balance.

1.7 Organization of Dissertation

The remainder of this dissertation is organized as follows. Chapter two presents a review of the key literature that forms the basis of the model: BMI, strategic agility, TMTs, HPWSs, EO, creative climate, and DCs. Chapter three discusses the hypotheses development. Chapter four discusses the sample and proposed methodology to model the proposed relationships and to test the hypotheses. I used the dean's office from AACSB accredited schools as the sample because my goal is to focus on how the dean's office of business schools makes decisions independently from the university management team with respect to BMI and how executive HPWS will impact their decision-making capabilities. To empirically test these relationships, I followed scale development procedures for strategic agility and use structural equation modeling to create the best fitting measurement model and path model in order to test my hypotheses using AMOS. Chapter five discusses the results of the mediation tests. Chapter six discusses the results and the implications and future directions of the research.

CHAPTER II

LITERATURE REVIEW

The purpose of this chapter is to provide a comprehensive review of conceptual and empirical (if any) developments on the following literatures: BMI, strategic agility, creative climate, EO, TMTs, HPWSs, and the DCs literature. I begin the literature review by primarily examining conceptual developments of the BMI literature due to the lack and dearth of empirical developments of the literatures, respectively. Second, I provide a general review on the creative climate and EO literatures, respectively. Third, I examine the conceptual developments of the strategic agility literature due to the lack of empirical developments. Fourth, I examine the findings of top management team characteristics that benefit firm performance. Fifth, I focus on the HPWSs literature by examining its origins and its impact on firms. Sixth, I provide a review of the DC literature. Finally, I conclude chapter two with a summary overview.

2.1 Business Model Innovation

In this section I provide an overview of the development of the BM construct. I then provide information on the importance of innovating BMs by focusing on the experimenting aspect since that has been discussed at length for reducing the chances of disruption. I provide details on researchers call for convergence of the BMI literature. Although, the BMI literature is based on researcher interest, there is some convergence of what BMI is and what it should entail. Finally, I conclude with a few studies that have empirically explored the BMI concept.

2.1.1 Development of BMI

BMs are complex architectures through which firms deliver value to customers, meet their needs, entice them to pay for such value, and capture a share of that value as profit based upon the decisions made by the top management team (Foss & Saebi, 2017; Schneider & Spieth, 2013). The concept of BMs was introduced in the late 1950s but did not take off until the 1990s with the advent of the Internet and e-businesses (Foss & Saebi, 2015). A BM involves value creation and value capture for the customers and therefore the organization. It is considered a blueprint that providing the descriptions and classifications, where managers conceptualize the different activities their company employs to generate value & create value and a tool to address change and focus on innovation, either in the organization, or in the actual BM (Demil & Lecoq, 2010).

The BM construct suffers from a lack of clarity reflected in the numerous definitions in the literature (See Table 1).

Table 1. Business Model Definitions

A selection of business model definitions (chronologically).

Authors (year)	Definition of business model	Business model elements
Timmers (1998, p. 4)	"an architecture for the product, service and information flows, including the various business actors and a description of the sources of revenues"	<i>n.a.</i>
Mahadevan (2000, p. 59)	"a unique blend of three streams that are critical to the business. These include the value stream for the business partners and the buyers, the revenue stream, and the logistical stream"	<i>n.a.</i>
Linder and Cantrell (2000, p. 1)	"the organization's core logic for creating value. The business model for a profit-oriented enterprise explains how it makes money."	<i>n.a.</i>
Amit and Zott (2001, p. 4)	"A business model depicts the content, structure, and governance of transactions designed so as to create value through the exploitation of business opportunities."	<ul style="list-style-type: none"> • Content of transactions • Structure of transactions • Governance of transactions • Value creation design
Bienstock, Gillenson, and Sanders (2002, p. 174)	"the way we make money"	<i>n.a.</i>
Chesbrough and Rosenbloom (2002, p. 532)	"The business model provides a coherent framework that takes technological characteristics and potentials as inputs, and converts them through customers and markets into economic inputs. The business model is thus conceived as a focusing device that mediates between technology development and economic value creation."	<ul style="list-style-type: none"> • Value proposition • Market segment • Structure of value chain • Cost structure and profit potential • Position within value network • Competitive strategy
Magretta, (2002, p. 4)	"The business model tells a logical story explaining who your customers are, what they value, and how you will make money in providing them that value."	<ul style="list-style-type: none"> • Customer definition • Value to customer • Revenue logic • Economic logic
Osterwalder et al. (2005, p. 17)	"A business model is a conceptual tool that contains a set of elements and their relationships and allows expressing the business logic of a specific firm. It is a description of the value a company offers to one or several segments of customers and of the architecture of the firm and its network of partners for creating, marketing, and delivering this value and relationship capital, to generate profitable and sustainable revenue streams."	<ul style="list-style-type: none"> • Value proposition • Target customer • Distribution channel • Relationship • Value configuration • Core competency • Partner network • Cost structure • Revenue model

Shafer, Smith, and Linder (2005, p. 202)	"Business is fundamentally concerned with creating value and capturing returns from that value, and a model is simply a representation of reality. We define a business model as a representation of a firm's underlying core logic and strategic choices for creating and capturing value within a value network."	<ul style="list-style-type: none"> • Strategic choices (e.g. customer, value proposition, capabilities, pricing, competitors, offering, strategy) • Create value (incl. resources/assets, processes/activities) • Capture value (incl. cost, financial aspects, profit) • Value network
Tikkanen, Lamberg, Parvinen, and Kallunki (2005, p. 792)	"We define the business model of a firm as a system manifested in the components and related material and cognitive aspects. Key components of the business model include the company's network of relationships, operations embodied in the company's business processes and resource base, and the finance and accounting concepts of the company."	<ul style="list-style-type: none"> • Material aspects: strategy and structure, network, operations, finance and accounting • Belief system: reputational rankings, industry recipe, boundary beliefs, products
Voelpel, Leibold, Tekie, and von Krogh (2005, pp. 261–262)	"The particular business concept (or way of doing business) as reflected by the business's <i>core value proposition(s)</i> for customers; its <i>configured value network(s)</i> to provide that value, consisting of <i>own</i> strategic capabilities as well as <i>other</i> (e.g. outsourced/allianced) value networks and capabilities; and its <i>leadership and governance enabling capabilities</i> to continually sustain and reinvent itself and satisfy the multiple objectives of its various stakeholders (including shareholders)."	<ul style="list-style-type: none"> • Customer value propositions • Value network configuration • Sustainable returns for stakeholders
Chesbrough (2007, p. 12)	"The business model performs two important functions: value creation and value capture. First, it defines a series of activities, from procuring raw materials to satisfying the final consumer, which will yield a new product or service in such a way that there is net value created throughout the various activities. Second, a business model captures value from a portion of those activities for the firm developing and operating it."	<ul style="list-style-type: none"> • Value proposition • Target market • Value chain • Revenue mechanism • Value network or ecosystem • Competitive strategy
Johnson, Christensen, and Kagermann (2008, p. 52)	"A business model consists of four interlocking elements (customer value proposition, profit formula, key resources, key processes) that taken together create and deliver value."	<ul style="list-style-type: none"> • Customer value proposition (incl. target customer, job to be done, offering) • Profit formula (incl. revenue model, cost structure, margin model, resource velocity) • Key resources • Key processes (incl. metrics, rules and norms)
Zott and Amit (2010, p. 219)	"We have defined the business model as depicting the content, structure, and governance of transactions designed so as to create value through the exploitation of business opportunities."	<ul style="list-style-type: none"> • Structure of transactions • Content of transactions • Governance of transactions
Santos et al. (2009, p. 11)	"A business model is a configuration of activities and of the organizational units that perform those activities both within and outside the firm designed to create value in the production (and delivery) of a specific product/market set."	<ul style="list-style-type: none"> • A set of elemental activities • A set of organizational units performing the activities • A set of linkages between the activities • A set of governance mechanisms for controlling the organizational units and the linkages between the units

Source: Adapted from Zott et al. (2011) and Nenonen and Storbacka (2010).

(Source: Foss & Saebi, 2015)

Some definitions specify the interplay between business actors, value creation and revenue sources, others relate to innovations and how to generate revenues from them, while others again start from the theoretical essence of BMs, the minimum set of core components that must be common to all BMs and which set the BM construct apart from other constructs. (Saebi & Foss, 2015). The BM construct refers to many things such as part of a BM (auction model), types of BMs (direct-to-customer model), concrete instances of BMs (Dell model) or concepts (elements and relationships of a model) (Saebi & Foss, 2015).

“Business models have numerous characteristic and applications as models...Business models are not recipes or scientific models or scale and role models but can play any or all of these different roles for different firms and for different purposes: and will often play multiple roles at the same time” (Baden-Fuller & Morgan, 2010: 168). The prior statements show why the concept of BMs is difficult to grasp as a theory suggesting that BMs can be better understood as a theoretical mechanism for combining different literature streams as a central connecting component in the further development of the strategic management field (Ritter & Lettl, 2018). Despite the criticisms, most BM research seems to converge on the understanding that a firm’s BM denotes its core logic for creating and capturing value by specifying the company’s fundamental value proposition, the market segments it addresses, the structure of the value chain which is required for realizing the relevant value proposition, and the mechanisms of value capture that the company deploys including its competitive strategy. (Saebi & Foss, 2015).

2.1.2 Innovation/Experimentation

BMI is a critical task for existing firms, since firms need to be able to adapt to environmental changes and foster innovation (Eppler et al., 2011). BMI is important yet difficult

to achieve. An organization's culture must find ways to embrace the new model, while maintaining the effectiveness of the current BM until the new one is ready to take over completely allowing the company to renew growth and profits (Chesbrough, 2010). Innovations in constituent processes occur by redefining content (adding new activities), structure (linking activities differently), and governance (changing parties that do the activities) (Amit & Zott, 2012). The operational dimension of a BM emphasizes decision making such as which markets to enter, and the dynamic dimension emphasizes adaptation (Fjeldstad & Snow, 2018).

Organizations need to choose the opportunities “they will pursue and how to pursue them, as well as who they will work with in order to adapt effectively” (Fjeldstad & Snow, 2018; 34).

Experimentation of BMs is critical (Chesbrough, 2010; Foss & Saebi, 2017) for organizations to continue to create and capture value preventing the organization's demise from disruption. Some experiments will fail. As long as the failure informs new approaches and understanding, experimentation should continue to be encouraged. As firms develop superior capabilities through experimentation, firms can create better BMs more quickly than their competition. Researchers are now beginning to explore the human dimension of BMI and want to better understand leaders who seek to make changes to a BM (McGrath, 2010).

Using artefacts as stimuli for improving collaboration quality could be applied to various organizational knowledge tasks. Visual templates appear to improve group collaboration in brainstorming sessions on complex and abstract tasks such as generating new BM ideas. Artefacts can have both positive and negative effects. A highly structured or formalized template can stifle creativity because it constrains thoughts. However, a combination of creativity triggering methods, such as different artefacts, with more structured methods, such as templates, can help teams come up with new BM ideas (Eppler et al., 2011).

2.1.3 TMT Decision-Making

TMTs perceive and interpret issues such as changes in the competitive landscape that require BMI. Additionally, TMTs have full authority implement the changes to the BM depending on their interpretation of the organization's business and competitive environment (Saebi & Foss, 2015; Foss & Saebi, 2018). TMTs interpret the competitive landscape from two perspectives: threat-orientation and opportunity-orientation (Saebi & Foss, 2015; Foss & Saebi, 2018). If TMTs as a group believe the competitive landscape threatens their current BM, they are more likely to undergo the BMI process, since the organization's existence is at stake.

Managers use very different heuristics depending on the competitive landscape (Rivkin, 2000). If the competitive landscape is simple to assess, managers will use trial-and-error heuristics since mistakes will not be costly for the organization. If assessing the competitive landscape is complicated, using trial and error will be costly for the organization and result in low profitability. In complex environments, TMTs have an incentive to develop a mental model of the landscape to understand the set of BMI that the firm can pursue to increase the likelihood of a highly profitable outcome.

For instance, a firm's inability to take advantage of disruptive technology is due to the TMTs' inability to adapt the firm's processes to take advantage of new market dynamics (Christensen, 1997). TMTs tend to be hesitant (Christensen, 1997) when facing the threat of highly disruptive BMs by competitors due to risks such as a permanent loss of their primary, dedicated customer base, who bring in the majority of the firm's revenue. An emphasis on BMI that is not profitable or is marginally profitable may potentially infuriate shareholders of the company who seek consistent profitability. TMTs need to be receptive to change and to be willing to experiment with different BMs (Chesbrough, 2010; Sosna et al., 2010). Sometimes

TMT members know a threat is coming but are not able to take action due to set organizational processes that are difficult to change (Lavie, 2006). Other times, lower-level employees pass selectively filtered information to the TMTs due to worry about job security, which results in suboptimal decisions by the TMT (Chesbrough, 2010). Therefore, team-level BMI represents the TMT's perception about what customers want, how that value should be delivered, and how value should be captured is critical in the BMI process.

2.1.4 Call for Convergence of BMI literature

The BM and BMI constructs are fundamentally about the architecture of the firm's value creation, delivery, and capture mechanism. Theoretically, the key aspect of BMs is complementarity between activities underlying these mechanisms; BMI means novel changes of such complementarity relations; and this understanding not only unifies diverse contributions to the literature but is also productive of new insight. (Foss & Saebi, 2018).

Researchers have suggested that the BMI literature needs more consensus in this regard and needs to be “conceptualized and theorized on its own” given the tremendous interest from both academicians and practitioners (Foss & Saebi, 2017: 201), before it can be operationalized and measured rigorously. In their review of the BMI literature, Foss and Saebi (2017) revealed four loosely connected themes (conceptualizing BMI, BMI as a change process, BMI as outcome, and BMI consequences). Some scholars (Ritter & Lettl, 2018; Priem et al., 2018; Teece, 2018) suggest that BMI research can be understood as a theoretical mechanism for combining different literature streams thereby leading to further development.

Although the literature is based on researcher interest, through their own conceptualization, researchers seem to agree that BMI involves innovating the design and

architecture of the BM (Foss & Saebi, 2018). In the latest review (Foss & Saebi, 2017) of BMI, the authors promote further convergence of design and architecture by providing a matrix for potential research opportunities identifying two dimensions –scope (modular/architectural) and novelty (new to firm, new to industry) –to further break down the construct of BMI. The BMI studies emphasize dynamic capabilities, leadership, and enhancement mechanisms essential for BMI (e.g., Achtenhagen et al., 2013; Doz & Kosonen, 2010) indicating the importance of TMTs and organizational processes for continued success.

2.1.5 Empirical Testing

Despite the BMI literature having very little consensus, few researchers have been able to quantitatively test the construct using surveys to produce data for quantitative testing. For instance, Zott and Amit (2007), developed a scale to test the impact of efficiency-centered and novelty centered-business models on firm performance. Aspara and colleagues (2010) focused on financial performance implications with respect to BMI versus replication. Bock and colleagues (2012) focused on CEO perceptions of the drivers of strategic flexibility during BMI in MNEs. Hock and colleagues (2016) developed a three-item scale to measure the propensity to change the BM. Lastly, Velu and Jacob (2016) developed a survey to measure incremental BMI versus radical BMI for bond markets. Again, the measures for BMI are completely different in each study, which reiterates the lack of consensus in the literature due to the different contexts used.

2.1.6 Summary

BMI has its origins in the BM model construct and is a construct of great interest that suffers from lack of cohesion among researchers. Researchers are calling for a convergence of the literature to deepen our understanding of BMI. Few empirical tests have been performed.

However, there is no consensus on how to measure BMI. Innovating a BM is a critical task for organizations, and experimenting is primarily suggested for pursuing BMI. Experimenting requires certain leadership actions and capabilities in order to occur. Strategic agility has been suggested by Doz and Kosonen, (2010) as a process for facilitating BMI. Additionally, both creative climate and EO have an impact on innovation in general (Perez-Luno et al., 2010; Isaksen et al., 2011). In the following sections, I provide a review of creative climate, EO, and strategic agility, respectively.

2.2 Creativity and Creative Climate

Creativity emerges from an interaction of the person and situation. Situational influences are commonly assessed by using climate measures. Many scholars stress the importance of climate for creativity (Hunter et al., 2007). Climate studies examine peoples' perception or experiences in their immediate work environment with respect to dimensions such as support and autonomy (Hunter et al., 2007). Results from climate studies show that climate perceptions at the individual and group level have been found to be effective predictors of creativity and innovation (Tesluk et al., 1997). Different theoretical frameworks have been used to analyze creative climate such as theory of intrinsic motivation, theory of team interactions, and the dispositional model (Hunter et al., 2007). Ford and Sullivan (2004) have suggested that the need for creativity

varies as a function of project demands-with creativity, and a creative climate, proving valuable in early-cycle as opposed to late-cycle product development efforts.

Creativity is the generation of novel and useful ideas, which have been suggested to greatly influence organizational innovation (Isaksen & Akkermans, 2011). Research on creativity focuses primarily at the individual or group level (Gong et al., 2012; Hirst et al., 2011).

Creativity is a critical factor in organizations today due to the rapidly changing business environment (Hon et al., 2011). Managers continue to focus their attention and resources on building capabilities to compete in dynamic competitive conditions (Hon et al., 2011).

Creativity generally results in the creation of valuable, useful new product, service, and ideas (Woodman et al., 1993). Creative outcomes such as innovation should be high when leadership is collaborative, and the team is comprised of individuals with diverse functional backgrounds. Payne (1990) suggests that resource availability, leadership, group size, cohesiveness, communication patterns, and group diversity are important factors in creative outcomes.

Creativity in a team is not a simple aggregate of all group members' creativity. Team creativity is a function of each member's creativity and is influenced by the group composition, group characteristics such as cohesiveness and size, group processes such as problem-solving (Woodman et al., 1993). For instance, brainstorming is a problem-solving process where group members are free to explore different ideas and build off each other's ideas to create a novel solution. Team creativity allows members to be freed of rules and norms that restrain novel ideas (Woodman et al., 1993).

Creativity is a driver of innovation in organizations (Isaksen & Akkermans, 2011). Creativity refers to the generation and communication of meaningful new ideas and connections,

while innovation refers to the useful implementation of the creative ideas (Isaksen & Akkermans, 2011). For example, Vehar (2008; 8) noted that “creativity is required for innovation, but is not the same thing, since innovation goes beyond the phenomenon of the creative product to its introduction, launch, commercialization or exploitation.” Some researchers have suggested that while creativity focuses on idea generation, innovation in contrast, encompasses two different activities-the development of novel, useful ideas and their implementation (e.g., Baer, 2012, Gong et al., 2009).

Different aspects of creativity, novelty and usefulness, are needed when individuals go through the creative process. The novelty aspect of creativity occurs during idea generation stage and usefulness of the creative idea occurs in the idea evaluation stage (Amabile & Pillemer (2012). Therefore, random ideas do not constitute creativity, but finding value in the ideas constitutes creativity since organizations need ideas that can be converted into a tangible outcome that the team can use so that the organization can maintain its competitive advantage.

An external drive of creativity occurs when a situation or a specific job that requires an individual to be creative, whereas an internal driver occurs because of one’s desire to be creative (Unsworth, 2001). According to Unsworth (2001), there are four different categories of creativity: expected, proactive, responsive, and contributory types of creativity, but these dimensions represent a continual rather than defined categories. Expected creativity in organizational settings reflects situations/jobs that require creative solutions to self-discovered problems and entail employee discretion in the choice of problems. Responsive creativity is driven by external conditions and closed problems. Contributory creativity is an internally driven response to a formulated problem. It involves voluntary behaviors. Finally, proactive creativity occurs when individuals are internally driven to search for problems and generate solutions.

Climate is a metaphor for assessing the “temperature” of an organization’s internal work environment. An organization’s climate influences processes such as problem solving, decision making, planning, communication, coordination and controlling, and psychological processes of learning (Sundgren et al., 2005). An organization’s climate can be studied from different levels of analysis, such as the individual or psychological level, the work unit level, or the firm level (Kuenzi & Schminke, 2009). Additionally, climate can be studied from different contexts such as a perceptual construct or a collective phenomenon (Kuenzi & Schminke, 2009).

In this dissertation, I focus on climate as a collective phenomenon of the work unit. Climate in this context represents “shared perceptions among unit employees regarding their perceptions of the work environment. When perceptions of a work unit’s employees are aggregated (typically after establishing some adequate level of agreement exists between employees), they reflect organizational climate. Thus, the origins of organizational climate lie in individual perceptions; however, it is a property of the unit,” (Kuenzi & Schminke, 2009: 638). Perceptions at the individual level need emerge at a higher level to form a shared unit property for multi-level aggregation (Colquitt et al., 2002). Thus, team creative climate is best conceptualized as the shared perception of creativity that collectively emerges on a daily basis in the team’s work environment. The way in which attitudes, intentions, and behaviors are shaped in the work environment is dependent upon individuals’ perceptions of these patterns (Woodman et al., 1993). By way of such influences, creative climate becomes a modifying force that can increase or decrease the effects of the organization’s investments and operations. Work environments that produce high-creative output have a stronger creative climate compared to environments that produce less creative work (Amabile et al., 1996).

2.3 Entrepreneurial Orientation

Research in entrepreneurship focus on understanding the relationship between EO and organizational performance because organizations with strong EO perform much better than those organizations that do not adopt an EO (Shan et al., 2016). An organization's EO is affected by factors such as the organizational members, their job responsibilities, and business unit goals. Scholars generally agree upon by two conceptualizations: the Miller (1983) three-dimensional view of EO as a combination of innovativeness, risk-taking, and proactiveness and the Lumpkin and Dess (1996) five-dimensional view of EO which includes Miller's (1983) dimensions with the addition of competitive aggressiveness and autonomy (Wales 2016).

Most prior research includes Miller's (1983) dimensions (Wales 2016). Miller's dimensions represent the core concept of EO, and it fosters conceptual stability in EO research (George & Marino, 2011). While some conceptualizations may vary in different research context such as organizational, individual, and team-level research, the essence of EO remains. EO has been theoretically assessed from many different theoretical perspectives such as RBV, DCs perspective, network theory, and learning theory (Wales, 2016). EO has been tested from a variety of perspectives from longitudinal studies to multi-level relationships (Wales, 2016).

EO is a key ingredient for a firm's success (Wang, 2008). EO refers to "the processes, practices, and decision-making activities that lead to new entry" (Lumpkin & Dess, 1996: 136). It involves "a willingness to innovate to rejuvenate market offerings, take risks to try out new and uncertain products, services, and markets, and be more proactive than competitors toward new marketplace opportunities" (Wiklund & Shepherd, 2005: 75). In this dissertation, I will measure the TMTs' EO by using EO scale created by Wang (2008). The EO dimensions in the scale consists of innovativeness, competitive aggressiveness risk taking, and proactiveness,

which together emphasize how entrepreneurship is undertaken based on the methods, practices, and decision-making styles used to act entrepreneurially (Lee & Peterson, 2000). These dimensions emphasize the individuals' ability to take risks.

The innovativeness dimension of EO reflects the tendency to engage in and support new ideas, novelty, experimentation, and creative processes, thereby departing from established practices and technologies. A high rate of technological and/or product market innovation can be used by the firm to pursue new opportunities. (Wiklund & Shepherd, 2005). The risk-taking dimension of EO is associated with the willingness to commit resources in projects where the outcomes are largely unknown and breaks away from tried and true ventures (Wiklund & Shepherd, 2005). The proactiveness dimension refers to anticipating and acting to future wants and needs in the competitive marketplace, essentially creating a first-mover advantage against potential competitors capitalizing on emerging opportunities (Wiklund & Shepherd, 2005). Lastly, the competitive aggressiveness dimension refers to the "organization's propensity to directly and intensely challenge its competitors to achieve entry or improve position, that is, to outperform industry rivals in the marketplace," (Lumpkin & Dess, 148). According to Wang (2008), these four dimensions are in line with Miller's (1983) general conceptualization of entrepreneurship, which suggests the degree to which firms innovate, acts proactively, and take risks. Proactiveness is very similar to both competitive aggressiveness and innovativeness, but according to Wang (2008), Innovativeness refers to the firm's tendency to engage in new ideas, while proactiveness refers to the introduction of new products and services in the marketplace. Further, proactiveness focuses on future opportunities, while competitive aggressiveness focuses on current opportunities and trends in the current environment (Lumpkin & Dess, 1996).

Managerial attitudes toward risk-taking differ based on key organizational contextual considerations such as managerial level, functional area, and business unit goals (Wales et al., 2011). Additionally, EO can emerge at lower organizational levels through innovative business initiatives undertaken by organizational members (Wales, 2016).

Responsiveness and innovativeness are dependent on the organization's abilities to harness team-level entrepreneurial behaviors, talents and activities as drivers of continuous innovation through an effectively managed HRM process. Entrepreneurial teams are an essential ingredient for creation, growth, and development of an organization (Xing et al., 2020). In order to execute strategic choices as circumstances change, entrepreneurial teams must be able to capture new information, and be agile enough to make quick corrections or adaptations to tap into opportunities (Xing et al., 2020). They need to find the right balance between committing the resources necessary to carry out a decision and avoiding investment of good money into futile ventures (Xing et al., 2020). Individuals, teams, and organizations with high EO will typically focus on criteria such as issues relating to new opportunity exploitation. However, individuals, teams, and organizations with low EO will typically focus on maximizing the value of current resources (Bradley et al., 2011; Brown et al., 2001).

2.4 Strategic Agility

In the review of strategic agility, I provide an overview of the development of the construct, then provide the definition of strategic agility. Although strategic agility has been studied in many contexts, I focus the review strategic agility's relationship to BMI. Research on SA and BMI link is more conceptually developed compared to other contexts showing the need for organizations to be agile in order to innovate their BMs.

2.4.1 Development of Strategic Agility

Researchers and practitioners agree on the importance of strategic agility due to the challenges TMT face in today's competitive environment such as globalization and the increasing rate of innovations. Strategic agility has been investigated in acquisitions as a determinant of knowledge transfer (Junni et al., 2015), managing corporate sustainability (Ivory & Brooks, 2018), language as an enabler or constraint (Brannen & Doz, 2012), different types of mergers and acquisitions as enablers (Brueller et al., 2014), and paradoxical leadership (Lewis et al., 2014). Thus, scholars (Weber & Tarba, 2014; Fourné et al., 2014; Brueller et al., 2014; Lewis et al., 2014; Doz & Kosonen, 2010) believe in creating strategically agile companies, which consists of activities such as creating and discovering new ways for managing business transformation and renewal, developing DCs, creating imitation abilities, maintaining a high level of organizational flexibility and ambidexterity, developing learning and knowledge transfer skills, and using adaptive corporate culture. Strategic agility is not about one particular event such as a major threat or crisis. A firm must consistently and effectively change its course of action in order to sustain its competitive advantages such as adapting existing competencies to an ever-changing environment and simultaneously reconfiguring themselves in order to survive and thrive for the long-term (Weber & Tarba, 2014).

Hock and colleagues (2016) developed a strategic agility scale focused on BMI. The changes that result from strategic agility are continuous, systematic variations in an organization's products, processes, services, and structures. Strategic agility requires a significant investment of resources to maintain the high levels of flexibility and speed necessary to be able to respond to sudden environmental threats and opportunities. (Weber & Tarba, 2014). Strategic agility is defined "as the ability of the organization to renew itself and stay flexible

without sacrificing efficiency” (Junni et al., 2015: 596) and is a critical DC in constantly changing, turbulent environments (Junni et al., 2015).

Scant research exists exploring the relationship between HPWS and strategic agility (Ahammad et al., 2020). Emerging work in HRM by e Cuhna and colleagues (2020) has emphasized the potential importance of flexible HR strategies, partnerships with senior management, and with supporting techniques such as promoting leadership dynamism and mindset change, along with talent attraction, knowledge management and upskilling programs. Strategic agility plays a key role in resolving the temporal tension between prior plans/routines and salient unexpected problems and opportunities (e Cuhna et al., 2020).

One crucial challenge that MNEs face is the value of strategic consistency versus the value of rapid change related to unexpected problems that results from fast moving trends. Strategic agility involves distinct strategic improvisational actions and also more complex collective improvisation over time. Improvisation represents a crucial process capability that can enable quick pivots involving innovation. Improvising effectively involves conditions such as sharing common knowledge, mutual consideration and trustful relationships among team members (e Cuhna et al., 2020).

The agility concept has been explored in numerous contexts such software agility (Lee & Xia, 2010), agile manufacturing (Vinodh, 2010), organizational agility (Tallon & Pinsonneault, 2011), inter-organizational learning agility (Carmeli et al., 2021), organizational ambidexterity (Chebbi et al., 2015). These forms of agility are different from strategic agility because the focus is not on the top management team, but on different organizational and industry phenomena.

Additionally, the literature on agility in general suggests that business firms should stay in a constant state of radical transformation. However, change is costly and achieving agility

often involves sacrificing efficiency. Agility is not a one-size fits-all solution. Knowing when and how much agility is needed and being able to deliver it cost effectively is a crucial management capability. Costs vary according to the structures and systems in place. For instance, the capabilities required to respond to negative events are often different from those needed to take advantage of positive developments. Agility is the capacity of an organization to effectively redirect its resources to value creating and capturing activities. Managerial decisions determine how the enterprise creates, shapes, and deploys capabilities, which result in innovative combinations of resources supported by profitable value-capture mechanisms (Teece et al., 2016).

2.4.2 The Strategic Agility and BMI Relationship

None of the prior forms of agility have gained as much traction as strategic agility. The literature on strategic agility remains largely anecdotal and prescriptive lacking the empirical and theoretical foundation (Lee & Xia, 2010). An exception is the research by Clauss and colleagues (2019). The researchers in this study empirically investigate the strategic agility and BMI relationship using German firms in the electronics industry. The authors show that strategic agility is positively related to BMI and the relationship is strengthened by the degree of environmental turbulence, suggesting that strategically agile firms are more inclined to adopt BMIs when they operate in turbulent environments (Clauss et al., 2019).

Doz and Kosonen (2010) provide a repertoire of concrete leadership priorities and actions enabling the meta-capabilities needed to accelerate the renewal and transformation of BMs so that such renewal efforts will succeed. The three components of strategic agility are further divided into five leadership abilities for each dimension (Doz & Kosonen, 2010). The three

components of strategic agility are: collective commitment (Junni et al., 2015), strategic sensitivity (Doz & Kosonen, 2010; Junni et al., 2015), and resource fluidity (Doz & Kosonen, 2010; Junni et al., 2015).

Strategic sensitivity, the first component, is the “sharpness of perception of, and the intensity of awareness and attention to, strategic developments” (Doz & Kosonen, 2010; 371). The five leadership abilities for strategic sensitivity are anticipating, experimenting, distancing, abstracting, and reframing.

Anticipating allows foresight to determine the reforms needed to occur in BMs to maintain and value creation and value capture. Experimentation provides insights that may produce innovation. Experiments do not automatically change BMs. They help challenge core assumptions and prototype change. Distancing involves TMT members to view the BM from an outside perspective ignoring the day to day operations. Having external directors and new hires can bring a different perspective needed to understand the BM positives and negatives. TMTs understanding the BM from a distance allows them to understand the general features from the more context-specific and historical features. Both distancing and abstracting are needed to allow for reframing, which entails generation of new perspectives and alternatives. TMTs consider different BMs to their current business. Generating these multiple frames is not common and is extremely valuable.

Second, resource fluidity is “the capability of the firm to rapidly reconfigure and redeploy resources” (Doz & Kosonen, 2010; 371; Junni et al., 2015). The five leadership abilities for resource fluidity are decoupling, modularizing, dissociating, switching, and grafting. Decoupling involves gaining flexibility.

Decoupling allows the organization to gain flexibility. The description states that a tightly integrated system that is poorly understood will result in reluctance to modify even one element. Decoupling creates an organization whose BM is distinct and autonomous but well-coordinated entities. Modularizing will create a library of numerous processes that can be used in the future to support a variety of BMI in the future. The second item of resource fluidity focuses on modularizing, which entails disassembling and reassembling business systems within the BM. The third item of resource fluidity focuses on dissociating. In many companies, there is an alignment between the organizational structure (roles and responsibilities) and the business processes that can be separated. This separation allows for structural flexibility within the BM. Switching entails using multiple BMs. By using multiple models, the organization can migrate between different BMs as the competitive landscape changes. Using this description, the item for switching was generated. Finally, grafting is used by TMTs to acquire a different BM onto existing BM operations as a catalyst for change. Grafting is done because initiating BM changes is difficult due to the organizational processes set in place. Also, acquiring BMs through acquisitions has mixed results. Grafting results in a slow transition by initially complementing the old BM eventually replaces the old BM.

Third, collective commitment refers to the TMTs taking advantage of opportunities via common ground without being hindered by internal disputes (Ivory & Brooks, 2018). The term “collective commitment” replaced the term “leadership unity” as scholars (Junni et al., 2015; Lewis et al., 2014) argued that the term leadership unity ignores the distributed role of leadership. Leadership unity is only one of the many factors needed by the TMTs to reach collective commitments (Ivory & Brooks, 2018). The leadership abilities that comprise collective commitment are dialoguing, revealing, integrating, aligning, and caring.

Dialoguing involves CEOs engaging his or her TMT members in open, honest discussions without fear of retaliation. Revealing allows the underlying motives to become visible such as cognitive biases, aspirations, fears, satisfactions, or discomforts. Integrating involves building interdependencies. Integrating is especially critical when businesses are distinct, but highly interdependent. TMTs must make decisions that optimize company performance. Aligning involves rallying around a common interest beyond incentives such as a compelling mission. TMT members can use aspirational and emotional images to engage members of the organization. Lastly, caring involves TMTs showing empathy and being attuned to employee emotional needs and expectations. It goes beyond items such as health insurance.

Collectively, these three components interact with each other constantly during the pursuit of organizational renewal (Doz & Kosonen, 2010). All three components of strategic agility are required to enable a company to be strategically agile; one or two components will not suffice (Doz & Kosonen, 2008, 2010). The authors claim that developing one capability to excellence while neglecting the others may produce suboptimal results. For instance, resource fluidity in absence of leadership unity may simply lead to more fighting among TMT members for resources. Having agile and fast processes may make TMT unaware to the need for strategic sensitivity by placing too much faith in their fast reaction capability. If leadership unity is not fully in place, the full benefits of agility cannot be achieved even if the other two components are present (Doz & Kosonen, 2008).

2.4.3 MNE Context

Fourne and colleagues investigated strategic agility in the MNE context. There is a growing consensus that strategic agility is critical for organizations, especially MNEs to survive

the dynamically changing landscape (Doz & Kosonen, 2008; Fourne et al., 2014). The authors defined strategic agility as a “meta-capability that creates and deploys a dynamic balance between sensing local opportunities, enacting global complementarities, and capturing local value over time” (Fourne et al., 2014).

Due to resource constraints, top management needs to maintain a delicate balance when allocating scarce resources (such as talent and capital) to each of the three dynamic capabilities. Failure to maintain balance may result in organizational tensions and stifle the organization’s ability to tap into local opportunities, enact global complementarities, and appropriate local value. Integrating subsidiary managers demands is one way to maintain this delicate balance (Fourne et al., 2014).

MNEs face context-specific situations in the various markets they operate so strategic agility may not be deployed similarly across the various markets. Fourne and colleagues (2014) modify the components of strategic agility by focusing on emerging and developed markets. The three components of strategic agility are modified into the following dynamic capabilities: sensing local opportunities, enacting global complementarities, and appropriating local value to emphasize the environmental impact on the organization. While current research emphasizes strategic agility with the continuous and simultaneous deployment of a set of dynamic capabilities, maintaining such a static balance may compromise the organization’s efficiency and effectiveness. Successful MNEs use a dynamic approach emphasizing certain aspects of strategic agility over time (Fourne et al., 2014).

2.4.4 Role of HRM for MNEs in Pursuit of Strategic Agility

HRM practices affect both the ability and motivation of people to embrace tensions within an organization. HRM practices can address tensions of belonging and performing. By reconciling differences between identities and mindsets at the corporate and subsidiary level, MNEs may benefit from using employee selection and career development practices to create a balanced mix of expatriate and local managers in key positions. A balanced mix results in people being less likely to take local institutions and traditions for granted. It also makes expatriates better at understanding local needs and framing local initiatives in the context of the MNEs' global strategy (Fourne et al., 2014). MNEs should encourage openness and constructive dissent among the team members. Having team members with diverse backgrounds enables teams to readily identify and act upon new opportunities and have a wide range of analogies to draw on in resolving organizational tensions enabling a "can-do" attitude (Fourne et al., 2014). MNEs also need to consider performance assessment and motivation to enable individuals to deal with contradictory, and potentially frustrating, demands. MNEs need to motivate and assess their employees, both individually and as teams, based on performance goals that take into consideration the specific issues that divisions face in emerging and established markets. Using local incentive structures aligned to regional market conditions and reward systems for innovation units that reflect the nature and time-horizon of specific projects can help achieve the desired effect. (Fourne et al., 2014)

2.4.5 Subsidiaries as a Source of Strategic Agility and Innovation

Although most international business literature focuses on the MNE as a whole, the subsidiary is becoming more recognized as a key building block of the MNE (Rugman et al.,

2011). It is difficult to understand an MNE without understanding each subsidiary's idiosyncratic resource base, strategy, assigned role inside the MNE, and linkages with other subsidiaries. Thus, the subsidiary is important to an MNE's FSA (Rugman et al., 2011).

The interactions of subsidiaries' autonomy, inter-unit power and initiatives with attention given by the MNE headquarters increase subsidiary performance. Subsidiaries that have a high level of strategic choice and receive attention from headquarters perform better than their peers (Ambos & Birkinshaw, 2010). The MNE subsidiary can utilize knowledge internal and externally from the MNE. Knowledge is the most important source of competitive advantage for MNEs (Song, 2014). Internally, the subsidiary can utilize knowledge from itself, the MNE headquarters also known as the parent firm, and other MNE subsidiaries. Externally, knowledge can be gained from other firms in the host country where the subsidiary is located, other firms in the home country where the MNE headquarters are located, and firms in other countries (Phene & Almeida, 2008).

Innovation processes in MNEs are largely context specific and are carried out at the subsidiary level (Ciabushi et al., 2015). Some MNEs strategically choose a non-sequential internationalization in order to develop knowledge that are useful to overcome foreign expansion difficulties such as knowledge to manage complexity, competitive conditions, and varying institutional environments (Ramamurti, 2004). The role of communication has a positive impact on a subsidiary's ability to contribute innovation tasks (Ghoshal & Bartlett, 1988). Additionally, managers' industry experience serves as an important antecedent of innovation performance for the subsidiaries of MNEs (Nuruzzaman et al., 2019).

An MNE's ability to innovate is related to its ability to generate, source, and integrate knowledge globally (Michailova & Zhan, 2015). A potential source of competitive advantage of

MNEs is the capacity of their foreign subsidiaries to generate innovations based on the resources and opportunities within their host country environments (Frost, 2001). Innovation is important for MNEs in order to build and maintain competitive advantage. The headquarters of the MNE, as resource allocators, are critical for subsidiaries value creation. Therefore, attracting the headquarters' attention will have a great impact on developing a subsidiary's capabilities which in turn be perceived as important of the MNE. It is an important managerial task to increase an innovation's impact on the subsidiary, and thus upgrade competencies which add to the competitive advantage and make the innovation be perceived as important for the MNE (Ciabuschi et al., 2015). Effective subsidiary CEOs are not able to implement beneficial strategic initiative if they are not supported by their TMTs. On the other hand, mediocre CEOs may be able to implement strategic initiatives if they are supported by the TMTs (Gong, 2003).

Headquarters resource allocation can be of great value for subsidiaries and an explanation of subsidiary evolution. A subsidiary that is allocated additional resources is likely to gain a specific position within the MNE, evolving into a center of excellence and being granted a mandate (Dellestrand & Kappen, 2012). Some subsidiaries are not able to increase their influence through their initiatives unless they get their MNE headquarters' attention (Ambos et al., 2010). Having access to technology can help the subsidiary of the MNE gain strategic power within the MNE network. MNEs can be thought of as a differentiated network of subsidiaries. Some subsidiaries may have access to resources that the overall MNE is dependent upon to enable it to cope with threats in the external environment (Mudambi et al., 2014).

2.4.6 Summary

In the review of strategic agility, I have discussed its origins, relationship to BMI, and its importance for MNEs. Strategic agility's three meta-capabilities are enabled by five specific leadership actions for each capability. Therefore, it is imperative to select appropriate TMT members since these upper echelons of an organization can impact organizational outcomes. The following review on TMTs will discuss the TMT characteristics in more detail.

2.5 Top Management Teams

This literature review will first provide a background as to how the importance of understanding the TMT emerged, followed by characteristics, compositions, and dynamics deemed important for organizational performance. I will then focus on a type of organizational outcome, innovation. I will then focus on the importance of the TMT for the international context. After reading this review, the reader will understand that executive backgrounds will have an impact for organizational outcomes, and certain backgrounds may be more important than others depending on the organization outcome desired.

2.5.1 Initial Background

The importance of TMTs for organizational outcomes can trace its origins to the Strategic Management framework. Research on top management teams initially assumed that managers were rational (Hurst et al., 1989). This view was grounded in the Strategic Management framework, (Hurst et al., 1989) which suggested that managerial logic is developed from experience. Under this framework, managers are less likely to prospect and utilize innovative ideas and behaviors necessary for organizational renewal (Hurst et al., 1989). The creative

management model further expanded upon the strategic management framework by introducing environmental dynamism as an element which influences the TMT decision-making process throughout time. The creative management model emphasizes TMTs that can recognize and understand potential opportunities for exploitation (Bower, 1982). Cultural norms, power relationships, and reward systems can encourage or discourage behaviors and even recruit TMTs that have the behaviors needed for successful organizational renewal based on the creative management model (Hurst et al., 1989). The prior research laid the foundation concerning the importance of TMTs for overall firm performance. Upper echelon theory, the theory of TMTs, expands upon the importance of TMTs. This theory states that “executives act on the basis of their personalized interpretations of strategic situations they face, and these personalized construals are a function of the executives’ experiences, values, and personalities” (Hambrick, 2007: 334). This theory spawned two major streams of research. The first stream focuses on the characteristics of TMTs instead of the CEO alone. The focus of TMTs demonstrates the complexity of leadership of an organization and demonstrated that leadership is a collective activity that combines cognitions, capabilities, and interactions of the TMT that manifest into strategic behaviors. TMT composition and processes are the focus of this stream. The second stream focuses on TMT demographics such as TMTs’ functional backgrounds, industry and firm tenures, and educational credentials as predictors of strategy and performance outcomes (Hambrick, 2007).

2.5.2 Composition, Dynamics, & Characteristics

“Performance of an organization is ultimately a reflection of its top managers” (Hambrick, 1987: 88). Organizations that have top management teams with the following

characteristics are more likely to undergo a change in strategy: lower age, shorter organizational tenure, higher team tenure, higher educational level, higher educational specialization heterogeneity, and higher academic training in the sciences. For instance, Norburn and Birley (1988) show that managerial characteristics predicted performance variations within various industries and managerial characteristics of top performing managers were similar across all industries. Additionally, executive tenure impacts firm strategy and firm performance (Finkelstein & Hambrick, 1990). The longer the tenure, the more likely that the strategy and performance tended towards industry averages indicating that not all TMTs have strategic awareness (Hambrick, 1981). Strategic awareness is “the extent to which an executive’s perception of the organization’s strategy aligns (a) with the organization’s realized strategy, and (b) with the chief executive’s perception” (Hambrick, 1981; 263). Strategic awareness depends upon numerous factors such as environmental, organizational, and managerial interacting with each other. TMTs display higher strategic awareness in organizations where strategies had recently changed compared to those that did not. Lastly, capital and resource allocation from one business unit to another is a critical task of the TMTs because it directly contributes to firm value creation (Chandler, 1991; Maritan, 2001).

TMTs collectively shapes the organizational outcomes. Strategic decisions by the CEO and TMTs can be enhanced by the CEO promoting trust and facilitating learning from failures (Carmeli et al., 2012). CEOs build integrative TMTs, promote pay equity among their TMTs, and establish ambidextrous and profitable firms (Ou et al., 2018). Haleblian and Finkelstein (1993) suggest that TMT size represents an important determinant of firm performance. Larger TMTs are associated with an increased ability to process information. Henderson and

Fredrickson (1996: 576) information processing is a primary responsibility of TMTs and is “critical to organizational functioning and performance.” (Certo et al., 2006).

Behavioral integration is a major refinement to upper echelons theory, which states that organizational outcomes are a reflection of managers’ backgrounds (Hambrick and Mason, 1984). Behavioral integration captures three essential factors of TMT interactions: quantity and quality of information exchange, collaborative behavior, and joint decision making (Hambrick and Mason, 1984). A strong team orientation is critical for TMT certainty (Isabella & Waddock, 1994). Additionally, leadership styles, such as CEO transformational leadership aids with the micro-processes involved in TMT decision making and building strategic capabilities, especially the organizational capacity to adapt to a changing environment (Friedman et al., 2016).

However, this leadership style comes with some caveats. CEO transformational leadership that focuses evenly on every TMT member increased team effectiveness and firm performance, whereas leadership that differentiated among individual members decreased both outcomes because the CEO unintentionally disrupted team dynamics by differentiating the amount of individual consideration and intellectual stimulation across TMT members (Zhang et al., 2011).

Team cohesion helps team members combine different learning activities and to overcome potential tensions associated with team ambidexterity (Jansen et al., 2016). One factor in the TMT decision-making, agreement, has been shown to be a multidimensional construct that is embedded in the social context of the intergroup relationships. Agreement is associated with success expectations of strategic endeavors and does not depend upon organization, profession, and tasks (Shanley & Correa, 1992). Iaquinto and Fredrickson (1997) suggest that TMT agreement is positively related to organizational performance, and industry environment plays a

key role in the variation of agreement. Firms in an industry with an unstable environment exhibited significantly more agreement about the process than firms in a stable environment.

Simply recruiting a diverse team may not result in better firm performance. It is necessary for the TMT to have a functional team mechanism to make its teamwork effective. One key to success is to enable a diverse TMT to focus diverse perspectives on its tasks, leading them to elaborate on the information related to the tasks and to enhance the quality of their decisions. For instance, recruiting by highly educated TMTs each having his or her specialty fosters continuous innovation in different business segments of an organization (Bantel & Jackson, 1989). By promoting a collaborative climate and building up common values among team members, top managers can gradually remove any feelings of threat or indifference. Information processing routines can be designed to exploit the team's diverse points of view, and to recognize that differences among the members. In addition to reducing the potential for conflict and increasing mutual respect, the team should work at designing its tasks, its goal structures, and its feedback and reward systems so that high levels of task, goal, and outcome interdependence can be maintained (Wei & Wu, 2013).

Greater diversity in functional backgrounds and experiences of TMT enable them to consider a broader range of alternatives and perspectives when considering strategic choices. Similarly, greater tenure heterogeneity is likely to promote viewpoints in TMT discussions, since TMT members with less organizational tenure may be more willing to challenge the status quo as compared to TMT members with longer organizational tenure (Certo et al., 2006).

TMTs make crucial decisions for the organization. Thus, they need to collaborate with each other to utilize each member's unique, functional background. The functional background diversity of a top management team is the "degree to which TMT members differ with respect to

their functional backgrounds” (Qian et al., 2013: 110) such as knowledge, skills, and abilities. It is often seen as a critical driver of innovation (Qian et al., 2013). When TMTs behave as a cohesive unit, they are able to make high quality decisions by gathering multiple perspectives which in turn should benefit an organization’s overall performance (Boone & Hendricks, 2009). If TMTs do not behave as a team (e.g., rarely meet), the backgrounds cannot be leveraged to enhance their decision-making (Boone & Hendricks, 2009).

Studies on TMT cognition typically examine the joint effects of TMT cognitive diversity with team process constructs such as team interdependence and cohesion on outcomes such as speed of response or firm performance (Bromiley & Rau, 2016). Team processes such as task conflict, trust, or cohesion moderate the relationship between TMT cognitive diversity and performance (Bromiley & Rau, 2016). Additionally, behavior and processing mechanisms such as collaboration and information exchange allow TMTs to benefit from their demographic diversity. TMT demographics (a proxy for cognitive diversity) and interactions also influence TMT attention, which directly or indirectly influence a variety of firm strategic outcomes such as new product introductions (Bromiley & Rau, 2016).

2.5.3 Innovation

Top managers’ innovativeness enables them to devote more efforts to facilitating innovative activities and adopting innovation-oriented strategies. Top management innovativeness refers to the “extent to which the firm’s top managers have favorable attitudes toward innovation and are willing to take risks to invest resources in innovation activities” (Wang & Dass, 2017: 128).

When making decisions regarding strategic resource allocations, greater amount of resources for innovation activities enhancing the firm's competitive advantage. Top management innovativeness facilitates innovation within the top management team that is difficult for rivals to replicate. The more TMT members commit to innovation, the more each member can contribute to firm performance. For example, while many established companies are often found to lack motivation in innovation because of the richness of firm resources, managers should promote a more entrepreneurial-oriented management culture to foster growth. In addition, managers need to promote an innovation-driven leadership style to use the firm's innovation capability more efficiently and enhance firm value creation (Wang & Dass, 2017).

Innovation "requires breaking away from old habits, developing new approaches, and implementing them successfully," (Chen et al., 2006; 1178) which needs considerable teamwork, skilled leadership and creativity. For instance, Doz (2020) provides some, not an exhaustive list, of suggestions on how leadership behaviors such as intellectual curiosity can improve certain aspects of strategic agility. The CEO may be able to provide the guidance and inspiration needed to overcome obstacles in order to innovate. Teams allow groups of individuals to exchange and combine knowledge. Diversity within teams promotes dialogue and debate that serve as a catalyst for innovation. Cross-functional teams can help an organization leverage resources build its capabilities necessary to achieve specific organizational goals. As a team, top management can synthesize diverse perspectives consistently to address the changes occurring in the competitive environment (Chen et al., 2006).

Studies that investigate the characteristics of TMTs with respect to innovation focus on TMT diversity or specific aspects of TMT diversity. Talke and colleagues (2010) research shows that TMT task-oriented diversity measured in terms of differences in educational, functional,

industry, organizational background or board tenure has a strong impact on the strategic choice of firms to pursue innovation. Talke and colleagues (2011) indicate that TMT diversity, measured as heterogeneity in educational, functional, industry, and organizational background, has a strong positive effect on a firm's innovation orientation. Yuan and colleagues (2014) states that TMT's research and development experience, marketing experience, and background diversity affect firm innovativeness. Schubert and Tavasoli (2020) focus on TMT educational diversity and found that it determines whether TMTs engage in innovation activities. Chung and colleagues (2018) found that a higher degree TMT knowledge diversity resulted in a greater likelihood of firms innovating. Ruiz-Jimenez and colleagues (2016) suggests that TMT gender diversity positively moderates the relationship between knowledge combination capability and innovation performance. Bantel and Jackson (1989) found that demographically diverse management teams were associated with higher levels of creativity and innovation. different sets of potential solutions to organizational issues (Bantel & Jackson, 1989). For instance, Bantel and Jackson (1989) found that top management teams that were heterogenous in terms of educational background made more innovative decisions than less diverse teams. Similarly, Wiersema and Bantel (1992) linked top management team heterogeneity and propensity to engage in strategic change. Having TMT members with differing views provides consideration of a different issues. Hence, demographic heterogeneity among the members of the top management team is an indicator of creativity in decision making. (Lyon & Ferrier, 2002).

The studies in this section indicate that the upper echelon perspective assumptions still hold for an organizational outcome such as innovation. However, there is no consensus for the exact characteristics that affect innovation.

2.5.4 Non-Profit Organizations

Little empirical work has been done in the area of innovation in nonprofit organizations (McDonald, 2007; Balan-Vnuk & Balan, 2015; Reficco et al., 2021). Innovation enables NPOs to fulfill its mission while maintaining fiscal health (McDonald, 2007). Nonprofit organizations are experiencing increasing pressures to focus on financial outcomes for sustainability and growth (McDonald, 2007). There have been questions whether this attention on performance might come at the cost of serving an organization's mission (Kellner et al., 2017).

McDonald's (2007) research suggests that a NPO's mission can facilitate innovation. The author's findings indicate that a clear, motivating organizational mission helps a NPO to focus its attention on innovations that will most likely support the accomplishment of the organizational mission. In turn, the mission also creates a climate in which innovations are given a fair chance to succeed. Thus, NPOs with clear, motivating missions tend to be more innovative.

NPOs are a powerful mechanism for reducing poverty and bringing about institutional change (Saebi et al., 2019). Historically, NPOs have suffered from two issues. First, they have been underfunded: philanthropy and public subsidies have not kept up with the boom in the number of NPOs (Austin et al., 2006). Second, they have experienced difficulties growing and operating at scale (Reficco et al., 2021). BMI has been found to be of critical importance in overcoming those issues, contributing positively to NPOs' impact and to their financial viability (Weber & Kratzer, 2013). Balan-Vnuk and Balan (2015) findings on nonprofit organizations in South Australia resulted in a similar conclusion. NPOs innovate their BMs for two key reasons: to remain financially viable, and to expand the delivery of important services to the community.

Generally, non-profits tend to be significantly more risk-averse than for-profit organizations (Hull & Lio, 2006). Due to their reduced capacity for risk and a lack of perceived

need for internal expertise, non-profit organizations are less likely to have extensive learning capacity than are equivalent for-profit organizations. Lower tolerance for risk and less learning capability combined make the pursuit of innovation an uncertain strategic choice (Hull & Lio, 2006).

Generating income is important to keep the NPO operating. Without adequate funds, NPOs would cease to exist, leaving a gap in services important to the community (Hull & Lio, 2006). NPOs exist to address public needs through the delivery of services or programs that would otherwise be unavailable to those in need (Morris et al., 2011). Gaining sustainable competitive is critical for these enterprises to ensure ongoing financial sustainability to serve beneficiaries in the future (Ofstedal, 2013; Weerawardena & Mort, 2012), which suggests that NPOs should innovate their BM to ensure they can meet their goals (Hull & Lio, 2006).

2.5.5 International Context

Another instance of BMI is in the international context. TMTs spearheading international businesses interact, compete, and behave differently (Earley & Ang, 2003; Nguyen & Benet-Martinez, 2007) compared to their domestic counterparts. Some of these aspects include access to novel ideas and concepts from unconventional sources, the ability to see multiple perspectives, and skill in synthesizing disparate ideas.

International strategy shapes TMT characteristics (Athanassiou & Nigh 1999). As a firm continues to grow outside of its domestic boundaries, TMTs' international business expertise increase leading to TMT members share each other's knowledge of international business expertise more extensively (Athanassiou & Nigh 1999). TMT characteristics containing international experience, educational heterogeneity, and tenure heterogeneity positively relates to international strategic initiatives. TMT tenure diversity increases the likelihood of entering new

geographic areas (Barkema & Shvyrkov, 2007). However, depending on the complexity of a firm's international strategy, positive relationships between TMT educational, functional, and tenure heterogeneity are contingent. International TMT members' higher cognitive tolerance for the international environment enhances TMT's level of international attention and trust enabling strategic decisions that favor internationalization (Pisani et al., 2018). TMT characteristics of lower average age, higher average tenure, higher average elite education, higher average international experience, and higher tenure heterogeneity are associated with firm international diversification (diversification of business activities across national borders) decisions reinforcing the importance of TMT composition in international decisions (Tihanyi et al., 2000). TMT members gain more first-hand international exposure to the MNE's overseas activities and markets the more an MNE internationalizes. Thus, face-to-face interactions with team members become critical as it helps them interpret and share knowledge facilitating mutual agreement on the overseas market conditions (Athanassiou & Nigh 2000).

For instance, when firms internationalize, recruiting TMT members with diverse nationalities and international experiences is preferred because these background characteristics may help curb the negative effects of liability of foreignness. Homogeneous TMTs have limitations processing and handling complex international situations when faced with a high degree of international diversification. More homogeneous TMTs are more likely to select a new TMT member who is dissimilar in international experience. International diversification exposes the limitations of the current TMT composition and is likely to lead to changes in their demographic profiles (Nielsen, 2009).

2.5.6 Summary

Therefore, research on TMTs suggests that certain TMT characteristics may be beneficial for an organization's preferable outcome depending on what the organization is attempting to achieve, which is in line with the arguments of upper echelon's theory. However, the literature is absent on what tools can be used to create the ideal TMT to achieve a specific organizational outcome. In the next section, I focus on high performance work systems to address this gap in the literature.

2.6 High Performance Work Systems

In this section I provide an overview of the development of HPWS. This section reviews of HPWS, a sub-field of SHRM, beginning with the concept of strategic human resources followed by general conclusions in both the macro and micro contexts as well as domestic and international contexts. I also provide a review on the HPWS and innovation relationship to serve as a proxy for the HPWS and BMI relationship I will develop in Chapter 3. Finally, I provide background of the executive HPWS and describe the nature of the practices, which will be used to provide support in determining the TMT characteristics and composition needed to implement BMI and how the executive HPWS can foster strategic agility with the selected TMTs.

2.6.1 Development of HPWS

HPWS has its initial theoretical and empirical foundation in Arthur's (1992, 1994) work on control versus commitment systems. Compared to the control systems, commitment systems contained practices that increased levels of employee productivity and involvement. Similar to Arthur's work, MacDuffie's (1995) work in industrial and manufacturing settings and

Ichinowski's work on innovative employment practices indicate that HR practices with interrelated elements bundled together consistently contributed to positive firm performance.

High performance work systems have many names such as commitment systems (Arthur, 1992), innovative management practices (Delery & Doty, 1996), high performance work practices (Combs et al., 2006), innovative work practices (Ichinowski et al., 1997), and high involvement work practices (Edwards & Wright, 2001). The various names make it difficult for practitioners to use the findings and makes it difficult for researchers to come to a consensus for the specific practices for HPWS. Despite these numerous labels, research suggests that organizations can achieve high performance by adopting practices that leverage employees' ability to create value (Gittell & Seidner, 2009).

The seminal study by Huselid (1995) confirms the links between HPWS and firm performance across multiple industries indicating economic and statistical impact on immediate employee outcomes, turnover and productivity, and long-term measures of corporate financial performance. Thus, the goal of high-performance work systems (HPWS) is to promote employee commitment and involvement that benefits the organization (Beltran-Martin et al., 2008). HPWS essentially signals what behaviors are desired and rewarded within the organization (Bowen & Ostroff, 2004).

HPWS is preferable to the control HRM systems, which are traditional HRM systems, are often seen as a traditional HRM approach. The control HRM system seeks to "establish order, exercise control, and achieve efficiency in the application of the work force" (Walton, 1985: 78). The goal of this system is to decrease labor cost and increase labor efficiency by having defined-job roles. There is little training provided by the organization and no employment security (Walton, 1985). Thus, workers are considered replaceable (Lepak et al., 2006). An organization's

performance standard is measured by employees' compliance of formal rules and procedures as well as close monitoring by their supervisors. Compensation practices are based on "measurable output criteria" (Arthur, 1994:672). Overall, employees are not seen as important resources to an organization in control HRM system.

2.6.2 HRM system versus individual HR practices

SHRM investigates HR practices grouped as bundles/systems and their impact on organizational outcomes. According to Jackson and colleagues (2014) SHRM is defined as the "study of HRM systems (and/or subsystems) and their interrelationships with other elements comprising and organizational system, including the organization's external and internal environments, the multiple players who enact HRM systems, and the multiple stakeholders who evaluate the organization's effectiveness and determine its long-term survival (2)."

HRM practices influence employees' skills through the acquisition and development of a firm's human capital (Huselid, 1995) and can affect employee motivation. Highly skilled employees cannot benefit an organization if they are not motivated to perform (Coff & Kryscinski, 2011). However, emphasizing a single practice creates an incomplete picture of the firm-wide significance of the practice and overstates the contribution of the HR practice and its impact on the organization (MacDuffie, 1995; Delaney & Huselid, 1996)

In general, HR bundles (Jackson et al., 2014) have been shown to have positive effects on firm business performance (Boselie et al., 2005) due to the interactions the practices have on each other in enhancing desirable employee characteristics (Delery, 1998).

The RBV and DC show that inimitability is key to maintaining competitive advantage (Buller & McEvoy, 2012). Bundles of practices, collectively known as systems are difficult to imitate (Lin & Shih, 2008). HR practices, from catering to the regular firm level employees

(Wright & Snell, 1998), to the middle managers (Floyd & Lane, 2000; Sikora et al., 2015), to elderly workers (Kooij et al., 2014), are the tools used to achieve firm specific goals. For example, supportive HR practices implemented by HR managers aim to increase employee flexibility by providing and creating a nurturing and noncaustic environment that motivate individuals to pursue strategic goals (Beltran-Martin & Roca-Puig, 2013).

2.6.3 HPWS Bundle of Practices and Prominent Theories

Although there is no consensus among researchers as to what practices constitute HPWS (Edwards & Wright, 2001; Sun et al., 2007; Posthuma et al., 2013), researchers generally accept that there exists three interrelated dimensions of HPWS that aid in enhancing organizational performance: 1) high relative skills of workforce, 2) the opportunity to use those skills, and 3) incentives such as performance-based pay, to induce commitment and discretionary effort (Colvin et al., 2001). The lack of consensus may suggest why HPWS why industry professionals have not adopted it (Cappelli & Neumark, 2001). Despite the lack of clarity for the practices, scholars do agree that HPWS can be both helpful and harmful to an organization. HPWS is helpful to an organization if the practices have additive effects and reinforce one another. HPWS is harmful if the practices reduce organizational performance, due to one or more practices being substitutable (Combs et al., 2006). Research by Posthuma et al. (2013) attempts to bring cohesion in the field by creating nine categories of practices together to represent HPWS. These practices are 1) compensation and benefits, 2) job and work design, 3) training and development, 4) recruiting and selection, 5) employee relations, 6) communication, 7) performance management and appraisal, 8) promotions, and 9) turnover/retention/exit management.

Depending on how HR practices are implemented, actual practices may differ from intended HR practices (Khilji & Wang, 2006).

Two prominent perspectives take hold when investigating HPWS: RBV and Behavioral Theory (Shin & Konrad, 2017). RBV suggests that HPWS can lead to sustainable competitive advantage by way of developing and maintaining a unique/valuable human capital (Shin & Konrad, 2017). The most important factor of RBV that applies to HR is inimitability (Becker & Huselid, 1998). However, the tenets of RBV are very abstract making it difficult to empirically research the “black box” question in HR (Becker & Huselid, 2006). RBV relies on constructs that are difficult to operationalize (Becker & Huselid, 2006). The behavioral perspective suggests that HR practices encourage employees to engage in productive behaviors (Shin & Konrad, 2017).

2.6.4 Micro-Level Context

Additionally, HPWS has been shown to be effective at a micro level (Evans & Davis, 2005; Iverson & Zatzick, 2011; Wang & Verma, 2012). HPWS has been shown to positively influence social structure by facilitating network ties (Evans & Davis, 2005). HPWS can reduce productivity losses from downsizing because it considers employees’ morale and welfare (Iverson & Zatzick, 2011). HPWS bridges the connection between business strategies and work-life balance program adoption (Wang & Verma, 2012). It improves the social climate within the organization enhancing communication and cooperation among the employees thereby promoting more productive and satisfied employees (Combs et al., 2006). Additionally, HPWS facilitates organizational climate by way of employee concern and customer concern (Chuang & Liao, 2010). Such organizational climates encourage cooperation of both the customer and

employees leading desirable market performance (Chuang & Liao, 2010). Human capital and affective commitment have been shown to be a mediator for HPWS and job performance (Chang & Chen, 2011). HPWS is associated positively with job satisfaction, procedural justice and intrinsic motivation (Garcia-Chas et al., 2015) and well-being (Wood & de Menezes, 2011). Research on HPWS and innovation suggests that job design is a critical factor for explaining employee innovativeness more so than reward systems (De Spiegelaere et al., 2018). By using HPWS, teamwork is a way to formalize worker participation and broaden the ideological commitment of the workforce to production flexibility goals (Taplin, 2006).

2.6.5 HPWS and Innovation

HPWS can impact innovation by developing employee knowledge and motivating them to use their knowledge in creative endeavors (Liu et al., 2017). For instance, recruitment and selection practices make sure that employees have the prerequisite skill set to perform creative activities. Training practices enhance employee knowledge so they can address future organizational concerns. Job enrichment practices enables employees to improve their domain-relevant knowledge by taking on diverse roles and performing challenging tasks (Lado & Wilson, 1994). Teamwork and group-based performance pay practices encourages employees to collaborate with each other enhancing each other's knowledge (Han et al., 2014).

Using HPWS researchers have demonstrated the various impact HPWS can have on innovation. Zhou and colleagues (2013) state that commitment-oriented HRM systems reinforce firms' internal innovative capability, while collaboration-oriented HRM systems stimulates innovation by building social networks with external sources. Verburg and colleagues (2007) demonstrate that HRM practices that promote commitment rather than compliance are more likely to result in higher levels of innovative orientation in a company. Fu and colleagues (2015)

show that innovative employee work behaviors mediated the relationship between HPWS and organizational innovation in the context of professional-service firms. Jiang and colleagues (2012) find that employee creativity mediates the relationships between hiring and selection practices, reward practices, and job design and teamwork practices and organizational innovation. Walsworth and Verma (2007) show that the level of internationalization matters in term of how HR practices affect organizational outcomes. For MNEs, training practices benefit innovation, while variable-pay and employee involvement practices have less impact than they do in domestic firms without international presence.

Similar to the ‘black box’ discussion of HR and performance, there is a ‘black box’ discussion for HR and innovation in terms of understanding of how HRM influences innovation (Seeck & Diehl, 2017).

More recently, Khan and colleagues (2020) suggest that understanding of the role played by HRM practices in enhancing and leveraging a company's capability for agility is consistent with HRM's increasing responsibility for managing human capital. AMO-enhancing HRM practices are important for organizational performance and for gaining a competitive advantage. AMO-enhancing HRM practices are important motivation enablers for employees. These practices and help them to develop key skills and opportunities for job growth such as improving customer service in the services industry.

2.6.6 HPWS in Non-Profit Organizations

NPOs are founded to address a range of issues and needs, such as social, health, cultural, education, and advocacy. Non-profit organization, such as universities, focus on social outcomes rather than profit generation (Kong, 2008). Some NPOs, in fact, do generate profits. However, they do not return profits to owners or directors like for-profit organizations (FPOs). Instead,

NPOs reinvest the profits for their social causes and mission (Hall et al., 2003; Guo et al., 2011; Brown & Yoshioka, 2003) which keeps their non-profit status. Other differences between NPOs and FPOs are financial restrictions and resource scarcity. Financial restrictions prevent NPOs from recruiting and retaining high caliber candidates (Ban et al., 2003). Resource scarcity restricts HRM investments such as state-of-the-art training facilities (Cunningham, 1999). To overcome both issues, NPOs focus on employees' intrinsic motivations using the organization's mission as an effective tool for fostering motivation and retention (Brown & Yoshioka, 2003).

NPOs seek to balance multiple, often competing demands in their operating environments (Guo et al., 2011; Walk et al., 2014). There is increasing pressure to prioritize performance improvements (Kong, 2008). As the operating environment becomes more competitive, complex and resource scarce, managing employees has become an important area where improvements can be made through implementation of performance oriented HRM systems (Guo et al., 2011). Research on strategic human resource management is fragmented due to the heterogeneity in approaches, methods, and findings (Baluch & Ridder, 2020) as this review will show.

The context of NPOs presents a set of unique and distinct resources and capabilities for strategy formulation, implementation, and innovation of the organization's BM. For instance, volunteers (Akingbola, 2013a,b) create a cost advantage, and hence a competitive advantage to NPOs that are able to effectively manage these resources through SHRM (Akingbola, 2013a,b; Hartenian 2007). HPWS has been identified as useful in a few specific contexts. For instance, Selden and Sowa (2015) suggest the use of HPWS to lower voluntary turnover in human services NPOs. Word and Park (2015) find that HR policies aimed at enhancing work-life balance, organizational advancement, and job security act as important job choice factors for prospective NPO employees. Lastly, Kellner, Townsend, and Wilkinson (2017) find that the performance

goals of HPWS practices does not conflict with a “values-based approach” to manage people in NPOs. Although HPWS has been addressed to some extent in the NPO SHRM literature, there is a lack of research that addresses how executive HPWS can be implemented in the organization. NPOs most important resource is their human resources (Akingbola, 2013a,b; Selden & Sowa, 2015). Due to the inability of NPOs to afford the financial compensation of FPOs, retaining top management talent to lead the organization is critical so that the NPO can continue to carry out its social mission.

Ridder and McCandless (2010) suggest a model of HR architectures in NPOs that is based on HR systems architecture (Lepak & Snell, 2002). This model distinguishes between two dimensions that shape HRM in NPOs: strategic and HR orientations. In the strategic orientation, SHRM contributes to an organization’s outcomes through achieving a vertical fit and a horizontal fit. A NPO’s strategic orientation is driven by its values, mission, and the expectations, needs, and goals of its internal and external stakeholders (Ridder & McCandless, 2010; Ridder et al., 2012).

On the other hand, HR orientation is driven by an organization’s HR capital pool as a source of sustained competitive advantage if it is utilized via organization-specific HR practices (Wright et al., 2001). The specific characteristics of intrinsically and highly motivated nonprofit employees in addition to their needs are considered the basis of HR practices and shape the HR orientation (Ridder et al., 2012). Together, strategic and HR orientations reflect a broad variety of characteristics and reasons for which organizations adopt and implement HR practices. Juxtaposing the dimensions results in a typology of four HR architectures: administrative, strategic, motivational, and values based HRM.

In contrast, Akingbola (2013a,b) conceptualizes organizational goals and characteristics stemming from contextual factors that drive HR practices in NPOs. The author identifies the environmental and contextual factors as the nature of products and services, sectoral and organizational values, organizational performance, market dynamics, multiple primary stakeholders, and the role and function of government. All these factors stand to influence the way organizations consider and manage human resources (Akingbola 2013a). Akingbola (2013a) distinguishes between different models of nonprofit HRM: arbitrary, administrative, values-based, strategic, and mutual HRM, and emphasizes that these models of HRM vary in terms of the previously mentioned contextual drivers.

Not all the HR practices that are associated with HPWS are present in every NPO. The universalistic approach to strategic human resource management theory has dominated research in NPOs (Hager & Brudney, 2015), where a set of best human resource practices is prescribed for superior organizational performance. This approach does not capture the unique characteristics of strategic human resource practices in non-profit organizations, especially those that depend on non-traditional volunteers, such as episodic, short-term and or event-based volunteers (Akinlade et al., 2017). Therefore, it is important to align SHRM to each unique organizational context and strategy (Cooper et al., 2020). One of the major theoretical perspectives that has been emphasized in SHRM research is the importance of organizational context as a contingency for HR practices (Batt 2000). In nonprofits, the social mission and the institutional characteristics of nonprofits are fundamental to the essence of SHRM in such contexts (Akingbola, 2013a,b). Therefore, a holistic view of HRM configurations and their effect on a range of performance outcomes takes into account the multidimensionality of performance in NPOs (Helmig et al., 2014) is a highly suggested direction for the future research (Baluch &

Riddler, 2020), which I investigate in my dissertation using dean's office teams in business colleges in AACSB accredited universities.

2.6.7 Multinational Enterprise Context

Aside from NPOs, HPWS has been shown to be useful in other contexts. In particular, HPWSs are important in helping strengthen competitive strategies of MNEs. HPWSs not only enhances performance, it also facilitates internationalization. MNEs represent an important test bed for the HPWSs and their applicability in different national contexts (Demirbag et al., 2016). Global markets and varied institutional environments encourage both developed and emerging economy MNEs to have a configuration of HPWS which consist of three components: “knowledge, skills and abilities”; motivation and effort; and opportunities to contribute (Demirbag et al., 2016). A study of Australian subsidiaries of US, German, and Japanese MNEs suggests that the role of subsidiaries' HR practices lies in nurturing ties between a subsidiary and its external stakeholders and in accumulating knowledge of strategic importance not only for the subsidiary but also for its headquarters (Yamao et al., 2009).

Although American-style HPWS has become the dominant HR system (Chen et al., 2005), its implementation depends upon external influences of the local environment where the subsidiary is domiciled (Lawler et al., 2011). HPWS implementation of HPWS in subsidiaries of American-based MNEs operating in Asia, Africa, and Europe suggest a strong positive association between host-country economic growth and HPWS implementation (Lawler et al., 2011). However, the parent company in the MNE can negate some of the external institutional pressures through effort in enforcing HPWS implementation (Fey et al., 2009).

Replication of HR systems is another issue of concern for MNEs. Replication is typically the first approach since the headquarters (parent organization) primarily design the HR policy

and distribute it to all the subsidiaries (Farndale et al., 2010) suggesting that national boundaries and culture may not be important factors to consider when generalizing HR practices (Park et al., 2003). Still, MNEs struggle to replicate HR practices among their subsidiaries because HRM practices and systems are complex and context specific (Morris et al., 2009). For instance, a comparison of German, European, and US models of SHRM suggests that alignment of formal and informal processes improves the capability of an MNE to replicate HR practices across subsidiaries (Festing, 2012; Morris et al., 2009). National culture in addition to managerial discretion can provide a better understanding of effectiveness of HPWS across various countries (Rabl et al., 2014). Cultural characteristics of the countries where firms are located appear to increase the positive influence of HPWS (Lertxundi & Landeta, 2011).

HRM practices are critical to knowledge transfer within the MNE since they affect the development of absorptive capacity (Minbaeva et al., 2003). The developed and undeveloped nature of an economy has no bearing on the effectiveness of the HPWS implementation within the MNEs' subsidiaries (Lawler et al., 2011). Additionally, MNE size tends to influence the degree of global talent management practice usage (McDonnell et al., 2010). Although MNEs have systems in place to grow and develop their global talent, "less than half of all MNEs have both global succession planning and formal management development programs for their high-potentials" (McDonnell et al., 2010; 150).

2.6.8 Emerging Markets context

Similar to the HPWS literature on NPOs, emerging markets is one particular area in international context that deserves more scholarly attention but is highly under-developed. Empirical evidence from emerging economies is limited on whether the findings of HPWS for Western societies can be generalized to non-Western contexts (Ngo et al., 2008). China is an

emerging market that has witnessed a surge in research on HPWS. Chow's study of China (2012) supports the role of implementation and organizational culture as an explanatory mediating mechanism for the HPWS – firm performance link. HPWS has been shown to have a positive effect subjective well-being when there is a collaborative relationship among employees in an organization (Zhang et al., 2014). It enhances organizational performance (Zhang & Morris, 2014) through organizational commitment, reduced work withdrawal behaviors, and turnover intentions (Wang et al., 2011). Studies on other emerging markets such as Korea (Choi, 2014), Greece (Giannikis & Nikandrou, 2013) and Algeria (Ramdani et al., 2013) suggest a beneficial organizational outcome with HPWS implementation.

2.6.9 HPWS at the Executive Level

The prior sections showed the benefits of using HPWS at the employee level in a variety of context. However, there is a lack of research showing the importance of HPWS at the executive level. Executive behavior and actions are critical to organizational outcomes. Initial research on executive HPWS (Carrol & Martell, 1995) suggests that using executive HPWS can have a beneficial impact on organizational outcomes by influencing the actions of an organization's top management team by aligning their individual objectives with those of the firm (Martell & Carroll, 1995). A bundle of HR practices in the following HR categories have been recommended: executive selection, compensation packages, performance appraisal, trainings, and climate (Lin & Shih, 2008; Chen et al., 2016). This package of practices is associated with increasing firm performance (Martell & Carroll, 1995). Executive HPWS has been measured at the firm-level since the organization is implementing the HR system on the executives (Lin & Shih, 2008). The idea behind this system is to attract the right individuals to

be a part of the organization's TMT that will move the organization forward and collaborate with team members effectively. These practices are meant to influence the behavior of the TMTs and their capabilities regardless of context (Collins & Clark, 2003; Lin & Shih, 2008).

Executive selection is equivalent to recruiting and selection practices at the employee level. Team composition has an impact on interactions among the members. TMT members are selected based on their propensity for teamwork, their communication skills, breadth of perspective, industry-relevant knowledge and experience, and experience in various jobs in the field (Lin & Shih, 2008).

Recruitment and selection practices affect TMT composition and interactions among TMT members (Lin & Shih, 2008). As decision-makers, TMTs are involved in the creation of strategies, policies, and resource allocation (Chen et al., 2016). An important strategic component of an MNC's subsidiary is its staffing decisions (Gaur et al., 2007). When making subsidiary staffing decisions, the MNC mostly chooses from parent country nationals or host country nationals (Gaur et al., 2007). Subsidiary staffing is a primary strategic means for MNEs to share knowledge and coordinate and control activities (Gaur et al., 2007). Parent country nationals may be chosen due to lack of qualified local personnel, gain international experience, or improving communication between the MNE headquarters and the subsidiary. Host country nationals may be chosen due to familiarity with local market, high cost of expatriates, and adjustment problems for expatriate managers (Harzing, 2001). National diversity (Gong, 2006) along with multicultural TMT composition (Lakshman, 2013; Fitzsimmons, 2013) are beneficial since these characteristics lead to effective international negotiations (Fitzsimmons, 2013), decision-making ability (Lakshman, 2013), and creativity (Lucke et al., 2014). National diversity can also influence the productivity (Gong, 2006) of the TMT enhancing overall organizational

performance. Consistent with the research on multiculturalism (Vora et al., 2019; Lisak et al., 2016), TMTs with culturally diverse backgrounds are likely to possess stronger ability to recognize and seize opportunities abroad.

Compensation packages affect motivation towards organizational goals. Compensation package practices involve practices that reward both individual and team-based performance (Lin & Shih, 2008) and are a key topic in corporate governance literature. They are broad in nature can contain items such as pay plans and bonuses based on industry averages, team and individual performance, and company tenure (Posthuma et al., 2013) and are created to attract ideal human capital (Lin & Shih, 2008) and need to be market competitive to retain top talent (Martell & Carroll, 1995). Because subsidiaries may be in an environment different from that of the parent firm, the subsidiaries' interests may not align with those of the parent firm. Practices that align subsidiary interests with those of the parent firm could reduce potential agency issues between the subsidiary and the parent firm (Kostova et al., 2016). Compensation packages for TMTs are selected based on fairness, pay raises based on merit and company tenure, bonuses and rewards based overall company performance and department's performance, and pay above industry average (Lin & Shih, 2008) to align TMT interests with those of the organization's.

Performance appraisal practices (Martell & Carroll, 1995) that are clearly stated help reduce the disputes and enhance team integration, attitudes, and commitment (Lin & Shih, 2008). These practices comprise for TMTs put a high weight on mutual support, are very specific, fair and just, and relative performance among departments influences performance appraisal results among TMT members (Lin & Shih, 2008).

Training practices promote skills, knowledge, and abilities necessary for effective teamwork (Lin & Shih, 2008; Stevens & Campion, 1994). It teaches employees the KSAs

needed for the job, which rewards employees for attaining competence that can be applied to the workplace. Effective teamwork can enhance the motivational properties of work and increase job satisfaction (Wang et al., 2011). With training practices, companies provide TMTs communication and problem-solving training programs, establish rules or programs to help TMT members understand each other's operation processes and job duties, informal social activities for TMT members, and opportunities for TMT members to participate in cross-functional projects.

Finally, climate building practices affect interactions and performance among group members (Lin & Shih, 2008). It enhances dialogue and constant, consistent communication among TMT members leading to true consensus and conflict reduction within the TMT (Lin & Shih, 2008) further promoting behavioral integration. The nature of these practices promotes a culture of cooperation and collaboration, clear developmental vision to guide the actions of TMT members, encourages mutual learning among TMT members, and provide formal or informal communication channels among TMT members.

Given the importance of HPWS at the employee level leading to a plethora of beneficial outcomes for the organizations and the individuals, researchers have not come to a consensus on the mediating mechanisms nor have they attempted, albeit a select few, to investigate HR systems at the TMT level despite the known importance of the TMT for important strategic initiatives.

2.6.10 Summary

Overwhelmingly, the literature suggests that there are benefits using HPWS (Posthuma et al, 2013; Huselid, 1995) in the micro and macro level, but there is still no consensus on the

mediating aspect between HPWS and the respective dependent variables (Wright et al., 2004; Jackson et al., 2014). No two studies measure HPWS in a consistent way because of an absence of an accepted measure of HPWS (Delaney & Huselid, 1996). Executive HPWS is an understudied HRM system. Practices within this system can be used to determine the TMT team composition necessary to achieve an organizational outcome, which I will discuss in chapter three.

2.7 Theoretical Background

This dissertation draws dynamic capabilities theory (Teece et al., 1997; Teece, 2014). First, I define and describe dynamic capabilities theory. Then, I review three different perspectives used to explain the MNE phenomenon: Uppsala model, eclectic paradigm, and internalization theory to show why dynamic capabilities is better suited to explain BMI in the MNE context. Although these prior theories explain aspects needed for MNEs to be successful, these initial theories were formed when the global markets were not rapidly changing nor interdependent as today's markets.

2.7.1 Dynamic Capabilities Defined

The literature on dynamic capabilities has examined how firms identify and develop new opportunities, how firm coordinate the assets required to exploit such opportunities, and how firms develop new BMs and governance forms (Teece et al., 1997). The goal of dynamic capabilities theory is to provide a paradigm explains dynamic value creation (Teece, 2007).

“Dynamic capabilities refer to the (inimitable) capacity firms have to shape, reshape, configure and reconfigure the firm's asset base so as to respond to changing technologies and

markets”. They include “the organization’s (non-inimitable) ability to sense changing customer needs, technological opportunities, and competitive developments; but also its ability to adapt to—and possibly even to shape—the business environment in a timely and efficient manner” (Augier & Teece, 2007: 179). Therefore, the firm needs to be able to “sense and then seize opportunities, navigate threats, and combine and reconfigure specialized and co-specialized assets” (Teece, 2007: 1344) for the dynamic capabilities process to occur.

Dynamic capabilities also address whether and how intended value capture motivates the setting up of cross-border organizations, as well as market and value co-creation for purpose of value capture. The capability to orchestrate and leverage co-specialized and complementary assets in order co-create cross-border markets is “arguably the grandest of all [dynamic capabilities]” (Pitelis & Teece, 2010: 1263) and an important reason behind the advances of globalization (Pitelis & Teece, 2010).

2.7.2 Dynamic Capabilities for MNEs

I begin the review on theories for multinational enterprises with the research of Hymer (1960). Prior to Hymer’s dissertation thesis, research in international business focused on the country level analysis. Hymer introduced the MNE and its firm specific advantages recognizing that an MNE’s firm specific advantages are necessary to overcome liability of foreignness when operating abroad (Rugman et al., 2011). Liability of foreignness explains why some MNEs are unsuccessful when pursuing opportunities abroad (Rugman et al., 2011) and why firms need to have a firm specific advantage to offset this liability (Johanson & Vahlne, 2009).

Initially, the internationalization process, (Johanson & Wiedersheim-Paul, 1975) of MNEs was assumed to occur sequentially in four stages (Johanson & Wiedersheim-Paul, 1975;

Anderson, 1992). This assumption is based on the belief that firms first develop in their respective domestic markets before pursuing a series of incremental steps. Lack of resources and knowledge are initial obstacles that are reduced over time as the firm incrementally internationalizes (Johanson & Wiedersheim-Paul, 1975). Below are the following stages listed sequentially:

Stage 1: No regular export activities

Stage 2: Export via independent representatives (agents)

Stage 3: Establishment of an overseas sales subsidiary.

Stage 4: Overseas production/manufacturing units.

The Uppsala model (Johanson & Vahlne, 1977, 2009) refines the model provided by Johanson & Wiedershiem (1975) by introducing a dynamic model where market knowledge and market commitment affect both commitment decisions and the way current decisions are performed, which in turn, change market knowledge and commitment (Andersen, 1993). The benefits of exploiting FSAs need to be weighed against the uncertainties of the unknown markets and the cost of doing business there. The firm can choose to exploit its FSAs through exporting, FDI with wholly owned subsidiaries, licensing, or international joint ventures (Rugman et al., 2011). International activities require both general knowledge and market-specific knowledge. Market-specific knowledge is achieved through experience, whereas knowledge of operations can be transferred from one country to another (Andersen, 1993).

The benefits of exploiting FSAs need to be weighed against the risks of operating in unknown environments and the costs of learning to do business in the unknown environments. Firms initially expand in geographically close countries that may have country specific advantages (CSAs) similar to the one the firm currently operates in. The firm will expand to

distant countries as it begins to overcome the liability of foreignness. Survival is dependent upon the firm's ability to recombine its FSAs with host country CSAs (Johanson & Vahlne, 1977; Rugman et al., 2011).

Next, the eclectic (OLI) paradigm expands upon the concepts FSAs and CSAs by describing how MNEs pursue foreign direct investment with three types of advantages: Ownership, Location, and Internalization advantages. The OLI paradigm defines the bases for the pattern and growth of investment by a multinational firm. These include the firm's specific resources and capabilities (O factors), the resources and opportunities it faces in different locations (L factors), and the value of internalization to create and extract value when O and L factors interact (Lessard et al., 2016). The eclectic paradigm was never really intended to explain competitive outcomes; advantage was assumed to exist, and the paradigm was developed at a time when MNEs faced much weaker global competition than today's hyper competition (Lessard et al., 2016).

Internalization theory is considered a general theory of the MNE (Rugman et al., 2011). It is founded on the idea that exploitation of firms' knowledge-based assets across national boundaries is often most efficiently undertaken internally within the hierarchical structure of the MNE. The basic argument of internalization theory is that firms maximize profit by internalizing their intermediate markets across national borders in the face of various market imperfections (Rugman, 2010). This theory focuses on "market failure" when providing reasons for international production and the phenomenon of the MNE (Teece, 2014). It explains how firms do business across different entry modes, where the FSAs of the MNE need to be offset against the liability of foreignness when entering foreign markets. Internalization theory has been

characterized as a static theory (Buckley & Casson, 1976), and does not address the reasons for differential firm performance (Teece, 2014).

These prior theories have addressed the importance of CSAs and FSAs but have not addressed the significance of capability deployment and upgrading. CSAs nowadays are not enough to provide MNEs competitive advantage. The competitive advantage of a MNE depends less on the location and more on how the locations are linked through the MNE's organization and strategy (Lessard et al., 2016). Additionally, developing and deploying resources in the 1960s and 1970s was not necessary since MNEs could build monopolies to maintain their competitive advantage (Luo, 2000).

Well-coordinated resource deployment helps firms exploit interdependencies across their businesses to achieve synergies, whereas organizational learning and new capability building accentuate competitive advantage and improve global performance. In the absence of unique or new bundles of resources, firms cannot reduce their liabilities for foreignness. In the absence of efficient resource deployment systems, MNEs have difficulty coordinating their value chain activities. The need to balance the dynamic tension between multiple forces such as geographic, product, market, technological has resulted in MNEs extending their presences all over the globe for a variety of purposes and forms. Possessing, deploying, and upgrading capabilities is a primary driver of international success (Luo, 2000). Distinctive resources are critical asset, knowledge, or capabilities that are firm specific, difficult to imitate, and can generate economic return and competitive edge in the market. Possessing distinctive resources alone is not enough to ensure success in international expansion. Success depends on how a firm allocates and exploits its distinctive resources among geographically dispersed yet globally coordinated subunits worldwide.

Capability possession concerns a firm's established distinctive resources, including critical assets, knowledge, or capabilities that are firm-specific, difficult to imitate, and can generate economic returns and a competitive advantage. These resources are organizationally embedded. Only critical firm-specific resources can create a sustained competitive advantage and explain performance differences compared to major rivals (Luo, 2000). Asset orchestration is the ability to combine selected technologies, individuals, and other resources in new products and processes regardless of location and across organizational boundaries. Asset orchestration requires TMT to administer, manage, and lead with speed and skill (Luo, 2000).

Additionally, DCs can be thought of as intangible resources. Intangibles are valuable because they are difficult to trade due to fuzzy property rights boundaries and their context-dependent value. Most intangibles, such as trade secrets, are also generally difficult to transfer from one firm to another because their transfer often involves transferring people (Luo, 2000).

DCs include hard to imitate cognitive skills and organizational processes; global sourcing and global marketing routines; the business intuition and insight needed to create new BMs and revenue models and revenue architectures that scale globally; the investment insights, protocols, and procedures which enable the business enterprise to identify, address and importantly create new markets and technologies. These capabilities are firm specific. DCs also include the capacity to calibrate uncertainty, and continuously effectuate the co-alignment and efficient governance of co-specialized assets domestically and internationally. Change requires continuous adjustments to BMs and a realignment of assets and competences to sustain value capture and creation. As MNEs operate and compete globally, adapting to the changing environmental conditions becomes more challenging. Cross-border development, deployment, orchestration, and recombination of critical resource bundles become more complex and crucial for firm survival.

In building out capabilities and markets, managers of the headquarters and subsidiaries must build signature process, deploy resources, and design BMs and strategies in pursuit of profits (Teece, 2014).

Subsidiaries play a vital role in the firm's dynamic capabilities. They can generate knowhow and capabilities from their own histories that can be transferred to other business units at home or abroad. Subsidiaries can have considerable autonomy, simultaneously being integrated in a world-wide operation. New products and processes can be developed by the subsidiary then shared globally. Decentralizing the MNE allows and encourages local knowledge creation and local discovery of opportunities, with subsequent orchestration activities applied by top management at the headquarters. Once an MNE creates a subsidiary that establishes its own networks and learning path, the subsidiary can accumulate specific assets and capabilities that can find useful application elsewhere. Subsidiaries can engage in "reverse technology transfer to the parent that may well generate opportunities (Teece, 2014).

2.7.3 Chapter Summary

In this chapter, I have reviewed seven key concepts: BMI, strategic agility, top management team, high performance work systems, dynamic capabilities, creativity, and EO. The BMI literature review provided a background of the BM construct to show the origins and issues with the current BMI construct. The review shows that despite the lack of agreement as to what the BMI construct represent, there is some agreement as to how it can further enhance research in the management field. The creative climate, EI, and strategic agility review provided a general background of the constructs. The top management team literature review provides a theoretical background of the essential characteristics and team dynamics beneficial for an

organization's success. The high-performance work systems review provides a summary of how this particular HR system has been shown to be beneficial in organizations across all levels, except for the TMT level that has yet to be explored. Lastly, I provide a thorough review on DCs theory. These literature reviews provide the necessary background for my hypotheses, which I discuss in the next chapter.

CHAPTER III

HYPOTHESES DEVELOPMENT

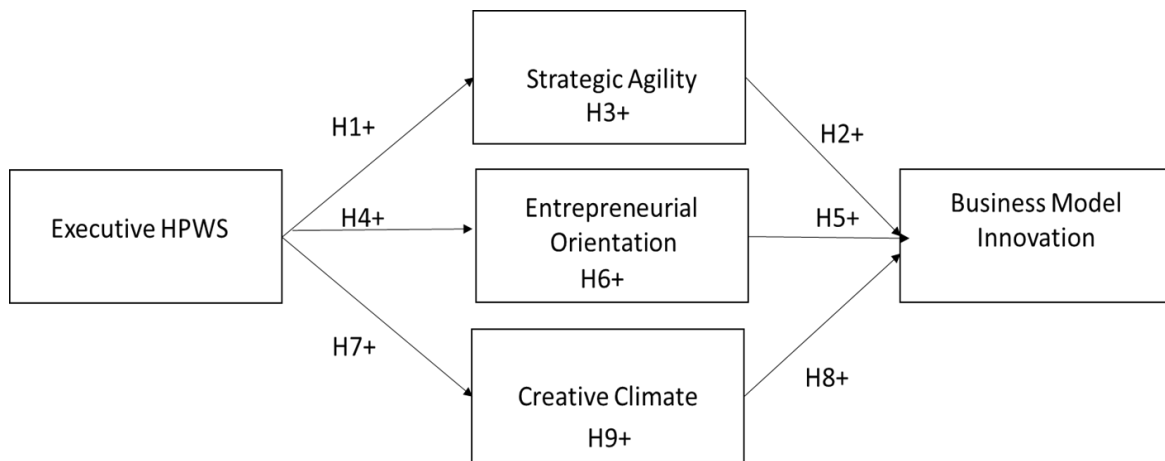
This chapter of the dissertation draws from DCs theory to explain how three DCs: 1) strategic agility, 2) creative climate, and 3) EO, are causal mechanisms through which executive HPWS influences BMI. The next section will present the research model of the dissertation showing the relationships among executive HPWS, strategic agility, creative climate, EO, and BMI. Sections 3.2 – 3.4 will focus on the hypotheses showing the relationship among executive HPWS, strategic agility, and BMI. Sections 3.5-3.7 will focus on the hypotheses showing the relationship among executive HPWS, creative climate, BMI. Section 3.8-3.10 will focus on the hypotheses showing the relationship among executive HPWS, EO, and BMI.

3.1 Dissertation Research Model

In this dissertation, I argue that TMTs can integrate, build, and reconfigure internal and external competencies to address (Teece et al., 1997) their rapidly changing environments (Eisenhardt & Martin, 2000) with its TMT by the use of executive HPWS. Thus, DCs are useful for studying the processes that organizations go through as they strive to innovate and adapt resources into value-creating strategies (Eisenhardt & Martin 2000). By aligning people, processes, and assets, DCs can satisfy consumer desires and achieve strong financial performance. Figure 2 below presents the dissertation's research model.

As stated in Chapter 1, the dissertation research model, Figure 2, will explore the relationships among executive HPWS, strategic agility, and BMI. Specifically, I will test three relationships: 1) the mediation of strategic agility on executive HPWS and BMI, 2) the mediation of EO of executive HPWS and BMI, and 3) the mediation of creative climate on executive HPWS and BMI. I will use DCs theory as the underlying theoretical framework to explain the mediating relationships in the research model.

Figure 2. Dissertation Research Model: BMI process



3.2 Executive HPWS and Strategic Agility

Organizations compete in differently dynamic environments. Their executive HPWS need to develop different DCs for dealing with market dynamics. An organization's survival is dependent on finding a trade-off between exploiting the existing resource and capability-base and, often concurrently, exploring new opportunities for long-term growth. Differently dynamic environments make the use of different DCs for reconfiguration (Teece et al., 1997).

The SHRM system of an organization plays a critical role in supporting the creation and maintenance of DCs in order to keep pace with the firm's environment. Firms that have DCs are

better able to cope with rapidly changing competitive landscapes. The executive HPWS provides practices for knowledge development and for employee behavior (Güttel et al., 2009) that need to be configured in such a way to create and maintain different forms of DCs according to environmental dynamics. In moderately dynamic environments, firms need to remain stable to profit from their existing knowledge and capability. In high-velocity environments, the organization's capabilities have to be advanced continuously in order to remain competitive.

TMTs are responsible for the overall performance of their organization. The demographics of TMT members' background is critical (Hambrick & Mason, 1984) to understanding organizational performance. For instance, diversity in functional backgrounds and experiences of TMT members enable the TMT to consider a broader range of alternatives and perspectives when considering strategic choices (Certo et al., 2006). TMT members need to collaborate with each other to utilize each member's unique, functional background (Qian et al., 2013). Thus, TMTs are important human resources. The competitive advantage arising from these human resources stem from the implementation and use of executive HPWS to continually develop each TMTs' talents, which creates a TMT with diverse skills, knowledge, and abilities (KSAs) that help the organization achieve its strategic initiatives (Lin & Shih, 2008). By creating a TMT with diverse KSAs, DC theory can be used to emphasize the adaptability (Wei & Lau, 2010) of the TMT members. Therefore, the use of executive HPWS produces strategic agility, a difficult-to-replicate organizational capability (Teece, 2007) that enables the TMT to respond to changing value creation and value capture opportunities.

DCs, in general, relate to the organization's ability to configure its resources and competences to respond to environmental changes (Teece et al., 1997). The development of DCs requires three organizational activities: the ability to sense, seize, and recombine and reconfigure

resources (Teece, 2008). Executive HPWS allows organizations to develop TMTs with strategic agility, a DC, by producing TMT characteristics and composition to suit the organization's strategic goals. Based on DC theory, executive HPWS dynamically shapes the TMT behavior by creating a more flexible and responsive TMT as the members "thoughtfully and purposively interplay" (Doz & Kosonen, 2010: 371) among the three strategic agility meta-capabilities: resource fluidity, strategic sensitivity, and collective commitment.

The executive HPWS system (Lin & Shih, 2008) contains a specific set of practices in each of the following HR functional domains: recruitment and selection, compensation, collaboration training, performance appraisal, and teamwork climate building (Lin & Shih, 2008). These are the practices based on Lin & Shih's (2008) description of executive HPWS, which help the organization create TMT members that work together (Hambrick, 2007), leveraging each member's unique background when making strategic decisions. I suggest that these practices under executive HPWS contribute to strategic agility.

Recruitment and selection practices under executive HPWS help organizations select TMTs based on teamwork abilities, communication skills, breadth of perspective, industry-relevant knowledge and experience, and experience in various jobs in the field (Lin & Shih, 2008). Using DC theory, these practices create a strategically agile TMT through collective commitment by motivating the members to meet face-to-face to discuss their tacit knowledge, creating a shared team-level perspective necessary to reach informed strategic decision-making (Athanassiou & Nigh, 2000) as they synthesize of disparate views and ideas. By using their industry knowledge, strategically agile TMTs will reallocate and redeploy resources by sensing and seizing potential opportunities. By sensing future industry trends, organizations can acquire

another company's BM slowly integrating it into the TMT organization's current BM, where it may eventually become the organization's new BM.

Collaboration training practices under executive HPWS provide TMTs strategic sensitivity, resource fluidity, and collective commitment capabilities through communication and problem-solving training programs. Through these programs the firm develops the TMT members abilities understand each other's operation processes and job duties. Informal social activities designed for TMT and opportunities for TMT members to participate in cross-functional projects further develops the organization's dynamic capabilities. The collaboration training practices for TMTs emphasize the development of TMT teamwork ability by improving their knowledge, facilitating trust, improving collaboration, and understanding of the organization's goals (Chen et al., 2016). Using DC theory, collaboration training practices can heighten the TMTs' strategic agility by increasing their environmental perceptions (Tripsas & Gavetti, 2000). By fostering an innovative and change oriented mindset, collaboration training practices can enable TMTs to anticipate possible future trends and experiment in their local markets, thereby reframing the current BM (Doz & Kosonen, 2010). Implementing collaboration training practices in an organization creates a climate of learning, which enables TMTs to sense potential opportunities for their organization through experiments and understand potential locations for implementing a new BM. Additionally, TMT can leverage each member's experience and backgrounds (Doz & Kosonen, 2010) on strategic issues through conversations.

Compensation packages under executive HPWS are based on fairness, pay raises based on merit and company tenure, bonuses and rewards based overall company performance and department's performance, and pay above industry average (Lin & Shih, 2008). These practices align TMT interests with those of the organization's interests. Compensation practices develop

the TMT's DCs, strategic agility, by building collective commitment. Aligning each TMT member's interests occurs through open dialogue around strategic issues, which enables TMTs to sense opportunities that could benefit the organization's BM. TMTs will be encouraged to experiment and gain perspective to identify areas of the current BM needing renewal. In turn, this may result in TMT members making resources more fluid by recombining and reconfiguring resources by creating BMs distinct yet separate so that the organization can address changing customer demands and prevent structural inertia (Chesbrough, 2010).

The performance appraisal practices of an executive HPWS should put a high weight on mutual support, are very specific, fair and just, and relative performance among departments influences performance appraisal results among TMT members (Lin & Shih, 2008). Performance appraisal practices may encourage the same behavior as compensation practices since the TMTs may be evaluated on how well the BM is performing. According to DC theory, organizations need to be able to respond to environmental threat through reconfiguration of resources. By reducing disputes, performance appraisal practices promote strategic agility by encouraging constructive feedback among TMTs promoting positive attitudes, commitment, and compassion (Lin & Shih, 2008), which may lead to TMT members willing to discuss opportunities each member senses. For instance, to gain better performance appraisals, TMT members may want to organize the BM by customer segments. It would provide the TMTs with valuable information on how to separate resource use from ownership to envision new BM possibilities or separate resource access from allocation to discover new BM combinations.

Team climate building practices under executive HPWS promote a culture of cooperation and collaboration, clear developmental vision to guide the actions of TMT members, encourages mutual learning among TMT members, and provide formal or informal communication channels

among TMT members. Team climate building practices promote trust, knowledge sharing and collaboration. Together these sets of practices may make the TMTs strategically agile since the TMTs will collectively have a shared vision and consensus on how to organize the BM's value capture domains by market segment, the different BMs that can be 'switched' within the organization, and what company to acquire for its BM. If there is no shared cognition among the TMTs, the organization will suffer from managerial inertia (Chesbrough, 2010) and eventually 'fade away.' Climate building practices will enable TMTs to engage in learning to improve their own performance (Wang et al., 2011) skills, and social capital (Adner & Helfat, 2003). Therefore, each TMT member will have "positive expectations regarding the motives, intentions, and prospective actions of other members" (Poon, 2003: 142). Creation of a team climate fosters trust enabling TMTs to engage in change-oriented behaviors such as adaptive attitudes, creativity, learning through experimentation, and reduction in counterproductive behaviors (Fainshmidt & Frazier, 2017), which instills to the TMTs that cooperation is the norm. Together, the executive HPWS provides a package of practices that should enable TMT members to be strategically agile, which consists of possessing resource fluidity, collective commitment, and strategic sensitivity.

Thus, I propose hypothesis 1:

1) Executive HPWS is positively related to strategic agility of TMTs.

3.3 Strategic Agility and BMI

Strategic agility is a DC (Fourne et al., 2014). Each meta-capability of strategic agility is needed for the TMTs to pursue BMI according to Doz and Kososnen (2008,2010). DC theory

states that TMTs need to be able to coordinate resource deployment to exploit interdependencies across their organization to achieve synergies (Baluch & Ridder, 2020; Luo, 2000).

Improving capabilities increases an organization's competitive advantage. As organizations compete, adapting to the changing environmental conditions becomes more challenging. Development, deployment, orchestration, and recombination of critical resource bundles become more complex and crucial for an organization's survival. In building out capabilities and markets, managers of organizations must build signature process, deploy resources, and design BMs and strategies in pursuit of profits (Teece, 2014).

In dynamic and rapidly changing competitive environments, resource fluidity is essential in the BMI process. Resource fluidity helps build organization capabilities through both tangible and intangible assets. Owning resources is a necessary but insufficient condition to achieve BMI. Organizations need to leverage resources (Selden & Sawa, 2015; Dunning, 1988) to fluidly allocate and reallocate resources to different processes in the development of BMI. The tangible assets are advantageous to the firm due to the monopolistic characteristics (Dunning, 1988). Leveraging these tangible resources creates the value creation and capture proposition that necessitates BMI. Similarly, creating, owning, and managing intangible assets provide the basis for strong competitive advantages enhance both growth and performance (Al-Aali & Teece, 2014) of the BMI process. Thus, resource fluidity creates different BM infrastructures for the organization that caters to its external competitive environment. This enables the organization to switch between numerous BMs in a "plug and play" fashion and disassemble and reassemble them in multiple ways enable rapid execution of BMI (Doz & Kosonen, 2010) for the organization's competitive environment.

Collective commitment is another crucial important component of strategic agility. TMTs typically have multicultural backgrounds. It is possible for miscommunication and misunderstandings to occur. Having biculturals (Fourne et al., 2014) as part of the TMT can reduce these misunderstandings. Bicultural TMT members can act as a bridge between members enabling each member to understand each other, which is the first step to developing common ground. TMT members need to be caring so that true intentions are revealed. Revealing explicitly shows clarity and motives of TMTs. This transparency will increase trust among the members making it easier to them to define a common agenda and share common interests. By engaging in collective commitment, TMT members will be in sync with each other. According to DC theory, resource deployment is necessary for firms to gain competitive advantage (Teece, 2008). Having a collectively commitment team can engage members to determine the resources or capabilities needed to be used to innovate BMs.

By engaging in honest, open dialogue about strategic issues, TMTs may be able to see the need innovate their BM (reframing). Collective commitment instills behavioral integration among TMT members creating an open, nonhostile environment enables TMTs to focus on change-oriented activities enabling them to agree how to sense, seize, and transform resources and recombine them as necessary (Teece et al., 1997) to pursue BMI. Collective commitment amongst the TMTs allows TMTs to develop an environment focused on sustaining long-term competitive advantage. Thus, TMTs (Birkinshaw & Hood, 1998; Monteiro, 2015) who are collectively committed can achieve the appropriate architectural and modular changes necessary to produce BMs that can appropriately create and capture value.

Change requires continuous adjustments to BMs and a realignment of assets and competences to sustain value capture and creation. Resource fluidity enables TMTs to gain

flexibility by reconfiguring capabilities and redeploying resources rapidly. Organizations can establish their own networks and learning paths (Teece, 2014) allowing them to accumulate specific assets and capabilities that may aid in innovating BMs.

Experimenting is an important approach repeatedly emphasized for accomplishing BMI (Foss & Saebi, 2017). TMT members can conduct experiments locally to test the market in order to gain insight on what the new BM should entail. Experimenting does not need to be successful all the time. Some experiments fail because the experimental conditions may actually not be representative of the larger market. However, experiments can help to potentially identify the new BM and provide the data to support it. Failures are in contrast to mistakes where nothing is learned (Chesbrough, 2010). The knowledge and lessons gained from the experiments can prototype change and help deepen the understanding of current BM assumptions. As organization develop superior capabilities through experimentation, it can create better BMs models more quickly than their competition.

TMTs focus on value creation and value capture by creating an organization capable of disseminating and leveraging knowledge and capabilities (Kogut & Zander, 1992; Pitelis & Teece, 2010). Internally aligning assets and collaborating with each other can help an organization maintain its competitive advantage. TMTs that test and experiment with their BMs and learn from the associated experiences (Monteiro, 2015) will have higher levels of strategic sensitivity leading to higher performing BMs compared to organizations that do not perform such actions. Thus, by performing scenario analysis along with experimentation and market testing, TMTs will be able to exhibit strategic sensitivity enabling the organization to align valuable assets and scale the necessary capabilities to create and capture value (Doz & Kosonen, 2010; Afuah, 2014), the essence of BMI.

Thus, I propose hypothesis 2:

2) The strategic agility of TMTs is positively related to the development and execution of BMI.

3.4 The Mediating Role of Strategic Agility on the Executive HPWS and BMI Relationship

Strategic agility is a mediating mechanism through which executive HPWS influences BMI. Executive HPWS helps develop each TMTs' talents, which creates a TMT with diverse skills, knowledge, and abilities (Lin & Shih, 2008). DC theory can be used to emphasize the adaptability (Wei & Lau, 2010) of the TMT members with diverse KSAs. DCs relate to the organization's ability to configure its resources and competences to respond to environmental changes (Teece et al., 1997) through three organizational activities: the ability to sense, seize, and recombine and reconfigure resources (Teece, 2008). Executive HPWS helps organizations to develop TMTs with strategic agility, a dynamic capability, by producing TMT characteristics and composition to suit the organization's strategic goals.

According to Doz and Kosonen (2008, 2010), each component of strategic agility is needed for the TMTs to pursue BMI. Collective commitment helps common ground enables TMTs to focus on change-oriented activities enabling them to agree how to sense, seize, and transform resources and recombine them as necessary (Teece et al., 1997) to pursue BMI. Resource fluidity enables TMTs to gain flexibility by reconfiguring capabilities and redeploying resources rapidly. TMTs that are strategically sensitive perform scenario analysis along with experimentation and market testing, which align valuable assets and scale the necessary capabilities for BMI. Therefore, strategic agility is a mediator for the executive HPWS and BMI relationship. Executive HPWS through strategic agility enables the TMT to respond to changing value creation and value capture opportunities for BMI.

Thus, I propose hypothesis 3:

3) Strategic agility of TMTs mediates the relationship between executive HPWS and BMI.

3.5 Executive HPWS and Entrepreneurial Orientation

A team, in general, is a dynamic process involving both the composition and the interaction among its members (Xing et al., 2020). In order to execute strategic initiatives such as BMI, entrepreneurial teams need to be defined, motivated, and well-equipped to capture new information (Xing et al., 2020). Entrepreneurial TMT are essential to the growth and development of organizations. Organizations that want to be entrepreneurially successful need to have an TMT that has an EO, which is reflected in an organization's processes and corporate culture (Floren et al., 2016).

Executive HPWS enables TMTs to improve their specialized knowledge and skills, thereby improving the organization's overall EO, a driver of innovation. New combinations of knowledge and processes result in strategic renewal required for long-term survival of an organization. Executive HPWS promotes participative decision-making processes which enables TMTs to break through current problem-solving patterns, search for opportunities and take risks. Selection practices can be used to bring in new members who can bring novel ideas and experience beyond the current TMT, which can aid the TMT in recognizing new opportunities for the organization. Teams with more diversity in age, skills and experience, and teams with a history of working together are more likely to launch successful projects with significant growth potential. Thus, a unique blend (Xing et al., 2020) of TMT members based on KSAs creates

dynamism, fluidity, flexibility, and adaptability (Xing et al., 2020) leading to outcomes such as innovation.

Executive HPWS also encourages the dimension of proactiveness since TMT members will be inclined to use the new knowledge obtained through training practices to keep pace with current market trends. Using DC theory, if TMT can seize an opportunity ahead of competitors, the TMT's organization can gain first-mover advantages such as relationships with customers and distribution channels (Wiklund & Shepherd 2005). Speed along with effective decisions is a key determinant for superior performance in fast changing and highly uncertain environments as DC theory claims (Teece et al., 1997; Teece, 2014; Xing et al., 2020). Therefore, executive HPWS can accelerate EO behaviors for the organization.

Additionally, executive HPWS enhances commitment of the TMT by improving decision-making and cooperation among TMT members, which make the TMT more inclined to innovate, take risks and generate new ideas. By creating this atmosphere, HPWS can improve the level of EO of the TMT.

Thus, I propose hypothesis 4:

Executive HPWS is positively related to EO.

3.6 Entrepreneurial Orientation and BMI

Strong DCs are needed for organizations that innovate by pioneering a new market or a new product category. TMTs that exhibit the innovativeness dimension of EO have intensive awareness and attention to strategic developments through experimentation, make bold and fast decisions through engaging in and supporting new ideas, and reconfigure and redeploy resources

through creative processes and novel ideas and technology. TMTs that exhibit the risk-taking characteristic should be strategically sensitive to the developments of the competitive environment and engage in experimentation. The proactive dimension of EO suggests that TMTs will be more likely to anticipate potential chances in the competitive landscape and more than likely develop a common agenda on how to reallocate and recombine resources needed to innovate the organization's BM. Lastly the competitive aggressiveness dimension of EO suggests that TMTs with this dimension are more likely to maintain their organizations competitive advantage by performing actions to innovate the BM. Organizations lacking TMTs with some of these characteristics have a weaker EO than organizations whose TMTs have most of these characteristics.

EO is a strategic mechanism through which organizational participants can capture value in new and uncertain opportunities (Eshima & Anderson, 2017). EO, as a DC, indicates the entrepreneurial mindset whereby TMT focus on identifying, evaluating, and selectively exploiting business opportunities to capture the benefits of uncertainty. Therefore, the TMT needs to develop capabilities to identify major changes in the external environment, quickly commit resources to new courses of action in response to those changes, and recognize and act promptly when it is time to halt or reverse existing resource commitments. Finding the right balance between committing the resources necessary to carry out a decision and avoiding investment of good money into futile ventures is critical. Depending on the level of EO of the TMT, the TMT will emphasize different criteria for maintaining the organization's competitive advantage. In organizations with high EO TMTs, TMTs will focus on issues relating to new opportunity exploitation. In organizations with low EO TMTs, TMTs will focus on maximizing

value out of currently controlled resources. In either case, EO of TMT enables the organization to create and capture value, which is the essence of BMI.

Thus, I propose hypothesis 5:

Entrepreneurial orientation is positively related to BMI.

3.7 The Mediating Role of Entrepreneurial Orientation on the Executive HPWS and BMI Relationship

EO is a mediating mechanism through which executive HPWS influences BMI. Executive HPWS helps TMTs to improve their specialized knowledge and skills, which improves the organization's overall EO. Executive HPWS promotes participative decision-making processes which enables TMTs to break through current problem-solving patterns, search for opportunities and take risks. Teams with more diversity in age, skills and experience, and teams with a history of working together are more likely to launch successful projects with significant growth potential. Thus, a unique blend (Xing et al., 2020) of TMT members based on KSAs creates dynamism, fluidity, flexibility, and adaptability (Xing et al., 2020) leading to outcomes such as innovation.

As a DC, EO enables TMTs to focus on identifying, evaluating, and selectively exploiting business opportunities to capture the benefits of uncertainty. Through EO, TMTs can capture value in new opportunities (Eshima & Anderson, 2017) from new combinations of knowledge and processes. By developing capabilities to identify major changes in the external environment, TMTs can quickly commit resources to new courses of action in response to environmental changes and recognize and act promptly to halt or reverse existing resource

commitments. Therefore, entrepreneurial orientation is a mediator for the executive HPWS and BMI relationship. Executive HPWS through entrepreneurial orientation enables the TMT to respond to BMI opportunities.

Thus, I propose hypothesis 6.

Entrepreneurial orientation of TMTs mediates the relationship between executive HPWS and BMI.

3.8 Executive HPWS and Creative Climate

Long term success of organizations depends on the organization's ability to foster a creative environment (Anderson et al., 2014). HRM systems promotes process innovation and creativity (Searle & Ball, 2003) and a work environment that aids in the creative process (Amabile et al., 1996). HRM systems, such as executive HPWS, has an important role in determining climate perceptions. An HRM bundle promotes a cohesive pattern of interaction and communication (Bowen & Ostroff, 2004; Evans & Davis, 2005) among TMTs, enhancing their human capital. By rewarding creative solutions, organizations can respond better to customer needs and anticipate market trends (Amabile et al., 1996).

Executive HPWS can enable a creative climate among TMT members by creating a composition of TMT members that foster creativity. Jiang and colleagues (2013) suggest that climate "further influence employee attitudes and behaviors and subsequent firm performance (1455)." Executive HPWS provides practices that dynamically shape the behavior of the TMT members. The practices provide TMT competencies to address the organization's rapidly changing competitive landscape. Creative climate as DC can enable the TMT to respond rapidly to environmental threats that can thwart the organization's current competitive advantage.

Research has suggested the positive role climate has in enhancing the impact of HRM systems, especially climate that focuses on team-orientation and KSA development (Wei et al., 2012). Creative climate fosters an environment of learning and knowledge sharing which allows TMTs to effectively reconfigure and recombine resources rapidly. Organizational leaders influence innovative productivity as well as the climate for creativity and innovation (Isaksen & Akkermans, 2011). Leaders and managers affect innovation and creativity through their efforts to foster a work climate that supports creativity (Isaksen & Akkermans, 2011). Using DC theory, executive HPWS not only develops each TMT member's motivations and KSAs, but it also improves their interaction and communication making the team more cohesive resulting in the firm's ability to respond to environmental threats.

Executive HPWS contains team composition practices, which affect TMT team interaction. Having participative decision-making encourages the creative process. Participating in decision making promotes sharing and the combining of knowledge which encourages learning (Carmeli et al., 2013) facilitating the creative climate. Executive HPWS also contains practices that emphasize team climate. Two key practices within the team climate system emphasize mutual learning and culture of cooperation and collaboration. These two practices are at the heart of the creative climate construct since they foster innovative solutions among the TMT members. Selection practices are important because selecting TMT members with relevant industry knowledge enables the TMTs to produce tangible outcomes by way of fluidly allocating resources to the appropriate areas within the organization. Being creative requires TMT members to be experts in their respective fields which will allow them to produce workable ideas that can benefit the organization. Additionally, training practices enhances the KSAs of the TMT making creative outcomes more likely. Compensation and performance appraisal promote creative

climate due to the fair and just evaluation of each TMT member. The perceived fairness in evaluations will make it more likely that each TMT member will share important information with each other. Sharing of critical information allows creative activities to be performed which will prevent stagnation (Sundgren et al., 2005) of the organization's competitive advantage and allow the organization to flourish. Executive HPWS, by promoting creativity of the TMT members, influences the creative climate among the team. A creative climate can be thought of as a complex mosaic (Sundgren et al., 2005) of individual and group characteristics and behaviors.

Thus, I propose hypothesis 7:

Executive HPWS is positively related to creative climate.

3.9 Creative Climate and BMI

Innovation is built on successful implementation of creative ideas (Amabile, 1988). TMTs that experience high creative climate perceive their jobs as requiring high levels of creativity should exhibit high task interdependence (Gilson & Shalley, 2004), highly value shared goals (Gilson & Shalley, 2004), and highly value participative problem-solving (Gilson & Shalley, 2004) which are needed to produce innovative solutions. Team members who are in highly creative teams spend a significant amount of time socializing (Gilson & Shalley, 2004) with each other. Individuals in creative teams work together to identify potential issues and discuss ideas with each other by linking ideas from numerous sources, investigate unique approaches to solving a problem, and find new ways to perform a task (Gilson & Shalley, 2004). TMT members that socialize with each other allow for freer flow of ideas (Gilson & Shalley,

2004), more brainstorming, and less threatening environment enabling creativity. Additionally, multicultural exposure such as living abroad promote creativity (Chua et al., 2015), which improves the creative climate. Multicultural exposure allows TMT members to have successful cross-cultural interpersonal interactions (Van Dyne et al., 2008) and better interpret cultural knowledge and assumptions (Van Dyne et al., 2008). Creative climate fosters TMTs access to different ideas, promotes openness to new perspectives, and helps team members link apparently disparate ideas to generate new ones.

Creative climate can help TMTs solve the complex task of developing new products or procedures (Somech & Drach-Zahavy, 2011) by promoting an environment of information sharing (Bhatti et al., 2020) and learning. Exposure to a greater variety of unusual ideas enables TMT members to incorporate of diverse information, broadening each members' perspectives discuss and reanalyze ideas (Somech & Drach-Zahavy, 2011) allowing TMT members to improve upon the organization's existing BM.

Thus, I propose hypothesis 8:

Creative climate is positively related to BMI.

3.10 The Mediating Role of Creative Climate on the Executive HPWS and BMI Relationship

Creative climate is the mediating mechanism through which executive HPWS influences BMI. It enables TMTs to use their creative energies to produce innovative results. Implementing and using executive HPWS can dynamically shape the behavior of the TMT members. The practices within executive HPWS provide TMT competencies to address the organization's

rapidly changing competitive landscape by developing each TMT member's motivations and KSAs and improving their interaction and communication. In turn, the team is cohesive, which allows them to respond (Lin & Shih, 2008) to environmental threats.

Creative climate, as a DC, fosters an environment of learning and knowledge sharing, which allows TMTs to effectively reconfigure and recombine resources rapidly. By promoting an environment of information sharing (Bhatti et al., 2020) and learning, creative climate can help TMTs solve the complex task of developing new products or procedures (Somech & Drach-Zahavy, 2011). Exposure to a greater variety of unusual ideas enables TMT members to incorporate of diverse information, which broadens the TMT's perspective (Somech & Drach-Zahavy, 2011) allowing them to improve upon the organization's existing BM by innovating it. Therefore, creative climate is a mediator for the executive HPWS and BMI relationship. Executive HPWS through creative climate enables the TMT to respond to changing value creation and value capture opportunities leading to BMI.

Thus, I propose hypothesis 9.

Creative climate of the TMTs mediates the relationship between executive HPWS and BMI.

3.11 Chapter Summary

In this chapter, I used dynamic capabilities theory as the underlying framework for my proposed research model. I used the theory to elaborate on the relationship between executive HPWS and strategic agility. I hypothesized that executive HPWS there will have a positive influence on strategic agility in the organizations that implement the system. Then, I used the DC theory to explain the relationship between strategic agility and BMI. I hypothesized that strategic

agility will have a positive influence on BMI in the organizations that pursue strategic agility. To test for the mediating effect, I have also included hypothesis three. I have also shown the mediating relationship of EO and creativity.

CHAPTER IV

METHODOLOGY

To perform this research, I used multiple methods to address my research questions and test my hypotheses. I provide a brief overview of the goals in this chapter. First, I describe my pilot and main study samples and the reasons for their selection. I selected a sample of MBA students at the University of Texas Rio Grande Valley for my pilot study. I selected a sample of dean's office teams from AACSB accredited universities in USA. Second, I provided the measures that will be used to test my hypotheses. The measures are executive HPWS, BMI, creative climate, strategic agility, and EO. Third, I discuss the scale development procedures for strategic agility and discuss scale modification procedures for executive HPWS, EO, and creative climate. Fourth, I discussed my hypotheses testing procedures using structural equation modeling (SEM) in AMOS, which consists of the measurement model and the structural model. The measurement model estimates the relationship of the measured items to the latent variables, and the structural model estimates the relationship of the latent variables to each other. I tested mediation in MPLUS using a bootstrapping resampling procedure. Fifth, I addressed common method bias concerns. Finally, I concluded with a chapter summary.

4.1 Pilot Sample

I used MBA students for my pilot study sample. These students have diverse backgrounds and come from a wide range of industries, which makes them an ideal sample when

testing for the generalizability of the strategic agility scale and for issues in clarity regarding the established scale items. Pilot studies are used to assess feasibility, adequacy of instrumentation, and problems with the data collection strategies and proposed methods, answering methodological questions, planning the larger study, and obtaining sufficient preliminary data to justify a grant award (Hertzog, 2008). In this study, I used this pilot for assess issues in the survey items such as clarity and as part of the scale development procedure for strategic agility.

4.2 Main Study Sample

I used the dean's office team in AACSB accredited business schools as my sample for the main study. The Covid-19 pandemic provided an unparalleled opportunity to witness firsthand how organizations that are not typically innovative, such as universities, navigated the rapidly changing and uncertain business environment. As such, BMI is needed in universities as these entities have been entrenched in legacy systems (Flanagan, 2012). Researchers at the Christensen Institute, founded on the theories of Clayton Christensen, and officials in universities have acknowledged the need for BMI (Flanagan, 2012; Dunagan, 2019; Sheets et al., 2012). However, achieving BMI in universities is difficult. Putting students in the "driver's seat" of the university's BM is one way to improve it. For instance, the Student experience lab partnered with Utah State University to design a student service delivery model that is tightly linked to a student's evolving personal, strategic, academic, and financial objectives (Flanagan, 2012). Institutions such as Northeastern University and Southern New Hampshire University have built out new BMs that each have their own distinct cultures and practices. Curriculum development takes a lot of the university's resources. Curriculum development is decentralized and done through faculty who understand content but have no training in development. Thereby,

increasing the course offerings which results in unnecessary expenditures for the university. Successful universities that innovate offer courses through a centralized approach. These institutions can offer fewer programs and electives through the value proposition they provide in the courses. The successful institutions partner with outside experts and other universities and colleges (Sheets et al., 2012). Prestige is one of the major factors that hinders BMI. Front-page news articles on failures from a well-known university could prove detrimental (Dunagan, 2019).

Sometimes innovation occurs due to external forces. The Covid-19 pandemic has resulted in many industries suffering, new industries being created, and many industries on the brink of bankruptcy. The Covid-19 pandemic has resulted in the future of higher education being hyper-compressed into the present. Resources such students, faculty, campus spaces, and the surrounding communities, are now being used in entirely new ways. Integration and heavy use of online-remote learning is rapidly replacing the traditional classroom model. Publishers have found ways to make learning more interactive and provided resources in the online environment that can replace in class-learning. BMI will especially be timely in the university setting due to the pandemic forcing universities to figure out new ways to deliver value to students, efficiently allocate instructor resources, and overall continue to make the university function in such as disruptive environment (Flanagan, 2012; Dunagan, 2019; Sheets et al., 2012).

Deans are important empathetic and level-headed leaders of universities. They are innovative thinkers that are interested in abstract concepts, support change, and more accommodating and inclusive compared to their corporate counterparts (Hanig et al., 2018). Deans have had to adapt to disruptions in the traditional higher education system. Decreases in financial support from federal and state governments cannot be replaced by raising tuition. Universities compete for the very best students which has resulted in increased costs to maintain

a high-quality student population. Each college within the university is independent. The deans from the college of business typically do not need to seek approval from the provost to implement change within their college (Hanig et al., 2018). Having this independence allows deans to set strategic goals and initiatives, network with collaborative partners, measure progress, and evaluate results. Deans also serve as the voice of their colleges and are responsible for departments within the school, while the provost oversees trends in higher education and develop policies.

Many universities have moved toward a reward system that gives deans incentives to find new revenue streams, but also adds the pressure of balancing the budget and raising philanthropic funds (Hanig et al., 2018). Covid-19 has had an impact on these funds as universities are burdened with the cost of moving online (Smalley, 2020). As a result, deans' responsibilities now range from the more traditional tasks of overseeing curricular development as well as faculty promotion and tenure to more recently added responsibilities like fundraising, P&L management and general innovation. Like CEOs, deans need business acumen, strong interpersonal skills and an entrepreneurial outlook. Deans are consensus-driven and are more likely to involve others in decision-making, avoid conflict, accept different views and see participation as more important than winning compared to their corporate counterparts (Hanig et al., 2018).

4.3 Sample Size

Much has been written about sample sizes. Some authors have suggested a rule of thumb of 10:1 for each scale item, 5:1 (Costello & Osborne, 2003) and 4:1 (Rummel, 1970). Others have suggested sample sizes independent of the number of items in the survey. Some researchers

suggest 200-300, 300, or 300-450 (Hoetler, 1983). Others (e.g., Boateng et al., 2018) have suggested to rank the sample size based on a graded scale. Since there is no item ratio that works for all surveys, a general rule to follow is a larger sample size is better since it implies lower measurement errors, more stable factor loadings, replicable factors, and generalizable results to the true population (Boateng et al., 2018). Following Hoetler's sample size suggestions, I sought to acquire at least 200 to 300 usable responses from MBA students for the pilot study and 200 to 300 useable responses from the dean's office team in AACSB accredited business schools in USA for the main scale study.

4.4 Measures and Variable Operationalization

The measures I use for my study consists of executive HPWS, BMI, creative climate, EO, and strategic agility. All scale items were collected via electronic survey, and a binary control variable was created after I completed the data cleaning procedures to limit the impact of non-business school dean responses in order to enhance the internal validity of the study.

Executive HPWS. This scale measures how a bundle of HR practices affects TMTs. Lin and Shih (2008) created the executive HPWS scale. It is a seven-point Likert scale with 25 items. It is comprised of five components: selection, compensation, training, performance appraisal, and climate.

Creative Climate. The creative climate scale was created by Sundgren and colleagues (2005). It is a five-point Likert-type scale measure with six items. I modified the items in the scale to reflect the perception of each member of the TMT of the creative climate within the group. For instance, the item "How often do you feel that people in the company can bring up new ideas and opinions without quickly being criticized?" now reads as "How often do you feel

that people in your team can bring up new ideas and opinions without quickly being criticized? The item “To what degree do you feel that the climate in the company is basically positive and encourages new ideas?” now reads as “To what degree do you feel that the climate in your team is basically positive and encourages new ideas?”

Entrepreneurial Orientation. EO represents the strategy making processes and style for engaging in entrepreneurial activities. The 11-item seven-point Likert scale for EO was created by Wang (2008). The scale focuses on four specific characteristics of EO: Market Proactiveness, Competitive aggressiveness, Firm risk-taking, and Firm innovativeness. All items were modified to the perceptions of EO among each member of the TMT. For instance, the scale item “In dealing with competitors, our organization often leads the competition, initiating actions to which our competitors have to respond,” was converted to “In dealing with competitors, our team often drives the organization to lead the competition, initiating actions to which our competitors have to respond.” The item, “In dealing with competitors, our organization typically adopts a very competitive posture aiming at overtaking competitors,” was converted to “In dealing with competitors, our team drives the organization to often lead a very competitive posture aiming at overtaking competitors.”

Strategic Agility. Strategic agility represents the ability to quickly and appropriately respond to or drive change while maintaining flexibility and focus. I measured this construct using a seven-point Likert scale comprised of 18 items that I developed following the scale development procedures outlined my dissertation later. I created a strategic agility scale based on literature review and also attempted to complement Hock and colleagues’ 9-item strategic agility scale (2016) with additional items because their scale failed to capture entirety of strategic agility by ignoring 5 subcomponents of each of the 3 components of strategic agility. I modified the

items in Hock's scale to measure strategic agility of the team. For instance, "Requirements for strategic adaptations are communicated fast and comprehensively through the organization," was modified to "Requirements for strategic adaptations are communicated fast and comprehensively through the team." The item, "Our management board collaborates for strategic decisions," was converted to "Our management team collaborates for strategic decisions."

Hock's scale did not fully capture the entirety of strategic agility as it ignored the 15 total subcomponents of resource fluidity, collective commitment, and strategic sensitivity. In the development of the new items for strategic agility, I utilized the three dimensions of strategic agility and their respective five subcomponents that I discussed in the chapter 2 literature review. Doz and Kosonen (2008) conceptualized strategic agility as a multi-faceted construct. I intend to measure strategic agility as a second-order construct comprised of 3 factors, therefore, I developed a large set of items that should tap the construct. Based on theory, I generated 90 items for the strategic agility scale; the item pool is in the appendix. The number of items created are over-representative, which allows me to uncover possible subdimensions or related constructs and to analyze the psychometric standard of the items that survive to the final scale (Stanton et. al., 2002). As I will show in chapter 5, the strategic agility scale I used contains 18-items with three factors: collective commitment, strategic sensitivity, and resource fluidity.

BMI Scale. This scale captures the novelty of an organization's BM. The BMI scale was created by Zott and Amit (2007). The items were not modified. It is an 11 item four-point Likert scale measure.

Control Variable. The survey was sent to deans of liberal arts colleges and engineering colleges to increase the sample size. I created a binary variable to control for business and non-business school dean responses to enhance internal validity when the responses from the deans of

AACSB business schools were low. A value of “1” represents responses from business school deans. A value of “0” represents responses from non-business school deans.

4.5 Data Collection and Cleaning

For the pilot sample, I used Qualtrics to build my survey for electronic distribution to for the MBA students at the University of Texas Rio-Grande Valley as my sample. I analyzed the 166 responses. MBA students fully responded to the survey questionnaire. Next, I performed an exploratory factor analysis on the strategic agility pilot data based on the process outlined by Hair and colleagues (2010).

For the main study sample, I used Qualtrics to build my survey for electronic distribution for the dean’s office team. I used a list of all 535 USA institutions from the AACSB website and used each institution’s website to obtain the email address of the dean’s office team from 405 institutions. I was only able to obtain 405 email addresses because some of the website links were broken, some institutions provided outdated contact information, and some institutions provided no contact information for the dean’s office team. I emailed each member of dean’s office team by providing an anonymous survey link along with an alpha-numeric code to identify the institution of each dean’s office team. The survey was then sent to dean’s offices of 153 liberal arts colleges and 128 engineering colleges to improve the sample size. I sent 4 electronic reminders, one per week, for one month. I obtained 144 responses across three colleges for a response rate of 20.99%. Hundred and two responses were from the business colleges. Thirty responses were from the liberal arts colleges. Twelve responses were from the engineering colleges. Together, I received 136 complete responses and 8 responses that had missing data of less than 1%. Two very effective methods used to handle missing values are full information

maximum likelihood and multiple imputations (Hair et al., 2010). I Specifically, I used the mean imputation method, which keeps the mean of the data. Next, I performed an exploratory factor analysis (EFA) on the main study data based on the process outlined by Hair and colleagues (2010) as part of scale development and modification procedures.

4.6 Scale Development and Modification

EFA is a statistical method used to uncover the underlying structure of a relatively large set of variables. The goal of an EFA is to identify underlying relationships between measured variables, which is why it is important for the researcher to run an EFA before proceeding with a CFA. Following the procedures outlined in Hair and colleagues (2010), I removed factors with eigenvalues less than 1. Factor loadings greater than .40 were retained (Hair et al., 2010). Items with high cross-loadings were eliminated. Items with communalities less than .50 were eliminated. This process was performed until no significant cross-loadings were present and all items have factor loadings higher than .40. Following item reduction procedure, I performed a confirmatory factor analysis on the main study sample to verify the factor structure.

I used CFA to assess the model fit for the following prior developed scales executive HPWS, EO, creative climate, and BMI after completing data collection and cleaning for my main study sample. Strategic agility scale development is a comprehensive process and requires its own section.

4.6.1 Scale Development of Strategic Agility

Scale development is a process of developing a reliable and valid measure of a construct in order to assess an attribute of interest. Unobservable constructs, which are latent constructs,

cannot be measured directly and must be assessed through indirect means, such as self-report. Latent constructs are often complex, may be composed of several different components, and are often very abstract, making it difficult to determine which items adequately represent them. In order to create a scale, a clear conceptualization of the construct is required. This entails delineating and defining the construct through a thorough literature review or through an inductive uncovering of the phenomenon. It is necessary to specify the purpose of the scale. Outlining the scale's purpose and use in future contexts will allow one to identify the unique practical concerns related to the scale.

As noted earlier, I developed a scale for strategic agility by following the process outlined by Hinkin (1995). Hinkin's six step process consists of item generation, survey administration, initial item reduction, confirmatory factor analysis, convergent/discriminate validity, and replication. I did not perform the replication step because it required an additional sample, which I was unable to pursue due to Covid-19 pandemic.

I need to generate items for the scale as the first step of scale development. I need to develop items for the scale that sufficiently taps the domain of interest so that the items represent the construct (Hinkin, 1995). Three approaches are used for generating items: inductive, deductive, and a combination of both approaches. The inductive approach relies on a panel of experts to describe their feelings and/or behavior towards a concept. The deductive approach relies on the researcher using theory to guide the development of the scale items. I decided to use both the inductive and deductive approaches together because I want to create a large item pool that captures both scholarly and practitioner understanding of the concept.

Next, I ran the q-sort procedure. The q-sort is a task where participants are presented with scale items and constructs and instructed to assign the items to constructs (Way et al., 2012) to

determine whether the items have conceptual clarity. I used the Q-sort procedure described by Way and colleagues (2012) to ask experts to select the best choice from the approximately 90 items that represents the strategic agility. The minimum sample size needed for the q-sort task is 4 (Way et al., 2012), which I was able to obtain. The individuals for the Q-sort activity were two management consultants and two strategy professors. Participants had four choices. Three of the choices represent the three capabilities of strategic agility. The fourth choice was “I do not know,” which is meant for unclear items. Items that were correctly selected by at least 3 of the 4 respondents were kept for further analysis. Next, I performed the pilot study in order to further develops the strategic agility scale. In this stage, I electronically sent the items produced during the item development stage to the respondent pool. Then, I performed initial item reduction using an exploratory factor analysis to further refine the scale.

4.7 Hypotheses Testing

Structural equation modeling (SEM) is a tool for analyzing multivariate data. It incorporates multiple independent and dependent variables as well as latent constructs that clusters of observed variables might represent. SEM provides a way to test the specified set of relationships among observed and latent variables as a whole, and allow theory testing even when experiments are not possible (Weston & Gore, 2006). SEM involves the measurement model and the structural model. The measurement model relates the measured items to the latent variables, and the structural model relates the latent variables to each other.

4.7.1 Measurement Model

The measurement model stage of SEM allows the researcher to evaluate how well his or her observed variables combine to identify underlying hypothesized constructs (Savalei &

Bentler, 2010). The measures are chosen by the researcher to define the latent variable in the measurement model, and confirmatory factor analysis is used in testing the measurement model. A latent variable is accurately defined to the extent that the measures are related to each other. Measures that are reliable and have little error will be better indicators of their respective latent variable (Savalei & Bentler, 2010, Weston & Gore, 2006). For example, if one manifest variable (i.e., item) is weakly correlated with other manifest variables reflecting the same latent variable, then that latent variable will be poorly defined. This represents model misspecification or a misjudgment in the hypothesized relationships among variables (Weston & Gore, 2006).

To determine how well the data fits in the measurement model, I used fit indices. There are many fit indices available. I chose indices that were relatively less sensitive to the samples size. Because my sample size is less than 200, I would run the risk of the best model fit being overestimated if using indices such as the Normed fit index or the Goodness of Fit index (Marsh et al., 1996; Jaccard & Wan, 1996). Therefore, I chose the following fit indices: the comparative fit index (CFI), incremental fit index (IFI), Chi-square, Akaike Information Criterion (AIC), and the root mean square of approximation (RMSEA). Researchers have suggested this approach to selecting a range of fit indices to overcome the weakness of each index in order to establish if a chosen model overall is acceptable (Marsh et. al., 1996; Jaccard & Wan, 1996).

Chi-square test is a reasonable measure of fit for models with 75 to 200 samples. The null hypothesis for the chi-square test is that the model fits perfectly (Byrne, 1994). Researchers look for chi square to be insignificant for a model to be acceptable. The p-value should be greater than 0.05. The CFI and IFI are not very sensitive to sample size. It compares the fit of a target model to the fit of an independent, or null, model. A CFI and an IFI greater than or equal to 0.90 is the acceptable threshold (Byrne, 1994; Bollen, 1989). AIC is a comparative measure of fit. Lower

values indicate better fit (Anderson et al., 1998). Finally, RMSEA is a parsimony-adjusted index. Values closer to zero represent a good fit. A value less than 0.08 is a generally accepted threshold for fit (Browne & Cudeck, 1992).

Next, I assessed convergent and discriminant validity of the scale. To assess convergent validity, I used the Fornell-Larker criterion (Fornell & Larker, 1981), which states that the average variance extracted (AVE) and the composite reliability can be used to assess the degree of shared variance between the latent variables of the model. The AVE should exceed 0.5 and the composite reliability should have a value of 0.7, which means there is a degree of confidence that the construct is well measured by its indicators (Campbell & Fiske, 1959).

For discriminant validity, I use the square root of the AVE and compare it against the correlation of latent constructs (Fornell & Larker, 1981). A latent construct should explain the variance of its own indicator better than the variance of other latent constructs. Therefore, the square root of each construct's AVE should have a greater value than the correlations with other latent constructs, which shows that the constructs are unrelated (Campbell & Fiske, 1959).

4.7.2 Structural Model

Equations in the structural model specify the hypothesized relationships among latent variables. Relationships among latent variables can be described with covariances, direct effects, or indirect effects. Covariances are defined as nondirectional relationships among independent latent variables (Savalei & Bentler, 2010; Weston & Gore, 2006). Direct effects are relationships among measured and latent variables. The path coefficients of a structural equation model are interpreted as follows (McIntosh & Gonzalez-Lima, 1994): a positive coefficient means that a unit increase in the activity measure of one structure leads to a direct increase in the activity

measure of the structure it projects to, proportional to the size of the coefficient. A negative coefficient means that an increase in the activity measure in one structure leads to a direct, proportional decrease in the activity measure of structures it projects to, proportional to the size of the coefficient.

4.7.3 Description of SEM Steps

SEM researchers agree on the five steps necessary in measurement model and structural model testing. After data collection and cleaning procedures, the steps are model specification, identification, estimation, evaluation, and modification (Kaplan, 2000; Kline, 2005; Schumacker & Lomax, 2004) which I performed using AMOS. The following five steps, detailed by Weston and Gore (2006), are used on the measurement model first, then the structural model.

Model specification occurs when a researcher specifies which relationships are hypothesized to exist or not to exist among observed and latent variables. This distinction is important because any unspecified relationships among variables are assumed to be equal to zero.

Relationships among variables (called parameters or paths) are either set to a nonzero value and not estimated, set to zero and not estimated, or left free to be estimated. The first condition occurs most often when parameters are set to 1.0 to scale latent variables. Unlike regression, where the variables themselves define the scale of the predictors and criterion, latent variables have no inherent scale. To estimate the relationships among latent variables, each latent variable must have an assigned scale. Researchers can address this problem either by setting the variance of the latent variable to 1.0 or by setting one factor loading to 1.0.

The goal of SEM is to find the most parsimonious model of the interrelationships among variables that accurately reflects the associations observed in the data. By specifying fewer relationships between the variables than elements in the correlation matrix, researchers are able to test hypotheses about which relationships are significantly different from zero and which are not.

Determining whether the model is over-, under-, or just identified is a straightforward process that involves determining the number of degrees of freedom. Researchers calculate the number of degrees of freedom in a model by subtracting the number of parameters to be estimated from the number of known correlations in the correlation matrix. Therefore, the greater the degrees of freedom, the more parsimonious the model. Thus, when a parsimonious model fits the data well, researchers are able to demonstrate that associations between observed and latent variables are important.

Estimation involves determining the value of the unknown parameters and the error associated with the estimated value. Researchers include both unstandardized and standardized parameter values as the output. The unstandardized coefficient is the unstandardized β weight in a regression. Dividing the unstandardized coefficient by the standard error produces a Z value that is similar to the t-value associated with each unstandardized β weight in regression. The standardized coefficient is similar to standardized β weight in regression.

Anderson and Gerbing (1988) suggest using confirmatory factor analysis to test the measurement model before estimating the full structural model. The confirmatory factor analysis tests whether indicators load on specific latent variables as proposed. After model estimation, researchers examine factor loadings to determine whether any indicators do not load as expected. SEM experts recommend that researchers make reasonably necessary changes to the

measurement model when encountering problems with the model (Anderson & Gerbing, 1988; Kline, 2005). In the second step, researchers test the full structural model by estimating expected directional associations among latent variables, indicated with unidirectional arrows.

Once estimated, the model's fit to the data must be evaluated. The objective is to determine whether the associations among measured and latent variables in the researcher's estimated model adequately reflect the observed associations in the data. Statisticians agree that researchers should evaluate fit in terms of significance and strength of estimated parameters, variance accounted for in endogenous observed and latent variables, and how well the overall model fits the observed data by using the fit indices. In addition to considering overall model fit, it is important to consider the significance of estimated parameters, which are similar to regression coefficients. As with regression, a model that fits the data well but has few significant parameters is meaningless.

A proposed model is rarely the best-fitting model. Therefore, modification (respecification) may be needed. Respecification involves adjusting the estimated model by freeing (estimating) or setting (not estimating) parameters (Weston & Gore, 2006). Researchers generally accomplish modification by using statistical search strategies such as the Wald test or Lagrange multiplier test to determine which adjustments result in a better-fitting model (Martens, 2005).

According to Weston and Gore (2006), social scientists often fail to test alternatives to proposed models. The best way for researchers to address this is to present the proposed model as well as one or more theoretically plausible models representing competing hypotheses. The researcher compares the fit of the alternative model with that of the proposed model in three ways (Weston & Gore, 2006): by evaluating paths by examining significance of parameter

estimates, by considering the change in explained variance, and by testing for improvement in model fit with the fit indices.

4.7.4 Tests for Mediation

A mediator transmits the influence of a given independent variable to a given dependent variable. It is the causal mechanism through which an independent variable indirectly effects the dependent variable. Mediation is said to occur when the following happens: 1) the independent variable significantly affects the mediator, 2) the independent variable significantly affects the dependent variable in the absence of the mediator, 3) the mediator has a significant effect on the dependent variable, and 4) the effect of the independent and dependent variable shrinks upon the addition of the mediator to the model (MacKinnon & Dwyer, 1993; MacKinnon et al., 1995). In order to test the hypotheses involving mediation (H2b, H2d, H2f, and H5), I performed a bootstrap resampling procedure using 5000 bootstrap samples in MPLUS. AMOS provides the total indirect effect of a model instead of the indirect effect for each individual path. I evaluated statistical significance within 95% confidence level. If the CIs do not contain zero, the relationship is significant (Jung et al, 2019).

4.8 Common Method Bias Assessments

As a robustness check, I will test for the presence and influence of common method bias. Specifically, I am concerned with the common method bias caused by a common source or rater (e.g., the same respondent providing the measure of the predictor and the criterion variable (Podsakoff et al., 2003), which can cause an artificial covariance between the predictor and the criterion variable. To assess common method bias, I use Harman's single factor test (1967) and

the common latent factor test. I use SPSS to run Harman's single factor test. Harman's single factor test is a diagnostic tool that does not tell the researcher how to address common method bias. The common latent factor test is both diagnostic and prescriptive. However, it is not able to parcel out the actual bias from the data. I will address this issue in the limitation section of chapter 6. To perform Harman's single factor test, I load all of the observed variables into SPSS. Second, I run the dimension reduction procedure under the analysis tab. Third, I set the extraction to 1 factor and the rotation method to none. Fourth, I run the dimension reduction analysis. If the total variance of a single factor is greater than 50%, common method bias exists. Additionally, I use the common latent factor test (Podsakoff et al., 2003). I create a common latent factor (CLF), which is a reflective measure. All items in the model will reflect the CLF. This will show me whether the items are considered to be the cause of the variable. Next, I compare the standardized regression weights of the model with the CLF factor against the standardized regression weights without the CLF factor. If the difference in the regression weights for any item is greater than 0.2, common method bias exists CLF factor is retained for further analyses.

4.9 Chapter Summary

In this chapter, I provided information on the methods and measures I used in my study. First, I provided details the pilot samples, main study samples and sample sizes. Second, I provided details on the data collection and cleaning procedures. Third, I provided details on the scale modification and development procedure for executive HPWS, strategic agility, EO, creative climate, and BMI using EFA as the method. Lastly, I discussed the hypotheses testing

using SEM in AMOS and meditation testing using bootstrap resampling in MPLUS. In the next chapter, I provide details on the results of my analysis.

CHAPTER V

RESULTS

In this chapter, I present the results of the data analysis. First, I discuss the scale development and modification procedures of executive HPWS, EO strategic agility, creative climate, and BMI. Second, I provide details on the measurement model comparisons and details on the structural model comparisons. Third, I provide details on the results of my hypotheses testing and mediation analysis. Fourth, I provide details on the results of the post-hoc analysis if creative climate was included in the model and of the post-hoc analysis for common method bias as a robustness check for my model. Finally, I conclude with a summary of chapter 5.

5.1 Scale Development

I performed CFAs on executive HPWS, EO, creative climate, strategic agility, and BMI using my main study sample to check and improve fit for each construct. I ran EFA on the pilot study for strategic agility for item reduction as a part of the scale development procedure.

5.1.1 Executive HPWS Scale CFA

I ran an CFA of the Executive HPWS scale items. The initial CFA results using composites (Lin & Shih, 2008) showed that that the model fit could be improved (Chi-square=15.6, $df=5$, CFI=0.86, IFI=0.863, AIC=53.6, RMSEA=0.082). Cronbach's alpha for the original items were above 0.7.

The low sample size may have resulted in poor fit and cause factor loadings to be less precise and stable (Hair et al., 2010). To improve fit and maintain the items of the established scale, I used the parceling technique as described by (Williams & O'Boyle, 2008). I created parcels to combine items so that the that the factor loadings are greater than 0.6 (Hair et al., 2010). I combined selection practice items 1,3 and 4, selection practice items 2 and 5, training items 1, 2, and 3, compensation practice items 3 and 4, performance appraisal items 1 and 4. The final CFA results showed improved model fit (Chi-square=9.2, $df=5$, CFI=0.984, IFI=0.984, AIC=39.98, RMSEA=0.076). Cronbach's alphas for the composites are above 0.7 (Hair et al., 2010), which suggests acceptable reliability. Table 2 shows the Cronbach's alphas and the composite scores from the CFA.

Table 2: Cronbach's Alpha and Composite Scores for Executive HPWS

	Selection	Training	Compensation	Performance Appraisal	Team Climate
Cronbach's Alpha (original items)	0.700	0.737	0.738	0.760	0.760
Cronbach's Alpha (parceled items)	0.771	0.767	0.713	0.724	0.854
Composite Scores	0.673	0.750	0.606	0.744	0.802

5.1.2 Development of Strategic Agility Scale

I used the q-sort procedure for item reduction as part of the strategic agility scale development process. Fifty-six strategic agility items were retained from the q-sort procedure, which are located in the appendix (see Strategic Agility Questionnaire). The strategic agility scale items that were retained in the q-sort were used in the pilot study.

I refined the strategic agility scale using the pilot study data. I ran an exploratory factor analysis utilizing SPSS version 26. I used principal axis factoring with promax rotation suppressing factor loadings less than the absolute value of 0.4 as the minimum threshold for

acceptable loadings (Hair et al., 2010). Promax is an oblique rotation method that allows factors to be correlated. Varimax is an orthogonal rotation method that minimizes the number of variables that have high loadings on each factor. Due to the larger interfactor correlations, promax rotation results in far less cross-loadings compared to varimax rotations (Gorsuch, 1990).

After I performed item reduction procedures as described in chapter 4, the results showed three distinct strategic agility factors. All the items fell into their respective factors. Strategic sensitivity, collective commitment, and resource fluidity had eigenvalues: 1.285, 9.395, and 2.398, respectively. Together, these three factors explain 72.66% of the variance. I deleted the items that did not load onto any factor, cross loaded onto multiple factors, or fit into a factor that does not conceptually support the item. I did not use the items from Hock and colleagues' scale (2016) because these items all loaded into one unidentifiable factor instead of the three separate factors of strategic agility.

Based on EFA results, I selected to retain 18-items for the strategic agility scale. Five items represent strategic sensitivity with a Cronbach's alpha of 0.874. Seven items represent collective commitment construct, which has a Cronbach's alpha of 0.933. Six items represent resource fluidity construct, which has a Cronbach's alpha of 0.938. These internal consistency measurements are well-above the 0.70 cutoff established by Nunnally and Bernstein (1994). The Kaiser-Meyer-Olkin measure of sample adequacy was 0.93. The Bartlett's test of sphericity was significant ($p < 0.0001$), which suggests that variables in the data are related and can be summarized with factors (Gorsuch, 1973). I assessed discriminant validity by evaluating the factor correlation matrix. The correlation between factor 1 and 2 was 0.575. The correlation between factor 1 and 3 was 0.51. The correlation between 2 and 3 was 0.672. In all cases, the values were below 0.70. Table 3 shows the results of the EFA.

Table 3. Exploratory Factor Analysis Results for Strategic Agility Scale Development

		Collective Commitment	Resource Fluidity	Strategic Sensitivity
Item		Factor 1	Factor 2	Factor 3
1	Members of our TMT: - have a sharp perception of strategic developments in our businesses.			0.785
2	are intensely aware of strategic developments in our businesses.			0.804
3	use different company sites such as other subsidiaries or units to test prototypes of new business models			0.698
4	develop an objective perspective of our business model through their rich network of external contacts.			0.798
5	model the organization and imagine a completely different system of activities and relationships.			0.616
6	peak to each other freely without fear of retaliation such as job loss.	0.766		
7	understand each other's assumptions to develop common ground.	0.899		
8	welcome open expressions of differences among us.	0.919		
9	allow our underlying personal motives to be understood.	0.844		
10	make decisions together.	0.678		
11	recognize the interdependencies among our businesses, products, platforms, and services.	0.716		
12	explore the assumptions behind any arguments, when they occur.	0.798		
13	modify the business model by assembling and disassembling business processes, i.e., develop plug and play functionality.		0.638	
14	can recombine multiple system processes in different ways to develop new configurations.		0.648	
15	can recombine business system elements in particular ways to develop new configurations.		0.833	
16	separate resource use from resource ownership, to envision new possibilities.		0.862	
17	separate resource access and allocation to discover new combinations.		0.973	
18	separate TMT members roles and responsibilities from underlying business processes and strategy, to provide greater structural flexibility.		0.735	
	Cronbach's Alpha	0.933	0.938	0.874
	Variance explained by each factor	52.20%	13.32%	7.14%

	Cumulative variances explained by the factors	52.20%	65.52%	72.66%
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*TMT refers to the members of the dean's office team comprised of the Dean, Associate Deans, and Assistant Deans; N=166

Next, I performed a CFA for the strategic agility scale. I deleted five out of eighteen items with loadings less than 0.6. Three out of seven items were deleted from collective commitment and two out of six items were deleted from resource fluidity. No items were deleted from strategic sensitivity. The fit statistics were the same when strategic agility was a second-order factor or disaggregated (Chi-square=166.6, $df=87$, CFI=0.954, IFI=0.955, AIC=262.57, RMSEA=0.079). I used strategic agility as a second order factor for the measurement model because it is consistent with theory (Doz & Kosonen 2008, 2010). Cronbach's alpha for each composite is above 0.7 (Hair et al, 2010), which suggests acceptable reliability. Strategic agility as a second-order factor has a Cronbach's alpha of 0.829. Table 4 shows the items retained from the CFA.

Table 4. Confirmatory Factor Analysis Results for Strategic Agility Scale Development

		Collective Commitment	Resource Fluidity	Strategic Sensitivity
Item		Factor 1	Factor 2	Factor 3
1	Members of our TMT:-have a good grasp of how we remain economically viable.			0.698
2	realize how a different environment would affect how our business model works.			0.701
3	model the organization and imagine a completely different system of activities and relationships.			0.688
4	collectively have knowledge of multiple business models that would work well for our organization.			0.880
5	know of more than one alternative business model that could work well for our organization.			0.879
6	share values that act as a compass.	0.849		

7	understand each other's assumptions to develop common ground.	0.867		
8	Explore assumptions behind any disagreements, when they occur.	0.860		
9	recognize the interdependencies among our businesses, products, platforms, and services.	0.797		
10	can recombine business system elements in particular ways to develop new configurations.		0.706	
11	create well-coordinated units such as departments, committees, and task-forces that are autonomous.		0.683	
12	separate resource access and allocation to discover new combinations.		0.960	
13	separate resource use from resource ownership to envision new possibilities.		0.949	
	Cronbach's Alpha	0.905	0.895	0.878
	Factor Scores	0.735	0.775	0.878

5.1.3 Entrepreneurial Orientation Scale CFA

Next, I performed a CFA on the entrepreneurial orientation scale. The initial CFA results using composites (Wang, 2008) with all items showed the model fit could be improved (Chi-square=7.98, $df=2$, CFI=0.907, IFI= 0.908, AIC=201.885, RMSEA=0.123). Cronbach's alpha for the original items in market proactiveness was below 0.7, which does not indicate reliability. The low sample size may have resulted in poor fit and causes factor loadings to be less precise and stable (Hair et al., 2010). To improve fit and maintain the items of the established scale, I used the parceling technique as described by (Williams & O'Boyle, 2008). I created parcels to combine items so that the factor loadings are greater than 0.6 (Hair et al., 2010). I combined market proactiveness items 2 and 3 and risk-taking items 6 and 8. The model fit of the entrepreneurial orientation scale improved (Chi-square=2.67, $df=2$, CFI=0.997, IFI= 0.997, AIC=26.67, RMSEA = 0.048). Cronbach's alpha for the four composites are above 0.7 (Hair et

al, 2010), which suggests acceptable reliability. Table 5 shows the Cronbach's alphas and the composite scores from the CFA.

Table 5. Cronbach's Alpha and Composite Scores for Entrepreneurial Orientation

	Market Proactiveness	Competitive Aggressiveness	Risk-taking	Innovativeness
Cronbach's Alpha (original items)	0.666	0.898	0.720	0.910
Cronbach's Alpha (parceled items)	0.757	0.898	0.808	0.910
Composite Scores	0.969	0.877	0.864	0.704

N=146

5.1.4 Creative Climate Scale CFA

The CFA results of creative climate scale showed acceptable model fit (Chi-square=8.24 $df=8$, CFI=0.999, IFI=1.000, AIC=34.246, RMSEA=0.015). Cronbach's alpha is 0.929.

5.1.5 Business Model Innovation Scale CFA

The initial CFA results for BMI showed that the model fit could be improved (Chi-square=203.1, $df=44$, CFI=0.773, IFI=0.780, AIC=269.113, RMSEA=0.153). Cronbach's alpha for the original items was 0.800. To maintain the items of the established scale, I used the parceling technique as described by (Williams & O'Boyle, 2008). I created parcels to combine items so that the factor loadings are greater than 0.6 (Hair et al., 2010). I combined BMI items 6,7 and 10, BMI items 4, 9, and 11, and BMI items 1, 5, and 8. Model fit improved (Chi-square=4.45, $df=5$, CFI=1.000, IFI=1.002, AIC=34.528, RMSEA=0.000). Cronbach's alpha is 0.827.

5.2 Hypotheses Testing

After data collection and cleaning procedures as described in chapter 4, I performed an individual level analysis. A team analysis could not be performed due to the low response rate of

dean's office team members for each team. The goal of the team-level analysis was to study group dynamics among the dean's office team members (e.g., how the deans work together). Thus, the analysis was carried out at the individual level. In this level of analysis, I am able to investigate the dean's office as a reflection of each dean's behavior. The lack of team level data and team analysis are limitations that will be addressed thoroughly in the limitation section of Chapter 6.

5.3 Measurement Model Comparisons

Next, I used SEM procedures to determine the best fitting measurement model, which is a CFA. To create the measurement models, I loaded the observed variables obtained from the CFA onto their respective latent constructs in AMOS. I followed the measurement model procedures described in chapter 4, which involved five steps: model specification, identification, estimation, evaluation, and modification.

I analyzed and compared alternative measurement models to obtain the best fitting model. The results are shown in table 6 below. Model 1 results show executive HPWS, strategic agility, entrepreneurial orientation, creative climate, and BMI as separate and distinct variables. Model 2 results show executive HPWS, strategic agility, and BMI as separate and distinct variables. Entrepreneurial orientation and creative climate are treated as one variable. Model 3 results show both executive HPWS, creative climate, and BMI as separate and distinct variables. Strategic agility and entrepreneurial orientation are treated as one variable. Overall, model 1 has a better fit to the data compared to all models (Chi-square=409.2; $df=218$; CFI=0.917, IFI=0.919, RMSEA=0.078) The AIC value of 525.292 is lower compared to all the models, which indicates the data fits model 1 better compared to the other models.

Table 6. Measurement Model Comparisons

Model	Measurement Model Comparisons	Chi-Squared	df	CFI	IFI	AIC	RMSEA
1	Executive HPWS, SA, EO, CC, BMI (all separate variables)	409.2	218	0.917	0.919	525.292	0.078
2	Executive HPWS, SA, BMI (separate variables); EO, CC (as one variable)	611.68	222	0.832	0.834	719.553	0.11
3	Executive HPWS, CC, BMI (separate variables); SA, EO (as one variable)	559.1	222	0.854	0.856	667.103	0.102

SA=Strategic Agility, EO=Entrepreneurial Orientation, CC-Creative Climate; N=146

There is an issue with discriminant validity as indicated in table 7. The correlations between executive HPWS and SA are higher than the square root of the AVE of executive HPWS, which indicates that the executive HPWS construct does not explain most of its variance. The correlations between EO and BMI are higher than the square root of the AVE of executive BMI, which indicates that the BMI construct does not explain most of its variance. The correlations between creative climate and SA are higher than the square root of the AVE of creative climate, which indicates that the creative climate construct does not explain most of its variance.

Normally, when the correlation between two constructs is higher than the square root of an AVE, the researcher needs to recheck the items in the factors. I found that the best option was to acknowledge the issue and not fix it because items in executive HPWS, EO, BMI, and creative climate would be removed and I would not have the antecedent variable, executive HPWS in my model. Creative climate would be eliminated as one of the mediators. In general, the constructs and variables are reliable and valid as shown by the validity and reliability checks. The measurement model fits relatively well as indicated by the fit indices. Therefore, I proceeded to analyze the structural model.

Table 7. Square Root of Average Variance Extracted and Construct Correlations

	BMI	Executive HPWS	CC	SA	EO
BMI	0.694				
Executive HPWS	0.588	0.709			
CC	0.474	0.683	0.797		
SA	0.455	0.875	0.901	0.768	
EO	0.819	0.566	0.611	0.566	0.760

N=146

5.4 Structural Model Comparisons

Using the variables obtained from the best fitting measurement model, Model 1, I compared numerous paths to determine whether my model hypothesized relationships had better fit compared to alternative models. I present table 8 below, which compares three structural models. Model 1 has executive HPWS as the antecedent, strategic agility, entrepreneurial orientation, and creative climate are the mediators, collective commitment, strategic sensitivity, resource fluidity, and EI are mediators, and BMI is the outcome variable. Model 2 is a direct relationship model. In model 2, the uncorrelated antecedents are executive HPWS, strategic agility, entrepreneurial orientation, and creative climate. The outcome variable is BMI. In model 3, executive HPWS and creative climate are correlated antecedents, entrepreneurial orientation and strategic agility are uncorrelated antecedents, and BMI is the outcome variable. The table comparison of structural models below shows that model 1 is the best fitting model compared to other alternatives (Chi-square=367.8, $df=161$, CFI=0.900, IFI=0.902, RMSEA=0.094). Model 1's AIC value of 465.803 is the lowest compared to the other two alternatives, suggesting it has the best fit. I present table 7 below that compares four path analysis models.

Table 8. Structural Model Comparisons

Model	Structural Model Comparisons	Chi-Squared	<i>df</i>	CFI	IFI	AIC	RMSEA
1	Executive HPWS (antecedent) SA,EO,CC (mediators) BMI (Outcome)	367.8	161	0.900	0.902	465.803	0.094
2	Executive HPWS; SA; EO; CC (uncorrelated antecedents) BMI (Outcome)	765.5	224	0.766	0.769	869.843	0.129
3	Executive HPWS; CC (correlated antecedents) SA; EO (uncorrelated antecedents) BMI (outcome)	703.5	223	0.793	0.795	809.479	0.122

SA=Strategic Agility, EO=Entrepreneurial Orientation, CC-Creative Climate; N=146;

*I tested the models without the direct path. The direct path was not significant.

Due to the limitation in AMOS for testing specific indirect effects as stated in chapter 4, I used MPLUS to test for the direct relationships (direct effects) and the mediations in the structural model, Model 1 by performing a path analysis. I created composites for the 5 variables and covaried the error terms of the three mediators in MPLUS. The fit statistics suggested acceptable model fit (Chi-square=1.3, *df*=1, CFI=0.998, AIC=1165.084, RMSEA=0.042).

I will now go over the results of the direct effects. Then, I go over the mediation results. I tested the direct effects with the structural model. Direct effects measure the extent to which the endogenous variable changes when the exogenous variable increases by one unit. I present the results in table 9 and depict them in figure 3.

Table 9 below shows the results of the direct effect of executive HPWS leading to the EO, strategic sensitivity, and creative climate (i.e., path a), respectively. The direct effect of executive HPWS on EO is positive and is not significant ($\beta=0.013$, $p>0.05$). Thus, hypothesis 3 is not supported. The direct effect executive HPWS on strategic agility is positive and not

significant ($\beta=0.027$, $p>0.05$). Thus, hypothesis 4 is not supported. The direct effect of executive HPWS on creative climate is positive and is significant ($\beta=0.260$, $p<0.05$).

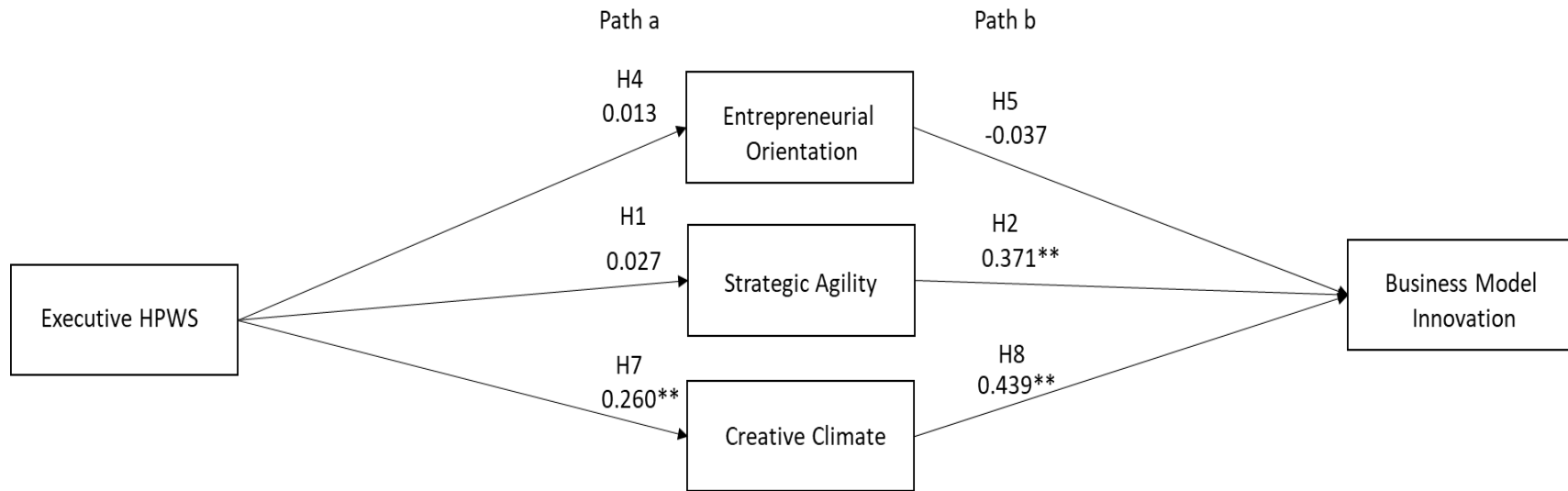
Table 9 also shows the results of the direct effect of EO, strategic sensitivity, and creative climate leading to BMI (i.e., path b). The direct effect of EO on BMI is negative and is not significant ($\beta=-0.037$, $p>0.05$). Thus, hypothesis 5 is not supported. The direct effect of strategic agility on BMI is positive and significant ($\beta=0.371$, $p<0.05$). Thus, hypothesis 2 is supported. The direct effect of creative climate to BMI is positive and is significant ($\beta= 0.439$, $p<0.05$). Thus, hypothesis 8 is supported.. Next, I proceed with the mediation analysis.

Table 9. Direct Effects

Direct Effect Paths	Standardized Estimates
Executive HPWS --> Entrepreneurial Orientation	0.013
Executive HPWS --> Strategic Agility	0.027
Executive HPWS --> Creative Climate	0.260**
Entrepreneurial Orientation --> BMI	-0.037
Strategic Agility --> BMI	0.371**
Creative Climate --> BMI	0.439**

* $p<0.05$; ** $p<0.01$

Figure 3. Direct Effect Results



The results of the mediation analysis are presented in the table 10 below. The mediation test consists of a bootstrap resampling procedure with 5000 samples, which I used to calculate the specific indirect effect for the model. As stated in chapter 4, AMOS does an omnibus test involving all mediation paths simultaneously, rather than specific indirect effects.. Therefore, I used MPLUS to compute three specific indirect effects using the bootstrap resampling procedure with 5000 samples.

Table 10. Mediation analysis results

Path	Effect	BootLLCI	BootULCI	p-value
Executive HPWS ---> EO ---> BMI	0.000	-0.034	0.017	0.980
Executive HPWS ---> SA ---> BMI	0.010	-0.044	0.053	0.735
Executive HPWS ---> CC ---> BMI	0.114**	0.054	0.185	0.004

EO= Entrepreneurial Innovativeness;
SA= Strategic Agility; CC= Creative
Climate

*p<0.05; **p<0.01 N=146

The results of the mediation analyses included the binary control variable to control for non-business deans in the data which could affect the outcome. The bootstrap confidence interval limits indicate that mediation for executive HPWS on BMI through EI exists because zero lies inside of the confidence interval limits. The specific indirect effect of executive HPWS on BMI through EO is 0.000 and is not significant ($p>0.05$). Thus, hypothesis 6 is not supported. The bootstrap confidence interval limits reveal that mediation for executive HPWS on BMI through strategic agility is not significant because zero lies outside the confidence interval. The specific indirect effect of executive HPWS on BMI through strategic agility is 0.010 is not significant ($p>0.05$). Thus, hypothesis 3 is not supported. The bootstrap confidence interval limits reveal that mediation for executive HPWS on BMI through creative climate is significant because zero lies inside the confidence interval. The indirect effect of executive HPWS on BMI through

creative climate is 0.114 and is not significant ($p < 0.05$). Thus, hypothesis 9 is not supported.

Table 11 summarizes the results of the hypotheses tests.

Table 11. Summary of Hypotheses Tests

Hypotheses	Supported?
1) <i>Executive HPWS is positively related to strategic agility of TMTs.</i>	No
2) <i>The strategic agility of TMTs is positively related to the development and execution of BMI.</i>	Yes
3) <i>Strategic Agility of TMTs mediates the relationship between executive HPWS and BMI.</i>	No
4) <i>Executive HPWS is positively related to entrepreneurial orientation.</i>	No
5) <i>Entrepreneurial orientation is positively related to BMI.</i>	No
6) <i>Entrepreneurial orientation of TMTs mediates the relationship between executive HPWS and BMI.</i>	No
7) <i>Executive HPWS is positively related to creative climate.</i>	Yes
8) <i>Creative climate is positively related to BMI.</i>	Yes
9) <i>Creative climate of the TMTs mediates the relationship between executive HPWS and BMI.</i>	Yes

5.5 Assessing Common Method Bias on the Data

I followed procedures for assessing common method bias as detailed in chapter 4. First, I ran Harman's single factor test (1967) in SPSS to check for common method bias for the overall model. The result Harman's single factor test suggests the data does not exhibit common method bias. One factor explains 43.074% of the variance. However, Harman's single factor test is diagnostic. It does not tell researcher how to address common method bias. The CLF test is both diagnostic and prescriptive. Therefore, I included the CLF as a robustness assessment in the role of common method variance. Using the CLF method, common method bias does not exist. The common variance is 0.25%. Next, I took the difference of the regression weights with and without CLF. The difference needs to be greater than 0.2 in at least one item to retain the CLF. All items had differences less than 0.2. Therefore, I did not retain the CLF.

5.6 Post-Hoc Analyses-Individual Mediations

The variables in my model were highly correlated, which means that they have a strong relationship with each other. The error terms of all three mediators were highly correlated with each other. Additionally, the correlations between executive HPWS and SA are higher than the square root of the AVE of executive HPWS, which indicates that the executive HPWS construct does not explain most of its variance. The correlations between EO and BMI are higher than the square root of the AVE of executive BMI, which indicates that the BMI construct does not explain most of its variance. The correlations between creative climate and SA are higher than the square root of the AVE of creative climate, which indicates that the creative climate construct does not explain most of its variance. These issues could be reasons why one out of three mediations were significant. Therefore, I ran three separate mediations: 1) strategic agility on executive HPWS and BMI controlling for EO and creative climate, 2) EO on executive HPWS and BMI controlling for strategic agility and creative climate, and 3) creative climate on executive HPWS and BMI controlling for EO and strategic agility to determine if each mediation was individually significant.

First, I ran the path analysis in AMOS with executive HPWS, strategic agility, and BMI controlling for EO and creative climate. The model fit was poor (Chi-square=473.6, df =221, CFI=0.891, IFI=0.892, AIC=583.562, RMSEA=0.089). I used the bootstrap resampling procedure with 5000 samples in AMOS to calculate the total indirect effect for the model. The mediating effect is 0.176, which is significant ($p > 0.05$, CI upper=0.537, CI lower = -0.047). This result is similar to the main study result where the mediating effect of strategic agility on the executive HPWS and BMI relationship was not significant.

Second, First, I ran the path analysis in AMOS with executive HPWS, EO, and BMI controlling for strategic agility and creative climate. I ran a path analysis. The model fit was acceptable (Chi-square=428.0, $df=221$, CFI=0.911, IFI=0.912, AIC=538.019, RMSEA=0.080). I used the bootstrap resampling procedure with 5000 samples in AMOS to calculate the total indirect effect for the model. The mediating effect is 0.218, which is significant ($p<0.01$, CI upper=0.377, CI lower = 0.128). In the main study results, the mediating effect of entrepreneurial orientation on the executive HPWS and BMI relationship was not significant.

Finally, I ran the path analysis in AMOS with executive HPWS, creative climate, and BMI controlling for EO and strategic agility. The model fit was poor (Chi-square=476.6, $df=221$, CFI=0.890, IFI=0.891, AIC=586.562, RMSEA=0.089). I used the bootstrap resampling procedure with 5000 samples in AMOS to calculate the total indirect effect for the model. The mediating effect is -0.111, which is not significant ($p>0.05$, CI upper=0.051, CI lower = -0.413). This result is in contrast to the main study result where the mediating effect of creative climate on the executive HPWS and BMI relationship was significant. More details of the main study results and post-hoc results will be provided in chapter 6.

5. 7 Chapter Summary

Overall, the results of the hypotheses testing show that the direct relationship of executive HPWS with creative climate are positive and significant. The direct relationship of strategic agility with BMI is positive and is positive significant. The direct relationship of creative climate with BMI is positive and significant. Lastly, the indirect effect of executive HPWS on BMI through creative climate is significant.

Despite the results not supporting hypothesis 9, post hoc analyses revealed that the indirect effect of EO on the executive HPWS and BMI relationship was significant when strategic agility and creative climate were used as control variables. I will discuss the scholarly and practical implications, limitations, and future research directions of these findings.

CHAPTER VI

DISCUSSION AND CONCLUSION

In the final chapter of this dissertation, I discuss the results of my study, which is to understand the relationship between executive HPWS and BMI. Accordingly, this dissertation was guided by one critical and comprehensive research question: What reasons can explain if and why executive HPWS has a relationship with team-level BMI? I provide the scholarly implications, practical implications, the limitations of the study and future avenues, and the conclusion to this dissertation.

6.1 The Relationship of Executive HPWS with BMI

In this section I discuss what my results mean and their implications and what they mean. EO is the first mediator of the executive HPWS and BMI relationship I studied. EO refers a basic willingness to depart from existing technologies and practices, and venture beyond current processes to try to pursue new opportunities (Covin & Wales, 2012). In the main study, the indirect effect of executive HPWS on BMI through EO is not significant. However, in the post-hoc analysis, the indirect effect of executive HPWS on BMI through EO is significant. Based on the post-hoc analysis, this result means that the deans are willing to engage in and support new ideas and take risks for BMI that are beneficial for the university's mission and social goal of providing education. NPOs are created to improve society with their social goals and mission

(Balan-Vnuk & Balan, 2015). For instance, universities using different teaching modalities such as distance and online learning or hybrid course offerings are an example of BMI focused on their social mission and goals.

Next, I analyzed strategic agility as a mediator of the executive HPWS and BMI relationship. The indirect effect of executive HPWS on BMI through strategic agility was not significant in the main study and in the post-hoc analysis. Despite non-significant results in the mediations, the direct effect of strategic agility on BMI was positive and significant, which suggests that strategic agility can provide value to NPOS. I provide a possible explanation as to why strategic agility is important for NPOs and its implication for NPOs. Strategic agility is the purposeful interplay of resource fluidity, strategic sensitivity, and collective commitment, and I detail how a strategically agile TMT can benefit NPOs by describing each of the three components.

Resource fluidity involves the ability to shift resource commitments in real-time. It requires identifying opportunities and needs for resource allocation before they become obvious (Doz, 2020). Although NPOs, such as universities, are resource constrained (Hull & Lio, 2006; McDonald, 2007), a portion of resources may be fluid so that NPOs can continue to achieve their social goals and mission. For instance, professors teaching students both online and in-person are examples of resource fluidity that universities use to innovate their business model so that they can continue the social goal of educating society.

Strategic sensitivity requires a comprehensive perception of emerging realities as they shape (Doz, 2020). As an NPO, universities focus on social outcomes rather than profit generation, which still requires the TMT to be aware of their external environment (Brown & Yoshioka, 2003). A university's mission and social goal is to provide education to benefit and

improve society. Offering new course modalities, funding processes, and alternative means of recruiting faculty and students are examples of BMI focused on the core mission of universities, which is to educate the population for the good of society.

Collective commitment involves management teams getting together and freely discussing issues and concerns without politics to find common ground. When the deans get together to discuss organizational goals and find common ground, they discover that certain BMIs may not be beneficial to the organization's social mission. Collective commitment takes time. Although BMI is considered beneficial in the literature (Foss & Saebi 2017), BMI in NPOs needs to be carefully thought out due to the financial and resource constraints. Together, all three components make the NPOs strategically agile.

The indirect effect of executive HPWS on BMI through creative climate is significant when the three mediators are present in the main study. However, indirect effect of executive HPWS on BMI through creative climate is not significant when creative climate is the post-hoc analysis. The significant result in the main study suggests that the perception among the deans is that trying out new and multiple ideas is important as long as it helps the universities' social goal and mission. NPOs exist is to improve society with their social goals and mission (Balan-Vnuk & Balan, 2015).

6.2 Discussion of Strategic Agility Scale Development

A second contribution of this dissertation was the creation of the strategic agility scale because the scale created by Hock and colleagues (2016) did not fully cover the entirety of strategic agility as it did not address the five subcomponents for each dimension of strategic agility. Addressing the subcomponents of each strategic agility factor is important in order to get

a holistic perspective of the construct. Many of the issues in Hock and colleague's scale revolved around the items. According to Tay and Jebb (2017), the purpose of the scale should be identified. My scale is intended for the general business community. The intended audience of the scale guides the item wording (Tay & Jebb, 2017). When an item is created, the researcher needs to determine the appropriate reading level for the target population, identify whether the items should refer to general or specific contexts, and consider how different respondents will interpret the items. As such, my items were simple and straightforward (Tay & Jebb, 2017). This was clearly evident in the EFA results. Respondents were able to match the scale items with their respective factors most of the time. Additionally, the CFA results indicated good model fit for the strategic agility scale. Hock and colleagues' scale (2016) may not be generalizable to non-profit organizations such as universities since the questions are specific to for profit companies. In contrast, my results clearly show that my strategic agility scale can be used in both the NPO and FPO setting.

6.3 Scholarly Implications

This dissertation has a number of scholarly implications. First, the findings of this dissertation make important contributions to the BMI and strategic agility literature. My strategic agility scale is in line with the theory created by Doz and Kosonen (2008, 2010). Other conceptual studies (Fourne et al., 2014; Junni et al., 2015) suggested that all three components, together, foster organizational renewal and change. Additionally, strategic agility has been empirically studied in for-profit corporations where it is considered crucial for BMI and in rapidly changing industries, specifically technology (Hock et al., 2014; Clauss et al., 2019). My

research empirically shows that all three components act synergistically, and research regarding strategic agility can expand and apply to NPOs.

BMI is considered crucial to an organization's longevity yet has lacked significant empirical testing (Foss & Saebi, 2017). There is also a lack of scholarly research on the NPO context (Baluch & Ridder, 2020), specifically the dean's office team in AACSB accredited business schools in USA. The results of my dissertation showed that BMI applies to non-profit entities such as universities and is not limited to traditional for-profit corporations.

The results of the mediations in the main study and the post-hoc analysis show that HR systems on executives do impact management teams and its members. Implementing executive HPWS in an organization is critical to influencing organizational outcomes such as BMI. My results show that HR systems do not directly lead to the outcome. In the main study, creative climate is the causal mechanism (Boxall et al., 2014) through which an HR system influences BMI. In the post-hoc analysis, however, entrepreneurial orientation, is the causal mechanism (Boxall et al., 2014) through which an HR system influences BMI.

The discrepancy of the results with creative climate in the main study and post-hoc analysis suggests that creative climate may be taking the variance of the EO and strategic agility due to the high correlations among the mediating variables, which is why the mediating effect of creative climate on executive HPWS and BMI is significant in the main study but not significant in the post-hoc when strategic agility and EO are used as control variables. The results of the main study may suggest that EO and strategic agility may not offer anything beyond creative climate due to the high correlations when all three mediations are tested simultaneously.

In the main study, the mediating effect of EO on executive HPWS and BMI is not significant but in the post hoc analysis it is significant which suggests that creative climate is

very correlated with EO and took most of the variance. Additionally, the mediating effect of strategic agility on executive HPWS and BMI was not significant in the main study and the post-hoc. Thus, the post-hoc analysis results may suggest that EO is important for TMTs of NPOs who need to be open-minded, aware of their competitive environment, and be able to experiment and tryout new ideas in order to continue their social mission. Creative climate involves an atmosphere of creating and trying out new ideas. The risk-taking component of EO reflects TMT's tendency to advocate creative activities even when the outcome of these activities is not certain. Strategic agility involves the organization's ability to stay flexible and renew itself without sacrificing efficiency. EO may go beyond that because it emphasizes risking taking and innovativeness in addition to organizational renewal (Naman & Slevin, 1993).

6.4 Practical Implications

My research offers a few practical implications for NPOs, specifically universities. Contrary to my results, I suggest that strategic agility helps NPOs achieve BMI that will help them with their social goals and mission because not all innovations are beneficial, and most innovations fail. Universities are in a legacy system, so the degree of BMI is relevant. The deans may be strategically sensitivity by trying to gain perspective and insight into radical or incremental BMI. However, collective commitment involves finding common ground, which involves disagreements and a bit of conflict to reach an appropriate resolution. In the process of finding common ground, the deans may rethink whether a proposed BMI really is needed for the organization's goals. For instance, radical BMI is not feasible because the risk of failure is high. Therefore, reallocating resources for radical BMI would not be prudent. By rejecting radical BMI, the team of university deans are on the path to common ground. Taking time to reach

consensus (Tjosvold et al., 2014) or a mutually aggregable path helps deans think about whether BMI could backfire. Incremental BMI, such as hybrid course modalities, may be acceptable because the risk of failure and financial impacts are potentially low. Failure of an incremental BMI may not have as big of an impact on the university's prestige and reputation as much as a radical BMI would. Both prestige and reputation are important for universities because it helps them obtain financial resources from government, corporate donors and alumni that can be used to support their social mission of providing education to society.

Moreover, Covid-19 has shown that TMTs should prepare for crises as they manage their organizations. Thus, strategic agility is important for all organizations. For instance, organizations in the cruise and airline industry may not need to be strategically agile because there are very few ways for consumers to experience exotic destinations. On the other hand, organizations may need to be strategically agile in the technology industry due to the rapid change and development of new products and services to consumers. Such assumptions have been questionable during the Covid-19 pandemic. For instance, due to travel restrictions, both the cruise industry and the airline industry BMs were not working, and companies in those industries were unable to find alternative ways to provide value to consumers. As a result, those industries suffered heavy losses and cash burn (Rizzo & Burrone, 2021). Other industries that depended on physical locations for sales of products, such as retail, reallocated their resources to online commerce and were able to manage their way through the pandemic and stay profitable (Evans, 2021).

My results from the post-hoc analysis suggest that EO could be helpful to universities even though the literature suggests that EO is not a priority (Hull & Lio, 2006) for NPOs. Supporting new ideas is important for an organization, whether for-profit or non-profit. By being

open-minded and exploring alternatives, universities can fulfill their mission of providing education and have a broad impact. Changes in external environmental conditions (Baluch & Ridder, 2020), such as the Covid-19 pandemic, have shown that EO is needed so that NPOs can continue to fulfill their social mission. Therefore, the deans should adopt and practice EO in order to find ways to reconfigure their school's BMs so that they can continue to operate in order to deliver on their mission and social goals with BMI.

Crises, such as Covid-19, have shown EO is important for organizations regardless of whether they are non-profit or for-profit. Industries such as airlines and leisure that were unable to explore alternative ways to generate revenue suffered huge cash-burns. Companies within the same industry had different results depending on how they addressed the crisis. For instance, Beyond Meat, a disruptor in the packaged meats industry, saw the impact of the lack of people going to restaurants. Beyond Meat had to shift its BM from relying heavily on restaurant sales to focusing on grocery store sales and bolstering their e-commerce offering. It was a costly endeavor to repackage the product from restaurants to grocery stores, but profitability improved (Motley Fool, 2020). Beyond Meat was able to reach new customers because the TMT had been open-minded to exploring this alternative route.

Creative climate is the internal environment which allows creativity and creative behaviors to emerge, which is important for innovation. Environmental changes such as the Covid-19 pandemic suggest that creative climate is important for an organization's survival. Universities had to be creative to operate through the pandemic. They implemented communication systems that enable video conference and digital learning (Li & Lalani, 2020). Business schools needed to transform the way they operated in order to continue the mission of

providing education. Increasing funding and resources may be a way to further increase creativity and creative behaviors among the TMT to improve the chance of BMI.

6.5 Limitations and Future Research Avenues

All research has limitations, and this dissertation is no exception. To begin, I address possible issues with my sample. Given that my sample is universities, the findings may be different depending on the industries chosen and are specific to USA universities. Universities are a special kind of business, non-profit, so certain aspects of the model may have been stronger or weaker compared to for-profit businesses. Future research could test these samples to glean insight to the differences, if any, in the results when examining the model.

Also, my analysis was performed at the individual level due to the difficulty in obtaining multiple responses from each member of the dean office team. If I had team level data, I could have checked for intermember group reliability by assessing the extent to which the raters are suitable. Then, I would assess whether the within-team ratings could be aggregated. For instance, with enough agreement, I could have examined creative climate aggregated to the team level. Team-level data would enable future researchers understand overall management team dynamics.

The low sample size of 146 and my inability to test constructs at the team level of analysis could be reasons for poor fit to the data when using established scales and in CFAs. Small sample sizes cause factor loadings to be less precise and stable (Hair et al., 2010). All three mediators were measured at the team level, however mostly one team member responded. There could be a level of analysis issue because the team level constructs were measured at the individual level instead of the team level, which may be an additional reason for the poor fit of

the data. Future studies can perform team level analysis as I had originally intended with a large sample size, which can resolve the issues of poor fit.

Another limitation of my research is the cross-sectional design because the data is analyzed from a population at a single point in time. Thus, I was not able to demonstrate the how strategic agility changes over time. An organization may not start out as strategically agile but over the course of time become strategically agile (Doz & Kosonen, 2008) due organizational restructuring, a change in leadership or leadership styles, or adapt HR practices to the current competitive environment. Given that strategic agility has been shown by scholars to be an important characteristic of organizations, and it has been theoretically justified as an accelerator of BMI. Future studies can use a longitudinal study to understand how an organization that is not strategically agile becomes strategically agile (similar to the Nokia study by Doz & Kosonen, 2008) leading to BMI.

Additionally, common method bias could still be an issue with my sample because the CLF test is more conservative compared to the method marker test. Ideally, to reduce the chances of common method bias, individuals surveyed for my criterion measures should be different from individuals surveyed for my predictor measures to prevent respondents from providing socially desirable responses. For instance, obtaining the criterion measures from deans and obtaining predictor measures from associate and assistant deans would decrease the split-sample correlation controlling for common method bias. Sending the survey in multiple data collection waves would reduce common method bias because a temporal delay allows recalled information to leave a participant's short-term memory before answering new questions (Podsakoff et al., 2003). Using a method marker, I would have been able to parcel out the common method variance and more accurately address it. Future studies can use the method

marker to address common method bias by including a theoretically unrelated variable and using the marker technique proposed by Williams and colleagues (2010).

Finally, Covid-19 jump-started a digitization of BMs and forced it to be a priority. As such, my findings may be specific to a pandemic (Staples, 2020) environment, the length of which is typically unknown. According to the McKinsey Global Survey of executives (2020), organizations have accelerated the digitization of their operations by three to four years. The share of digitally enabled products has accelerated by seven years. When asked about the impact of the Covid-19 crisis on a range of measures, funding for digital initiatives has increased dramatically. The respondents recognized technology as a critical, strategic component of the business, not just a source of cost efficiencies. Companies that have executed successful responses to the crisis report a range of technology capabilities that others don't such as filling gaps for technology talent during the crisis, the use of more advanced technologies, and speed in experimenting and innovating (McKinsey & Company, 2021). Thus, a study examining the model pre-Covid-19 and post-Covid-19 would provide context on extent of impact that Covid-19 had on the BMI process, which scholars (Foss & Saebi, 2017) have not discussed in detail.

6.6 Conclusion

This dissertation sought to examine the relationship between executive HPWS and BMI and develop a scale on strategic agility. The findings suggest that executive HPWS does have an indirect effect on BMI. However, the mediation results may be limited to NPOs given their unique focus on their mission and goals for society compared to profit generation. The strategic agility scale I developed further advances the strategic agility literature as the 15 subcomponents of strategic agility were taken into account providing a holistic view of latent variable. My

empirical results on strategic agility suggest that strategic agility is best studied as a second order factor. These findings contribute to the ongoing BMI research that examines the antecedents influencing and impacting the BMI process.

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APPENDIX

APPENDIX

MEASURES FOR EMPIRICAL STUDY

Executive High Performance Work System:

Thank you for participating in this survey. Please answer the following questions based on **your understanding** of the human resources practices for the Dean's office team in the Business Colleges.

The top management team are a team of individuals responsible for the strategic direction and outcome of an organization. We consider the **team of deans** in the dean's office as the top management team (TMT). The team of deans are comprised of various deans such as the Dean of the College, Associate Deans, Assistant deans, and Deputy Deans.

If your dean's office has only one dean, please still take the survey. It will help us understand role each type of dean plays in the business college's success.

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Based on the following questions, answer to what extent you agree the human resource practices apply to top management team members. Please rate on the extent to which you agree on a scale of 1 to 7 (with 1 indicating strongly disagree and 7 indicating strongly agree). You must be a member of the top management team to respond. If not, please do not proceed further and exit the survey immediately.

Selection

1. The selection of top management team members in my company reflects the applicant's propensity for teamwork.
2. The selection of top management team members in my company emphasizes the applicant's communication skills.
3. My company tends to select top management team members from current staff.
4. The selection of top management team members in my company emphasizes the applicant's breadth of perspective.
5. The selection of top management team members in my company emphasizes the applicant's industry-relevant knowledge and experience.
6. The selection of top management team members in my company emphasizes the applicant's experience in various job fields.

Compensation

7. As compared with individual performance, pay level among top management team members in my company is relatively fair.
8. The pay raises for top management team members in my company are based on both merit and company tenure.
9. The bonus and reward decisions for top management team member in my company are based on both the company's overall performance and his or her department's performance.
10. As compared with the industry, the pay level of top management team members in my company is relatively high.

Training

11. My company provides communication and problem-solving training programs for top management team members.
12. My company establishes rules or programs to help top management team members understand each other's operation processes and job duties.
13. My company frequently holds informal social activities for top management team members.
14. My company provides opportunities for top management team members to participate in cross-functional projects.

Performance Appraisal

15. The performance appraisal criteria for top management team members in my company put high weight on mutual support.
16. The performance appraisal procedure for top management team members in my company is specific.
17. Performance appraisal for top management team members in my company is fair and just.
18. Relative performance among departments has a decisive influence on the performance appraisal results of top management team members.

Developing Teamwork Climate

19. My company emphasizes a culture of cooperation and collaboration for top management team members.
20. My company has a clear developmental vision to guide the actions of top management team members.
21. There is a mutual learning climate among top management team members in my company.
22. There are a number of formal or informal communication channels among top management team members in my company.

Strategic Agility Questionnaire

Please specify the number of Top Management Team (TMT) members you work with _____

Based on your understanding of your college, please rate the extent to which your top management team exhibits the following behavior on a scale of 1 to 7 (with 1 strongly disagree and 7 indicating strongly agree). You must be a member of the top management team to respond.

A. Members of our TMT:

Strategic Sensitivity

- 1.... have a sharp perception of strategic developments in our businesses.
- 2.... are intensely aware of strategic developments in our businesses.
- 3... regularly pay attention to strategic developments in our businesses.

Anticipating

4.anticipate strategic developments in our businesses without depending on forecasting tools.

Experimenting

5.use different company sites such as other subsidiaries or units to test prototypes of new business models.

Distancing

6.develop an objective perspective of our business model through their rich network of external contacts.
7.model the organization and imagine a completely different system of activities and relationships.
8.have good grasp of how we really make money.
9.clearly understand what value we provide to customers.

Abstracting

10.clearly understand the business model's generalizable features.
11.separate the business model's context specific features from the generalizable features.
12.clearly understand why or how our business model works in specific contexts.
13.realize how a different context would affect how our business model works.

Reframing

Collective Commitment

14.make bold decisions without being bogged down by corporate politics.
15.make fast decisions without being bogged down by corporate politics.

Dialoguing

16.speak to each other freely without fear of retaliation such as job loss.
17.understand each other's assumptions to develop common ground.
18.welcome open expressions of differences among us.

Revealing

19.allow our underlying personal motives to be understood.
20.reveal personal aspirations to one another.
21.reveal personal motives.
22.have mutual respect for each other.
23.understand that each of us deserves to be a part of the group.

Integrating

24.make decisions together.
25.recognize the interdependencies among our businesses, products, platforms, and services.

Aligning

26.rally around a common set of interests that will be beneficial for the organization's business model
- 27....share values that act as a compass.
28.build aspirational and emotional images that engage all of us.

Caring

29.provide empathy to empower all TMT members.
30.provide compassion to empower all TMT members.
31.are aware of the emotional needs of TMT members.
32.are able to disagree 'joyfully'.
33.explore the assumptions behind any disagreements, when they occur.

Resource Fluidity

34.have the internal capability to reconfigure capabilities rapidly.

35.have the internal capability to redeploy resources rapidly.

Decoupling

36.use the organization's business model to gain flexibility by organizing market segments

37.create well-coordinated business units that are autonomous.

Modularizing

38.modify the business model by assembling and disassembling business systems, i.e., develop "plug and play" functionality.

39.modify the business model by assembling and disassembling business processes, i.e., develop "plug and play" functionality.

40.can recombine multiple system processes in different ways to develop new configurations.

41.can recombine business system elements in particular ways to develop new configurations.

Dissociating

42.separate resource use from resource ownership, to envision new possibilities.

43.separate resource access and allocation to discover new combinations.

44.separate TMT members roles and responsibilities from underlying business processes and strategy, to provide greater structural flexibility.

Switching

45.create different routes to market with different channels for different types of customers.

46.combine products, businesses, and routes to market in different ways to enhance profitability.

Grafting

47.gradually implement new ways to create and capture value into the current businesses, products, platforms, and services.

48.import a businesses, products, platforms, and services from an acquired company.

Strategic Sensitivity (Hock et al., 2016)

49. We are very sensitive for external changes (regarding customers, competitors, technologies, etc.) and integrate these into strategic planning of our company.

50. We utilize different mechanisms to become aware of strategic developments early.

Collective Commitment (Hock et al., 2016)

51. Our top management team is able to make bold and fast strategic decisions.

52. Our management team collaborates for strategic decisions.

53. Strategic questions are collectively solved by our top management team without being bogged down in top-level 'win-lose' politics.

Resource Fluidity (Hock et al., 2016)

54. We are able to reallocate and utilize capital resources fluidly.

55. Our people in the team and their competencies are highly mobile within our organization.

56. Our top management team are able to flexibly redeploy the organization's resources.

Business Model Innovation Zott and Amit (2007)

Based on your understanding of your college's business model, please answer the following questions. SA=Strongly Agree; A=Agree; D=Disagree; SD=Strongly Disagree

1. The business model offers new combinations of products, services and information. **SA, A, D, SD**
2. The business model brings together new participants. **SA, A, D, SD**
3. Incentives offered to participants in transactions are novel. **SA, A, D, SD**
4. The business model gives access to an unprecedented variety and number of participants and/or goods. **SA, A, D, SD**
5. The business model links participants to transactions in novel ways. **SA, A, D, SD**
6. The richness (i.e., quality and depth) of some of the links between participants is novel. **SA, A, D, SD**
7. Number of patents that the focal firm has been awarded for aspects of its business model. **SA, A, D, SD**

Based on your understanding of your college's business model, please answer the following questions. (with 0 indicating never and >4 indicating very often).

8. Extent to which the business model relies on trade secrets and/or copyrights. **0, 1-2, 3-4, >4**

Based on your understanding of your subsidiary and subsidiary's business model, please answer the following questions. R=Radically; S=Substantially; B=a bit; N=not at all

9. Does the focal firm claim to be a pioneer with its business model? **R, S, B, N**

Based on your understanding of your subsidiary and subsidiary's business model, please answer the following questions. Y=Yes; N=No

10. The focal firm has continuously introduced innovations in its business model? **Y, N**

Based on your understanding of your subsidiary and subsidiary's business model, please answer the following questions. SA=Strongly Agree; A=Agree; D=Disagree; SD=Strongly Disagree

11. There are competing business models with the potential to leapfrog the firm's business model. **SA, A, D, SD**
12. There are competing business models with the potential to leapfrog the firm's business model. **SA, A, D, SD**
13. There are other important aspects of the business model that make it novel. **SA, A, D, SD**

14. Overall, the company's business model is novel. **SA, A, D, SD**

Key

SA-Strongly Agree (coded as 1), A-Agree (0.75), D-Disagree(0.25), SD-Strongly Disagree(0), Y-Yes (1), N-No(0), R-Radically(1), S-Substantially (0.66), B-a bit(0.33), N-not at all(0); 0(0),1-2(0.33), 3-4(0.66), >4(1)

Entrepreneurial Orientation Scale (Wang 2008)

Based on the following questions, answer to what extent you agree the following entrepreneurial characteristics apply to the top management team. Please rate on the extent to which you agree on a scale of 1 to 7 (with 1 indicating strongly disagree and 7 indicating strongly agree). You must be a member of the top management team to respond. If not, please do not proceed further and exit the survey immediately.

Market Proactiveness

1. In general, my team favor a strong emphasis on Research & Development, technological leadership, and innovations.
2. In the past five years, our team has marketed a large variety of new lines of products or services.
3. In the past five years, changes in our products or service lines have been mostly of a minor nature (Reverse coded).

Competitive aggressiveness

4. In dealing with competitors, our team often drives the organization to lead the competition, initiating actions to which our competitors have to respond.
5. In dealing with competitors, our team drives the organization to often lead a very competitive posture aiming at overtaking competitors.

TMT risk-taking

6. In general, my team has a strong propensity for high risk projects (with chances of very high return).
7. My teams believe owing to the nature of the environment, bold, wide-ranging acts are necessary to achieve our organization objectives.
8. When there is uncertainty, my team typically adopts a "wait and see" posture in order to minimize the probability of making costly decisions. (Reverse coded)

TMT innovativeness

9. My team actively responds to the adoption of "new ways of doing things" by main competitors.
10. My team is willing to try new ways of doing things and seek unusual, novel solutions.
11. My team encourages people to think and behave in original and novel ways.

Creative climate (Sundgren et al., 2005)

Based on your understanding of your top management team, please rate the frequency to which the following statements apply to your team on a scale of 1 to 7 (with 1 indicating never and 7 indicating very often).

1. How often do you feel that people in your team can bring up new ideas and opinions without quickly being criticized?
2. How often do you experience that different opinions, ideas, experience, and knowledge can be discussed in projects by members of your team?

Based on your understanding of your top management team, please rate how strongly you feel the following statements apply to members of your team on a scale of 1 to 7 (with 1 indicating never and 7 indicating to the highest extent). You must be a member of the top management team to respond. If not, please do not proceed further and exit the survey immediately.

3. To what degree do you feel that the climate in your team is basically positive and encourages new ideas?
4. To what degree do you feel that the climate in your team allows the team to solve problems and take actions that the team think are most suitable in a given situation?
5. To what degree do you feel that there is a free atmosphere in the team, where the seriousness of the task can be mixed with unusual ideas and humor?
6. To what degree do you feel that the team has a dynamic atmosphere?

*(*Items are based upon the CCQ questionnaire (Ekvall, 1996). Keywords in parentheses refer to Ekvall's categorization of the items to different dimensions.)*

Identifier Question

Please type the alpha-numeric code before beginning the survey. _____

This code will be used to group the responses with the respective organizations.

Finalized Items for Strategic Agility Scale

Members of our TMT:

Strategic Sensitivity

SS 1.have good grasp of how we remain economically viable.

SS 2.model the organization and imagine a completely different system of activities and relationships.

SS 3. ...realize how a different environment would affect how are business model works.

SS 4. ...know of more than one alternative business model that could work well for our organization.

SS 5. ...collectively have knowledge of multiple business models that would work well for our organization.

Collective Commitment

CC 1.speak to each other freely without fear of retaliation such as job loss.

CC 2.understand each other's assumptions to develop common ground.

CC 3.welcome open expressions of differences among us.

CC 4.recognize the interdependencies among our businesses, products, platforms, and services.

CC 5.rally around a common set of interests that will be beneficial for the organization's business model

CC 6.share values that act as a compass.

CC 7.explore the assumptions behind any disagreements, when they occur.

Resource Fluidity

CC 1.can recombine business system elements in particular ways to develop new configurations.

CC 2.separate resource use from resource ownership to envision new possibilities.

CC 3.separate resource access and allocation to discover new combinations.

CC 4.create well-coordinated units such as departments, committees, and task-forces that are autonomous.

BIOGRAPHICAL SKETCH

Ravi Bala, CFA holds a Bachelor of Science in Economics from Georgia Institute of Technology (2010), a Master of Science in Finance from Pacific Lutheran University (2013), and Chartered Finance Analyst designation since 2017. He received his Ph.D in Business Administration (Management) from the University of Texas - Rio Grande Valley in August 2021.

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