



**The Impact of Effective Talent Management Practices on
Market Capitalizing Agility,
Agile Innovation and Agile Creativity:
a Quantitative Study in Knowledge-based Organizations**

تأثير ممارسات إدارة المواهب الفاعلة على
المرونة في تعزيز القيمة السوقية والمرونة في الابتكار والمرونة في الابداع:
دراسة كمية في المؤسسات القائمة على المعرفة

by

ALANOUD ABDULLA JUMA ALHAJ AL ALI

**A thesis submitted in partial fulfilment
of the requirements for the degree of
DOCTOR OF PHILOSOPHY IN BUSINESS MANAGEMENT**

at

The British University in Dubai

March 2024



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Thesis Supervisor
Professor Stephen Wilkins

Approved for award:

Dr. Dilek Cetindamar Kozanogl
External Examiner

Dr. Sulafa Badi
Internal Examiner

Dr. Mostafa Al-Emran
Chair of Examiners

Professor Abdullah Alshamsi
Chair of Research Degree Committee

Date: 13 July 2023

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Abstract

Talent Management practices conceptualization captured considerable attention in the literature since the evolvement of the concept in the early 1990s, however, less attention has been given to empirical studies on the impact of Talent Management practices on organizational competitiveness. This empirical study considers the impact of effective talent management practices on competitive organizational agility (market capitalizing agility, agile innovation, and agile creativity) directly and through the mediating effects of operational adjustment capacity and absorptive capacity. The research population is knowledge-based organizations in the private sector. The findings presented are based on a deductive quantitative research design utilizing a positivist approach through deploying a cross-sectional survey. Responses to the survey were collected at an organizational level. Organizations in the UK were targeted with a sample size of 314. Data were analyzed through a Partial Least Square approach to Structural Equation Modeling (PLS-SEM) using smartPLS version 4. The present study addresses multiple gaps existing in the literature. The findings indicate a statistically significant positive relationship between effective talent management practices and agile innovation, agile creativity, operational adjustment capacity, and absorptive capacity. Also, the findings indicate that the relationship between effective talent management practices and market capitalizing agility, agile innovation, and agile creativity is mediated through absorptive capacity. Furthermore, the relationship between effective talent management practices and market capitalizing agility and agile creativity is mediated through operational adjustment capacity. To the best of the researcher's knowledge, this is one of the first studies that attempted to quantitatively investigate these relationships.

Keywords: effective talent management practices, competitive organizational agility, market capitalizing agility, agile innovation, agile creativity, operational adjustment capacity, and absorptive capacity

خلاصة

ممارسات إدارة المواهب وصياغة المفاهيم حولها تأخذ اهتمام واسع في الأدبيات العلمية منذ طرح مفهوم إدارة المواهب في بداية التسعينيات، ولكن هناك تركيز محدود على الدراسات العملية حول تأثير ممارسات إدارة المواهب على تنافسية المؤسسات. تقدم هذه الأطروحة العلمية دراسة حول تأثير الممارسات الفاعلة في إدارة المواهب على المرونة المؤسسية التنافسية كعامل مساهم في تحقيق الاستدامة في الميزة التنافسية للمؤسسة. وتتناول هذه الأطروحة بالأخص تأثير ثلاثة عناصر من عناصر المرونة المؤسسية التنافسية (المرونة في تعزيز القيمة السوقية والمرونة في الابتكار والمرونة في الابداع) بشكل مباشر ومن خلال التأثيرات الوسيطة للقدرة على التعديل التشغيلي والقدرة الاستيعابية. يركز مجتمع البحث لهذه الدراسة على المؤسسات القائمة على المعرفة في القطاع الخاص، بينما تركز الدراسات العلمية السابقة على قطاعات نظم المعلومات والبناء والعقارات والزراعة والصناعة والمؤسسات الصغيرة والمتوسطة. النتائج التي تخلص لها هذه الأطروحة مبنية على منهجية استنتاجية كمية تتبع الأسلوب الوضعي من خلال استخدام استبانة قياس مقطعية. تم توجيه استبانة القياس إلى عدد من المؤسسات في مجتمع البحث لكي تستكمل الأداة من قبل رؤساء المؤسسات أو أفراد من القيادة العليا في المؤسسة، وتم توجيه أداة القياس بالأخص إلى مجتمع البحث من المؤسسات القائمة على المعرفة في القطاع الخاص في المملكة المتحدة، وتم الحصول على 314 رد. تم تحليل البيانات باستخدام المجموع الجزئي للمربعات الصغرى من نموذج المعادلة الهيكلية باستخدام البرنامج الإحصائي smartPLS version 4. تناقش هذه الأطروحة عدد من الفجوات في الأدبيات القائمة وتقدم استنتاجات معرفية غير مسبوقة. تدلي نتائج الدراسة بالعلاقة الإيجابية بين الممارسات الفاعلة في إدارة المواهب والمرونة في الابتكار والمرونة في الابداع والقدرة على التعديل التشغيلي والقدرة الاستيعابية. كما تدلي الدراسة بالتأثير الإيجابي الوسيط للقدرة الاستيعابية في العلاقة ما بين الممارسات الفاعلة لإدارة المواهب وتعزيز القيمة السوقية والمرونة في الابتكار والمرونة في الابداع. وتدلي الدراسة بالتأثير الإيجابي الوسيط للقدرة على التعديل التشغيلي في العلاقة ما بين الممارسات الفاعلة في إدارة المواهب وتعزيز القيمة السوقية والمرونة في الابداع. وبحسب معرفة الباحث، فإن هذه الأطروحة هي من أوائل الدراسات التي تستخدم المنهجية البحثية الكمية في دراسة تأثير الممارسات الفاعلة في إدارة المواهب على المرونة المؤسسية التنافسية.

Dedication

Dedicated to my father and mother, Dr. Abdulla and Dr. Muna, to my aunt Moza, in memory, may Allah have mercy on her, to Hamad, Ali, Juma, Noura, Shamsa, Abdulla, and Amna.

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Chapter 1: Introduction

1.1 Introduction

This chapter presents the research context introducing effective Talent Management philosophies and practices, competitive organizational agility dimensions including market capitalizing agility, agile innovation, and agile creativity, in addition to operational adjustment capacity, and absorptive capacity. These organizational features are described as organizational capabilities that support the competitiveness of organizations in dynamic business contexts. The second part of this chapter presents the purpose of the research and its objectives, the research questions, methodology, and the theoretical and practical contributions.

1.2 Research Context

Talent Management is identified as one of the most important elements of human resource management (Strack, 2014). The solid concept of Talent Management evolved in the 1990s by McKinsey consultants. Since then, the interest in the topic has been expanding leading to a rapidly growing body of literature in the area of Talent Management (Yener et. al., 2017). A number of Talent Management definitions exist in the literature with the common element of Human Resource development (Al Ariss et. al., 2014). A common definition of Talent Management is coined by Collings and Mellahi (2009, p. 305), stating that Talent Management is the set of actions, processes, and practices that abide to a systematic identification of a unique contextualized setting leading to the ultimate achievement of competitive advantage and the creation of a unique human resource structure that will achieve the successful recruitment of highly-skilled, unique pool of employees capable of leveraging major organizational competencies. In this context, and as suggested by Thunnissen et. al.

(2013), Talent Management should not be limited to employment and the employee factor but rather should consider work practices and outputs. Talent Management as a set of actions, processes, and practices encompassed in a unique and aligned contextualized setting will ultimately achieve organizational competitive advantage. It is identified as an important factor in human resource management and described as a dynamic capability that would create and maintain a competitive advantage for organizations that are implementing effective Talent Management practices.

Initially, organizational Talent Management practices included six dimensions; talent selection and recruitment, development and capabilities management, deployment and mobility, performance management, rewards and compensation, and engagement and retention (Stahl et. al., 2012). Vaiman and King (2019) expanded these dimensions to include management involvement and talent review, and board governance and reporting. Talent Management dimensions and practices are influenced by a number of internal and external contextual factors (Gallardo-Gallardo et. al., 2015). Businesses are surrounded by a number of external factors including the shift to a knowledge-based economy, increased competition, “dynamic” changes in customers’ needs and the markets in which businesses operate (Alavi. et. al., 2014). Such external factors influence internal factors within organizations, the adaptation with such factors require organizations to possess the right skills within its pool of human resources (Bhalla et. al., 2017). Therefore, the traditionally oriented human resources programs encompassing pre-determined career competencies and progression paths are out of context (Cappelli & Tavis, 2018). Alternatively, organizations need to leverage on their human capital through the execution of effective Talent Management practices with the aim of producing the desired competitive outcomes (King & Vaiman, 2019).

Furthermore, organizational factors should be aligned with these practices (King & Vaiman, 2019). Such practices and subsequently such organizational factors would have a critical effect on the creative outputs of organizations (Lauring & Selmer, 2013). Talent Management cannot be explained as a stand-alone phenomenon given that it is established and implemented within organizations with the purpose of leveraging the success of organizations (Gallardo-Gallardo et. al., 2019). This entails that Talent Management is part of a wide context entailing the surroundings of organizations and the operating contexts within. The conceptualization of Talent Management is in line with Human Resources models that are context-driven that consider the internal and external factors that impact strategic human resources management (SHRM) systems (e.g. Paauwe & Farndale, 2017). SHRM systems are influenced by external factors determined by the competitiveness facing organizations and the market dynamics and internal factors within the organization. Within this conceptualization, external factors include demands arising from changes in product preferences, the utilization of the most suitable technology that would leverage the efficiency of organizations, effectiveness, flexibility, speed, innovation, and quality (Gallardo-Gallardo et. al., 2019). On the other hand, internal factors within this conceptualization include internal processes, organizational culture, strategies, human capital skills, and knowledge (Gallardo-Gallardo et. al., 2019). Contextualized Human Resource models emphasize on the importance of human resource management practices within organizations in shaping the most suitable Human Resource Management systems within organizations with the ultimate purpose of building competencies and sustaining the high positioning of organizations in business environments. Talent Management is a Human Resource Management model that is influenced by internal and external organizational factors.

Talent Management is described in the literature as a dynamic capability, and when combined with other dynamic capabilities can produce more value adding outputs for organizations in dynamic environments. Specifically, research proposes that dynamic capabilities such as Talent Management and Organizational Agility can be of value-creation to organizations (Harsch & Festing, 2019; Sparrow & Makram, 2015). Further, such dynamic capabilities in managing human resources are needed to drive organizational agility (Harsch & Festing, 2019). In addition, organizations should possess dynamic capabilities including agility in order for their resources to create the right output in alignment with the needs of the rapid environment and dynamic changes occurring within and around the business context (Eisenhardt & Martin, 2000). According to Claus (2019), talented teams should be working on managing and executing projects in consideration of the dynamic environments in which their companies operate, the rapidly changing environments require for these projects to be executed in an agile form.

Over the past years, organizational agility has gained attention in academic research and in the business context (Harsch & Festing, 2019). Agility is both, a reactive and a proactive state of an organization in dealing with the dynamic environment in which it operates, including the proactive prediction of emerging opportunities as part of the context of the market and environment changes occurring (Alavi et. al., 2014). Sherehiy and Karwowski (2014) describe organizational agility as a successful reaction towards such rapid changes requires an organization to be capable of an immediate response and adaptation to the continuous and unpredictable changes in the competitive external environment. A number of definitions exist in the literature for organizational agility.

Researchers view organizational agility as a ‘paradigm’ with its core being the rapid and continuous reactions and adaptations to change (Dyer & Shafer, 1998). Initially most organizational agility definitions have focused on different functional areas of organizations (Zitkiene & Deksnys, 2018). Only recently the concept of organizational agility has gained more interest in research as an entire-phenomena (Zitkiene & Deksnys, 2018). Organizational agility is a complex concept that is multidimensional and is approached differently by researchers (Zitkiene & Deksnys, 2018). One group of researchers define agility from the perspective of enablers and capabilities that support organizations in achieving agile organizational characteristics (Cai, 2013; Charbonnier-Voirin, 2011; Eshlagy et. al., 2010; Bottani, 2010; Ren et. al., 2009; Lin et. al., 2006; Alberts & Hayes, 2003; Giachetti et. al., 2003; Jackson & Johansson, 2003; Sharifi & Zhang, 2001; Yusuf et. al., 1999). The second group of researchers define it as the main practices that organizations adopt in daily operations (Charbonnier-Voirin, 2011; Gehani, 2010; Goldman et. al., 1995; Sherehiy et. al., 2007; Vazquez-Bustelo et. al., 2007). The third group of researchers describe agility from the view of the interaction between the organization and the dynamic environment through sensing and responding actions (Dove, 2005; Dyer & Shafer, 2003; Holsapple & Li, 2008; Lu & Ramamurthy, 2011; Nijssen & Paauwe, 2012; Sambamurthy et. al., 2003; Singh & Sharma, 2013; Wright & Snell, 1998).

Organizational Agility is growing in importance as a major contributing factor for gaining and maintaining competitive advantage in dynamic environments (Zitkiene & Deksnys, 2018). To achieve competitive advantage in dynamic environments, organizations need to maintain flexible internal processes and workforce that is able to create change, customize unique products and services in reacting to the changing market demands.

Furthermore, to take advantage over rivals, organizations have to have flexible business processes, workforce that is capable of creating change, ready to change and customize products and services to accommodate the rapidly changing customers' needs and expectations (Zitkiene & Deksnys, 2018). Hence, in order to stay competitive, organizations have to be proactive and anticipate change to capitalize on emerging opportunities (Zitkiene & Deksnys, 2018). This indicates that organizations should be able to be proactive and anticipate the need to change based on changes in the external environment. Hence, to sustain a competitive advantage, organizations need to be agile in anticipating change and in capitalizing on emerging opportunities. Zitkiene and Deksnys (2018) define organizational agility as the ability to capture unexpected changes in the environment and respond through a set of actions that utilizes internal resources to produce outcomes that capitalizes on opportunities created by environment changes and hence supporting the organization in gaining competitive advantage.

Organizational agility enables organizations to perform in a competitive context adapting to continuous change, rapidly responding to market changes, creating creative products and services that are value adding and satisfying customer needs (Darvishmotevali, Altinay & Koseoglu, 2020). Organizational agility acts as an answer to unpredictable and continued change in the business surroundings, enabling organizations to grow, develop, and hold sustainable in competitive environments. In fact, agile systems support organizations in operating successfully in extremely dynamic and uncertain environments (Shafer et. al., 2001). Agile organizations are able to replace existing processes through the reconfiguration of resources, the replacement of existing processes with new processes, redesigning their strategies and internal structuring according to new conditions (Eisenhardt & Martin, 2000;

Teece et. al., 2016). Organizational agility is a mechanism by which customers' needs are met, new productions are proposed, innovations are proposed, and strategic partnerships are undertaken (Darvishmotevali, Altinay & Koseoglu, 2020). Through being agile, organizations are able to search and grasp knowledge on the evolving market environment and the opportunities existing within. This enables organizations to adapt to environmental complexity and dynamism through a various strategic actions and responses.

The literature provides a number of organizational agility frameworks. Also, organizational agility is conceptualized in the literature through a number of dimensions. With relevance to this study, the organizational agility framework that is of importance to human resources is considered in this research. Zitkiene and Deksnys (2018) introduce an organizational agility framework that recognizes the importance of human resources in enhancing competitive advantage referred to as the sense-response organizational agility framework. This framework has two dimensions; the sensing dimension and the response dimension.

The sense-response framework of organizational agility emphasizes on the importance of human resources in enhancing competitive organizational agility. In this framework, two dimensions are identified; the sensing agility and the response agility. The first dimension is also referred to as market capitalizing agility and is related to the ability to sense changes in the external environment. The second dimension is related to the rapid and efficient abilities of organizations to respond to the change sensed in the first step. The efficient and rapid response that would create competitive advantage is described as the flexibility to innovate and the flexibility to be creative. This is referred to in this research as Agile Innovation and Agile Creativity. Both Innovation and Creativity are major factors that contribute to the success of

an organization, it is an important factor for organizations as it is a contributor to outcomes such as production, the development of strategies, and growth (Mehmood, Jian & Akram, 2020). Companies attract talent in order to gain competitive advantage and ensure sustainability and adaptation to the dynamic environments in which they operate (Claus, 2019).

Innovation capabilities and creativity go hand in hand (Hernandez-Perlines et. al., 2019). Woodman, Sawyer and Griffin (1993, p. 293) define organizational creativity as “the creation of a valuable, useful new product, service, idea, procedure, or process by individuals working together in a complex social system”. The comprehension of Organizational Creativity involves understanding the creative employee, the creative process, the creative output, and the creative situation (Woodman, Sawyer & Griffin, 1993). Creativity is a complex output of an employee’s behavior in a given situation, where the given situation is defined by the contextual elements that either encourage or inhibit the creative achievements (Woodman, Sawyer & Griffin, 1993). One competitive element of organizational creativity is agile creativity, drawing on the literature, this research describes agile creativity as the ability of workforce within the organization in producing creative products in response to external environment changes in a rapid manner.

Research on Creativity began in the late 1980s through the mid of the 1990’s through the work of Amabile (1988) who proposed one of the early grounded theories of Organizational Creativity (Zhou & Shalley, 2003). According to Amabile (1996), three domains of creativity are identified and are related to skills, processes, and motivation towards achieving competitive accomplishments. Motivation can be triggered by two routes; one is through the attitude of the human resources towards the task, and the other one is caused by

factors outside the assigned task (Amabile, 1996). One of the major factors that explain Agile Creativity is the interactions between contextual factors external to the job itself and within the job such as the characteristics of the workplace, which can act as a driver or inhibitor for Agile Creativity (Zhou & Shalley, 2003; Woodman, Sawyer & Griffin, 1993). A number of creativity predictors have been identified in the literature (Anderson, Potocnik & Zhou, 2014) such as human resource skills and internal organizational processes for example (Hughes et. al., 2018).

To ensure the effectiveness of the implementation of Talent Management practices that are aligned with the dynamic environment in which businesses operate, talented employees must be able to support their organizations in responding innovatively and creatively to match the dynamic demands of the business context. Organizations seek to implement Talent Management practices in order to attract and retain the best highly-skilled human resources that are able to drive the desired goals and achieve competitive advantage for companies in dynamic environments (King & Vaiman, 2019). With the war for talent and the global shortage for highly-skilled employees i.e. talent attraction and talent retention are becoming a crucial effective mean for organizations in addressing the challenges of global shortage of skilled labor (Shao & Ariss, 2019).

The effectiveness of Talent Management and Organizational Agility are both influenced by a set of organizational factors. According to Zitkiene and Deksnys (2018), internal organizational processes must adapt efficiently to the changes in the external environment. One of which is the adjustment of operational processes. As such, in this study Operational Adjustment Capacity is considered as a mediator in the relationship between Effective Talent Management practices and Competitive Organizational Agility. Furthermore,

both sensing agility and response agility are associated with the knowledge that a company acquires and utilizes to produce and improve products and services (Hernandez-Perlines et. al., 2019). Also, acquiring external information from the changing environment is a success factor for the effectiveness of Talent Management and the utilization of Organizational Agility that would lead to increased organizational competitiveness compared to rivals. Hence, absorptive capacity is taken as a mediator in the relationship between effective Talent Management practices and competitive organizational agility.

The external and internal factors considered in the conceptualization introduced in this study are characterized as dynamic capabilities, which are processes undertaken by organizations to adjust its resources to maintain a competitive advantage in changing environments. Dynamic capabilities are considered important factors that supports the competitiveness and success of organizations. This study discusses Talent Management as a contributing factor towards gaining and maintaining Competitive Organizational Agility, both of which are described in the literature as dynamic capabilities (Harsch & Festing, 2020). As such, this study explores the relationship between Effective Talent Management practices and Competitive Organizational Agility; specifically the study explores the relationship between Effective Talent Management and Market Capitalizing Agility, the relationship between Effective Talent Management and Agile Innovation and the relationship between Effective Talent Management and Agile Creativity.

According to Teece et. al. (2016), dynamic capabilities are considered a crucial factor in enhancing organizational agility features. Dynamic capabilities are the processes executed by organizations to adjust and modify its resources to achieve and sustain its competitiveness in a dynamic environment (Eisenhardt & Martin, 2000). The formation of organizational

agility and the significant factors and processes impacting it are not yet understood (Harsch & Festing, 2019). Harsch and Festing (2019) describe Talent Management as a ‘dynamic capability’ that is enhancing agility through the rapid and continuous shaping of talented employees. Human Resources play a critical role in organizational attempts to manage agility (Alavi, et. al., 2014). Several studies emphasize on the importance of employees in fostering organizational agility (Shereihy et. al., 2007). Zitkiene and Deksnys (2018) emphasize on the importance of people skills and capabilities in achieving competitive organization agility.

1.3 Purpose of Research

Despite the relevance of the Talent Management discipline and the outcomes identified in the literature with regards to, for example, Talent Management and Employee Engagement, Commitment, Productivity, and Intellectual Capital (Gallardo-Gallardo et. al., 2015), there are limitations in the literature in explaining how Talent Management can impact organizational agility (Harsch & Festing, 2019). Research in the broader topic of human resource management and agility is also scarce; a few conceptual studies have been conducted and fewer empirical studies are available in this context (Harsch & Festing, 2019). However, the interest in the topic is increasing (Cappelli & Tavis, 2018). Moreover, a number of studies explore elements that can promote organizational agility and can be part of the Talent Management context in the dynamic environment. Studying dynamic capabilities such as Organizational Agility in the context of Talent Management is necessary to provide a guide for companies in deploying their talent (Harsch & Festing, 2019). This would allow leaders to reflect on their Talent Management practices in relationship to how fit they are to the specific situation of the organization at a specific phase, therefore, allowing for actions and decisions specific to the context (Harsch & Festing, 2019). According to Darvishmotevali, Altinay and

Koseoglu (2020), guiding leaders on understanding the relationship of possessing agile characteristics in dynamic environments with the management of talented employees can leverage the chances for organizations in achieving competitive advantages over rivals. This is of great value for organizations given that new product production and creativity is a critical factor in the success of organizations in dynamic environments (Darvishmotevali, Altinay & Koseoglu, 2020).

Furthermore, as suggested by Harsch and Festing (2019), more theory-driven research is needed in the context of shaping talent in the dynamic environments that businesses are encountering nowadays. The mediating effects of Operational Adjustment Capacity and that of Absorptive Capacity in the relationship between Talent Management and Competitive Organizational Agility are not understood. Studying the mediating effect of Operational Adjustment Capacity and that of Absorptive Capacity on the relationship between Talent Management and Competitive Organizational Agility will help organizations in setting the appropriate context for their attracted talented employees to produce high creative outputs (Mehmood, Jian & Akram, 2020) and to pave the path towards their organizations' competitiveness in the dynamic environment.

The current global competition and dynamic environments, due to economic, social, and technological challenges, in which businesses operate have made it difficult for organizations to create the right contexts by which employees can unleash their creative abilities (Shafi et. al., 2020). Many organizations are exploring new mechanisms that would promote creative outputs of their employees in the work environment (Gu, Tang & Jiang, 2015; Liu et. al., 2012). As identified by Soriano de Alencar (2012) one characteristic of organizations that successfully nurture creativity is the outstanding Innovative Capacities that

are possessed within these organizations. Darvishmotevali, Altinay and Koseoglu (2020) suggest that organizational agility contributes to creative performance in companies operating in dynamic environments. Hence, this exploration will help organizations understand how effective Talent Management practices should improve competitive organizational agility and help organizations in coping with dynamic environments and outperforming their rivals through producing creative outputs (Darvishmotevali, Altinay & Koseoglu, 2020).

Recent studies emphasized the importance of organizational agility for organizations. For example, Organizational Agility has been identified as a competitive advantage, an organizational adapting strategy (Appelbaum et. al., 2017), and a leverage between the interaction of environmental uncertainty on organizational creativity (Darvishmotevali, Altinay & Koseoglu, 2020). However, recent research calls for more exploration of Organizational Agility in the organizational context overall. Darvishmotevali, Altinay and Koseoglu (2020) call for research on testing the role of organizational agility as a mediator in the relationship between organizational creativity and uncertain environments. Harsh and Festing (2019) call for empirical research to test for the relationship between Talent Management and Organizational Agility.

Therefore, this research builds on the existing literature with the aim of addressing some of the calls for future research in the field of Talent Management and Organizational Agility. The literature describes Talent Management practices and organizational agility as being influenced by a set of organizational factors (i.e. Operational Adjustment Capacity and Absorptive Capacity) and extra-organizational factors (i.e. dynamic environments). The effectiveness of Talent Management practices is not properly explained without the contextualization with organizational and extra-organizational factors. This research aims to

explore the effectiveness of Talent Management practices and its influence on organizational agility in contextualization with internal and external organizational factors. This accommodates for the dynamic environment in which organizations operate, focusing on the continued upgrading of organizational resources through effective Talent Management practices that would contribute towards enhanced competitive organizational agility.

According to Gallardo-Gallardo, Thunnissen and Scullion (2020), a more comprehensive approach to Talent Management is needed to investigate the dynamics in Talent Management. Furthermore, Thunnissen and Gallardo-Gallardo (2019) state that although Talent Management research has been executed in a broad variety of regions and organizational sectors (i.e. tourism, agriculture, etc.), the impact of external and internal contextual factors and the role of context-specific influencing factors on the conceptualization and effective implementation of Talent Management has been ignored to a great extent. Johns (2017) suggest context should be incorporated systematically when conducting organizational research. This research responds to the existing gap in the literature identified by the aforementioned authors who call for the consideration of the role of context when conducting research on Talent Management.

According to Thunnissen and Gallardo-Gallardo's (2017) the primary focus of previous studies on Talent Management was focused on Talent Management strategies and to a much lesser extent on the impact of Talent Management implementation and the factors affecting it whether external or internal or the role that employees' with competitive skills play on the effectiveness of Talent Management implementation. A small number of studies analyze the specific organizational contexts that surround an organization when studying talent recruitment and selection procedures (Gallardo-Gallardo, Thunnissen & Scullion, 2020).

Ibrahim and AlOmari (2020) call for research to understand to what degree does talent acquisition influences the impact of Talent Management on innovation. Further, Ibrahim and AlOmari (2020) call in for research that considers the contextual dynamics through which Talent Management impacts innovation. Specifically, they call in to introduce mediators to understand their effect on the relationship between effective Talent Management practices and Agile Innovation.

Moreover, research conducted by Walter (2021) reveals various organizational agility research opportunities to enhance the scientific understanding of this concept. In particular, research on agility dimensions is needed (Walter, 2021). Existing research on organizational agility is detached to a large extent, and is conducted independent of one another. A comprehensive exploration of the interdependence between different agility features and their effects on organizational agility as a higher level is needed (Walter, 2021). Further research is needed to address the learning of agility capabilities and their realization mechanisms (Walter 2021). Furthermore, the drivers of agility need to be better understood (Walter, 2021). Moreover, research on organizational agility in industries other than manufacturing need to be explored (Walter, 2021).

1.4 Research Questions

The central research question that this study aims to investigate is: To what extent do Talent Management practices influence Competitive Organizational Agility?

Further, this research aims to answer the following questions:

1. What critical organizational operational functions are a mediator in the relationship between Talent Management practices and Competitive Organizational Agility?

2. What critical organizational knowledge functions are a mediator in the relationship between Talent Management practices and Competitive Organizational Agility?

1.5 Research Aim and Objectives

The central aim of this research is to study the influence of effective Talent Management practices on Competitive Organizational Agility features in knowledge-based organizations. In achieving this research aim, the study addresses the following set of objectives:

1. Investigate the relationship between effective Talent Management practices on Market Capitalizing Agility, Agile Innovation, and Agile Creativity.
2. Investigate the possible mediating influence of Operational Adjustment Capacity on the relationship between effective Talent Management practices on Market Capitalizing Agility, Agile Innovation, and Agile Creativity.
3. Investigate the possible mediating influence of Absorptive Capacity on the relationship between effective Talent Management practices on market capitalizing agility, Agile Innovation, and Agile Creativity.

This research seeks to explore the relationship between Talent Management practices and Competitive Organizational Agility features including Market Capitalizing Agility, Agile Innovation, and Agile Creativity. In addition, this research seeks to investigate the association between Talent Management practices and Operational Adjustment Capacity, and between Talent Management practices and Absorptive Capacity followed by the association between Operational Adjustment Capacity and Competitive Organizational Agility features, and between Absorptive Capacity and Competitive Organizational Agility features. A conceptual

framework is proposed that positions effective Talent Management practices with respect to the wider context of competitive business context, supported by empirical data to explain the influence of effective Talent Management practices on Competitive Organizational Agility features.

1.6 Research Methodology

This research adopts a positivist philosophy and quantitative deductive approach. A survey instrument based on the literature was used to achieve the research aim and objectives, and test the hypotheses of the study. The survey was implemented through a cross-sectional approach. Data was collected through self-administration utilizing an on-line survey platform (SmartSurvey). The study utilized convenience sampling technique. The study sample comprised of CEOs/owners, senior managers, managers working in knowledge-based organizations in the UK private sector. Data was collected during the period of November 2021 to January 2022. The targeted group was invited to complete the survey through the on-line survey platform: SmartSurvey.

According to the UK Parliament House of Commons Library Business Statistics report, a total of 5.5 million private sector companies existed in the UK as of January 2022, of which 1.6 million companies at least are categorized as knowledge-based organizations (UK Parliament, 2022). A sample size of approximately 400 was attempted. This would have been sufficient to achieve 95% confidence level and 5% error margin (Saunders et. al., 2016). Initially a sample size of 404 was collected. After data screening and cleaning, 314 responses were retained for data analysis. The data screening and cleaning is detailed in chapter 4. The data analysis is accomplished through structural equation modeling (SEM), which combines factor analysis and path analysis allowing for testing and confirming models that has complex

relationships (Weston & Gore, 2006). Through the utilization of this approach, the research is able to address the interrelated relationship issues. In particular, data analysis follows a partial-least square (PLS) method, which is a multivariate statistical analysis that allows for the comparison between multiple response variables and multiple explanatory variables (Hair et. al., 2012). PLS is a variance-based statistical method (Hair et. al., 2012).

1.7 Theoretical Contributions

This research and the empirical work that it presents contributes to the literature in several ways. The research focuses on talent as a critical resource in responding to the rapidly changing environment in which businesses operate, especially in knowledge-based organizations. This research also considers Talent Management as a crucial factor in achieving a sustained competitive advantage in such a dynamic environment. There is lack of empirical studies in this context (Claus, 2019), especially studies that consider the contextualized perspective of human resources (Gallardo-Gallardo et. al., 2015). This research explores talent as an element of the broader context of work practices and capabilities (i.e. Talent Management practices, operational adjustment capacities, absorptive capacity). Furthermore, it explores Talent Management practices and Competitive Organizational Agility in the context of a dynamic environment, taking into consideration different contingencies at the level of the organization.

As such, this research is stemming from the dynamic capabilities theory, which is rooted within the resource-based view (RBV) perspective. Barney (1991) describes the resource-based view perspective as a view that considers resources that are valuable, rare, inimitable, and non-substitutable as the main element of achieving a sustained competitive advantage. Since the research context includes a dynamic environment, the research is rooted

in the extension of the resource-based view perspective through the dynamic capability theory. The latter is more oriented towards processes (Harsch & Festing, 2019), focused on the continuous reshaping of organizational resources with the consideration of the dynamic environment (Schilke, 2014), and is based on the traditional theory of resources and capabilities (Barney, 1991). Furthermore, another theoretical lens for this study is the Contingency theory that supports the explanation of the proposed relationships between effective Talent Management practices and competitive organizational agility features, operational adjustment capacity, and absorptive capacity, with the mediating role of absorptive capacity and operational adjustment capacity in the relationship between effective Talent Management practices and competitive organizational agility features. The discussion on contingencies in the Talent Management literature can be traced back to the study of Collings and Mellahi (2009). In this study the authors argue a contingency approach to Talent Management practices where the deployment of human resource practices that is relevant to the organizational context must be made. Furthermore, the realization of the positive outcomes of Talent Management practices, as Anlesinya, Dartey-Baah and Amponash-Tawiah (2019) argue, is dependent on the consideration of organizational contexts. A systematic review analysis conducted by Anlesinya, Dartey-Baah and Amponash-Tawiah (2019) on Talent Management studies from 2007 to 2019 reveals the use of 13 established theories including, for example, the contingency theory, the resource-based view theory, the systems theory, and the human capital theory.

Therefore, this study builds on and contributes to the theoretical foundations of the dynamic capabilities theory and the contingency theory as it considers that talents are key resources for businesses in achieving competitive organizational agility features in dynamic

business environments. Building on the literature, the research develops a conceptual framework model proposing that Talent Management Practices contribute towards the enhancement of Competitive Organizational Agility, where Operational Adjustment Capacity and Absorptive capacity are mediators. Given that all the constructs included in this study are described in the literature as dynamic capabilities, it is important to clarify that studying Operational Adjustment Capacity and Absorptive Capacity as mediators in the context of Talent Management research is considered a contingency. This is in line with previous arguments describing the important role of organizational contexts as contingencies in the study of Talent Management, and that these contingencies are crucial in creating the positive outcomes desired from the implementation of human resource factors in an organization. Therefore, the dynamic capability theory explains the direct relationships in this study, while the contingency theory explains the mediating relationships examined in this research.

1.8 Practical Implications

This research aims to contribute to management practices. Although existing Talent Management literature focuses on the organizational perspective (Gallardo-Gallardo et. al., 2015), the introduction of the relationship between effect Talent Management practices and competitive organizational agility is supportive of management's design and implementation of effective Talent Management processes in the rapid competitive environment of knowledge-based economies. Moreover, the understanding of the mediating effect of Operational Adjustment Capacity and Absorptive Capacity in the relationship between Talent Management practices and Competitive Organizational Agility will support management in two ways: 1) the reshaping of internal processes towards a more agile structure, 2) creating more focus on building the Absorptive Capacities of organizations to gain more

competitiveness in the dynamic environment in which they operate. Furthermore, as organizations around the globe face the challenge of ‘talent shortage’ and compete to attract and retain the best talent to build a competitive edge over their rivals, this study will support management in understanding the importance of implementing effective talent attraction and talent retention processes in sustaining a competitive advantage for organizations as they operate in dynamic business contexts. This will support management’s design of attraction and retention processes targeting talented human resources, which will give companies a more competitive edge in attracting and retaining the best talents. In addition, it will help organizations in adapting flexible operational processes and leveraging on their absorptive capacities. Hence, this thesis supports management with empirical evidence.

1.9 Structure of Thesis

This thesis includes seven chapters:

Chapter 1: presents the introduction, the line of arguments, the aims, purpose, and objectives of the research. The importance, novelty, and theoretical and practical contributions are also discussed in this chapter.

Chapter 2: presents a review on the literature, theoretical background, empirical studies of Talent Management, competitive organizational agility features including Market Capitalizing Agility, Agile Innovation, and Agile Creativity, in addition to Operational Adjustment Capacity and Absorptive Capacity. The chapter traces the Talent Management theoretical development in the literature, along with the theoretical development of Organizational Agility, its sub-dimensions, and contextualization.

Chapter 3: presents the research conceptual model. The chapter outlines the synthesis of the study variables and the relationships between them.

Chapter 4: outlines the research methodology approach, and the development of the survey questionnaire tool.

Chapter 5: describes the collected data and presents the results of validity and reliability of the measurement model. In addition, the chapter presents the results of the analysis of the structural model through structural equation modeling. The chapter also presents the results of the hypothesis testing.

Chapter 6: presents the discussion of the results, analysis of the model relationships, and the relationship with the existing body of knowledge.

Chapter 7: presents the research conclusion, theoretical and practical contributions, research limitations, and recommendations for future research.

Chapter 2: Literature Review

2.1 Chapter Introduction

This chapter describes the theories and various conceptualizations of Talent Management, Organizational Agility, Market Capitalizing Agility, Agile Innovation, Agile Creativity, Operational Adjustment Capacity, and Absorptive Capacity. The rapidly evolving business contexts and rapidly changing market environments that are tagged with high competitiveness and constantly evolving customer demands reveal the need for Talent Management systems that attract and retain skilled and competent pool of human resources that is capable of supporting their organizations in adapting to the constantly evolving contexts and achieving sustained competitiveness. Effective Talent Management practices are enablers in achieving organizational competitiveness through multiple value-adding activities including the acquisition of knowledge, sensing of opportunities arising from dynamic environments, and the agile responsiveness towards constantly changing market demands. Such activities are characterized as dynamic capabilities that address changes occurring in dynamic environment.

The chapter starts with a review of the Talent Management literature which has been rapidly evolving over the past decade or so and is one of the highly growing areas of academic research in the field of management. This review includes a definition of Talent Management, the themes emerging within this concept, its utilization at the organizational level and contextualization within and outside of the organizational level. Discussed emerging Talent Management themes include Global Talent Management and Global Mobility, Micro versus Macro Talent Management, Global versus Local Talent Management. Furthermore, a review of research on Talent Management at the organizational level in a number of industries

including Information Technology, Agriculture, Health Care, and Hospitality for example is discussed as well. The review on Talent Management also presents the characterization of Talent Management as a dynamic capability and its importance in dynamic and uncertain business contexts.

The chapter then carries on by presenting a review of organizational agility and its importance as a competitiveness factor. Different Organizational Agility frameworks are discussed with their dimensions and sub-dimensions including sensing and responding dimensions. Contextualization of these concepts with other organizational factors including Operational Adjustment Capacity and Absorptive Capacity are then presented.

Agility is defined as the ability of the organization to effectively and efficiently adapt its processes and outputs to the uncertain ecosystem in which it operates, including the technological, economic, social, and cultural contexts surrounding it. Therefore, this indicates that agility is also concerned with the ability of the organization to effectively interact with all stakeholders in the process of new product and/or service development leading to an accelerated understanding of the various needs and subsequently the creation of innovative products in an agile approach (Morris et. al., 2014). Agility refers to the adaptive and flexible response to stakeholders' needs. The term agile is used to describe organizations that are able to adapt and function well in rapidly changing environments (Overby et. al., 2006). Other terms are also used in the literature to describe similar approaches including 'flexibility' and 'lean' (Edin Grimheden, 2013; Sharifi et. al., 1999).

Furthermore, the ultimate objective of agility is to make organizations more flexible and enable them to add value by making their operations and outputs creation more flexible.

Therefore, agility adds value to the organization on three aspects including the implementation of innovative products and projects that benefit from the culture of agile processes and actions possessed by the organization, the establishment of a creative environment leading to creative outputs including products and services making it feasible to transform an idea into creativity, and the establishment of a flexible supply chain pathways and processes supporting the development of innovative products and creative outputs (Dupont, 2019). According to Morris et. al. (2014), organizations integrate incremental innovation activities with successful innovation projects creating added value in uncertain, dynamic contexts, which is reflected today through the term “agile innovation”.

Although in a number of contexts creativity is considered as an initial stage of innovation, in the context of knowledge-based organizations it is considered to be different. According to Morari (2022), creativity is an end product, and an output factor in knowledge-based organizations.

2.2 Theoretical Framework

This research touches upon a number of theories stemming from resources and capabilities. The dynamic capability theory which is based on the theory of resources and capabilities that has been emerging since 1959 (Pentrose, 1959; Wernerfelt, 1984; Itami & Roehl, 1991; Grant, 1996; Erik Sveiby, 1997). This is a dominant theoretical approach used to analyze how organizations utilize resources and compete based on the resources acquired (Helfat et. al., 2007). This research is based on dynamic capabilities as innovative capacity and organizational agility allow organizations to modify its practices and the resources it acquires for the ultimate goal of achieving and sustaining competitive advantage (Hernandez-Perlines

et. al., 2019). Furthermore, Hernandez-Perlines et. al. (2019) state that the resource-based approach provides a suitable theoretical framework for studying innovative capacities. With a resource-based approach, the organization is able to achieve a competitive advantage standing through attaining a set of valuable resources and capabilities that are hard to be imitated by rivals (Wernerfelt, 1984; Barney, 1990). Rapid changes and increased turbulence in the environment make it difficult for organizations to maintain their competitive advantage from static resources and capabilities, indicating that organizations must possess the ability to acquire and retain resources and capacities that will enable the sustainability of their competitive edge (Eisenhardt and Martin, 2000).

The theoretical framework which this research builds upon is the dynamic capabilities theoretical approach as innovative capacity and organizational agility are enablers for organizations to better utilize their resources in such a way that will achieve better employee output. In knowledge-based economies, creativity along with innovation are major elements in the achievement of organizational goals and attainment of a sustainable competitive advantage. Furthermore, in knowledge-based economies, competitive advantage is ignited by resources; a talented pool of resources that can produce creative outputs for the organization leading to an increased competitiveness. Dynamic capabilities are very crucial in the maintaining and sustaining a competitive advantage (Hernandez-Perlines et. al., 2019). Dynamic capabilities are defined as the capacities possessed by organizations to create with purpose their resources base (Helfat et. al., 2007). The literature identifies three dynamic capacities; innovative, adaptive, and absorptive (Wang & Ahmed, 2007). One of the major pillars of sustaining a competitive advantage are the innovative capabilities and the ability to constantly attend changes in customers' preferences. (Hernandez-Perlines et. al., 2019).

In early publications on Talent Management, the concept of Talent Management has been described as a phenomenon (Dries, 2013; Gallardo-Gallardo et. al., 2015) that attracted the interest of many scholars (Thunnissen et. al., 2013; Cappelli & Keller, 2014). Until a decade after the “war for talent” study that was introduced in 1998 by McKinsey Consulting Agency, there was scarcity in the quality of conceptual papers on the topic of Talent Management (Thunissen & Gallardo-Gallardo, 2019). Specifically, there was lack of empirical papers on the definition, scope, and context of Talent Management as a concept. In 2009 onwards several scholars produced articles on Talent Management (eg. Cappelli & Keller, 2014; Thunnissen et. al., 2013; Collings et. al., 2011; Collings & Mellahi, 2009), however, criticism related to the scarcity of empirical research continued and scholars called for more empirical research to create a better comprehension of Talent Management as a concept and how it works in practice (Thunissen & Gallardo-Gallardo, 2019). These calls for more empirical research received a good amount of response; as a study by Gallardo-Gallardo et. al. (2015) revealed that empirical research on Talent Management has significantly increased since 2010 with an indication of yearly increase in empirical papers than conceptual papers.

Despite the enormous increase in empirical papers on the concept of Talent Management since 2010, the quality of papers and scope remains at an early stage as there was lack of rigor and coherent papers on the concept (Thunnissen & Gallardo-Gallardo, 2019). According to experts on the evolution of academic disciplines, presence of empirical studies is not enough. Empirical research must serve the systematic development of theory and the building of a rigorous body of research (Junghans & Olsson, 2014; Von Krogh et. al., 2012; Bird et. al., 2002). Furthermore, according to Lynham (2002), in the field of organizations and management, the development of theory is not only critical for academic knowledge but also

very important for creating an impact and understanding for practice and implementation. Theory development through empirical research can help explain the phenomenon and act as an effective mechanism for setting the scene for practice (Lynham, 2002). This rigor depends on the systematic and consistent mechanism by which theory is produced, verified, applied and refined based on feedback from practice. To date, a number of studies have been conducted to assess the literature on Talent Management including e.g. Gallardo-Gallardo et. al. (2015); Thunnissen & Gallardo-Gallardo (2019); and Gallardo-Gallardo, Thunnissen & Scullion (2020). Gallardo-Gallardo et. al. (2015) indicate an increase in the number of papers published in the field of Talent Management, however, lack of quality and rigor remains a significant gap.

Furthermore, in a step forward study conducted by Thunnissen and Gallardo-Gallardo (2019), a total of 174 peer-reviewed empirical studies published between 2006 and 2017 were analysed and their content evaluated for rigor. Through this analysis a number of issues were high-lighted with regards to the quality of Talent Management research one of which is the lack of embeddedness in context, consideration of organizational context is absent, and if considered, it is mostly aimed at providing an introduction to the study question and aim instead of incorporating the context into the research design. Although research on Talent Management has been executed in a wider variety of regions and sectors, the impact of external and internal factors and the role of context-specific influencing factors has been ignored to a greater extent (Thunnissen & Gallardo-Gallardo, 2019).

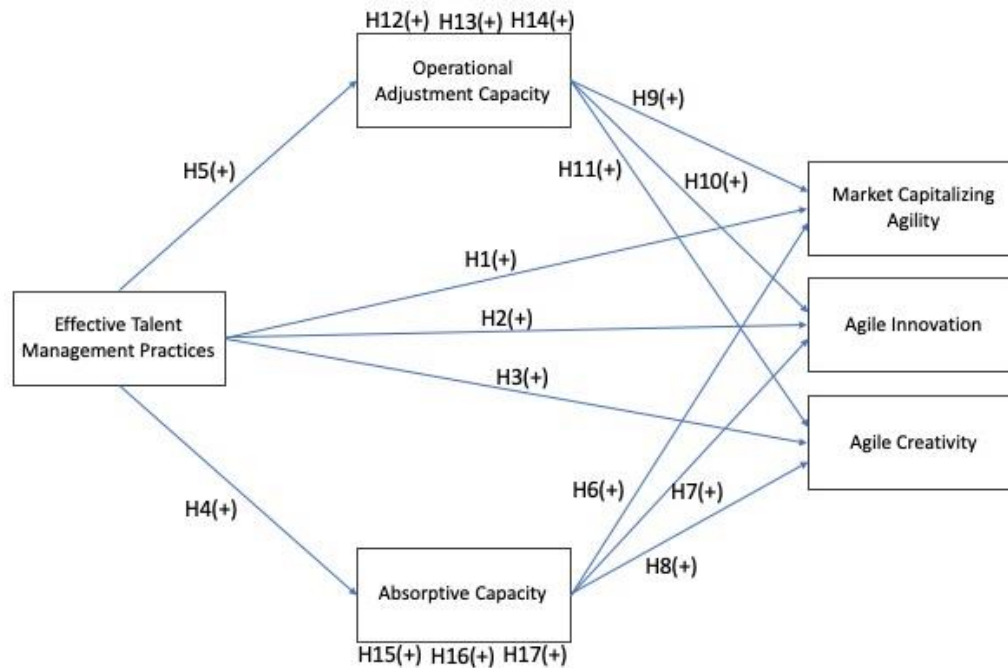
Analysis of the literature from 2018 until 2023 indicate a continued increase in the number of publications on Talent Management. Also, there is more pronounced inclusion of organizational context in the research design. However, calls for a more comprehensive

approach to Talent Management to investigate the dynamics and context around Talent Management practice, and the impact at the level of organizations upon the implementation of Talent Management practices still persists (Gallardo-Gallardo, Thunnissen & Scullion, 2020). Given that the field of Talent Management research is fairly new, the initial attention in the literature was focused on establishing an understanding of the Talent Management phenomenon including setting the definitions and scope of this concept. Therefore, earlier research lacked the incorporation of context in the research design of studies focused on Talent Management. The purpose of this research is to fulfil recent calls for research in terms of the impact that Talent Management can create at an organizational level, how it can leverage on the competitiveness of organizations, and what factors may influence this impact. Harsch and Festing (2020) call for research that empirically tests the impact of effective Talent Management practices on various organizational agility dimensions. It is interesting to state that research on the wider topic of human resource management and agility is also scarce (Harsh & Festing 2020), although recent studies indicate the important role that uniquely-skilled human capital plays in shaping the sustained competitiveness of their organizations, reflected in one way through agility in dynamic environments.

This research overcomes the limitations in the literature by presenting the first empirical study that employs a quantitative approach in assessing the impact of Talent Management on Competitive Organizational Agility. In doing so, this study presents a solidified conceptualization of Competitive Organizational Agility dimensions. Furthermore, this study takes into consideration the context within which the impact of Talent Management is studied, by considering organizational factors that can influence the impact attained from employing Talent Management practices in knowledge-based organizations.

2.3 Conceptual Framework

Traditionally, researchers presented their proposed conceptual framework after the literature review and discussion. However, some researchers recently presented their proposed conceptual framework before the literature review and discussion as this supports the reader understanding (e.g. Shao & Ariss, 2019; Chen et. al., 2020; King & Vaiman, 2019). This research aims to explore the relationship between Effective Talent Management Practices and Competitive Organizational Agility features including Market Capitalizing Agility, Agile Innovation, and Agile Creativity. Furthermore, it explores the mediating effect of Operational Adjustment Capacity and Absorptive Capacity in those relationships. In addition, it investigates the relationships between Effective Talent Management Practices and Operational Adjustment Capacity, and Absorptive Capacity. Moreover, it investigates the relationship between Operational Adjustment Capacity and the three features of Competitive Organizational Agility, and between Absorptive Capacity and the three features of Competitive Organizational Agility.

Figure 1*Conceptual Model*

Responding to the limitations identified in the literature and presented in Chapter 1, and building on the literature review presented in this chapter, we present the following hypotheses:

H1 Talent management will have a positive relationship with Market Capitalizing Agility

H2 Talent Management will have a positive relationship with Agile Innovation

H3 Talent Management will have a positive relationship with Agile Creativity

H4 Talent management will have a positive relationship with Operational Adjustment Capacity

H5 Talent management will have a positive relationship with Absorptive Capacity

H6 Operational adjustment capacity will have a positive relationship with Market Capitalizing Agility

H7 Operational adjustment capacity will have a positive relationship with Agile Innovation

H8 Operational adjustment capacity will have a positive relationship with Agile Creativity

H9 Absorptive capacity will have a positive relationship with Market Capitalizing Agility

H10 Absorptive capacity will have a positive relationship with Agile Innovation

H11 Absorptive capacity will have a positive relationship with Agile Creativity

H12 Operational Adjustment Capacity mediates the relationship between Talent Management and Market Capitalizing Agility

H13 Operational Adjustment Capacity mediates the relationship between Talent Management and Agile Innovation

H14 Operational Adjustment Capacity mediates the relationship between Talent Management and Agile Creativity

H15 Absorptive Capacity mediates the relationship between Talent Management and Market Capitalizing Agility

H16 Absorptive Capacity mediates the relationship between Talent Management and Agile Innovation

H17 Absorptive Capacity mediates the relationship between Talent Management and Agile Creativity

The measurement scale through which the research hypotheses is tested is included in Chapter 4.

2.4 Talent Management

2.4.1 Contextualizing Talent Management in the Literature

This section provides a review on the concept of Talent Management and addresses the following questions: What is Talent Management and What is Talent? How are they contextualized and conceptualized in the literature? What are the theoretical foundations for Talent Management? How is Talent Management operationalized in the organizational context? What are the emerging themes of Talent Management? In addition, it provides a contextualization of Talent Management within the context of Organizational Agility sensing and responding dimensions.

Talent Management is recognized as a critical human resource function (Strack, 2014), and is forecasted to be the most crucial competency in the HR field (Morton, Ashton & Bellis, 2005). Talent Management is described by scholars to be a domain of Human Resource Management (HRM), however, there are contrasting views whether or not the two are the same. Some scholars indicate that HRM and Talent Management are fundamentally different; Talent Management is critical for organizational success and is not just another HRM process (Chuai, Preece & Iles, 2008). On the contrast, other scholars indicate that Talent Management is not different from HRM, and is actually integrated within HRM with a differentiation approach (Iles, Chuai & Preece, 2010). Further, scholars perceive that Talent Management is an organizational directed competence development system (Iles, Chuai & Preece, 2010). Similarities between Talent Management and HRM entail that both focus on the integration

and alignment with the strategic business objectives, both highlight the importance of position allocation, and both address the same critical function of people management. While the differences between Talent Management and HRM entail that HRM is a wider scope than Talent Management, Talent Management highlights segmentation whereas HRM highlights neutrality and equal opportunities, Talent Management focuses on talented people while HRM focuses on function, and Talent Management focuses on the attraction and retention of talent (Iles, Chuai & Preece, 2010).

Although Talent Management is currently a very commonly used concept, it did not evolve until the 1990s in the report on *The War for Talent* produced by McKinsey & Company (Michaels, Handfield-Jones & Beth, 2001; Yener et. al., 2017). Since then, the interest in Talent Management as a concept has emerged (Yener et. al., 2017; Collings, Scullion & Vaiman, 2015). The topic of Talent Management has been growing rapidly in recent years in the literature (Yener et al., 2017), it is now more than a decade since it has emerged as a ‘hot-area’ of research (Gallardo-Gallardo, Nijs, Dries & Gallo, 2015; McDonnell, Collings, Mellahi & Schuler, 2017), and is a phenomenon that is making the transition from an emerging to a mature status (Gallardo-Gallardo et. al., 2015; Dries, 2013b). However, until now, it lags behind in providing organizations with a clear roadmap in this area, (Al Ariss, Cascio, & Paauwe, 2014; Cascio & Boudreau, 2016) and little is known about the mechanisms by which Talent Management is practiced and why is it practiced (Thunnissen & Gallardo-Gallardo, 2017). Talent Management practices shall be designed and implemented coherently with the organizational context and organizational factors that may influence the desired impact from implementing such practices (Thunnissen et. al., 2013). Furthermore, the literature provides limited knowledge about how Talent Management is implemented and enhanced within

organizations, what are its outcomes, and how effective are they (Gallardo-Gallardo, Thunnissen & Scullion, 2020).

Although research on Talent Management covers a wide variety of contexts including organizations, countries, and the global context, there is limited information on the impact of contextual factors and the role of the key actors in each context on the implementation of Talent Management and its conceptualization. This limitation is supported by the empirical literature review on Talent Management conducted by Thunnissen and Gallardo-Gallardo (2019). In the limited studies that identifies the context of Talent Management, the main focus is on the strategy rather than on the impact of the actual implementation or the impact on employees' actions (Thunnissen & Gallardo-Gallardo, 2017). Surprisingly, this limitation exists even though there is consensus on a 'most-appropriate' approach to Talent Management (Stahl et. al., 2012) and consensus on the importance of context to Talent Management (Khilji, Tarique & Shuler, 2015; Thunnissen, 2016). Talent Management cannot be explained as a phenomenon in silo as it is part of organizational practices which are, in turn, part of a bigger scope ie. Society (Gallardo-Gallardo, Thunnissen & Scullin, 2020). Studying the contexts in which Talent Management is executed will explain how and why it works in practice (Gallardo-Gallardo, Thunnissen, and Scullion, 2020). Furthermore, such contextualization will help in forming a bridge between academic research and practice, leading to the enhancement of rigorous research and the relevance of its practicality (Thunnissen & Gallardo-Gallardo, 2019). In fact, the necessity of studying the context around Talent Management can be mapped to one of the critical objectives of the academic research discipline of HRM (Boxall, Purcel & Wright, 2007), and HR based models argue that internal and external factors are crucial to SHRM and influence their performance (Paauwe & Farndale, 2017). Understanding

the impact of contextual dynamics on Talent Management will contribute to the explanation of Talent Management conceptualization and the effectiveness of its implementation (Gallardo-Gallardo, Thunnissen & Scullion, 2020), and its applications (Teagarden, Von Glinow & Mellahi, 2018).

Furthermore, it is recognized that the majority of Talent Management research is addressing the organizational (meso) level of exploration, while research on the individual level or micro level is scarcer (Sparrow, 2019; Gallardo-Gallardo, Thunnissen & Scullion, 2020).

2.4.2 Talent Management: Definitions and Dimensions as Identified in the Literature

Talent Management definitions appear in the literature with the common function of human resource development (Al Ariss, 2014). Soon after *'The War for Talent'* concept was introduced by McKinsey & Company, a number of Talent Management definitions were introduced. Duttagupta (2005) define Talent Management as the process of strategically managing the mobilization of talent through an organization with the main purpose of ensuring the availability of talent for the right jobs in line with the organization strategic objectives. A process that includes all HR processes including the selection, recruitment, development, deployment, and renewal of the workforce with continuous analysis and planning being the supreme (Schweyer, 2004). In an essence, Talent Management is a perspective of viewing the central role of talent in critical conditions that directly impacts the success of the organization (Creelman, 2004). A more recent definition was coined by Collings and Mellahi (2009), defining Talent Management as the set of processes that adhere to a synchronized identification of critical contexts directly impacting an organization's

competitive advantage, the creation of a pool to lead such critical contexts, and the development of a distinctive human resource structure for the enhanced recruitment of a talented pool who will lead such critical contexts ensuring their sustained organizational engagement and commitment leading to their retention. Further, Scullion, Collings and Caligiuri (2010), define Talent Management as the processes and actions that involve the selection, identification, capacity building, motivation and engagement, and retention of talents that hold the potential of significant value-added contributions to the organization leading to a sustainable and competitive success. As such there is a common agreement that attraction, development, and retention are the most critical factors of Talent Management that organizations worldwide are attempting to execute successfully (Gallardo-Gallardo, Thunnissen & Scullion, 2020).

A literature synthesis indicates contrasting views on Talent Management split between a focus on people whether exclusively or inclusively or, on the other hand, a split between the focus on critical organizational positions and the people themselves (Iles, Chuai & Preece, 2010). Talent Management is described in the literature to exist on two perspectives; exclusive and inclusive (Iles, Chuai & Preece, 2010). From the exclusive perspective, Talent Management refers to a divided view of the workforce through which specific talents are more highly recognized and valued than other talents (Iles, Chuai & Preece, 2010). Through this perspective, talent can exist relative to the ‘untalented’ or ‘less-talented’ (Iles, Chuai & Preece, 2010). As such four Talent Management perspectives can be identified; exclusive-position, exclusive-people, inclusive-people, and social capital (Iles, Chuai & Preece, 2010).

The focus of the exclusive-people perspective is limited to those individuals who are able to contribute significantly and distinctively to organizational performance (Morton,

2005). Hence, according to this perspective, a limited number of employees are considered talent, managed accordingly, and are perceived as fundamentally distinct from others in terms of their performance and the potential they hold for organizational success (Iles, Chuai & Preece, 2010). This perspective indicates that talent is based on employee value-added capabilities and is neither related to the title nor to the position (Iles, Chuai & Preece, 2010). Such perspective allows managers to view employees based on their performance, competence, and value-added potential, hence, not all employees are treated in the same manner; scarce developmental opportunities are directed towards the talented with the most potential. This allows for a more efficient cost on recruitment, development, and training (Iles, Chuai & Preece, 2010).

The focus of the exclusive-position perspective is on the identification of critical positions within the organization (Huselid, Beatty & Becker, 2005; Iles, Chuai & Preece, 2010). Under this perspective, Talent Management is initiated through the identification of strategically critical positions. Employees occupying these positions are considered talent, they should be receiving an increased level of financial and managerial resources hence obtaining tremendous opportunities for development. In this context, Iles, Chuai & Preece (2010) argue that Talent Management necessitates ‘employee/potential employee differentiation’.

The focus of inclusive-people is to take an ‘inclusive’ perspective on Talent Management. This mostly stances from humanistic considerations that all employees in the organization are considered ‘talent’ (Iles, Chuai & Preece, 2010). All employees are perceived as talented and the role of the organization is to manage all employees to deliver their best potential (Iles, Chuai & Preece, 2010). In this perspective, all employees have a role in

contributing to the success of the organization. Under this perspective, opportunities must be available for all employees to learn and develop in such a way that would lead to unleashing their full potential (Walker, 2002).

The focus of social capital perspective deviates from the individualistic approach of talent by accommodating for the broader context of Talent Management in which organizational capital and organizational competitiveness are considered (Iles, Chuai & Preece, 2010). Therefore, for a successful Talent Management execution, this approach takes into consideration the development of talent and the retention of talent (Iles, Chuai & Preece, 2010).

This study adapts the inclusive-people perspective in targeting ‘talent’ for the purpose of achieving the objectives of this research. This is attributed to a number of reasons; first of all, scholars argue that an inclusive approach to Talent Management is an absolute necessity that would lead to achieving competitiveness (Warren, 2006). Secondly, Buckingham and Vosburgh (2001), state that talent is inherent in each individual and the role of organizations is to unleash the unique talents of each individual in alignment with the transformation of these talents into a leading edge in the success of organizations. Thirdly, Stainton (2005) state that Talent Management entails the recognition that all employees are capable of displaying talent and hold the potential to contribute their talents to the advantage of the organization.

Ulrich (2006) state that talent is a composition of the skills and competencies along with the commitment to contribute as an employee. Jauhari et. al., (2013) describes talented employees as productive individuals that produce creative outcomes, and are always dedicating to achieve towards the strategic organizational objectives. As such, in knowledge

economies, organizations are constantly seeking a talented pool of employees who have the capacity to achieve the strategic objectives of the organization (Slavkovic et. al., 2015; Nilsson & Ellstrom, 2012), this pool is a critical resource to be obtained by organizations in order to maintain and sustain their competitive edge in the rapid environment in which they operate (Obeidat et. al., 2019). The process of managing such a talented pool to maintain the competitive edge over rivals is referred to as Talent Management (Tansley, 2011). The aim of organizations from Talent Management processes is to achieve successful performance outcomes (Obeidat et. al., 2019). As such, organizations must adapt effective talent attraction, development and retainment approaches that are able to engage and motivate their talented pool (Obeidat et. al., 2019). The literature describes a number of dimensions for Talent Management including the attraction, development, and retention of the talented pool (Jauhari et. al., 2013). Obeidat et. al. (2019), as well, describe the dimensions of Talent Management as talent attraction, development, and retention. Other authors describe the dimensions as talent planning, workplace culture, talent recruitment and retention, development and professional advancement, and rewarding. Hence, the common element is the attraction and retention, as development and the other aspects are embedded within the talent retention dimension.

Talent Management is a process stemming from the objective of aligning employees' capabilities and needs with the organization's needs, hence targeting the attraction and retention of the skills and talent that is most needed for such context (Obeidat et. al., 2019). Talent Management considers the alignment between organizational objectives and the outcomes of employees through processes and approaches that will unleash the skills and capacities possessed by the employees (Majeed, 2013). As such, Talent Management is said to

have transformed the conventional strategies of human resources divisions such that the focus has shifted towards recruiting and retaining a talented pool of employees in a long-term.

According to Obeidat et. al., (2019) organizations seek to recruit and retain knowledgeable and talented employees as they are a critical factor in the success of organizations. With the arising competition and war for talent between organizations in the national and global context, the attraction, recruitment, and retention of employees becomes a critical factor that is not easy to accomplish (Vidal-Salazar et. al., 2016). Hence, organizations must overcome the existing challenges in finding the right talent that possesses the skills that are aligned to the organizational needs (Majeed, 2013). According to Coff and Kryscynski (2011), it is difficult for organizations to assess the extent to which potential human capital is capable of adapting to the organizational goals and to the social environment. This is attributed to the changing priorities of employees, as the main attraction point over the past decades was money, however, nowadays other factors are considered by highly skilled employees upon the acceptance of a recruitment opportunity including skills development opportunities, career growth opportunities, and rewards and retention incentives (Obeidat et. al., 2019). These other factors are not easily identifiable by employers (Obeidat et. al., 2019).

Along with talent recruitment, talent retention is another crucial factor's that organizations strive to achieve. This is described as having a pool of employees that are committed and attracted to the organization sustainably (Obeidat et. al., 2019). This dimension is critically important due to the lack of talent globally (Epie, 2014). In addition, there is a cost incurred upon the turnover of talented employees including the costs incurred upon recruitment, the professional advancement and training costs, the intangible cost of knowledge, and the loss of the unique skills obtained by the departing talented (George, 2015).

The literature identifies the main talent retention factors including employee enthusiasm towards the job assigned to them, their growth and development opportunities, their exposure to learning and training opportunities, the social attraction and work culture within the organization, their engagement and support with direct and senior management, monetary and non-monetary rewards, the working conditions, and the benefits within the employment package (Epie, 2014; Bhatnagar, 2007). Obeidat et. al. (2019) state that for organizations to succeed in talent retention, they need to adapt to certain approaches including the exploration and understanding of their employees desires, seeking their feedback to understand their perceptions on organizational related issues with the ultimate goal of achieving a sustained employee satisfaction and establishing an understanding of what would establish a rapport between the employee and the organization such that they are always attracted with a mindset to stay.

2.4.3 Who is the Talented And What is Talent in the Context of Organizations?

Talent is a critical human resource (Thunnissen, 2016). Talent is a unique strategic human capital resource that is crucial for the success of organizations and the attainment of a sustained competitive advantage (Dries, 2013a), which is seen to be rare, valuable, and difficult to imitate according to the resource-based view (RBV) of the firm (Barney, 1991). Talent is a successful result of an adapted organizational Talent Management process (Linden & Teece, 2014). Acquiring and retaining a quality pool of talent remains a continuous challenge for organizations (Vaiman, Collings & Scullion, 2017). In fact, one of the major concerns for many CEOs is the issue of talent (Bhalla et. al., 2018). Williams (2000) describe talented individuals as those who are able to reach exceptional achievements and are able to

demonstrate competency in areas of challenging situations. Michaels et al. (2001) refer to talent as the most productive and value-adding leaders and managers across the organization, who clearly contribute towards the achievement of the organization's goals and aspirations driving its competitive performance. Michaels et al. (2001) further describe managerial talent as a strategic and leadership capability combined with emotional intelligence, communication skills, and the ability to inspire other individuals to unleash their talents, skills, and entrepreneurial characteristics to achieve the desired goals. All in all, this implies that organizations utilize Talent Management to catch and keep such resources (Sparrow & Makram, 2015).

2.4.4 Themes Emerging in the Talent Management Literature

A number of themes emerge under Talent Management; these are Global Talent Management and Global Mobility, Micro versus Macro Talent Management, Global versus Local Talent Management, Multi-Level and Cross-Level Talent Management, Dynamic Talent Management Capabilities and Organizational Agility, Talent Management Reinvention.

The current drivers, processes, and approaches determining the available supply, factors, and mobility of talent into, within, and out of an organization have become very sophisticated than ever (King & Vaiman, 2019). The operationalization of organizations is not only limited to a national context but has extended, over the past decades, to an international and global context (King & Vaiman, 2019). Khilji et. al. (2015) introduced a new proposal in the context of Talent Management, stating that the national context in which organizations operate are 'contextually-based macro Talent Management systems' shaped and orchestrated by the national environment including the political, economic, technological, and social

factors which exert an impact on organizations operating in this context. Hence, macro-contexts can directly or indirectly affect the attraction and retention of talent and highly skilled human capital from across the globe, as talent becomes a scarce resource in emerging economies (Khilji et. al., 2015). In some contexts, as part of an effective Talent Management strategy, organizations need to take special attention to talent attracted from outside the national context; whether self-initiated expatriates, or organizational expatriates. The management of talent recruited from outside the national context requires interventions from governments as well as organizations themselves with the objective of creating an ecosystem that will enhance the quantity and quality of talent that is able to perform innovatively and creatively with the ultimate aim of leveraging the competitiveness of the organization (Khilji et. al., 2015).

According to King and Vaiman (2019), the impact of the macro context in which organizations operate and its impact on the organization's Talent Management strategies and effectiveness is overlooked. King and Vaiman (2019) propose the assessment of the effectiveness of Talent Management at the organizational level through the evaluation of the design and execution of the talent strategy. This normally evaluates the cross-level interactions with contexts and frameworks outside the organization itself. Narayanan (2016) proposes that the employees' interactions with the environment within which their organization operates will affect their job embeddedness of the employee impacting their retention with the organization. However, the most of the existing Talent Management approaches fail to inform policy making at national or regional contexts (Pennington et. al., 2018). Pennington et. al. (2018) further argues that governments should have a role in developing environments (i.e. family-friendly environments with superb educational opportunities) that would attract and

retain the best talent. Hence, for effective Talent Management execution, the embeddedness of the talented employee with the external community in which the organization operates is a critical element that must be measured, evaluated and regulated through the right policies (Pennington et. al., 2018). Talent Management processes at the level of organizations consider the education level and skills of the recruited employee as part of the demographics of the organization, and is a crucial factor affecting the recruitment and retainment of talent at the organizational level.

Research on factors outside the organizational context impacting the effectiveness of Talent Management is scarce (Al Ariss et. al., 2014). Narayanan (2016) proposes that job embeddedness is a mediating factor in the relationship between Talent Management and talent retention. However, this has not yet been empirically tested. Khilji et. al., (2015) indicate that the literature lacks a cross-level model that incorporates the interactions of organizational factors and extra-organizational factors. Rather, research addresses organizational factors and extra-organizational factors separately. Furthermore, King and Vaiman (2019), and Al Ariss et. al. (2014) refer to a “micro-macro Talent Management gap” in the literature where the interaction between organizational Talent Management and its macro talent environment is not yet studied. However, the literature describes the macro Talent Management factors as contextual factors, procedures, and outputs (King & Vaiman, 2019). The existing macro Talent Management literature is comparative, describing macro Talent Management factors across nations (Al Ariss et. al., 2014).

According to Sparrow et. al. (2018), the concept of macro-talent management describes the factors compositing the macro talent context, the major procedures and elements, along with the outputs including educational levels, employment rates, and the competitiveness of a

country in relation to talent attraction and retention. A macro-contingent approach is introduced by to talent management at the organizational level; King and Vaiman (2019) argue that extra-organizational factors can impact the efficiency and effectiveness of organizational talent management strategies and practices. Furthermore, King and Vaiman (2019), propose that the influence of a macro-contingent approach to talent management depends on the extent to which the organization adapts one of three perspectives; first, shifting from an organizational context to a cross level setting between the organization and its external environment, second, shifting across from an HR orientation to a more strategic practice, third shifting to an external setting outward from the organization. As such, King and Vaiman (2019) propose a conceptual setting to talent management that is reflected as a nested ecosystem with the argument that organization talent management is a component of a bigger context framed by the external environment in which the organization operates and is inherently nested. Kind and Vaiman (2019) further argue that organizational talent management systems are interrelated with the external environment in which they operate rendering their processes and strategies affected by the inputs and outputs of this bigger ecosystem.

2.4.5 Contextualizing the Importance of Talent Management for Organizations

The emerging complexity of the business context of organizations as a result of globalization, economic, technological, geopolitical, and demographic factors even elevate the need for organizations to focus on identifying, attracting, recruiting, developing and retaining talent in order to overcome any arising challenges and sustain the strategic success (Claus, 2019). This is also enriched by the transition from an industrial age to informational age

giving rise to knowledge demanding jobs, leading, in turn, to the increased demand for high quality talent (Narayanan, 2016). Along with this increased demand, the growing tendency of employees to switch between organizations has made talent retention a topic of increased importance for organizations. Research on Talent Management has hence focused on the recruitment and retention of talent, as significant value creation can result from the performance of a talented employee (Narayanan, 2016). Losing a highly talented employee to a rival is one of the aspects that organizations aim to prevent through effective talent management practices (Narayanan, 2016). Talent Management processes encompassing the identification, development, and cultivation of talent gains an outstanding status as it reduces talent turnover (Narayanan, 2016).

The importance of Talent Management has been investigated at multiple levels and in different contexts including its impact on organizational performance, its impact on employees' commitment, its implementation schemes. [Table 1](#) provides a view on the outcomes of such studies. It is evident from the literature that Talent Management depends highly on the context within which it is considered (Sparrow & Makram, 2015). Building a Talent Management mindset requires an organization-wide change (Iles, Chuai & Preece, 2010). As such, Talent Management raises a number of demanded actions to be executed by organizations, senior management, and the Human Resource Management systems (Iles, Chuai & Preece, 2010). Talent Management is a crucial element in the success of organizations as it builds organizational capabilities and hence competitive advantage through the selection and retention of talented employees (Iles, Chuai & Preece, 2010). As the knowledge-based organizations continue to evolve, the demand for talent will increase and the

value-added contributions from outstanding talent will be highly recognized (Martin & Hetrick, 2006).

In knowledge economies, human capital is one of the most crucial and critical assets that can lead to organizational excellence (van Kemenade & Hardjono, 2019). Human resources are a valuable resource for any organization. In order for human resources to add value to their organizations they should be exposed to the right training and development along with empowerment and involvement in teamwork (Dawabsheh et. al., 2019). Initially, talent management focused on the recruitment, attraction, and retention of the most capable and skilled labor (Miner, 1973). With the consideration of the scarcity of the highly skilled and talented individuals and with the importance of human capital as a critical resource in knowledge economies, organizations and human resource managers began to pay special attention to the increasing international competition in attracting talent; the war for talent. However, the contextualization of talent management with internal and external factors remains an underdeveloped area of research despite the rapid growth of talent management literature. It is crucial to explore the Talent Management phenomena through an examination of the literature and through an empirical investigation of organizational practices and contextualization (Iles, Chuai & Preece, 2010).

Table 1

Impact of Talent Management on Organizational Factors

Study	Findings	Significance of Relationship (yes, No)
Devi (2017)	▪ Talent Attraction and Talent Retention has a significant impact	Yes

	on organizational performance in the telecommunication sector.	
Almohtaseb et. al. (2020)	▪ Compensation and rewards of talented employees has a significant impact on organizational performance. ▪ Training and development of talented employees has a significant impact on organizational performance. ▪ Organizational culture has a significant impact on organizational performance in organizations that implement talent management practices.	Yes
	▪ Talent Management planning has significant impact on organizational performance. ▪ Recruiting and attracting talented employees has significant impact on organizational performance.	No
Al Aina and Atan (2020)	▪ Talent Attraction and Talent retention have a positive impact on organizational performance in real-estate sector.	No
Jibril and Yesiltas (2022)	▪ Talent attraction and retention has a positive impact on sustainable competitive advantage.	Yes
Coculuva, Svetozarovova, and Bertova (2020)	▪ Having a pool of talented employees by itself is not sufficient for an organization to achieve a successful implementation of talent management. Other factors come into play as contributors to an effective talent management implementation including flexibility	Yes

	of remuneration system, support for training and career development, support for innovation and creativity.	
Kafetzopoulos and Gotzamani (2022)	Leadership style has a significant impact on the relationship between Talent Management and sustainable organizational performance	Yes
Kumar (2021)	Talent Management practices has a significant impact on Employee retention.	Yes

2.4.6 Talent Management Practices as a Dynamic Capability

The operationalization of dynamic capabilities with alignment to the theoretical essence of the concept is varied (Laaksonen & Peltoniemi, 2016). According to Laaksonen and Peltoniemi (2016), four types of dynamic capability operationalizations have been used including financial data, evaluations of managers, employees' experiences and actions, and the organizations' experiences and actions. The essence of the dynamic capabilities concept is composed of a distinction between dynamic and ordinary capabilities, performance as an indirect output, the significance of whether or not organizations possess specific types of dynamic capabilities, and the attention to change over time (Laaksonen & Peltoniemi, 2016; Eisenhardt & Martin, 2000; Teece et. al., 1997; Zahra et. al., 2006). In this research, the dynamic capability operationalization is related to the organizations experiences and actions, and the essence of the dynamic capability concept is demonstrated in four constructs; effective talent management practices, market capitalizing agility, agile innovation, and agile creativity. This is in line with Teece (2007); Zollo and Winter (2002); Eisenhardt and Martin (2000); Laaksonen and Peltoniemi (2016) who describe dynamic capabilities as capabilities that

enable sensing and seizing of opportunities and organizational change. Dynamic capabilities create opportunities for new value-adding actions through the utilization of ordinary capabilities (Eisenhardt & Martin, 2000). Ordinary capabilities which are referred to as zero-capabilities or operational capabilities indicate a current status of the organization, rather than a changing status. However, the distinction between some dynamic and ordinary capabilities are vague, as some capabilities have an operational stance as well as being characterized as changing capabilities, therefore having a dual purpose and hence can be characterized as both (Laaksonen & Peltoniemi, 2016; Helfat & Winter, 2011).

The aim of dynamic capabilities is to demonstrate sources of organizational competitive advantage (Teece et. al., 1997; Teece, 2007). This indicates that the ultimate goal of dynamic capabilities is to achieve an improved and competitive organizational performance. Furthermore, dynamic capabilities are demonstrated to cause either a direct or indirect effect on organizational performance. According to Laaksonen and Peltoniemi (2016), organizational performance is seen as the ultimate goal of dynamic capabilities, dynamic capabilities influence ordinary capabilities and organizational resources-base leading to an eventual impact on organizational performance. Hence, dynamic capabilities do not impact performance in a direct manner but rather it explains changes in performance (Laaksonen & Peltoniemi, 2016; Eisenhardt & Martin, 2000; Teece, 2007; Zahra et. al., 2006). The organizational outcomes when possessing dynamic capabilities are dependent on the ordinary capabilities that are affected by the dynamic capabilities possessed, and the evolvement and alignment of such capabilities with the dynamism of the business context (Helfat et. al., 2007; Zahra et. al., 2006). Dynamic capabilities will not lead to a significant positive change in organizational performance if the operational capabilities are considerably under a competitive

level (Laaksonen & Peltoniemi, 2016). This research views dynamic capabilities in alignment with the theoretical stance of dynamic capabilities that states that dynamic capabilities have an effect on ordinary capabilities which in turn affects organizational outputs (in alignment with a number of studies e.g. Eisenhardt & Martin, 2000; Zahra et. al., 2006; Teece, 2007) rather than the view of dynamic capabilities having a direct impact on organizational performance. In the context of knowledge-based organizations, this entails that the right level of knowledge acquisition and exploitation, and operational processes reconfigurations need to occur in-order for dynamic capabilities (i.e. effective talent management practices) to be effective. Dynamic capabilities need to be effective and exceptional in an absolute sense (i.e. fluidity, flexibility, agility, and speed) and aligned to the business environment and market demands.

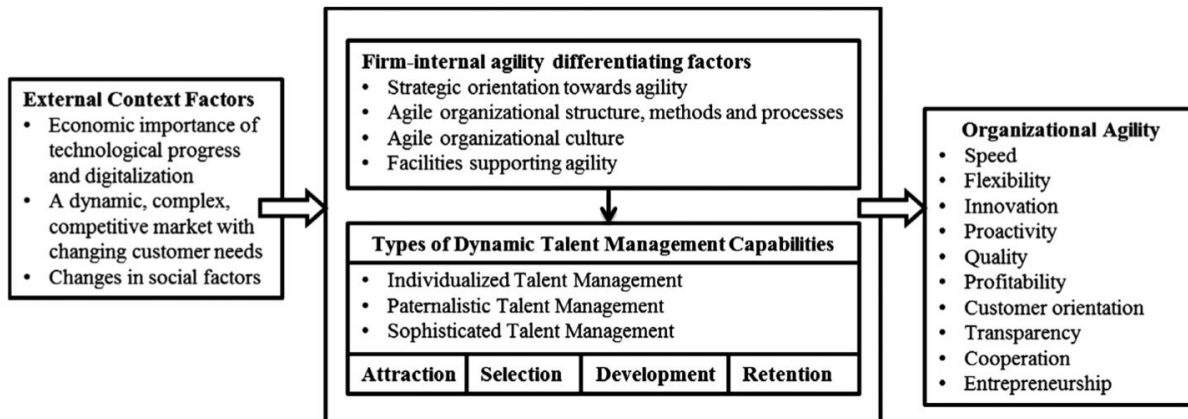
For organization's operating in dynamic environments, dynamic capabilities are necessary for sustained success and competitiveness as they allow for flexible reconfigurations of organizational resources and actions in accordance with the dynamism of the business context (Harsch & Festing, 2020; Eisenhardt & Martin, 2000; Wang & Ahmed, 2007). Dynamic capabilities are considered as mechanisms that accommodate for the evolutionary characteristic of resources in an evolving business context, and explicitly link resources at the organizational level with the external business context with the aim of achieving sustainable competitive advantage through the fluid and agile reconfiguration of the critical organizational resources need to adapt to the evolving business context (Harsch & Festing, 2020; Eisenhardt & Martin, 2000). Such changes are not related to the dynamic resources in silo but to the changes executed by dynamic resources to adapt to the constantly evolving business contexts.

Collings et. al. (2019), and Harsch and Festing (2020) indicate that talent management is a dynamic capability. Talented employees are essential for the long-term survival of organizations where customers' preferences, technologies, and competitors' behaviors are constantly evolving. In such contexts, talented employees can make significant contributions that would lead to ultimate competitiveness (Linden & Teece, 2014). In knowledge-based organizations, talents are a critical resource in building organizational competitiveness. The talent management process serves the purpose of attracting and retaining talented employees (Collings et. al., 2019), with the outcome of the talent management process being the talented employee tool (Linden & Teece, 2014). The ultimate goal of the talent management process is the 'talented employee' with the purpose of attracting and retaining valuable and unique human resources pool that is able to create value (Sparrow & Makram, 2015). This perspective adds to the dynamic capabilities features by highlighting the competitive value created to the organization through effective talent management process.

A number of scholars group dynamic capabilities into three clusters; sensing, seizing, and transforming (e.g. Teece et. al., 2016, Semke & Tiberius, 2020). Sensing refers to the ability to capture evolving trends in the market dynamics and identifying opportunities to enhance the business, seizing refers to the activation of resources, and transforming refers to the continuous renewal in outcomes (Teece et. al., 2016). Inherent in the conceptualization of effective talent management practices are three clusters of dynamic capabilities which enables organizations to continuously cope with the market dynamics faced by organizations.

As talent management and dynamic capabilities are most effective when contextualized with market dynamics, agility is an important organizational characteristic that supports

organizations to act in a manner that promotes their competitiveness in dynamic environments. Harsch and Festing (2020) describe agility as a critical differentiating factor in dynamic environments. Harsch and Festing (2020), through an empirical qualitative study, identify dynamic talent management capabilities that significantly promotes organizational agility. Furthermore, Harsch and Festing (2020) map out dynamic talent management capabilities with different organizational agility needs. Moreover, the researchers indicate that dynamic talent management practices are contextualized with external factors including customers' needs, complexity and competitiveness of the market, etc, and drive a number of organizational agility features including speed, flexibility, innovation, proactivity, uniqueness of products, customer orientation, and entrepreneurship (see [Figure 2](#)). In this research we consider three organizational agility characteristics including market capitalizing agility, agile innovation, and agile creativity referring to them collectively as competitive organizational agility features. The market capitalizing agility is referred to in the literature as sensing agility as well. While both agile innovation and agile creativity would be characterized as responding agility as described in the literature, mapping out to the seizing and transforming agile characteristics of the organization.

Figure 2*Dynamic Talent Management and Organizational Agility Dimensions*

Note. (Adopted from Harsch and Festing, 2020, p. 13).

2.5 Competitive Organizational Agility

Agility is considered as enabler for organizations, allowing them to successfully perform in dynamic environments (Harsch & Festing, 2019). Agility is an adapted mindset by an organization, exhibited in the processes and practices executed in reacting to change in a rapid and flexible manner by acting creatively and innovatively (Harsch & Festing, 2019). Agility is driven by competitiveness, innovations, changes in customers preferences, and changes in internal or external environmental factors (Abdelilah, El Korchi & Balambo, 2018). Agility can exist at the organizational level and within the workforce i.e. workforce agility (Harsch & Festing, 2019). Described as the adaptability and reaction of an organization to the dynamic environment that it operates within, organizational agility allows the organization to obtain two capabilities; one, is the adaptation to arising opportunities in its dynamic environment, and second, is the identification and exploitation of opportunities in its

external context (Sherehiy & Karwowski, 2014). To achieve a sustained competitive advantage, organizations must be able to identify and utilize opportunities (Sherehiy & Karwowski, 2014) through its talented, creative workforce. This indicates that organizational agility depends on both the organization and its employees (Harsch & Festing, 2019).

Even though, the organizational agility field is fairly new and empirical studies indicating the determinant factors for an organization to be considered as agile are limited (Harsch & Festing, 2019), a number of studies indicate the capabilities that characterize an organization as agile. Sharifi and Zhang (1999) describe these capabilities as competitiveness, flexibility, speed, and responsiveness. According to Dyer and Shafer (2003), agile organizations adapt HR strategies directed towards influencing the mindsets of employees. Nijssen and Paauwe (2012), introduce a framework of three competencies in order for organizations to be characterized as agile. These are; a highly adaptable organizational infrastructure, rapid organizational learning entailing knowledge creation, and a workforce that is capable of learning and growing. These identified characteristics are introduced in the literature as conceptual frameworks and has not been, to date, tested empirically (Harsch & Festing, 2019).

The limited empirical studies measuring what factors relate to organizational agility introduce a number of findings. Research identifies a positive impact of organizational learning (Bahrami et. al., 2016), the application of knowledge (Cegarra-Navarro, Soto-Acosta & Wensely, 2016), and strong capabilities in information systems (Felipe, Roldan & Leal-Rodriguez, 2016) on organizational agility. Felipe, Roldan and Leal-Rodriguez (2016) indicate a negative relationship between a hierarchal organizational structure and organizational agility. Findings from Harsch and Festing (2019) indicate that agile organizations are

characterized by strategic direction supporting agility, agile organizational structures and internal processes, and configurations favoring agility.

And more importantly in the context of this research, a human resource strategy is indicated to foster organizational agility (Shafer et. al., 2001). Furthermore, strong dynamic capabilities are perceived as critical factors in promoting Organizational Agility (Teece, 2016). Harsch & Festing (2019), qualitatively explore how dynamic Talent Management processes are related to Organizational Agility. Dynamic Talent Management capabilities are perceived as a value-creation procedure for organizations (Sparrow & Makram, 2015). According to Harsch and Festing (2019), Talent Management processes influence Organizational Agility. Harsch and Festing (2019) describe how Talent Management can be designed to promote Organization Agility; Talent Management is a strategic power that enables organizational agility through employment practices, it contributes to organizational agility primarily through talent deployment.

Agile organizations employ agile talent through their Talent Management processes. Agile talent is described as resilient, adaptive, and proactive (Alavi et. al., 2014; Sherehiy & Karwowski, 2014), high performers, innovative, mobile, able to learn, always questioning the conventional processes (Harsch & Festing, 2019). This overlaps with the definition of organizational creativity which indicates the ability to highly perform, innovate, and produce novel ideas and processes in a very responsive and rapid manner rather than sticking to the conventional means. Hence, Harsch and Festing (2019) identify what dynamic Talent Management processes promote Organizational Agility, and call for the empirical testing of their findings.

2.5.1 Competitive Organizational Agility Frameworks

The importance of Organizational Agility is growing as a major contributing factor for gaining and sustaining a competitive advantage in the rapidly-changing business environments (Zitkiene & Deksnys, 2018). To take advantage over rivals, organizations have to have flexible business processes, workforce that is capable of creating change, ready to change and update products and services to align with the rapidly evolving customers' needs and expectations (Zitkiene & Deksnys, 2018). Hence, in order to stay competitive, organizations need to be proactively responsive and anticipate change to capitalize on emerging opportunities (Zitkiene & Deksnys, 2018). Zitkiene and Deksnys (2018) define organizational agility as the ability to recognize unexpected changes in the environment and respond through a set of actions that utilizes internal resources to produce outcomes that capitalizes on opportunities created by environment changes and hence supporting the organization in gaining competitive advantage. Both sensing agility and response agility are associated with the knowledge that a company utilizes to produce and improve products and services (Hernandez-Perlines et. al., 2019).

According to Teece et. al. (2016), dynamic capabilities are considered a crucial factor in enhancing organizational agility. Dynamic capabilities are the processes executed by organizations to adjust and modify its resources to achieve and sustain its competitiveness in a dynamic environment (Eisenhardt & Martin, 2000). The formation of organizational agility and the significant factors and processes impacting it are not yet understood (Harsch & Festing, 2019). Harsch and Festing (2019) describe Talent Management as a 'dynamic capability' that is enhancing agility through the rapid and continuous shaping of talented employees. Human Resources play a critical role in organizational attempts to manage agility

(Alavi et. al., 2014). Several studies emphasize on the importance of employees in fostering organizational agility (Shereihiy et. al., 2007). Zitkiene and Deksnys (2018) emphasize on the importance of people skills and capabilities in achieving competitive organizational agility.

A number of organizational agility frameworks are coined in the literature. One organizational agility framework that emphasizes on the importance of human resources in enhancing competitive organizational agility is the sense-response framework of organizational agility coined by Zitkiene and Deksnys (2018). In this framework, two dimensions are prominent; the sensing dimension and the response dimension. A successful process of change is triggered and achieved by these two dimensions. The first step in this process is the sensing ability, once external changes are identified, the organization has to determine whether or not it is able to take actions that can benefit its status and competitiveness. The second step in this process is the response, the ability to leverage on internal and external organizational resources (i.e. enablers and capabilities) in responding to changes in the external environment. This highly depends on the capabilities and enablers that the organization possesses. Once the decision to act towards an external change that is sensed in the first process is made, the organization uses its enablers and capabilities to respond to the change whether it's an opportunity or a threat. Based on the sense-response framework of organization agility, the complex processes of external change capturing and effective action towards this change is the key for successful competitive organizational agility (Zitkiene & Deksnys, 2018).

Sense-response framework is described as a flexible framework, which is the concept of the variety of adaptation and speed, which is the rate of the creation of a variety of change (Singh & Sharma, 2013). The flexibility aspect indicates the extent to which the organization

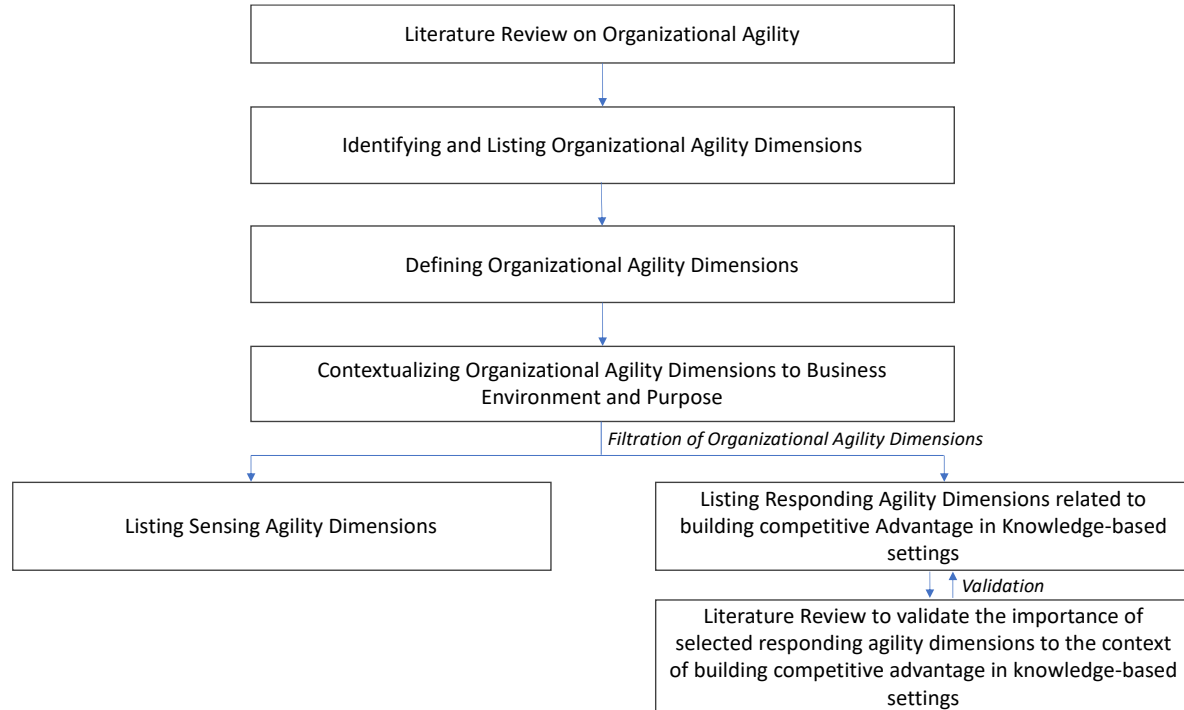
is capable of responding by adapting its processes, products, services or practices. The speed aspect indicates how rapid the organization is able to sense the market changes and adjust accordingly to take advantage over rivals (Singh & Sharma, 2013). In the sense-response framework, the sensing aspect focuses on the internal organizational capabilities in capturing changes in the external environment, this aspect is directed outside the organization and is highly dependent on human resources skills and experiences (Zitkiene & Deksnys, 2018). In the literature, the sensing dimension of organizational agility is also referred to as market capitalizing agility (Lu & Ramamurthy, 2011a). Sensing abilities are not enough to achieve competitive organizational agility. The response dimension complements the sensing dimension in order to create a competitive advantage through the sense-response framework of competitive organizational agility. The response agility aspect involves a number of sub-dimensions at the level of the organization and its stakeholders, it is complex in nature as it considers multiple layers (Zitkiene & Deksnys, 2018). Competitive organizational agility cannot be achieved unless the organization is able to respond effectively through a set of elements including speed, quality and scope. Processes should be adapted effectively in order to be capable of producing new products and creative outputs as a response to the changes sensed in the external environment (Zitkiene & Deksnys, 2018).

An important feature for organizations to compete in dynamic environments is to be able to capitalize on changes occurring in their contexts. Furthermore, innovation and creativity are important factors for organizations to survive and sustain competitive advantage in dynamic contexts. Therefore, as organizations rely heavily on their human resources pool in creating a competitive advantage over rivalry, this study focuses on studying the relationship of effective talent management practices on those three dimensions of organizational agility in

particular. Harsch & Festing (2020), introduce a number of dimensions under the bigger frame of organizational agility. As this study is focused on knowledge-based organizations, a focus on organizational agility dimensions that are most important to the context was made. The importance of innovation and creativity for knowledge-based organizations is evident in the literature. According to Morari (2022), a number of scholars emphasize on the importance of creativity in knowledge-based organizations. Moreover, creativity and innovation go hand in hand and are often viewed as two dimensions that are part of a conceptualization. Furthermore, knowledge-based organizations are characterized by a number of features of which are sustainability, innovation, and creativity.

Figure 3

Selection Process of Organizational Agility Dimensions



To empower this rapid response, internal processes must adapt efficiently to the changes and complement the needed change in output i.e. the creation of new competitive and

creative products. The sensing and responding dimensions of organizational agility depend not only on the ability to capture and process external information but also on internal organizational abilities. The organization reaches competitive agility when it is able to effectively match changes in the external environment and customer needs empowered by its internal capacities to meet the changing demands. Lu and Ramamurthy (2011b) describe some of the internal capacities that are needed as operational adjustment capacities. Such internal capacities focus on internal adaptations to create fast response in reaction to external changes. Another element that empowers the ability of organizations in competing in dynamic market environments is the absorptive capacity dimension.

Response agility is reflected in the literature through a number of elements two of which are agile innovative capacity and agile creativity. The competitiveness of organizations depends on their agile abilities in responding to dynamic environments through the renewal of products and adaptation of the right resources and capabilities in an unpredictable environment (Hernandez-Perlines et. al., 2019). The rapid response to changes in the external environment through the production of new products can contribute to the competitiveness of a company (Hernandez-Perlines et. al., 2019). This is reflected in the literature as the innovative capacity, which is described as the capacity that an organization possesses to adapt and change. Two perspectives are introduced in the literature with regards to innovative capacity; the first is the rate by which innovative capacity demonstrated by organizations, while the second is the organization's willingness to change. This research refers to this agile response ability as agile innovative capacity.

Innovation capabilities and creativity go hand in hand (Hernandez-Perlines et. al., 2019). Woodman, Sawyer and Griffin (1993, p. 293) define organizational creativity as “the

creation of a valuable, useful new product, service, idea, procedure, or process by individuals working together in a complex social system”. Organizational Creativity involves understanding the creative employee, the creative process, the creative output, and the creative situation (Woodman, Sawyer & Griffin, 1993). Creativity is a complex output of an employee’s behavior in a given situation, where the given situation is defined by the contextual elements that either encourage or inhibit the creative achievements (Woodman, Sawyer & Griffin, 1993). One competitive element of organizational creativity is agile creativity, drawing on the literature, this research describes agile creativity as the ability of workforce within the organization in producing creative products in response to external environment changes in a rapid manner.

Research on Creativity began in the late 1980s through the mid of the 1990’s through the work of Amabile (1988) who proposed one of the early grounded theories of Organizational Creativity (Zhou & Shalley, 2003). According to Amabile (1996), three domains of creativity are identified and are related to skills, processes, and motivation towards accomplishing the tasks assigned. Motivation can be triggered by two routes; one is through the attitude of the employees towards the task, and the other one is caused by factors outside the assigned task (Amabile, 1996). One of the major factors that explain Agile Creativity is the interactions between contextual factors external to the job itself and within the job such as the characteristics of the workplace, which can act as a driver or inhibitor for Agile Creativity (Zhou & Shalley, 2003; Woodman, Sawyer & Griffin, 1993). A number of creativity predictors have been identified in the literature (Anderson, Potocnik & Zhou, 2014) such as human resource skills and internal organizational processes for example (Hughes et. al., 2018).

To ensure talent management practices that are aligned with the dynamic environment in which the company operates, companies must be agile in their response through possessing agile innovative capacities and agile creativity. Companies seek to implement Talent Management practices in order to attract and retain the best highly-skilled human resources that are able to drive the desired goals and achieve competitive advantage for companies in dynamic environments (King & Vaiman, 2019). With the war for talent and the global shortage for highly-skilled employees i.e. talent attraction and talent retention are becoming a crucial effective mean for companies in addressing the challenges of global shortage of skilled labor (Shao & Ariss, 2019).

2.5.2 Agile Innovation

The economic shift and globalization of economies rendered innovative capacity as a critical factor for companies (Hjalager, 2010), making it a key success element towards achieving competitiveness (Campo et. al., 2014). Innovative capacity is a crucial element for companies in seeking new opportunities that will sustain their competitive advantage (Hernandez-Perlines et. al., 2019). It is the ability to adapt to change, and the ability to incorporate new processes, services, or products (Hernandez-Perlines et. al., 2019). Wang and Ahmed (2007) define Innovative Capacity as the capacity of organizations to develop new products and services through innovative processes and approaches. Innovation is a new service, process, or product that allows organizations to create more value (Carnegie & Butlin, 1993). The degree of competitiveness possessed by companies depends on the adaptation of their resources and capacities in a dynamic environment (Hernandez-Perlines et. al., 2019). Furthermore, Hernandez-Perlines et. al. (2019), describe Innovative Capacities as a critical

attitude of openness possessed by organizations towards new creative ideas, products, and processes. In the literature, Innovative Capacities are conceptualized on two levels; the first is the rate at which organizations consider innovations, the second is the organization's willingness to change in response to its changing environment (Hernandez-Perlines et. al., 2019).

According to Prajogo and Sohal (2006), innovation is linked to innovative outcomes, and is perceived as a precedent for competitiveness (Nicolau & Santa-Maria, 2013). Increasing the innovative capacity of companies should lead to an increased Organizational Creativity; creativity as described by Hon and Lui (2016), is the intellectual ability of producing new and outstanding ideas. Organizations must innovate to attain a competitive advantage, and in order to innovate, organizations must build Innovative Capacities that will yield creativity (Hon & Lui, 2016). Innovative Capacities must be analyzed continuously as it is crucial for organizations to adapt to rapid environmental changes (Hernandez-Perlines et. al., 2019). Research on innovation and Innovative Capacity was initially contextualized within the industrial sector until the 1980s (Baradarani & Kilic, 2018).

2.5.3 Agile Creativity

The complex social settings that surround employees can influence their creative outputs hence influencing the bigger context of creativity; that is the Organizational Creativity. Organizational Creativity is a collective outcome of the creative elements that composes it, and the contextual influences within and outside the organizational system (Woodman, Sawyer & Griffin, 1993); creativity is the intellectual ability that leads to the production of new and valuable ideas (Hon & Lui, 2016).

Amabile (1996) proposes that there are three domains of creativity; the first domain is related to skills, the second domain is related to processes, and the second domain is related to motivation to do tasks. The domain related to skills refers to the knowledge and expertise in a given area, the domain related to processes refers to the knowledge related to adopting the suitable strategies for producing creative ideas and outcomes (Amabile, 1996). The third domain which is related to task motivation refers to the attitude that the individual carries towards the task and their perception on their own motivation towards working on the task (Amabile, 1996). Motivation can be intrinsic or extrinsic; intrinsic motivation is related to an employee's positive attitude towards the task itself, whereas extrinsic motivation is related to any motivation that arises from elements outside the task itself (Amabile, 1996). According to Amabile (1996), this proposes that individuals with high potential for creative performance may not necessarily lead to creative outputs as they need to have the motivation to participate in creative outputs. This is an advancement from earlier research on the determinants of organizational creativity proposed in 1981 by Barron and Harrington (Zhou & Shalley, 2003). Furthermore, Ford (1996) proposed a theory on individual creative performance in complex social contexts including groups, organizations and beyond. Ford (1996) argues that creative outputs of an individual is a result of combined factors including knowledge, ability, and motivation, where motivation is affected by stress (Ford, 1996) that can be caused by external factors outside the work environment context.

Furthermore, Woodman, Sawyer and Griffin (1993) state that creativity at the individual level is affected by situational contexts, and it is these situational contexts that contribute to a great extent to the prediction of organizational creativity. Both Amabile (1996) and Woodman, Sawyer and Griffin (1993) emphasize the importance of contextual factors in

predicting employees' creative performance, and the later more explicitly emphasizes on the individual and the context. An important aspect of understanding Organizational Creativity is the cross-level influences between contextual factors outside the job itself and within the job including organizational characteristics, such contextual factors can enhance or constrain Organizational Creativity (Zhou & Shalley, 2003; Woodman, Sawyer & Griffin, 1993).

Since then, research on the importance of contextual factors on Organizational Creativity continued to evolve. A study conducted by Madjar, Oldham and Pratt (2002) on work-related and non-work related support for creativity proposes two sources of support; one from within the work environment and the other one from outside the work environment which would include support from family and friends. As suggested by Madjar, Oldham and Pratt (2002) both types of influences; whether from within the work environment or from outside the work environment, can affect employees' creativity. Madjar, Oldham and Pratt (2002) suggest that the state experienced by employees outside the work context would act as a mediator in the relationship between support for creativity from within the work environment and from outside the context of the work environment, and organizational creativity. Further to this, in 2003, Perry-Smith and Shalley further propose that the ability to generate creative outputs is influenced by social contexts from a macro perspective (Perry-Smith & Shalley, 2003). Specifically, Perry-Smith and Shalley (2003) suggest that connections and relationships outside of the individual's work network can be associated with creative outputs.

Organizational Creativity refers to novel thoughts generated by employees through fulfilling job objectives leading to outstanding organizational performance (Song et. al., 2020), it is the production of novel solutions, processes, products, and services (Chen, Liu, Tang &

Hogan, 2020). Organizational Creativity is a critical factor in organizational success in a very dynamic and competitive business context (Liu, Chen & Yao, 2012), and is a crucial determinant in sustaining organizational growth and development (Arefieva, Piletska & Arefiev, 2018). Employees with creative capabilities are able to enable organizations to seize opportunities leading to the production of new products, technologies, and breakthroughs (Song et. al., 2020). As is the case with Talent Management, the ultimate objective of Organizational Creativity is the achievement of a competitive advantage and success for organizations. Organizational Creativity is a critical factor in achieving this goal (Song et. al., 2020). A number of studies address the relationship between Organizational Creativity and other factors such as organizational culture (Duffy et. al., 2006), organizational-based self-esteem (Herzberg, Bernard & Snyderman, 1959), and leadership (Asif et. al., 2019). Other studies have focused on working conditions that can leverage organizational creativity (i.e. Liu, Jiang, Shalley, Keem & Zhou, 2016). However, no study, to our knowledge addresses the relationship between Talent Management and agile Organizational Creativity, even though, both are necessary for the success of organizations. This importance is attributed to the highly uncertain external environment, increased competitiveness between organizations whether locally or globally, and the fierce need for organizations to have dynamic capabilities to deal with such challenges (Song et. al., 2020). In this context, human capital plays a crucial role in achieving organizational strategic objectives (Harsch & Festing, 2019). Therefore, within the adaptation of a dynamic capability perspective, the relationship between human capital management and human capital capabilities is becoming more critical (Harsch & Festing, 2019).

According to Anderson, Potocnik and Zhou (2014), research has identified a number of creativity predictors in organizations; leaders and employees contribute towards organizational creativity (Uhl-Bien & Arena, 2018). Leadership style is one of the critical factors, for example, that encourages creativity in organizations (Hughes, Lee, Tiam, Newman & Legood, 2018). Furthermore, recent studies also investigate the impact of leadership theories on organizational creativity (Gu, Hempel & Yu, 2020; Kim, 2019; Shao, Nijstad & Tauber, 2019; Tse, To & Chiu, 2018; Wang, Liu & Zhu, 2018). The Organizational Creativity literature has previously called for further research that would explain the underlying processes related to organizational creativity (Liu, Gong, Zhou & Huang, 2017).

According to Miao, Komil ugli Fayzullaev and Dedahanov (2020), organizational creativity has emerged as a critically important factor in leading towards competitive advantage, long-term achievements, and sustainability for organizations. Creative employees produce new ideas and unique products and services that upon implementation can enhance the survival chances and competitiveness of organizations (Shalley & Gilson, 2004).

2.6 Mediators in the Relationship between Talent Management and Competitive Organizational Agility

It is evident in the literature that Talent Management leads to the enhancement of a number of organizational functions and its outcomes on a set of organizational functions is enhanced by a number of mediators including absorptive capacities, operational adjustment processes, organizational culture, employee engagement, employee attitudes, employee commitment, leadership style (Kwon & Jang, 2020). In this research, two organizational functions are examined as mediators (further explained in Chapter 3); these are Absorptive Capacity and Operational Adjustment Capacity.

2.6.1 Absorptive Capacity

Absorptive Capacity as a concept, introduced by Cohen and Levinthal (1990), is related to an organization's capability in attracting, assimilating, and using knowledge from the external environment. The literature in the area of knowledge management indicates that effective management and utilization of internal knowledge is a critical determinant of value gain at the organizational level demonstrating the significance of the capability of creating and transferring knowledge in promoting competitive advantages for organizations with organizational-specific knowledge becoming a driver of performance (Kang, Morris & Snell, 2007). Since its introduction, the concept of absorptive capacity has attracted considerable importance in the literature, and has been connected to a number of other concepts including knowledge management, organizational performance, innovation, creative outputs, competitive advantage and human resource management (Flatten et. al., 2011; Roberts, 2015; Voldberda, Foss & Lyles, 2010; Murovec & Prodan, 2009). In particular, scholars have explored the role of absorptive capacity in effectively transferring knowledge within organizations (Minbaeva et. al., 2003), in promoting innovative performance, and product and process innovation (Lewin, Massini & Peeters, 2011; Murovec & Prodan, 2009; Kostopoulos et. al., 2011). Furthermore, the effectiveness of organizational absorptive capacities is linked to a number of organizational capabilities including innovations and new product developments (e.g. Tsai, 2001; Hansen, 1999) leading to an ultimate enhancement in competitiveness and improved performance (Grant, 1996; Spender, 1996). In knowledge organizations absorptive capacity is seen as a critical capability in enhancing competitive advantage (Zahra & George, 2002).

In particular, absorptive capacity is characterized by the ability of organizations to learn from external knowledge through mechanisms of knowledge identification, assimilation, and exploitation (Cohen & Levinthal, 1990). These mechanisms tend to build up in an organization cumulatively through the efficient add-up on existing knowledge. Later, Lane and Lubatkin (1998) enhanced the dimensions of absorptive capacity through the addition of assimilation as a fourth dimension, referring to the ability of an organization to create value from knowledge received from the external environment building on organizational capabilities. They describe this as an important feature for interorganizational learning, rather than perceiving absorptive capacity as a silo capability. The concept of absorptive capacity was further enhanced in 2001 by Salk and Lyles who further enhance the distinctions in comprehending external knowledge, assimilating it and applying it. The concept was further enhanced in 2006 by Lane et. al. who specifically focused on the dimension of transformation in the absorptive capacity process, referring to the organizational ability to utilize information from the external environment through three sequential steps; first, the identification and comprehension of new external knowledge that can be of potential value to the organization through exploratory learning, second, the assimilation of knowledge that is seen to have value through transformative learning, third, the use of assimilated valuable knowledge to create new knowledge and productive organizational outputs through exploitative learning.

The four dimensions of absorptive capacity are further characterized into two categories; potential absorptive capacity and realized absorptive capacity (Zahra & George, 2002). Potential absorptive capacity is related to the organizational receptiveness to acquire and assimilate external knowledge, whereas realized absorptive capacity is related to the organizational transformation and exploitation of knowledge. According to Latuka and

Veselova (2018), the potential and realized dimensions form dynamic absorptive capacity which is described as the organizational practices and mechanisms by which external knowledge is acquired, assimilated, transformed, and exploited from the external environment to the internal organization context with the purpose of enhancing the capability of the organization to produce competitive outputs. In this conceptualization of absorptive capacity, knowledge acquisition refers to the organizational ability to identify and acquire external knowledge, which is relevant for the organizational business context and performance (Zahra & George, 2002). Assimilation refers to the practices of the organization that allows it to analyze, process, and interpret knowledge obtained from the external organizational context (Szulanski, 1996). Further, transformation refers to the organizations ability to create practices that enhance the integration of available knowledge and the newly obtained and assimilated knowledge (Zahra & George, 2002). Exploitation is the organizational capability to apply the newly gained knowledge in producing new products and services that will position the organization at a competitive level (Zahra & George, 2002).

According to Minbaeva et. al. (2003), the competitive advantage of an organization is dependent on its human resources competencies. Human capital competencies are described in the literature as a driver and a main contributing factor towards the effectiveness of organizational absorptive capacity (e.g. Foss, 2007; Kang et. al., 2007; Minbaeva, 2005; Minbaeva et. al., 2003). In particular, talent management is important for the acquisition, assimilation, transformation, and exploitation of knowledge because absorptive capacity is dependent on individual and organizational competencies (Vaiman, Collings & Scullion, 2012; Cohen & Levinthal, 1990). Latuka and Veselova (2018) describe talent management as related to the absorptive capacity dimensions as the criteria applied to the best employees'

identification and attraction are mostly related to knowledge utilization for the benefit of the organizational context. Latuka and Veselova (2018) further explain that talented employees are more involved in knowledge-related activities, and hence the presence of talented employees in an organization will most likely elevate the levels of knowledge acquisition, assimilation, transformation, and exploitation in an organization leading to enhanced absorptive capacity. This is particularly critical in knowledge-based organizations. Talent Management as a system is related to external and internal contextualization and market dynamics. Therefore, given the reliance of realized absorptive capacity dimensions on the external environment, it is argued that the role of talent management practices in supporting and fostering an organizations absorptive capacity can be promoted by a systematic approach, where talent management practices take the role of the binder and cohesiveness forming practice.

Recent literature has confirmed the relationship between talent management practices and the enhancement of absorptive capacity (e.g. Latuka and Veselova, 2018). Furthermore, previous literature as aforementioned in this section has been indicated to support unique and innovative organizational outputs that promotes the competitiveness of organizations. Moreover, absorptive capacity has been seen to act as a mediator in the relationship between talent management and organizational performance (e.g. Latuka and Veselova, 2018).

2.6.2 Operational Adjustment Capacity

One of the organizational factors that can contribute towards sustaining a competitive advantage is Operational Adjustment Capacity, which entails the ability of the company to reconfigure and readjust its resources to support the creation of new outcomes in alignment

with the needs of the dynamic environment (Hernandez-Perlines, 2019). Talented employees possess qualities that support organizations in achieving their business goals efficiently. Such qualities enhance the flexibility of processes within organizations (Lewis & Heckman, 2006). Unique and outstanding abilities to be successful in a wide range of activities are distinguishing factors for a talented individual (Rotolo et. al., 2018). Therefore, organizations investing in talent management systems are able to position key talents in roles that will create and sustain a competitive advantage for the organization. Such talented individuals are known to contribute to the knowledge base of their organizations as well as to enhance the operational processes of their organizations.

Chapter Summary

This research builds on the existing literature with the aim of addressing some of the calls for future research in the field of Talent Management, Organizational Creativity, Organizational Agility, Innovative Capacity and Operational Adjustment of processes. Talent Management is a set of actions and practices adopted by leadership in an organization in order to attract the best human capital available to fulfill labor shortage with the ultimate goal of building and sustaining a competitive advantage for the organization. With the increasing numbers of knowledge-based organizations, there is a need to implement practices that are aimed at attracting and retaining talented employees, hence, talent management is attracting growing attention. Talented employees are desired to produce unique outputs for organizations such that their contributions can sustain a competitive advantage for their organizations. Both talent management practices and organizational agility features are influenced by a set of organizational and extra-organizational factors, their effectiveness is not pronounced without such a contextualization.

This research explores the relationship between talent management practices and organizational agility features in contextualization with internal capabilities as organizational factors that may influence such relationships. Organizational Creativity is a complex product of the behavior and actions of employees in a given context, elements defining the given context can act as encouragers or inhibitors to the creative outputs of employees. Therefore, for effective outcomes from talent management systems, organizational factors must be considered such as operations and processes and the ability of the organization to attain knowledge and utilize it for the benefit of the overall outcomes of the organization in response to market changes. In addition, organizational agility is an important factor, especially in dynamic environments, a rapid reaction from talented employees to changes in the environment must be supported by flexible organizational capabilities and need to be leveraged through the attainment of the right knowledge and information that needs to be possessed by organizations.

The literature discusses a number of theories in this context (including for example; contingency theory and systems theory in King and Vaiman (2019), resource-based view (RBV) in Hernandez-Perlines (2019), knowledge based-view (KBV) in Shao and Ariss (2019), confusion theory in Darvishmotevali, Altinay and Koseoglu (2020), entrepreneurial leadership theory and social learning theory in Mehmood, Jian and Akram (2020), dynamic capabilities theory in Harsch and Festing (2019) and Hernandez-Perlines (2019). This research is rooted in the extension of resource-based view theory, the dynamic capabilities view theory and in the contingency theory given the importance of the contextualization of internal and external factors for the effectiveness of talent management systems. This accommodates for the dynamic environment in which organizations operate in, focusing on the continued

upgrading in organizational resources. Furthermore, since this research aims to define the relationship between talent management practices, agile organizational creativity and the organizational and extra organizational contexts that surrounds talent management practices and organizational outputs, this research also considers the contingency theory.

Chapter 3: Conceptual Framework and Hypothesis Development

3.1 Introduction

The extensive literature review of talent management and organizational agility including market capitalizing agility, agile innovation, agile creativity, and organizational dynamic capabilities including operational adjustment capacity and absorptive capacity concepts explains an association with effective talent management practices and the competitive organizational agility features discussed in this research. In addition, the literature review explains an association with effective talent management practices and organizational dynamic capabilities where the capacity to internally reconfigure processes and absorb knowledge from the external environment are mechanisms affected by talent management and mechanisms by which organizational agility features can be enriched. The previous chapter highlights the influence of talent management practices on agile organizational structures, processes, actions, and the acquisition of knowledge and its deployment and utilization. This chapter attempts to develop the hypotheses that answer the research questions and explore the thesis objectives. Also, this chapter presents the illustration of the conceptual framework with all of its components and the interrelationships within, in addition to the most relevant theories used to explain the conceptual framework.

3.2 Conceptualization of Organizational Agility

The original contribution about Organizational Agility was made by Sambamurthy et. al. 2003. In this study, three types of organizational agility features are introduced; these are Customer Agility, Partnering Agility, and Operational Agility. After this study, a number of studies appeared in the literature stemming from the original contribution by Sambamurthy et.

al. 2003 bringing forward a number of agility concepts including Strategic Agility, Operational Adjustment Agility, and Market Capitalizing Agility for example. In addition, a number of studies describe agility as having two dimensions, these are Sensing Agility and Response Agility. A read through the literature reveals that there is no consensus on the dimensions of agility. From the original contribution about Organizational Agility made by Sambamurthy et. al. (2003) to date, Organizational Agility frameworks can be grouped into four categories; agile organizations, agile workforce, agile manufacturing, and agile software. Existing common themes amongst those categories include innovation, product development, process development, operational adjustment, organizational culture, workforce, customers, stakeholders, organizational capabilities (i.e. Zitkiene & Deksnys, 2018; Lu & Ramamurthy, 2011). Such themes are represented as different domains of Organizational Agility in different contexts and industries, with emphasis on the most relevant domains given the context of the industry under research. For example, agile workforce is considered a domain in agile manufacturing and agile software. In agile manufacturing, the focus is on employees working in manufacturing positions, while in agile software, the focus is on employees working as software developers. Therefore, the discussion around agility domains in the literature is made as separate areas of research. The main agility domains are well-researched; however, conceptualization of organizational agility is made in relevance to the context of research (Felipe, Roldan & Leal-Rodriguez, 2016; Sherehiy et. al., 2007; Zitkiene & Deksnys, 2018; Walter, 2021). The agile organizational concept encompasses different organizational objectives and elements leading to the fast adaptation to rapid and unexpected changes in the dynamic business context. Analysis of the literature on agility at the level of organization reveals three main organizational agility frameworks based on the domains and the area of

research focus; these are the enabler-capability framework, organizational agility operations and practices, and the sense-response framework. It is very critical to mention that the three approaches have similarities in the concepts describing them. Table 2 mentions the three organizational agility frameworks and the existing research that falls under each category.

Table 2

Organizational Agility Frameworks

Organizational Agility Framework Type	Description	Research Studies
Enabler-Capability Agility Framework	The study of organizational agility from the perspective of enablers and capabilities which help organizations to be agile.	(Alberts & Hayes, 2003; Bottani, 2010; Cai, 2013; Charbonnier-Voirin, 2011; Dyer & Shafer, 1998; Eshlaghy et al., 2010; Giachetti et al., 2003; Jackson & Johansson, 2003; Lin et al., 2006; Ren et al., 2009; Sharifi & Zhang, 2001; Yusuf et al., 1999)
Agile Practices and Processes	The study of the practices and process that organizations adapt in their daily operations to achieve agility.	(Charbonnier-Voirin, 2011; Gehani, 2010; Goldman et al., 1995; Sherehiy et al., 2007; Vázquez-Bustelo et al., 2007)
Sense-Response Agility Framework	The study of how organizations interact with changes occurring in their business environment	(Dove, 2005; Holsapple & Li, 2008; Lu & Ramamurthy, 2011a; Nijssen & Paauwe, 2012; Sambamurthy et

through sensing and responding to those dynamics.	al., 2003; Singh & Sharma, 2013; Wright & Snell, 1998)
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The original Sambamurthy et. al. (2003) conceptualization of organizational agility falls under the third category which is the sense-response framework. Sambamurthy et. al. (2003) describes three dimensions to agility; the Customer Agility, Partnering Agility, and Operational Agility. Customer agility is described as the accommodation for customers preferences when exploring and exploiting innovative opportunities, Partnering Agility is described as the ability to respond to customers preferences through leveraging on the competencies of suppliers, manufacturers, and logistic partners in exploring and exploiting on innovative opportunities, while Operational Agility is described as the ability to respond through speed and accuracy when exploiting on innovative opportunities (Sambamurthy et. al., 2003). Prior to this conceptualization, the introduction of the concept of agile enterprise strategy and vision was made by Goldman et. al. (1995), through which they define an agile organization as one that is able to sustain profitability and competitiveness in continuously changing environments and is able to adapt to changing customer preferences.

It is evident from the literature that for most frameworks, agility domains are interrelated, overlapping, and have similar themes (Wendler, 2013) even though existing agility frameworks analyse agility in different contexts. Some of the agility dimensions are specific and do not apply to all organizational contexts, other agility dimensions are related to specific industries and are too narrow yet there is overlap and interrelationship amongst the dimensions. However, despite the differences in the conceptualizations of organizational agility, the definition remained consistent since its introduction by Goldman et. al. in 1995.

After this study, a number of initial studies were introduced in the literature representing definitions for organizational agility where emphasis was made on speed, time, and quality. The extent to which organizational agility is achieved depends on four characteristics: time, cost, scope, and quality (Dove, 1996). Further to this, Yusuf et. al. (1999) described organizational agility as a characteristic that is influenced by aligning the core of competitiveness reflected by speed, flexibility, innovation proactivity, quality, and profitability with reconfigurable organizational resources, and knowledge attainment and exploitation. According to Yusuf et. al. (1999), these enablers must be combined in an adaptation process to customer needs and changing marketplaces. Yusuf et. al. (1999) define flexibility as an inclusive enabler emphasized by speed in order to achieve organizational agility. The concept of innovation and speed in the achievement of organizational agility persisted in further research. Lu and Ramamurthy (2011a), describe speed and innovation as critical characteristics in achieving organizational agility. Lu and Ramamurthy (2011a) describe organizational agility as a capability that enables organizations to tackle unexpected changes in the environment through rapid and innovative responses that creates an advantage for the organization in responding to market dynamics. In line with earlier studies, Lu and Ramamurthy (2011a) describe speed as an important factor for agility in terms of response and implementation that leverages on opportunities arising from market changes. Furthermore, innovativeness is described as an important factor that goes along with speed, describing innovativeness as the quality and substance of response through the development of new products, realignment of strategic direction, and decision making (Lu & Ramamurthy, 2011a; Cai, 2013). The review of existing organizational agility definitions and frameworks from the literature allows for the comprehension of common themes and critical dimensions.

3.3 Research Conceptual Framework

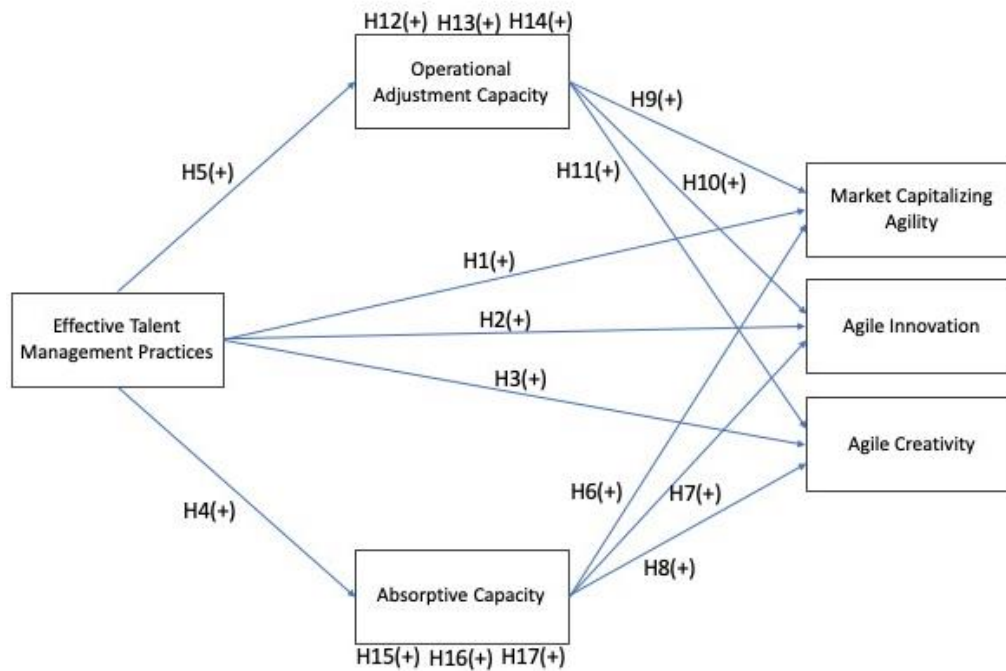
The conceptual framework illustrates the relationships between effective talent management practices, market capitalizing agility, agile innovation, agile creativity, operational adjustment capacity, and absorptive capacity. The illustration in Figure 4 is based on the previous literature review conducted in chapter two, and builds on the critical analysis of effective talent management practices, market capitalizing agility, agile innovation, agile creativity, operational adjustment capacity, and absorptive capacity frameworks, and the development of research hypotheses.

Talent Management is identified as one of the most important elements in human resource management. Since the 1990s, the interest in the topic has been evolving and the body of literature has been growing rapidly. Talent Management possesses strategic importance to organizations, specifically, in the rapidly evolving business environments where competition continues to grow. One of the major arguments in the field of Talent Management is the importance of the contextualization of the concept to other internal and external organizational factors (Gallardo-Gallardo et. al., 2019; King & Vaiman, 2019). Talent Management is yet a developing field that needs more conceptual work (Yildiz & Esmer, 2023). The central research question of this study is to investigate how effective Talent Management practices influence Competitive Organizational Agility features in knowledge-based organizations in the private sector, with the consideration of Operational Adjustment Capacity and Absorptive Capacity as mediators. There are limitations in the literature on the impact of Talent Management on Organizational Agility, and hence calls for research on the quantitative relationship between Talent Management and Organizational Agility (Harsch & Festing, 2020). Furthermore, although research on Talent Management has been executed in a

wider variety of regions and sectors, the impact of external and internal factors and the role of context-specific influencing factors have been ignored to a great extent (Thunnissen & Gallardo-Gallardo, 2019). Moreover, there are calls for a more comprehensive approach to Talent Management to investigate the dynamics around Talent Management (Gallardo-Gallardo, Thunnissen & Scullion, 2020).

According to Walter (2021), various organizational agility research opportunities to enhance the scientific understanding of this concept exist, specifically, research on agility dimensions (including sensing and responding) is needed, organizational factors driving agility need to be understood, and research on organizational agility in industries other than manufacturing need to be explored. Furthermore, according to Kale, Aknar and Basar (2019), there are calls for examining the role of other stakeholders on Absorptive Capacity and on other types of agility, and there is a need to study agility-related concepts, separating strategic agility from other agility types. Moreover, further studies should consider contextual organizational functions, and introduce mediators to understand how Talent Management can lead to innovation.

Taking into consideration existing limitations, and building on the literature presented in Chapter 2 of this study, the conceptual framework suggests that effective talent management practices drive the development of competitive organizational agility characteristics and dynamic capabilities within the environment in adaptation to the external dynamic environment. It also proposes that the contribution of the different types of capacities to the agility and flexibility of organizations occurs as a result of adaptation attempt to the external dynamic environment.

Figure 4*Conceptual Model***3.4 Theoretical Framework**

The theoretical lens for this study is the Dynamic Capabilities (DC) theory and the Contingency theory supporting the explanation of the proposed relationships between effective talent management practices and market capitalizing agility, agile innovation, agile creativity, operational adjustment capacity, and absorptive capacity, with the mediating role of absorptive capacity and operational adjustment capacity in the relationship between effective talent management practices and market capitalizing agility, agile innovation, agile creativity.

The dynamic capability (DC) theory focuses on an organization's competitiveness in a dynamic environment that is characterized by rapid and unpredictable change (Eisenhardt & Martin, 2000). Dynamic Capability theory is seen as an enhancement of the resource-based

view (RBV) theory (Wernerfelt, 1984; Barney, 1991). The resource-based view argues that organizations gain their competitive advantage through its unique, valuable, and imperfectly imitable resources (Barney, 1991). The core of the dynamic capability theory relates to the reconfiguration of resources in a manner that will align actions with external changes in the external business environment hence identifying the path to be followed to attain competitive advantage (Teece et. al., 1997; Eisenhardt & Martin, 2000). The dynamic capability view is rooted in the resource-based view of the firm, which defines valuable, rare, inimitable, and non-substitutable resources (VRIN) as the core foundation of a sustained competitive advantage (Barney, 1991). Furthermore, the dynamic capability theory is seen as the basis of the knowledge-based view (KBV) theory. Within the context of this research that focuses on talent management and competitive organizational agility all of which are dynamic capabilities, the resource-based view does not possess the explanatory ability needed and is rather limited to static market mechanisms (Eisenhardt & Martin, 2000). The dynamic capability view is more process-oriented emphasizing on the continuous reconfiguration of resources by taking into account environmental dynamics (Harsch & Festing, 2020). In-line with Collings et. al. (2019) and Harsch and Festing (2020), this research views effective talent management practices as dynamic organizational capabilities. On the other hand, agility is an ability that enables organizations to successfully and competitively act in a dynamic environment.

The contingency theory explores the concept of fit and correspondence among a large set of factors in an organizational setting, these are referred to as contingency factors. Such contingency factors indicate that one factor depends on other factors, and for organizations to be fully effective they must reach a “goodness of fit” between their internal configurations and

actions, and their external environment (Donaldson, 2001; Van den Ven & Drazin, 1984).

According to the contingency theory, there is no one model-fits-all in managing a situation as it depends on factors in the external environment and the reconfigurations and actions taken in the internal environment. This implies that organizations are able to achieve efficiency and competency through possessing an agile and flexible stance to any changes within their environment. Within the context of this research, organizational capacities need to ‘fit’ appropriately within the bigger context of the business environment and its dynamic changes in customers preferences, technological innovations, and changes regarding social factors in order for talent management practices to drive organizational agility sensing and acting in a manner that will lead to the attainment of competitive advantage.

3.5 Hypothesis Development

3.5.1 Effective Talent Management Practices and Market Capitalizing Agility

With talent capability, organizations are able to leverage on unique human resource capabilities in playing a critical role in enhancing organizational processes and performance through observing the business environment in which the organization operates and sensing the rapid changes that occur including customers’ needs and preferences, technological advancements, etc. (Liu et. al., 2020). Indeed, talent capabilities afford fast responses to market changes contributing to an enhanced organizational agility (Luftman et. al., 2017). Talent capabilities can guide organizations in assessing changes in consumers’ preferences rapidly and fluidly, creating unique opportunities for the organization in adapting to these preferences and hence in attracting consumers’ interests in organizational products (Fosso et. al., 2017). This is an indication that organizations possessing high-levels of talent capability

are able to use their skills in supporting their organizations to utilize opportunities arising from changes in market demands and its reconfigurations including the changes in preferences, new competitors, characterization of supply chains, etc. (Liu et. al., 2020). Moreover, the successful capitalization on such opportunities entails that organizations are able to react faster than competitors who are low in their talented resources (Kim et. al., 2012).

Inherent in the dynamic capability's conceptualization is a three-clustering approach; sensing, seizing, and transforming (Teece et. al. 1997). Linden and Teece (2014) argue that talent is the outcome of successful talent management practices. According to Harsch and Festing (2020), talent management is a dynamic capability that promotes the organization in its sensing, seizing, and transformation actions providing the organization with a competitive advantage in dynamic environments. In this research we propose that effective talent management practices play a role in sensing changes in the external dynamic environment and building on opportunities arising from changes sense. Therefore, we hypothesize the following:

Hypothesis 1: Talent management will have a positive relationship with Market Capitalizing Agility

3.5.2 Effective Talent Management Practices and Agile Innovation

The intensity of competition nowadays has made it difficult to maintain and sustain competitive advantage with limited innovations. Most business models and innovations are characterized with short life cycles thus creating a continuous need for continuous and agile innovations in organizations to ensure a sustained competitive advantage. Furthermore, business environments nowadays are complex and characterized by the need of constantly reacting to global demands with vision-oriented approaches that will continue to attract

customers over rivals. Therefore, to successfully tackle complex business dynamics and be able to innovate flexibly in a sustained manner, organizations must implement effective talent management systems aimed at attracting the right talent and ensuring their retention (Ibrahim & Al Omari, 2020). Organizations are only able to succeed and sustain their businesses in dynamic environments through people (Tarique & Shuler, 2010). Effective talent management systems in organizations are characterized by the ability to position the organization as a strong employer brand that is able to attract the best talent in the labor market (Sparrow & Makram, 2015).

When viewed in light of the dynamic capabilities theory, the implementation of effective talent management systems in knowledge-based organizations will elicit the organization to continuously thrive to compete through the continuous development of new products to match the dynamic demand in the business environment. This entails the agile capability of creating new products that matches new customers' needs faster than their rivals. This study argues that dynamic capabilities theory when integrated with contingency theory could translate the contextualization of effective talent management practices in knowledge-based organizations into a competitive stance of being able to produce new innovations in an agile manner. Building on this link, dynamic capabilities theory and contingency theory can explain the relationship between the implementation of an effective talent management system and the agile capability of producing innovations. Therefore, we hypothesize the following:

Hypothesis 2: Talent management will have a positive relationship with Agile Innovation

3.5.3 Effective Talent Management Practices and Agile Creativity

Defined by Koch et. al. (2018) and Oldham and Cummings (1996) as being the special features of the products, individuals, and thought processes or conditions in which creativity

can flourish, organizational creativity is significantly recognized as a source of competitive advantage that organizations can use to respond to rapidly evolving business contexts (de Vasconcellos et. al., 2019), and is affected by main resources including human resources characteristics (e.g. Knowledge) and organizational characteristics (e.g. size and structure) (Woodman et. al., 1993). According to Antwi et. al. (2019), Olugbade and Karatepe (2019), Karatepe et. al. (2019), the interactions between these different resources form the creative behavior of an organization. Furthermore, Smith et. al. (2008) indicated that organizational creativity is influenced by factors internal and external to its business environment. Internal factors are related to organizational decisions related to structure, processes, and human resource management (Chang & Shih, 2019) while external factors are the uncertain changes that occur in the external business environment (Kim et. al., 2016).

Furthermore, Darvishmotevali, Altinay, and Koseoglu (2020) indicate that if organizations are to cope with the dynamism and complexity of uncertain environments, they need to be more agile and continue to be creative in the products and services they provide when responding to uncertain environmental dynamism. Moreover, Appelbaum et. al. (2017) and Jannati and Khodadadi (2016) indicate that organizations thriving to succeed in competitive contexts need to have a high level of agility to be flexible enough to improve organizational performance and creativity. Through competitive human resources, organizations can rapidly support such agile and creative organizational transformations, and they are able to support their organizations in capitalizing on emerging opportunities from complex and dynamic environments (Darvishmotevali, Altinay, and Koseoglu, 2020). Capable human resources support organizations in exploiting market opportunities and responding with agile and creative mechanisms producing creative outputs. Organizational creativity depends

on employees' willingness to sense uncertainty and respond through ways that capitalizes on opportunities (Hsiao et. al., 2017). Employees who are able to capitalize on such opportunities are ones that are sufficiently educated and trained, possessing adequate level of skills and competencies (Hsiao et. al., 2017). According to a number of studies (e.g. Darvishmotevali, Altinay, and Koseoglu (2020), Appelbaum et. al (2017), Jannati and Khodadadi (2016), Wageeh (2016a), Wageeh (2016b), and Aburub (2015)), agility is an organizational capability and characteristic that when deployed successfully is concurrent with attaining organizational creativity. Therefore, we hypothesize the following:

Hypothesis 3: Talent management will have a positive relationship with Agile Creativity

3.5.4 Effective Talent Management Practices and Absorptive Capacity

In knowledge-based organizations, effective talent management practices are needed in turbulent environments as a means by which the organization can acquire the best human resources pool that is capable of acquiring knowledge from the external environment and exploiting it for the use of the organization in gaining competitive advantage. Absorptive capacity is extensively rooted within the organization's complex knowledge structure and such knowledge is a skill possessed by talented workforce (Latuka & Veselova, 2018). The dimensions of absorptive capacity; knowledge acquisition, assimilation, transformation, and exploitation are individual competencies as well as organizational competencies (Vaiman, Collings, and Scullion, 2012). Such competencies are strongly possessed by key talented employees within organizations. In knowledge-based organizations in particular the attraction of talented employees is connected with the ability to leverage the utilization of knowledge in the organizational context. As talented employees are more engaged in knowledge related-activities, an enhanced knowledge acquisition and utilization can be observed in the

organization. Talent Management systems are best viewed as coherent systems where the synergy is created between the internal and external organizational context to foster knowledge that will lead to a competitive organizational performance. Therefore, effective talent management systems are seen as mechanisms by which organizational absorptive capacities are fostered (Latuka & Veselova, 2018). As such, absorptive Capacity has its weight of importance in knowledge-based organizations, where employees having the skill of acquiring the right knowledge play a critical role in spreading the right knowledge across their organizations. This is inspired by cross-functional teams and knowledge transfer behaviors that are often a characteristic in organizations paying special attention to talent management practices. Therefore, it is seen that talented employees lead to knowledge-based dynamic capabilities such as absorptive capacity within their organizations.

Denford (2013) build on the existing literature in describing a number of knowledge-based dynamic capabilities (Teece et. al., 1997; Eisenhardt & Martin, 2000; Zahra & George, 2002; Verona & Ravasi, 2003; Helfat & Peteraf, 2003; Rothaermel & Alexandre, 2009; Zheng et. al., 2011) and grouping them into a framework of comparisons, with the factor of comparison being the key concepts encompassed by the knowledge-based dynamic capability. Common element in knowledge-based dynamic capabilities is the absorptive capacity that is characterized by acquisition, assimilation, exploitation, and assimilation. All of which are enriched by the skills of unique human resources that are able to promote such knowledge-related characteristics. Hence, the recruitment and retention of talented employees is most likely expected to positively influence the absorptive capacity of knowledge-based organizations. Effective talent management practices can influence the knowledge context in

organizations through cultivating, recovering, and exploiting knowledge within their organizations. Therefore, we hypothesize the following:

Hypothesis 4: Talent management will have a positive relationship with absorptive capacity

3.5.5 Effective Talent Management Practices and Operational Adjustment Capacity

Leaders of competitive organizations depend on the deployment of talented employees to achieve their business goals. A number of qualities are possessed by talented employees support organizations in achieving their business goals, these include their functional skills, communication skills, entrepreneurial abilities, strategic minds, and the ability to deliver results, share knowledge, and enhance the flexibility of processes within their organizations (Lewis & Heckman, 2006). Exceptional abilities to be successful in a wide range of activities are distinguishing factors for a talent individual (Rotolo et. al., 2018). Therefore, organizations investing in talent management systems are able to position key talents in roles that will lead to sustainable competitive advantage, such talented individuals are known to contribute to the knowledge base of their organizations as well as to enhance the operational processes of their organizations.

With the availability of a high-level talent abilities, human resources are able to observe the external environment and propose reconfigurations in internal procedures, supporting the development of fitting strategies that are consistent with the organizational overall objectives and fitting to the current state of the market and external business environment (Liu et. al., 2020). This is an indication that organizations possessing talented capabilities are able to utilize knowledge and skills to adapt and reconfigure operating processes in alignment with market changes (Liu et. al., 2020). Therefore, we hypothesize the following:

Hypothesis 5: Talent management will have a positive relationship with operational adjustment capacity

3.5.6 Absorptive Capacity and Market Capitalizing Agility, Agile Innovation, and Agile Creativity

This is a crucial element of success in dynamic business environments as the right absorption of knowledge and its execution are necessary elements in achieving organizational agility at the levels of sensing agility and acting agility. Knowledge acquired can support organizations in understanding the changes that occur in customers' preferences, competitor's actions, etc. A number of studies in the literature has indicated the positive influence of absorptive capacity on business and innovation performance. Absorptive capacity in particular is important as it significantly influences the progress of organizations into the future (Mao et. al., 2020). As absorptive capacity enables capturing insights from knowledge, it facilitates mechanisms for exploitation and exploration within the organization leading to a continuous development of organizational capabilities embedding them into the competencies of the organization. According to Ismail et. al., 2013, organizations depend on absorptive capacity to reconfigure competencies to react to changes in the external environment and therefore achieving agile capabilities. Furthermore, organizations with outstanding absorptive capacity tend to be adaptive in sensing and responding to change (Malhotra et. al., 2005). Moreover, other studies support the impact of absorptive capacity on supply chain agility and organizational responsiveness (Liu et. al., 2013; Liao et. al., 2003). Absorptive capacity is the ability to manage knowledge primarily, while organizational agility is the ability to manage change fluidly and successfully (Overby et. al., 2006). Moreover, the transformation and exploitation dimensions of absorptive capacity support businesses in comprehending and

responding to market changes (Mao et. al., 2020). In addition, Pavlou and El Sawy (2006) state that the newly acquired and assimilated knowledge facilitates the design and production of superior products as a responding action to changes in customers' demands. Therefore, we hypothesize the following:

Hypothesis 6: Absorptive capacity will have a positive relationship with market capitalizing agility

Hypothesis 7: Absorptive capacity will have a positive relationship with agile innovation

Hypothesis 8: Absorptive capacity will have a positive relationship with agile creativity

3.5.7 Operational Adjustment Capacity and Market Capitalizing Agility, Agile Innovation, and Agile Creativity

Operational adjustment capacity is an organizational dynamic capability that refers to the organization's ability to reconfigure, integrate, and build internal and external organizational competencies (Li and Chan, 2019). As a low-order organizational capability, it emphasizes on the integration of knowledge to achieve an organizational enhanced performance of a specific functional area (Liu et. al., 2020). Whereas, high-order organizational capability refers to a wide range of knowledge that is integrated cross-level and cross-departmental within an organization to achieve enhanced functional performance (Liu et. al., 2020). The literature on dynamic capabilities indicates that higher-order organizational capabilities can be promoted through lower-order organizational capabilities (Eisenhardt & Martin, 2000; Pavlou & El Sawy, 2006). According to Ghasemaghaei et. al., 2017 and Ravichandran, 2018, organizational agility features are regarded as higher-order dynamic capabilities through the development of responding routines and leveraging low-order operational capabilities that allows the organization to align, enhance, and reconfigure its internal processes. Furthermore, Abou-Moghli et. al. (2012), reported that enhanced processes

have a significant positive impact on the time required to improve on existing services and product, and to develop new ones hence leading to enhanced agility. They also indicate that enhanced processes within organizations lead to a short time requirement and hence enhanced agility in attending to customers' needs and changing demands in the business environment. Based on the dynamic capability theory and the contingency theory, it can be argued that organizational abilities entailing the rapid adjustment of operational processes to match the organizational requirements can lead to the achievement of agility in sensing the external environment, innovating, and acting creatively.

Therefore, we hypothesize the following:

Hypothesis 9: Operational adjustment capacity will have a positive relationship with market capitalizing agility

Hypothesis 10: Operational adjustment capacity will have a positive relationship with agile innovation

Hypothesis 11: Operational adjustment capacity will have a positive relationship with agile creativity

3.5.8 The Mediating Role of Operational Adjustment Capacity

Considering the continuous changes in the dynamics of business environments and its complexity, internal organizational environments are expected to be increasingly volatile with low levels of certainty. In such contexts, one factor towards the sustainability of success is the ability to constantly reconfigure internal organizational processes to align with the dynamics of the business context. The ability to perform the needed reconfigurations flexibly can act as a catalyst in enhancing the best utilization of resources to produce competitive outcomes in prompt manner that allows the sustained competitiveness in dynamic environments.

Through the lens of the contingency theory, organizations that are able to accommodate for unstable environmental contexts such as competitors, technology, consumers, and other elements in their decision-making are more successful to cope with dynamic business contexts (Darvishmotevali, Altinay & Koseoglu, 2020). According to Child (1984), the effectiveness of organizational outputs depend on the interaction between multiple elements to a large extent in order to successfully make use of opportunities to enhance organizational performance. With the view of the contingency theory, the formation process of successful business outputs is different for different conditions, and are fixed over time or uniform across all organizational levels. Resources are better utilized to produce competitive outcomes when the process of their utilization is chosen to match the complexity of the environment and the organization's situation (Donaldson, 2001). Operational Adjustment Capacity facilitates the positive outcomes of organizational functions. Furthermore, a well-developed and improved organizational flexibility and agility in adjusting internal processes will support organizations in utilizing their resources to cope with business dynamics and outperform their competitors in a competitive agile manner (Darvishmotevali, Altinay & Koseoglu, 2020). Furthermore, organizations that are able to flexibly reconfigure their operations are unlikely to fail in a competitive business context when faced with unexpected market dynamics. Organizations possessing such flexible reconfiguration features possess resources that are able to utilize such organizational capabilities in rapidly responding to sudden changes, new market opportunities, and changing customer demands (Shafer et. al., 2001).

Earlier studies indicated the important role of operational reconfigurations capacity at multiple organizational levels including organizational performance, organizational success

and excellence, human resource productivity (i.e. Appelbaum et. al., 2017; Alhadid, 2016; Jannati & Khodadadi, 2016). In particular, Jannati and Khodadadi (2016) indicated that the responsiveness and flexibility of operational processes and internal organizational agility features significantly mediates the effect of organizational learning on organizational performance, specifically in highly competitive and dynamic contexts where organizations need to constantly adapt and embrace changes in capitalizing on opportunities. Furthermore, Darvishmotevali, Altinay, and Koseoglu (2020), state that agile and flexible organizations have the potential to remove uncertainties, engage and empower their human resources when facing such contexts. Based on the contingency theory, this study considers operational adjustment capacity as a leverage between effective talent management systems and competitive organizational agility features. Therefore, we hypothesize the following:

Hypothesis 12: Operational Adjustment Capacity mediates the relationship between Talent Management and Market Capitalizing Agility

Hypothesis 13: Operational Adjustment Capacity mediates the relationship between Talent Management and Innovative Capacity

Hypothesis 14: Operational Adjustment Capacity mediates the relationship between Talent Management and Organizational Creative Capacity

3.5.9 The Mediating Role of Absorptive Capacity

Absorptive capacity is seen in a number of studies as an important mediator in the context of human resources, intellectual capital, and organizational performance on multiple dimensions including open innovation, disruptive innovation, business performance, innovation outputs, the use of innovation in information systems contexts (e.g. Martinez-Schanchez, Vicente-Oliva & Perez-Perez, 2020; Wang, Ling & Chok, 2020; Hernandez-Perlines, Moreno-Garcia & Yanez-Araque, 2017; Liao et. al., 2009). These studies are

performed in the context of Information Systems, Information Technology, family business, and industrial organizations.

Absorptive Capacity is evident in the literature as a facilitator of competitive organizational functions including innovation outputs. Further, Absorptive Capacity is positively influenced by the recruitment of talented employees. Accordingly, this research is proposing the exploration of the mediating role of absorptive capacity, in the context of knowledge-based organizations, as a mediator between effective talent management practices and competitive organizational agility features. Martinez-Schanchez, Vicente-Oliva & Perez-Perez (2020) indicated a mediating effect of absorptive capacity between human resources flexibility dimensions that are significantly knowledge-intensive and innovation outputs. In other studies, effective talent management systems have demonstrated a direct positive relationship with absorptive capacity. Moreover, absorptive capacity has indicated a direct positive relationship with innovation outputs and overall organizational performance.

Therefore, we propose the following:

Hypothesis 15: Absorptive Capacity mediates the relationship between Talent Management and Market Capitalizing Agility

Hypothesis 16: Absorptive Capacity mediates the relationship between Talent Management and Innovative Capacity

Hypothesis 17: Absorptive Capacity mediates the relationship between Talent Management and Organizational Creative Capacity

3.6 Discussion of Expected Outcomes

The proposed conceptual model is presented in Figure 1. The researcher expects that Effective Talent Management will have a positive relationship on Competitive Organizational Agility. Talent Management practices are executed by organizations as one mechanism of

gaining and sustaining a competitive advantage through leveraging on the potential that talented employees hold. Therefore, the researcher expects that effective talent management will have a positive impact on Competitive Organizational Agility through a positive relationship with Market Capitalizing Agility, Agile Innovation and Agile Creativity. Furthermore, since the literature discusses the importance of studying Talent Management in a contextualized manner. Effective Talent Management is influenced by internal and external organizational factors. Internal Processes within the organization need to be efficient and aligned with the Talent Management practices adapted by the organization. Information on the changes occurring in the external environment must be utilized efficiently by the organization and its talents in order to create a competitive advantage for the organization. Furthermore, the literature discusses the importance of organizational agility in achieving a competitive advantage for organizations. Competitive Organizational Agility is achieved through competitive people skills and efficient organizational processes and comprehension and utilization of information in the external environment.

Moreover, as stated in the literature, organizational contexts are important in order for talent management practices to produce the expected outcomes, and in order for employees to be able to achieve innovative and creative outputs capitalizing on market opportunities. As stated in the literature, for talented employee to achieve creative projects, such projects shall be executed through agile processes and organizational contexts. Furthermore, unique and creative outputs shall be accelerated through a number of dynamic capabilities as well, one of which is the absorptive capacity. As such, the researcher expects a positive mediating effect for both Operational Adjustment Capacity and Absorptive Capacity on the relationship of Effective

Talent Management and the three dimensions of Competitive Organizational Agility discussed in this research i.e. Market Capitalizing Agility, Agile Innovation and Agile Creativity.

Chapter 4: Research Methodology

4.1 Chapter Introduction

This chapter discusses the methodology adopted and the procedures implemented in this research. The chapter describes the research philosophy, approach, strategy, and design. It also covers the data collection design and process, the sample and sampling techniques, and the data analysis techniques applying structural equation modeling using Partial Least Squares. The chapter also describes the data analysis techniques utilized in analyzing the data after collection, the pilot study, in addition to the ethical considerations followed in this research.

Four assumptions direct the research approach; these are the ontological assumptions, epistemological assumptions, axiological assumptions, and methodological assumptions. These assumptions explain the nature of reality, knowledge, role of values, and research strategy respectively. In this section, the researcher explains the epistemological, ontological, axiological and methodological positions of this research.

4.2 Research Philosophy

This section of this chapter explains the knowledge development process and the nature of that knowledge; the research philosophy (Saunders, Lewis & Thornhill, 2009), which is the study of the fundamentals of knowledge, realism, and existence (Oxford Dictionary, 2021). There are two research thinking philosophies; ontology and epistemology (Bryman & Bell, 2011). Ontology is a perspective about the nature of reality in relationship to the researcher's assumptions on how the world functions (Saunders et. al., 2016). The ontological philosophy deals with how researchers perceive the universe around them

(Easterby-Smith et. al., 2015). Ontology can take two positions; objectivism or subjectivism. According to Bryman and Bell (2015), objectivism refers to the researcher's belief in the existence of social entities in reality, and that these external social entities are independent of individuals. Moreover, subjectivism is described as social-related phenomena being comprehended from the views and meanings of the researcher (Bryman and Bell, 2015). Moreover, epistemology refers to the extent to which knowledge in a defined sector is acceptable (Saunders et. al., 2016). The concern of the epistemology philosophical stance is to obtain knowledge, capture data, and check its reality (Easterby-Smith et. al., 2015; Carson et. al., 2001; Hudson and Ozanne, 1988).

This research adopts an objectivist ontology perspective, and a positivist epistemology stance. The researcher is not perceiving the different research philosophies as being opposite to each other i.e. ontology versus epistemology or deductive versus inductive, adopting the point of thinking of Tashakkori and Teddlie (1998). The research philosophies adopted are a series of a continuum philosophy.

The philosophy adopted in this research is influenced by practical considerations. Adopting a research philosophy is crucial for the quality of the research and its results (Easterby-Smith et. al., 2015). The researcher's views and perspectives of the surrounding ecosystem are mirrored in the research philosophy adopted, which in turn influences the adopted research strategies and methods. The philosophical stance of a research reflects on the researcher's comprehension of the research questions (Johnson & Clark, 2006).

The objectivist ontology perspective is adopted as the social phenomenon and the concept that it reflects is present in reality and is independent from social actors. The positivist epistemology stance is followed since the social phenomenon under exploration is observable.

This research follows a value-free approach and adopts a high structural methodology that is replicable and generalizable. Furthermore, the observations are quantifiable allowing for statistical analysis to be executed. This research produces knowledge through scientific research since studying talent management practices is real.

Since this research adopts objectivist ontology holding an objectivity stance and a value-free approach, the findings are generalizable. One epistemological stance is followed in this research, which is positivism. Positivist epistemology and objectivist ontology are a philosophical continuum that is well-balanced. Positivism is adopted in this research as the research is concerned with exploring a social science area. According to Saunders et. al. (2016), positivism is more appropriate when conducting social science research. A positivist epistemological stance indicates that the research is executed with observable and quantifiable data that allows for conducting statistical analysis on the social phenomena studied. Since this research follows a value-free approach adopting a quantitative research method, it provides an objective measurement and analysis and hence the knowledge produced by this research is replicable (Gill & Johnson, 2002). Furthermore, positivism directs towards adopting a highly-structured methodology (Bryman and Bell, 2015) and the data collection and analysis in this research follows a highly-structured methodology.

Furthermore, positivist ontology refers to the world being perceived as an external entity, and there is only a single state of objective reality in relation to a defined research phenomenon (Hudson & Ozanne, 1988). In this stance, researchers begin with a structured approach with a well-defined research topic, a properly structured set of hypotheses, and a well-defined research methodology to be executed (Carson et. al., 2001). In this approach, the researcher does not interact with the participants in the research which ensures the neutrality

of the research and that it does not face emotional bias which achieves a differentiated outcome between reality and emotions (Carson et. al., 2001). In Positivism, a researcher is able to draw the thin line between facts and individual judgements; the researcher seeks objectivity and adopts logical and structured approaches to reach reliable findings. Hence, statistical analysis is a core function in positivist research. This is due to the fact that positivism adopts structured methodologies that lead to the conclusion of an objective reality (Carson et. al., 2001).

Since the objective of this research (also identified in details in Chapter 1) aims to test the influence of Effective Talent Management Practices on Competitive Organizational Agility, the positivist epistemology stance seems to be more suitable. This stance accommodates for reality being revealed and defined through conducting measurement by observation, and that the association between Talent Management Practices and Competitive Organizational Agility is in presence. In the position of the positivist epistemology, facts and truths can be produced and established. Therefore, allowing for structural model to be designed, which will achieve the objective of testing the influence of Talent Management Practices on Competitive Organizational Agility.

4.3 Research Approach

The core of scientific research is utilizing solid evidence to advance theory. A research approach is the plan and the procedures for research that is inclusive of all the research steps from the broad assumptions to the detailed methods of data collection, analysis, and interpretation (Creswell, 2014). Informing the research approach are the philosophical assumptions underlying the study, the research design, and research methods of data collection, analysis, and interpretation (Creswell, 2014).

A Research approach depends on epistemological philosophies and adopts a set of procedures to explore a given phenomenon. The researcher utilizes existing knowledge created through other research in relevance to the topic of research; this is building on currently available information. Drawing upon existing literature can take various methods; however, any method selected should ensure accuracy in data collection and reporting. Specific characteristics underlie quantitative research; these are, 1) at any point throughout the research, the researcher must be objective and independent of the phenomena under exploration, 2) the researcher should stay independent of any thoughts or biases towards the phenomena under investigation, and 3) the research must be adhering to deductive forms of logic, and theories and hypotheses must be verified in a cause-effect relationship (Lawrence, 2014).

The research methodology adopted in this research is finding a solution for a research problem through a systematic approach. Scientific research follows systematic methods in an attempt to explore specific phenomena in order to obtain original contributions to knowledge explaining the world around the researcher. Furthermore, scientific research adheres to a structured process following a systematic action plan; this normally arises from general questioning, and eventually reaching a specific area of desired exploration. The identified specific area of exploration is observed and analyzed by the researcher. Knowledge contribution is then made through the analysis of findings. Observation and analysis methods must depend on obtaining empirical evidence that is measurable. According to Sneider and Larner (2019), scientific research involves data collection through observation, and the testing of hypotheses. To ensure that the process is free of bias, it must be objective. Hence, the analysis and reporting of findings are also ensured to be free of bias. A well-structured

research approach must be followed in order to obtain reliable and generalizable results (Glazunov, 2012).

Three main research approaches exist; these are quantitative, qualitative, and mixed methods research approaches (Creswell, 2014). The three research approaches represent different points on a continuum (Newman and Benz, 1998). Qualitative and quantitative approaches are not considered polar opposites or dichotomies (Creswell, 2014; Newman and Benz, 1998). A study is more quantitative than qualitative and vice versa, whereas the mixed methods research approach falls in the middle of the continuum as it is inclusive of elements of both quantitative and qualitative research (Creswell, 2014). Even though there are differences between quantitative and qualitative research approaches in terms of the philosophical assumptions, the types of research strategies used, and the specific methods employed in conducting these strategies, both approaches lead to theory development (Creswell, 2014). Appendix 1 depicts the flow of research reasoning approach and the development of theory, theoretical framework, and conceptual framework for the quantitative (deductive) approach and the qualitative (inductive) approach (Varpio et. al., 2020).

Considering the main research question of this study (To what extent does Talent Management impacts Competitive Organizational Agility?), the scientific approach followed in this research is deductive. According to Pellissier (2008), this approach is in line with this quantitative research as it is initiated from a general view to a specific scope to be explored, stemming hypotheses from existing knowledge and theory, making observations, testing hypotheses in order to produce new knowledge contribution that is reliable (Wilson, 2010).

The reasons behind selecting a quantitative research approach for this study is summarized in the following: the researcher aims to utilize a structural research methodology

that allows repetition and generalization, the research includes hypotheses testing, the research has the purpose of testing causal relationships, and the research is deductive and hence a quantitative approach can minimize bias and subjective reasoning.

In particular, this research follows a quantitative deductive approach to evaluate the relationship between Effective Talent Management Practices and Competitive Organizational Agility. This is explored through the form of an independent variable and dependent variables. The mediation effects of Operational Adjustment Capacity and Absorptive Capacity on the relationship between Effective Talent Management Practices and Competitive Organizational Agility dimensions is also explored. A quantitative deductive approach is described as an approach that evaluates objective theories through examining the relationship among variables. These variables are measured through instruments yielding to numbered data that can be analyzed through statistical procedures (Creswell and Creswell, 2018).

It is known that deductive studies verify existing theories (Beiske, 2007). In a deductive approach, a new assumption results from existing theory and the observations made when testing the assumptions will either accept or reject those assumptions (Sneirder & Larner, 2009). Robson (2002) states five steps in deductive research. These are producing hypotheses from the theory, explaining how the hypotheses will be measured and describing the associations between the variables, collecting the appropriate data, analyzing the data collected in a way that will lead to either accepting or rejecting the hypotheses, and possibly, adding onto the existing theory. These steps are sequential. This research utilizes the and the Dynamic Capabilities View theory and the Contingency Theory. Hence, quantitative research is considered as explanatory research, the main driver in such research is to explain the reasons for the occurrence of events, and to refine, elaborate, expand, or evaluate theories

(Lawrence, 2014). A number of strategies are utilized in explanatory research. In some explanatory research, a new explanation is produced and then empirical evidence is used to support it or reject it (Lawrence, 2014). This is the strategy utilized in this research.

4.4 Research Design

Scientific research procedures guide the logic followed in addressing the objectives and research questions of this study. The deductive approach adopts a survey executed through a self-administered questionnaire as a tool to measure the statistical association between Effective Talent Management Practices and Competitive Organizational Agility dimensions. This approach allows for the replication and generalization of the outcomes of the research.

4.5 Research Strategy

Numerous research strategies can be adopted in a study that follows a deductive quantitative scientific research approach. To collect quantitative data in such a study, surveys, existing statistics, secondary data, and nonreactive content analysis can be used (Lawrence, 2014). In this research study, a one-time survey strategy was executed through a self-administered questionnaire. Surveys are very common in the field of business and management (Hussey and Hussey, 1997). Research strategies adopting surveys are very commonly associated with deductive approach, and is a reliable tool in statistical analysis allowing for relationships to be identified and explained (Saunders, Lewis and Thornhill, 2007). The one-time survey strategy technique allows for a systematic collection of data from a large target group through asking the same questions and recording the responses on a measurable scale (Lawrence, 2014).

Conducting the survey approach through self-administered questionnaire has a number of benefits. The objectives of the research and hypotheses are appropriately tested through this approach, and the data is collected within a reasonable timeframe. Through a proper questionnaire design, the researcher is able to ensure that only the intended target group is participating in this research. Respondents who are out of the targeted group can be eliminated through demographic questions. Also, a large response group can be approached and is accessible through this approach.

Furthermore, according to Saunders et. al. (2009), in explanatory research the use of a questionnaire is appropriately applicable as the close-ended questions are used, which provides the research with potential advantages. Such advantages include the completion of the survey in a short and reasonable timeframe. Also, data collection is normally a fast and efficient process. In addition to the data collected being quantitative and computable, it can be analyzed and compared. Furthermore, the research can be easily repeated when a survey questionnaire tool is used. Using a questionnaire tool in this study supported the researcher in understanding the relationship between Effective Talent Management Practices and Competitive Organizational Agility dimensions: Market Capitalizing Agility, Agile Innovation, and Agile Creativity, and the mediating effects of Operational Adjustment Capacity and Absorptive Capacity in those relationships.

In this study, the unit of analysis, which is the level of aggregation of collected data, is the organization. The one-time survey executed through a self-administered questionnaire targeted one response from a set of private sector knowledge-orientated organizations. As representatives for this unit of analysis, CEOs/owners, senior managers, or middle managers were chosen to complete the questionnaire. The rationale for targeting CEOs/owners, senior

managers, or middle managers is that such individuals possess a high level of comprehension of the contribution of their human resources towards the competitiveness of their organizations' (Al Aina & Atan, 2020; Kravariti et. al., 2022). In addition, they possess a complete understanding of their organizations' operations and knowledge gain and utilization (Al Aina & Atan, 2020; Kravariti et. al., 2022). Also, managers are held responsible for the efficient utilization of talent and resources within their organizations (Thunnissen & Gallardo-Gallardo, 2017). Furthermore, studies that are aimed at the exploration of talent management concepts frequently target managers as the representatives of their organizations when responding to surveys. This is evident in both quantitative and qualitative studies such as Lin, Liu & Luo (2020); Harsch & Festing (2020). Responses from the targeted group were collected in the natural business environment where day-to-day business operations are executed without any interference or artificial alterations from the researcher.

4.6 Time Horizon for Survey Execution

A number of data collection frequencies are available for researchers to adopt when conducting research. The selection of the data collection frequency is governed by the most efficient way to address the study objectives and research questions. Johnston and Vanderstoep (2009) describe data collection frequencies as cross-sectional, longitudinal, repeated independent sample design, or one-shot design. In a cross-sectional data collection approach, the researcher collects data at a one-time period. In a longitudinal approach, the same target groups are studied over multiple data collection intervals (Johnston & Vanderstoep, 2009). In a repeated independent sample design, the researcher explores a number of samples of people over recurrent trials with the aim of identifying variations in attitudes and behaviors (Johnston & Vanderstoep, 2009). In a one-shot design, the researcher

studies one group of individuals only one time through using surveys, experiments, or field studies (Johnston & Vanderstoep, 2009).

The data collection strategy adopted in this research follows a cross-sectional approach where data is collected at a single point in time or a single period of time. Specifically, the data for this research was collected from CEOs/owners, senior managers, or middle managers working in the United Kingdom's (UK) private sector knowledge-based organizations (rational for selecting the study population from the UK is explained in section 4.11.1 of this document). According to the criteria set by Rindfleisch et. al. (2008), the cross-sectional data collection strategy is appropriate to be executed in this study to achieve the main research objectives which are to empirically test the relationship between Effective Talent Management Practices and Competitive Organizational Agility features through the mediating effect of Operational Adjustment Capacity and Absorptive Capacity.

Rindfleisch et. al. (2008) suggests a number of criteria to be examined when assessing the appropriateness of cross-sectional research strategies, including: 1. the nature of the study constructs i.e whether externally oriented or internally oriented, 2. the likelihood of response bias, which is dependent on survey's measures and its respondents, 3. the initiation and end date of the construct.

When constructs are more concrete, verifiable, and externally oriented in nature (such as constructs that measure organizational performance and innovation), the cross-sectional approach is more feasible and is thought to produce low common method variance (CMV) bias compared to internally oriented constructs that are non-verifiable, and non-concrete (i.e. abstract) such as constructs that measure attitude and happiness. All constructs studied in this research are externally oriented and concrete. The Effective Talent Management Practices

construct, Operational Adjustment Capacity construct, and Absorptive Capacity construct are considered organizational capability-building constructs. The Competitive Organizational Agility variables including sensing agility represented by Market Capitalizing Agility, and response agility represented by Agile Innovation and Agile Creativity are constructs of visible action executed by the organization. In addition, these constructs are externally oriented, with the attention being the external environment. Effective Talent Management Practices is concerned with attracting talented employees from the external environment and ensuring their retainment within the organization. Absorptive Capacity is concerned with the utilization of knowledge that exists in the external environment. The Competitive Organizational Agility variables are concerned with the external environment where needs must be sensed and new products must be administered.

A number of response biases can occur including the socially-preferred (desirable) response bias, and the acquiescence bias (Primi et. al., 2019). In this research study, both types are not likely to occur. The survey items are not measuring individual-level responses, hence there is no bias from the respondents towards any personal preferences. Moreover, the acquiescence bias, which normally occurs from uneducated respondents, children, or minority groups (Primi et. al., 2019), is less likely to occur as the level of respondents targeted in this research study are skilled and educated.

The initiation and the end of a construct should be considered since, as stated by Rindfleisch et. al. (2008), the beginning and end of a predictable variable is important in longitudinal studies. Effective Talent Management Practices, which is the predictor variable in this study, depends heavily on the dynamic environment that surrounds the organization.

Hence, the beginning and end are not consistent or stable, therefore, a longitudinal study is not an option for this research study.

4.7 Generalizability

Generalization, which is the extent to which the findings from the sample targeted can be generalized to the entire population, is a characteristic of a deductive quantitative research study and is usually associated with the positivist research philosophy since it is associated with an observable social context. In order to be able to generalize the findings of a deductive quantitative research study, the number of participants in the selected study should be statistically sufficient. If the number of participants is less than the recommended statistically sufficient sample, then there is a limitation in the ability of generalizing the findings to the entire population. In this research, the final sample size that was used for analysis and hypothesis testing is 314 cases, which is less than the statistically recommended sample size of 384 cases which is needed in order for the findings to be generalized to the entire population. This is a limitation in this study. Multiple attempts were made to increase the sample size of collected responses including extending the data collection period, physically visiting organizations and briefing senior management on the study and inviting their participation, and seeking responses through an on-line platform (www.smartsurvey.co.uk). These attempts have resulted in reaching the 384 cases, however, after data screening and cleaning, the total sample that was retained is 314 cases.

4.8 Research Process and Design

The research process took the following route; it started with choosing a research topic, defining the research questions, stating the objectives, explaining the importance of the

intended research, and studying the influence of Effective Talent Management Practices on Competitive Organizational Agility dimensions including Market Capitalizing Agility, Agile Innovation, and Agile Creativity. When setting the research agenda, the research population was set to focus on knowledge-based organizations operating in the private sector. A deductive quantitative research design utilizing a positivist approach through deploying a cross-sectional survey was determined. Responses to the survey were set to be collected at an organizational level through CEOs/Owners, senior managers, and middle managers. An on-line survey tool was used to collect data. The link to the questionnaire was made available on the SmartSurvey website, and participants from the targeted group were invited to respond to the survey. To analyze the data, a statistical software tool was used to conduct structural equation modeling to understand the relationships between the different constructs, and to test the hypotheses outlined in this thesis. Conclusions were made based on the significance of the relationships identified between the studied constructs. After setting the research agenda, the researcher embarked on a critical literature review to study existing knowledge on Effective Talent Management Practices, Competitive Organizational Agility features including Market Capitalizing Agility, Agile Innovation and Agile Creativity, Operational Adjustment Capacity, Absorptive Capacity and the relationships between them. Throughout the literature review, talent management practices have been explored, the context by which previous literature explains talent management practices has been examined as well, and the existing association between talent management practices, organizational agility, innovation and innovative capacity, absorptive capacity and knowledge acquisition and management, organizational creativity, product uniqueness, and process adaptations has been explored as well.

4.9 Questionnaire Design and Development

4.9.1 Questionnaire Design

Scales measuring the same concepts and variables studied in this research have been adopted from the literature and are included in Table 3. The scales have been adopted for this research in such a way that will answer the research questions of this study, evaluate the stated hypotheses, and address the research objectives. Even though the scales are adopted from the literature, there are no quantitative studies that link Effective Talent Management Practices with the Competitive Organizational Agility features studied in this research, and there are no studies that assess how Operational Adjustment Capacity and Absorptive Capacity can influence this link. The advantage of reusing previously validated scales is that the reliability and validity testing of the measures has already been established, giving the researcher confidence on the quality of the measurement instrument (Bryman & Bell, 2007). According to Straub (1989), it is advisable to reuse previously validated scales. Furthermore, Straub (2004) state that the homological validity of constructs can be established when tested and validated with a variety of samples. Even though the scales selected from the literature are previously validated and of high reliability, the researcher has run a pilot study to further validate the scales for use in this study.

Since the model in this thesis is a Hierarchical Component Model (HCM) (explained in details in Section 5.8), it provides a framework to model a construct on a more abstract dimension referred to as higher-order components and its more concrete subdimensions referred to as lower-order components. In this study, the research model is composed of six constructs; two constructs are higher order constructs and four constructs are lower order constructs. In a higher order construct, the relationship between the higher-order components

and the lower-order components can be reflective or formative (explained in details in Section 5.8). There are four types of higher-order constructs, the type of higher-order constructs used in this thesis is the reflective-reflective type (explained in details in Section 5.8).

The questionnaire has six sections. The first section containing the Effective Talent Management Practices measurement scale is composed of six items covering the Effective Talent Management Practices construct. This construct is a higher-order construct with two sub-dimensions. The six items within the construct represent the two dimensions of Effective Talent Management practices; talent attraction and talent retention. The measurement of this scale is adopted from Knotoghiorghes (2015). The talent attraction aspect is assessed through three items with a Cronbach alpha of 0.92 reported by Knotoghiorghes (2015). The talent retention is assessed through three items with a Cronbach alpha of 0.89 reported by Knotoghiorghes (2015). Knotoghiorghes (2015) refers to this construct as Effective Talent Management Practices. Although, Knotoghiorghes (2015) does not discuss Effective Talent Management Practices in light of the concept of dynamic capability directly, the study discusses Effective Talent Management Practices in light of high levels of uncertainty induced by frequent changes, innovations, technological advancements, which are features and characteristics of dynamic environments addressed in this research. Hence, the construct introduced by Knotoghiorghes (2015) is used to measure Effective Talent Management Practices in this study.

The second, third, and fourth sections contain three scales measuring the features of Competitive of Organizational Agility studied in this research. The first scale covers the Market Capitalizing Agility construct. This construct is a lower-order construct. The

measurement scale for the Market Capitalizing Agility construct is adopted from Lu & Ramamurthy (2011) and includes three items covering this scale.

The third section contains the Agile Innovation scale and is composed of eight items covering agile innovation in organizations. These eight items assess agile innovativeness in organizations covering topics related to the ability to innovate in producing products and/or services and the processes through which these products and/or services are produced. This construct is a lower-order construct. The measurement of this scale has been adapted from Prajogo and Sohal (2006).

In their study Prajogo and Sohal (2006) measure innovation in light of the speed by which innovation is executed and the level to which the innovation is the first to enter the market. Hence, this scale encompasses the definition of agile innovation, which is, as defined by Morris et. al. (2014), the ability of an organization to create products and services in a rapid and fast manner in response to changes in its external context. Hence, the Innovation construct introduced by Prajogo and Sohal (2006) is used in this study to measure Agile Innovation. The Agile Innovation scale is covered through eight items with a reported Cronbach alpha of 0.87.

The fourth section containing the agile creativity scale is composed of four items pertaining to the confidence that employees have and the ability of their organizations in creating new ideas, and their ability to solve problems. This is a lower-order construct. The measurement of this scale has been adopted from Yeng, Lee and Cheng (2016). In their study Yeng, Lee and Cheng (2016) measure creativity in light of how good the organization is in terms of introducing new novel ideas and creative outputs, which is in line with the description of agile creative organizations described by Dupont (2019) stating that agility entails the establishment of flexible pathways towards the production of creative outputs. Hence, the

Employee Creativity construct introduced by Yeng, Lee and Cheng (2016) is used in this study to measure Agile Creativity. The Agile Creativity scale is assessed through four items with a Cronbach alpha of 0.909.

The fifth section covers the Operational Adjustment Capacity measurement scale with three items covering topics related to the adjustment and reconfiguration of processes to form the most efficient structuring and utilization of capabilities and resources for the benefit of the organization in continuously updating its outcomes. This indicates the efficiency of the organization in attending to disruption in the production line, in addition to implementing appropriate decisions on time, and reinventing and reengineering processes. This is a lower-order construct. The measurement of this scale has been adapted from Lu and Ramamurthy (2011). The three items composing the scale are reported to have a Cronbach alpha greater than 0.73.

The sixth section containing the Absorptive Capacity scale is composed of fourteen items reflecting Absorptive Capacity in organizations. This is a higher-order construct with four sub-dimensions. These four sub-dimensions are acquisition, assimilation, transformation, and exploitation. The items cover topics related to the search for and the use of relevant information available in the industry external to the organization, the communication of important information across the organization, knowledge processing, and the support for development of new products and services. This measurement scale is adapted from Flatten et. al. (2011), and is reported to have a Cronbach alpha of 0.8.

The scale used in this study for the six constructs is a Likert Scale. The scale is a seven-point scale, ranging from ‘(1) strongly disagree’ to (7) strongly agree’ (while (4) is neutral). This is in line with Cox (1980) who describe that the most appropriate scale is a

seven-point scale. Johns (2010) also state that data collected through Likert items are more precise at a seven-point scale. An odd scale allows for neutral responses. Furthermore, according to Finstad (2010), a seven-point scale can attain more appropriate responses for self-administered on-line questionnaires.

At the end of the survey, questions are added to filter out responses received from individuals from outside the defined study population, ensuring that the study population is composed of CEO/Owners, Senior Managers, and Managers only. Also, the size of the company (i.e. less than 500 employees, 500-1000 employees, more than 1000 employees) is captured at the end of the survey. In addition, the age of the organization is captured (less than 5 years old, 5-10 years old, and more than 10 years old). The size and age of the company are used as control variables in this study. Given that the study is categorized as a “purely organizational” study, the model under examination is conceptualized around organizational characteristics and functions, (Darabek et. al., 1982), no questions were added to seek demographic characteristics of participants as these are out of relevance to the study.

Table 3

Reported Cronbach's Alpha for Each Scale

Construct Name	Item Code and Name	Cronbach's Alpha / Construct Validity and Reliability	Source
Effective Talent Management	<i>Talent Attraction</i> TM 1: Our organization's recruiting efforts always attract the best talent on the market	0.92	Knotoghiorghes, C. (2015). Linking high performance organizational

	TM 2: Our selection procedures assure that only the best possible candidates are selected for the job TM 3: All of my coworkers are of the highest caliber found in the industry <i>Talent Retention</i> TM 4: This company has no problem retaining its talented employees TM 5: The best performers never leave this organization to go to a competitor TM 6: Overall, turnover among talented employees is non-existent in this company <i>Employees in my organization ...</i> CR 1: have confidence in my ability to solve problems creatively. CR 2: are good at generating novel ideas CR 3: have a knack for further developing the ideas of others CR 4: are good at finding creative ways to solve problems.	culture and talent management: satisfaction/motivation and organizational commitment as mediators. <i>The International Journal of Human Resource Management</i>, vol. 27(16), pp. 1-21.
Agile Creativity	0.89	0.909
		Yang, Y., Lee, P.K.C., Cheng, T.C.E. (2016). Continuous improvement competence, employee creativity, and new service development performance: A frontline employee perspective. <i>International Journal of Production Economics</i>, vol. 171(2), pp. 275-288.

Market Capitalizing Agility	MC 1: We fulfill demands for rapid-response, special requests of our customers whenever such demands arise; our customers have confidence in our ability. MC 2: We can quickly scale up or scale down our production/service levels to support fluctuations in demand from the market. MC 3: Whenever there is a disruption in supply from our suppliers we can quickly make necessary alternative arrangements and internal adjustments. <i>Organizational Adjustment Agility:</i> OR 1: We are quick to make and implement appropriate decisions in the face of market/customer-changes. OR 2: We constantly look for ways to reinvent/reengineer our organization to better serve our market place. OR 3: We treat market-related changes and apparent chaos as opportunities to capitalize quickly. <i>Productive Innovation:</i>	> 0.73	Lu, Y. & Ramamurthy, K. (2011). Understanding the link between information technology capability and organizational agility: an empirical examination. <i>MIS Quarterly</i>, vol. 35(4), pp. 931-954.
Operational Adjustment Capacity	IN 1: The level of newness (novelty) of our firm's new products. IN 2: The use of latest technological innovations in our new products. IN 3: The speed of our new product development. IN 4: The number of our new products that is first-to-market (early market entrants). <i>Process Innovation:</i>	0.8684	Prajogo, D. & Sohal, A. (2006). The integration of TQM and technology/R&D management in determining quality and innovation performance. <i>The International Journal of Management</i>
Agile Innovation	IN 5: The technological competitiveness of our company.	0.8909	

	IN 6: The speed with which we adopt the latest technological innovations in our processes.		<i>Science</i> , vol. 34, pp. 296-312.
	IN 7: The updated-ness or novelty of the technology used in our processes.		
	IN 8: The rate of change in our processes, techniques and technology.		
	AC 1: The search for relevant information concerning our industry is every-day business in our organization.		
	AC 2: Our management motivates the employees to use information sources within our industry.		
	AC 3: Our management expects that the employees deal with information beyond our industry.		
	AC 4: In our organization ideas and concepts are communicated cross-departmental.		
Absorptive Capacity	AC 5: Our management emphasizes cross-departmental support to solve problems.	0.8	Flatten et. al., 2011
	AC 6: In our organization there is a quick information flow, e.g., if a business unit obtains important information it communicates this information promptly to all other business units or departments.		
	AC 7: Our management demands periodical cross-departmental meetings to interchange new developments, problems, and achievements.		

AC 8: Our employees have the ability to structure and to use collected knowledge.

AC 9: Our employees are used to absorb new knowledge as well as to prepare it for further purposes and to make it available.

AC 10: Our employees successfully link existing knowledge with new insights.

AC 11: Our employees are able to apply new knowledge in their practical work.

AC 12: Our management supports the development of prototypes.

AC 13: Our organization regularly reconsiders technologies and adapts them accordant to new knowledge.

AC 14: Our organization has the ability to work more effectively by adopting new technologies.

4.9.2 Pilot Study

A pilot study was performed, which is a smaller version of the complete study as described by Lindsey (1999). According to Prescott and Soeken (1989), pilot studies are conducted by researchers to support in the research design phase. Moreover, van Teijlingen and Hundley (2001) describe pilot studies as crucial for a proper research design and planning. Baker (1994) describe pilot studies as value adding to decide on the analysis tools and methods that will be used to analyze the data collected in the main study. Furthermore,

Lancaster et. al. (2004) describes pilot studies as crucial in ensuring the implementation of a suitable methodological approach. Hence, before conducting the main study, a pilot study was conducted to obtain feedback for the main study.

The researchers in this study conducted a pilot phase to obtain constructive feedback from the respondents that would assist in ensuring that the questionnaire items are easy to read, and functioning in an appropriate way that will lead to valid responses. To ensure that all constructive feedback is collected, the researcher encouraged the respondents to identify any non-clear items and suggest alternatives to make the items understandable. Also, this stage shall define the actual time needed to complete the questionnaire. The pilot study is carried with the same objectives of the main study, which is assessing the impact of Effective Talent Management practices on Competitive Organizational Agility. From the results of the pilot study, the researcher was able to conclude whether the full-scale study using the same questionnaire tool (or the slightly modified tool) is feasible. The questionnaire tool and data collection plan were refined based on the feedback obtained from the pilot study.

In summary, the purpose of conducting a pilot study in this thesis before the main study was to check on the:

Clarity of purpose behind the questionnaire and questionnaire items

The appropriateness of the questionnaire design, items, type of questions

The Likert seven-point-scale used is appropriate

The Cronbach's alpha of the five scales

4.9.2.1 Selection Criteria for Pilot Study. The participants for the pilot study selected were selected by the researcher through a purposive approach; the researcher approached participants who are within the targeted group (i.e. managers, senior managers, CEOs who are

working in knowledge-based organizations in the private sector). Also, the survey link was circulated to a small network. The total number of responses received was 30 responses.

4.9.2.2 Changes Implemented to Initial Questionnaire Tool. A number of changes have been made to the initial questionnaire based on the pre-pilot questionnaire review and the pilot study; these include the following:

Changes to the Profiling Section: The profiling section has been moved to the end of the questionnaire. Questions within the profiling section has been edited such the profiling is on the organization characteristics i.e. organization size, age. In addition, the profiling of the respondents' position level was added in the updated questionnaire.

Changes to Agile Innovation items section: For items 17-24 of the questionnaire, which are the items reflecting the latent construct Agile Innovation, a statement was added prior to each item explaining what is required from the respondent. The statement is "Please select the level of your agreement / disagreement that your organization is competitive regarding the following statements (statements 17-24)".

4.9.2.3 Reliability of Measures According to Pilot Study. Common Bias Analysis was conducted. The analysis was conducted considering all variables in the data set (excluding profiling variables). This common bias analysis was conducted using Harman one-factor analysis which is a post hoc procedure conducted in SPSS using principal component analysis. The % variance of the first component is 38.6, which is less than 50, therefore we conclude that bias does not exist in the data.

The scale used to measure constructs was tested for reliability through Cronbach's Alpha. Chronbach's Alpha is a measure of internal consistency meaning how close together

are a set of items/variables composing a construct. Reliability testing was conducted for the following constructs: Talent Management, Market Capitalizing Agility, Agile Creativity, Agile Innovation, Operational Adjustment Capacity, and Absorptive Capacity. Table 4 demonstrates the Cronbach's alpha measure for each of the constructs' measurement scales tested.

Table 4

Reported Cronbach's Alpha Measures for Each Construct - Pilot Study

Constructs' Measurement Scales	Cronbach's Alpha
Talent Management	0.902
Agile Creativity	0.823
Market Capitalizing Agility	0.894
Operational Adjustment Agility	0.894
Agile Innovation	0.896
Absorptive Capacity	0.909

Cronbach's alpha ranges between 0.823 - 0.909, hence, we conclude that all scales tested are reliable.

4.9.2.4 Respondents from Pilot Study. Although respondents in the pilot study carry the same criteria as respondents in the full-scale study, respondents participating in the pilot study are excluded from the full-scale study. According to Bryman & Bell (2007), considering pilot study respondents in the full-scale study might affect the sample representativeness. The results of the pilot study are used to measure the reliability of the measures.

4.9.2.5 Updated Survey Questionnaire After analyzing the pilot study, the survey questionnaire tool was reviewed and minor edits were applied to ensure the clarity of the items. Table 29

Updated Survey Questionnaire Tool for Full-Scale Study

(Appendix 7) presents the final survey questionnaire tool used for the full-scale research of this study.

4.10 Questionnaire Evaluation

Cohen et. al. (2000) provides a checklist that researchers can consider to evaluate the effectiveness of a questionnaire and the appropriateness of its design. The checklist includes the clarity of the purpose behind the questionnaire, the items composing the questionnaire, and the type of questions. Furthermore, in terms of the rating scales used, the Likert seven-point-scale is most commonly used in questionnaires and is also suitable for this research. This is an advantage as respondents are familiar with such rating scales. In addition, the collected data through rating scales is efficiently incorporated into a statistical software. This eased conducting the appropriate statistical tests since the researcher is able to comprehend the level of measurement of each variable. Further is the crucial point (according to Field, 2009; and Pallant, 2006) of testing the assumptions about the data to ensure that the inferential and causal statistical tests that are selected are the most appropriate to answer the research questions. In this research, normality tests and reliability tests were used prior to the structural equation modeling tests.

Moreover, some challenges may be faced in data analysis due to missing values. Missing values can minimize the efficiency of the results as well as influence the results. Therefore, to avoid the challenge of missing values, the researcher followed preventive action steps to ensure efficiency in receiving complete responses. The steps included explaining the objective of the study at the beginning of the questionnaire and the importance of answering every question, the question items were kept easy to read and short, all the questions were directly related to the study and no unnecessary questions are added. In addition, feedback was

taken from three academic researchers and three practitioners prior to the launch of the study to ensure that the scales are clear and the items within are clear and easily understandable. In the case of the occurrence of missing values, the researcher had a number of techniques ready to be applied to overcome this challenge without affecting the results of the analysis; imputation can be used to replace the missing values, this may include replacing the missing value by the mean value or the median value (Waqas et. al., 2016).

Furthermore, as a mechanism to ensure the quality of the scientific research and its outcomes, the goodness of the developed measures is evaluated (Sekaran & Bougie, 2016). This study used two measures; reliability and construct validity.

4.10.1 Reliability

Reliability refers to the consistency in the generation of the same results multiple times, repetition is achieved. Internal consistency (internal reliability) is the term used to describe whether or not the survey items are designed to measure the same construct. When the items intended to test for a specific construct produce similar scores, the internal consistency measures will be high. Reliability is described as the consistency of the questions within a questionnaire to generate reliable consistent outcomes with different respondents and different settings (Sekaran & Bougie, 2016; Younas & Borr, 2020). Reliability is associated with the vigor of the questionnaire itself. Hence, even if the question is reliable, the lack of internal validity will not consider the question being answered as part of the survey (Sekaran & Bougie, 2016; Younas & Porr, 2020). Therefore, it is critical that questionnaire reliability is achieved and the questions are stated in a form that will allow the respondent to understand the questions as intended by the researcher.

Statistically, there are a number of tests used to measure reliability; one of which is the internal consistency approach. Internal consistency tests normally assess how the obtained responses are related and how precisely the items are predicting each other. The internal consistency approach specifically assesses reliability by correlating questions and responses of a questionnaire with one another. Through this, consistency of responses is assessed across the questions' subgroups. A number of methods can be used to measure internal consistency; this research adopts the most common one which is measuring the reliability coefficient Cronbach's alpha (Santos-Vijande & Alvarez-Gonzalez, 2007). Measuring Cronbach's alpha checks for the consistency of responses against a set of questions representing a scale that is intended to measure a defined concept. The value of the alpha coefficient ranges from 0-1, the higher the value the greater the indication that the questions represent a specific scale measuring the same defined concept. A minimum score of 0.70 of Cronbach's alpha is needed for reliability to be achieved (Nunnally, 1978).

This is critically important for this research as the approach adopted is quantitative stemming from an objectivist stance. Reliability is crucially important in quantitative research as it is expected that the study results are repeatable. To avoid any confusion around this, this research places all items in a single measurement tool administered to the same group of people given at a single point in time. In this case, the researcher is able to say that persistence has been reached when the obtained responses on the items achieve a high score and are related/associated to each other. Therefore, prior to embarking on the data collection stage, the researcher has identified what can affect reliability in order to plan sampling and data collection in the appropriate way that will ensure achieving reliability to the best that's possible. However, the researcher is also aware that achieving complete stability in the results

in cross-sectional surveys is not easily achievable as there tends to be some differences in the results if the researcher repeats the survey at a different point in time. Amongst the considerations of the researcher are the issues that affect reliability in a negative manner as identified by Robson (2002); these include, the researcher bias and error and the respondent bias and error.

4.10.2 Validity

In this research, two types of questionnaire validity are applied; content validity and construct validity. Questionnaire validity indicates the ability of a questionnaire to measure what the researcher is intending to measure and refers to the findings of the questionnaire which are supposed to reflect the reality of what is being measured in the study (Hair et. al., 2014). Validation is important as the study must demonstrate a scientific operation activation and hence a study without the appropriate and adequate validations cannot be considered research with appropriate scientific measures (Heeler & Ray, 1972). A measure is said to be dependable when it achieves both validity and reliability, otherwise a measure with weak indicators cannot be considered scientific research.

4.10.3 Content Validity

Content validity is the extent to which the questionnaire provides ‘enough and proper coverage’ of the investigative questions (Hair et. al., 2014). Content validity is a pre-requirement for evaluating all other types of validity, and is crucial as an early step in questionnaire development and evaluation. It allows the researcher to make a judgement on ‘enough and proper coverage’ through carefully defining the research through systematic

literature review and through discussions with academic researchers. Content validity assesses the level of correspondence of the items to be incorporated in a summated scale and its conceptual meaning. Summated scales are composed through adding a number of items into one composite measure (Hair et. al., 2014). In formulating such single composite measures, a group of experts evaluate the scale in terms of the items used for its operationalization in relevance to the original conceptual definition of the phenomenon (Younas & Porr, 2020). In this research, content validity was used allowing the researcher to determine validity through experts' consensus (Younas & Porr, 2020). Additionally, the questionnaire was shared with three scholars as per the recommendations in the literature (Almanasreh, Moles & Chen, 2019; Lynn et. al., 1986). Subsequently, the questionnaire was shared with selected experts, requesting their participation in taking the survey and provide feedback on the content and flow of questions. Feedback was received and reflected on the final version of the questionnaire. Such feedback included rephrasing some statements, and adjusting the layout of the questionnaire and the sequence of questions.

Furthermore, the following steps were executed to assess the design of the questionnaire before circulating the final version to be used for data collection for this research:

1. The language used in the questionnaire is legible to professionals and skilled workers who can read the English language.
2. The questions in the questionnaire tool are appropriate in length (i.e. avoidance of long sentences, use of short and straight forward sentences) in order to encourage respondents to go through responding to the full service properly.

3. All the rating points are labeled in order to ensure that the respondents have comparable description of the rating points used, and each point in the rating scale is numbered for the question. This is to ensure that the respondents are at ease when recording their answers.
4. Incorporation of reverse coded questions to keep the respondents focused and to provide the researcher with help in assessing the reliability of respondents.
5. To keep the momentum going with the respondents in completing the questionnaire to the last question a progress bar is added.
6. Organization Profile questions are kept at the end of the questionnaire.
7. In the beginning of the questionnaire, the purpose of the study is stated and all questions included are needed for the study and hence the researcher encourages the participants to answer all questions. All questions are kept mandatory as well.

Furthermore, to ensure the quality of the questionnaire design, all the questions included are part of the research, no out of research scope questions were added. Questions measuring the intended variables based on the selected scales from the literature are added only along with the needed organizational profiling questions. Hence, all questions are related to the research questions, hypotheses, and objectives stated in Chapter 1 in the research agenda. Overall, the questionnaire is designed in a friendly and easy way to motivate respondents in completing it.

4.10.4 Construct Validity

Construct validity is a type of validity for the questionnaire tool. Construct validity indicates the extent to which the measurement questions measure the presence of the

constructs that are intended to be measured (Hair et. al., 2014). In this research, construct validity is conducted on the scales used for each construct. Construct validity reflects whether the operationalization of a measure is a representation of its construct or not. Construct validity indicates that a test that is intended to measure a defined construct is in reality measuring the defined construct; it reflects the level of which the set of measures are accurately representing the concept of interest (Trochim & Donnelly, 2007).

This research adopts two types of validity; convergent validity and discriminant validity to ensure proper validity of the constructs. To achieve proper construct validity, the two types are normally adopted. Hence, to ensure that the questionnaire tool designed for this research is actually measuring what the researcher intends to measure, construct validity is applied in this research through convergent validity and discriminant validity.

In convergent validity, the items intended to measure the same construct demonstrate that they are related, and hence convergent validity indicates the level to which the scale correlates positively with other items of the same construct (Cheah et. al., 2018). In discriminant validity, the constructs and their items are assessed in order to ensure that the scale used to measure a different construct is in reality measuring a discrete construct (Ketchen & Berg, 2007). The constructs' indicators have a high level of variance in common and are normally assessed through achieving a high convergence on a common point. According to Hair et. al. (2006), the standardized factor loading must be over 0.50 and a factor loading of 0.70 is said to be more valid. The definition of a variance extracted is the average of the squared factor loading for each construct (Hair et. al., 2006). A variance extracted is calculated as the total of all squared standardized factor loadings divided by the number of items (Hair et. al., 2006). The convergence is said to be appropriate when It is at 0.50 or more.

On the other hand, discriminant validity is the degree to which a construct is different from other constructs (Hair et. al., 2010). This is a critical step as it supports that the construct is different than other constructs and it is measuring a concept that is not measured by the other constructs, the scores of the different constructs are not positively related and hence can be labeled as achieving appropriate discriminant validity. This is further supported by Fornell and Larcker (1981) as they state that an acceptable discriminant validity can be considered once the results of the square root of the average variance for every latent variable demonstrates a score more than any of the bivariate correlations of the latent variables investigated in a measurement model that is containing latent variables.

4.11 Sample and Sampling Strategy

4.11.1 Study Population

According to Winch and Schneider (1993), services and products provided by knowledge-based organizations gain their competitiveness through creativity and innovation in responding to needs sensed in the dynamic environment in which they operate, this plays a major role in attaining competitive advantage over their rivals. In selecting the study population, considerations were given to the nature of the constructs of this study and the root of the competitiveness attained by organizations in the context of this research; organizations focusing on attaining their competence through creativity, innovation, and proper sensing of the dynamic environment that they operate in were targeted when circulating the study instrument for data collection purposes. This research is conducted in the United Kingdom, where private sector knowledge-based organizations employing skilled workers were targeted. According to the UK Parliament, House of Commons Library Business Statistics report, a

total of 5.5 million private sector companies existed in the UK as of January 2022, of which 1.6 million companies at least are categorized as knowledge-based organizations (UK Parliament, 2022).

One of the early descriptions and definitions of knowledge-based organizations emerged in the literature in 1987, describing knowledge-based organizations as organizations that leverage on the unique human skill of intuition, creative imagination, and value judgement (Holsapple & Whinston, 1987). Organizations falling within this sector are substantially related to information, intellectual capital, technology, and knowledge. Organizations employing skilled workers operate in various economic sectors including knowledge-based sectors, which include, and not limited to, computers, electronics, optical products, pharmaceuticals, aircrafts, scientific research and development services, software publishing, chemicals, electrical equipment, information technology services, machinery and equipment, medical and dental instruments, private education, health care services, financial services, legal services, engineers, architects, and consultancy services.

In selecting the region from which the study sample is to be targeted, the UAE and the UK were initially considered. Comparison was executed on two dimensions; first, the extent to which the country is focused on achieving a knowledge-based economy, second, the extent to which talent management practices are considered with a clear perspective within the knowledge organizations in the private sector. In the UAE and the UK the shift towards knowledge-based economies are national objectives. However, the concept of talent management and the mechanisms of implementation in the UAE are not executed with a clear perspective (Al Aina & Atan, 2020). On the other hand, talent management implementation is considered mature in Western Europe (Al Aina & Atan, 2020). In Western Europe, the vital

role of human capital has been recognized as part of the evolution of organizations (Al Aina & Atan, 2020).

According to the USA's National Science Board Report, the UK has relative importance in the world economy with an indication of the sense of the knowledge intensity of the economy. In a rank ordered list by countries of value added in knowledge and technology intensive sectors per head of population, the UK ranked amongst the top 20 countries in 2018. Organizations in the knowledge-based sectors contribute to skilled and technological jobs (kent.gov.uk). In the UK, in 2020 knowledge economy employee jobs represented 20.4% of jobs nationally. In 2021, there were 19,760 knowledge economy organizations amounting to 31.3% of all organizations in the UK (kent.gov.uk). According, to gov.uk, the number of private sector businesses at the beginning of 2021 were 5.6 million businesses.

Further to the above, the study population was limited to the private sector in alignment with the scope of this research, which explores the impact of effective talent management practices on competitive organizational agility dimensions represented by market capitalization, agile innovation and agile creativity. In addition, this study addresses gaps identified in previous studies in the context of talent management practices in the private sector (e.g. Harsch & Festing, 2020). Moreover, the context of talent management practices differs between the private sector and the public sector. Private sector talent management practices are conceptualized differently than public sector talent management practices (Kravariti & Johnston, 2019). Four categories have emerged when conceptualizing private sector talent management practices (Kravariti & Johnston, 2019; 1. Talent is the innate capacity individuals possess allowing them to stand out; 2. Talent refers to human capital who yield higher output than the rest of the workforce in a business setting; 3. Talent refers to the

specific capabilities certain people develop with the goal of producing more value for their organizations, 4. Talent is a mixture of human capital competences and their innate drive to achieve certain working tasks through the utilization of those competencies. These conceptualizations can be organized into three groups (Kravariti & Johnston, 2019); 1. Talent Management is a scope that contributes to the advancement of talented employees in such a way that empowers the talented employee in contributing to high organizational performance, 2. Talent Management is a mechanism that enhances career progression in such a way that supports the attainment of maximum output from employees, and 3. Talent Management is the implementation of talent recruitment, development, and retention practices that will lead to enhanced organizational performance. Drawing on these groupings, the common aspect of talent management practices in the private sector is the ultimate goal of enhancing organizational performance and competitiveness characterizations demonstrated by organizations against rivals (Alferaih, 2018; Henry & Al Ariss, 2016; Kravariti & Johnston, 2019).

On the other hand, public sector talent management practices revolve around core public sector principles and values. Talent in the public sector is conceptualized as the appreciation of equal treatment and transparency that motivates and drives the human resource to produce to their maximum potential (Thunnissen & Buttiens, 2017). Public sector workforce possess an innate desire to contribute to public service more than to focus on financial rewards (Delfgaauw and Dur, 2010). Furthermore, the conceptualization of public sector talent management is influenced by the ethos of public service for the common good. In addition, talent management in the public sector is focused more on core values that enhance

proper governance (Reilly, 2008), and the implementation of strategic objectives with the institution's philosophy and culture (Thunissen & Buttiens, 2017).

Hence, given the context of this research study and the nature of the conceptualization of the constructs within the scope of this study, the targeted sample was obtained from the UK knowledge-based organizations operating in the private sector. Knowledge-based organizations operating in the private sector is of relevance to the context of this study.

Although the target population is all knowledge-based organizations operating in the private sector in the UK, the research collected a sample, which is a subset selected from the population. Sampling from the population is often done randomly such that every possible element in the population has an equal chance of being included in the research. This sampling is referred to as simple random sampling (a random sample). In 2022, there were 1.6 million knowledge-based organizations operating in the private sector in the UK (UK Parliament, 2022). According to gov.uk, the number of private sector business at the beginning of 2021 were 5.6 million businesses. There is inconsistency between the number of organizations operating in the knowledge-based economy in the private sector. Therefore, the lack of sampling frame details is a major limitation in this research. Hence, the researcher took the path of adopting the non-probability convenience sampling method. To overcome this limitation, the researcher planned to collect a large sample i.e. 384 organizations.

Drabek et. al. (1982) identify four basic study types reflecting differences in the levels of analysis for both independent and dependent variables; in type 1 the study addresses individual or group level characteristics, in type 2 organizational characteristics are viewed as determinants of individual level characteristics, in type 3 organizational characteristics are examined in relation to characteristics of subunits or groups, and in type 4 selected

organizational characteristics are conceptualized as determining other factors of organizational functioning and the study is called a "pure organizational" study. This study falls under type 4, which is the pure organizational type where conceptualization is related to organizational characteristics and functioning, accordingly sampling is considered at an organizational level. Hence, 384 responses are needed for generalization. A sample size of more than 384 becomes indifferent even if the population size is in millions (Ahmad & Halim, 2017). Hence, the planned sample size was a minimum of 384 responses, which should have been representative at a 95% confidence interval (Black, 2009). This confidence interval is appropriate for reaching the findings and testing the hypotheses. Also, since the sample would be statistically significant at 0.05 margin of error, the researcher would be able to either accept or reject the null hypothesis.

Additional sampling aspects were considered based on the planned data analysis mechanism which is the partial least square approach of structural equation modeling (PLS-SEM). Structural Equation Modeling is very sensitive to sampling (Hair et. al., 2013). This method requires a large sample size in order to produce acceptable results.

4.11.2 Sample Composition and Size

A population is defined as a complete set of cases from which a sample is targeted. A sample in research is the group of respondents that are targeted in the study, for example, an individual participant or an object both of which reflect a representation of the entire population (Bordens & Abbott, 2002). The technique can be referred to as sampling. According to Moser and Kalton (2001), sampling is the technique for selecting the population that forms the sample of the research. Population is the complete cases from which the sample

used for the research is drawn. According to Walliman, (2011), a sample chosen in research is part of a population. Through the technique of sampling, the researcher is able to collect smaller amount of data that is representative of the entire population under study. This ensures efficiency in conducting the data collection phase as it reduces costs and assures that the data collected is an appropriate representation of the population being studied.

To ensure that the sample is an accurate representation of the population and the researcher is able to generalize the findings to the entire population, it is important that respondents are randomly chosen. For proper sampling, the researcher considers the level of confidence at 95% (Saunders et. al., 2009); 95% of the sample as a minimum is guaranteed to match the characteristics targeted (if the given sample consisted of 100 items).

Sampling must also be appropriate for data analysis and the statistical techniques used to analyze the causal relationships and associations. According to Hair et. al. (2010), Structural Equation Modeling (SEM) is sensitive to the sample size of the data analyzed, therefore, in SEM critical dependable results must be obtained. Factors affecting the sample size that is most adequate for SEM include multivariate normality, missing data, average error of variance, and the complexity of the model. Hence, obtaining adequate sample size is critical in decreasing the impact of sampling error. Since missing data affect the sampling and the stability of the findings, the researcher has put a plan in place to avoid receiving missing data. The complexity of the model under study also affects the sample needed to generate valid outcomes that are generalizable. As explained in details in Chapter 5, the statistical power tool was used in this study.

4.11.3 Study Sample

The sample was required to meet the following screening criteria: (1) respondents need to be working at a managerial position, senior manager, CEO or Owner positions, (2) to be working in the private sector. An on-line questionnaire was created using the online survey software and questionnaire tool: SmartSurvey. The on-line questionnaire was subsequently launched to the SmartSurvey panel accessible to individuals working in the private sector in the United Kingdom (UK) (see Appendix 4). Further, steps were taken to ensure that all responses received are from individuals meeting the set criteria for this research. Two screening questions were added; one, to capture the organization of the respondent, and the second, to capture the position at which the respondent is working. This was intended to ensure that no more than a single response from any organization is captured, and that all respondents are working in the private sector at a managerial level or higher. Answers from respondents who did not meet the criteria were eliminated. Prior to the responses screening points, a total of 404 responses were received (see Appendix 4). Applying the screening of responses resulted in the retention of 391 cases. Further analysis and screening of the data has retained 314 responses for hypotheses testing. This is explained in more details in the upcoming sections of this chapter.

4.12 Data Collection and Data Analysis

4.12.1 Data Collection

The survey measurement instrument was written to an on-line tool and the link to the survey was distributed through posting on the research platform SmartSurvey where managers, senior managers, and CEOs/Owners were invited to participate. The targeted

population was approached through an on-line link to the survey measurement tool. On the first page of the questionnaire, the researcher clarified the aim of the study and explicitly stated that all responses will be treated with strict confidentiality. A minimum of 384 responses were targeted, and a total of 402 responses were obtained. Applying screening on these initial responses to ensure all are within the target group resulted in the retention of 391 cases. Further analysis and screening of the data has retained 314 responses for hypotheses testing. The final sample size is adequate to test the hypotheses, this is explained in more details in Chapter 5. The 314 responses were collected from Consultancy Services Organizations (16%), Architecture & Design (15%), Medical and Pharmaceuticals (13%), Legal Services (12%), Computers, Electronics and Technology (10%), Knowledge and Information (10%), Engineering (9%), Financial Services (9%), and Scientific Research and Development (4%).

4.12.2 Data Coding

The data collected is coded prior to initiating the analysis through the statistical software; SPSS and smart PLS. Coding is assigned for the constructs/variables and the items under each construct/variable. The constructs/variables were assigned the following coding: Effective Talent Management PracticesI), Agile Creativity (CR), Market Capitalizing Agility (MC), Operational Adjustment Capacity (OR), Agile Innovation (IA), and Absorptive Capacity (AC). Items under each section are coded starting with the assigned code for the constructs/variables followed by a number depending on the sequence such as follows; item one under the Effective Talent Management construct is assigned the following code TM1, item two under the Effective Talent Management construct is assigned TM2, and so on and so

forth. Questions related to organizational size are coded as follows: organization size (less than 500 employees, 1), (500-1000 employees, 2), and (more than 1000 employees, 3).

Questions related to organizational age are coded as follows: organizational age (less than 5 years old, 1), (5-10 years old, 2), and (more than 10 years, 3).

4.12.3 Data Analysis

Multivariate analysis employing Structural Equation Modeling is used for advanced statistical analysis. Descriptive statistics analysis is executed to produce a summary of the data collected including frequency, percentages, mean, and standard deviation. Cronbach's alpha was measured in order to assess the internal consistency for each construct and hence to evaluate the reliability of the instrument. Convergent and Discriminant Validity was conducted for Construct Validity as recommended by Hair et. al. (2010). Factor loadings was measured and values above 0.708 were considered appropriate as suggested by Hair et. al. (2019). Convergence was measured and values of 0.50 or more were considered as appropriate values (Hair et. al., 2006). Discriminant Validity was assessed through extracting the average variance extracted values for two constructs and comparing the average squared correlations or coefficients of two constructs. The value of a construct being different from the values of other constructs in the questionnaire tool indicates Discriminant Validity. According to Hair et. al. (2010) and Fornell and Larcker (1981), discriminant validity values are considered appropriate upon comparing the value of the square root of the average variance extracted which should be higher than the average of squared correlations. According to Hair et. al. (2010), a construct is said to have high discriminant validity when the constructs represent a defined phenomenon that other constructs are not measuring. Further, the heterotrait-monotrait

ratio of correlations (HTMT) test was conducted to further ensure the discriminant validity of the constructs.

As the unit of generalization in this research is the organization, the unit of analysis of all variables is the organization level. A representative sample was selected according to the best statistical practices as explained earlier in this Chapter.

4.12.4 Structural Equation Modeling (SEM) Partial Least Squares (PLS-SEM).

The design of the questionnaire allowed for data analysis to be conducted through structure equation modeling (SEM). The SEM is able to address the research questions and hypotheses taking into consideration multidimensional associations and highly interrelated relationships; i.e. more than two variables are analyzed at the same time (Gallagher, Ting & Palmer, 2008). According to Weston and Gore (2006), SEM is a combination of factor analysis and path analysis.

The fundamental purpose of SEM is to conclude whether or not the hypothesized model is supported by the data collected in the research. Descriptive Statistics, and Reliability and Validity analysis was conducted through the Statistical Package for Social Sciences (SPSS) software. Partial Least Square (PLS Path Modeling) was conducted through SmartPLS software. Measurement and structural models through PLS-SEM allow for the researcher to study how fit the observed variables represent the latent variable, and explore the degree of interrelationships between the latent constructs. The reasons for conducting Partial Least Squares Structural Equation Modeling are explained in details in Chapter 5.

4.14 Ethical Considerations

The Research Ethics Committee at The British University in Dubai has reviewed and approved the research protocol of this study prior to the initiation of the research and data collection stage (see Appendix 2). There was strict confidentiality and consent in dealing with the responses received. Anonymity was ensured. The researcher was ready to seek any approvals required to be obtained prior to data collection and to be discussed with the Research Ethics Committee prior to the commencement of data collection. The researcher was prepared to address any potential adverse effects on respondents. The participants were informed on the beginning section of the questionnaire of the purpose of the study, and that all responses are kept anonymous and dealt with in a strictly confidential manner (see Appendix 3).

4.15 Chapter Summary

In the fourth chapter, the research methodology should aid in achieving the objectives and purpose of this research. The research methodology adopted defines in details the objectivist ontology perspective, and a positivist epistemology stance of this research. It further explains the deductive, quantitative research approach adopted in this research. The survey strategy that will be followed in this research follows the cross-sectional approach and uses a questionnaire tool designed specifically for collecting the data that will address the objectives and research questions of this study. The deductive research is adopted to explain the relationship between Effective Talent Management practices and Competitive Organizational Agility. The questionnaire items covering the main six constructs of this study are adapted from the literature and are validated. The chapter also presents the data analysis

conducted, reliability and validity, the sampling and sample selection, and the pilot study. In addition to ethical considerations which are discussed at the end of the chapter.

Chapter 5: Quantitative Data Analysis, Results, and Discussion

5.1 Introduction

The aim of this chapter is to answer the research questions presented in this study. The statistical analyses conducted in examining the impact of Effective Talent Management Practices on Competitive Organizational Agility is presented. The sample size and sample profile are discussed. The characteristics of respondents is presented, followed by preliminary assessment and validation of the measurement model. The structural model assessment is then presented. The chapter concludes with a representation of the hypothesis stating which are supported and which are not supported.

This chapter specifically presents the detailed analysis of the data collected for the purpose of hypothesis testing. The analysis performed through PLS-SEM analysis that includes the assessment of the Measurement and Structural Models. The measurement model assessment confirms the reliability and validity of the constructs. The structural model assessment ascertains the significance of the hypothesized relationships. A number of hypotheses were proposed to assess the relationship of predictors on the outcomes, these are as follows:

H1 Talent management will have a positive relationship with Market Capitalizing Agility.

H2 Talent Management will have a positive relationship with Agile Innovation.

H3 Talent Management will have a positive relationship with Agile Creativity.

H4 Talent management will have a positive relationship with Operational Adjustment Capacity.

H5 Talent management will have a positive relationship with Absorptive Capacity.

H6 Operational adjustment capacity will have a positive relationship with Market Capitalizing Agility.

H7 Operational adjustment capacity will have a positive relationship with Agile Innovation.

H8 Operational adjustment capacity will have a positive relationship with Agile Creativity.

H9 Absorptive capacity will have a positive relationship with Market Capitalizing Agility.

H10 Absorptive capacity will have a positive relationship with Agile Innovation.

H11 Absorptive capacity will have a positive relationship with Agile Creativity.

H12 Operational Adjustment Capacity mediates the relationship between Talent Management and Market Capitalizing Agility.

H13 Operational Adjustment Capacity mediates the relationship between Talent Management and Agile Innovation.

H14 Operational Adjustment Capacity mediates the relationship between Talent Management and Agile Creativity.

H15 Absorptive Capacity mediates the relationship between Talent Management and Market Capitalizing Agility.

H16 Absorptive Capacity mediates the relationship between Talent Management and Agile Innovation.

H17 Absorptive Capacity mediates the relationship between Talent Management and Agile Creativity.

5.2 Sampling Size Requirement

In using PLS, the required minimum sample size for analyzing data is at least ten times the largest number of formative indicators used to measure a construct or ten times the largest number of structural paths directed at a particular construct in the structural model (Hair, Ringle & Sarstedt, 2011). In the conceptual model illustrated in Chapter 3 of this thesis, there is no construct measured by formative indicators in the model, all constructs are reflective. Hence, the second requirement is followed. Accordingly, what is considered in this study when calculating the minimum sample size needed are the arrows (in the structural model) pointing towards each of the following constructs Operational Adjustment Capacity, Absorptive Capacity, Market Capitalizing Agility, Agile Innovation, and Agile Creativity. The number of items within each construct does not play a role in sample size calculation. The largest number of paths pointing to a construct in the study's structural model are three, which represent the relationships between talent management, absorptive capacity, operational adjustment capacity with creativity agility, market capitalizing agility, and innovation agility respectively. Therefore, based on the ten times rule of thumb, the minimum required sample size is 30. Since applying the rule of thumb provides an approximate estimation of the minimum sample size required, the application of this rule of thumb without conducting the power analysis will yield low power of hypothesis testing (Marcoulides and Saunders, 2006). This research follows the guidelines suggested by Cohen (1992) for the recommended sample size to detect R^2 values for a statistical power of 80%. Table 5 indicates the sample size recommendation to detect R^2 values for a statistical power of 80%.

Table 5

Sample Size Recommendation in PLS for a Statistical Power of 80%

Maximum number of arrows pointing at a construct	significance level				significance level				significance level			
	1%				5%				10%			
	Minimum R ²				Minimum R ²				Minimum R ²			
	0.1	0.25	0.5	0.75	0.1	0.25	0.5	0.75	0.1	0.25	0.5	0.75
2	158	75	47	38	110	52	33	26	88	41	26	21
3	176	84	53	42	124	59	38	30	100	48	30	25
4	191	91	58	46	137	65	42	33	111	53	34	27
5	205	98	62	50	147	70	45	36	120	58	37	30
6	217	103	66	53	157	75	48	39	128	62	40	32
7	228	109	69	56	166	80	51	41	136	66	42	35
8	238	114	73	59	174	84	54	44	143	69	45	37
9	247	119	76	62	181	88	57	46	150	73	47	39
10	256	123	79	64	189	91	59	48	156	76	49	41

Note. Cohen 1992

The sample size requirement for detecting the minimum R² value of 0.25 from Table 5 follows these criteria (Hair et. al., 2014):

1. Significance level of 5%
2. Statistical Power of 80%
3. Maximum number of arrows pointing at a construct (in the conceptual model)
4. Measurement models with loadings above 0.70 (the common threshold)

As stated earlier, in the conceptual model in this thesis, the maximum number of arrows pointing to a construct is three. Considering the maximum number of arrows pointing to a construct and the loadings of the measurement models on their intended constructs, the

sample size required to obtain a statistical power of 80% for detecting R^2 value of 0.25 with a 5% chance of probability error is 59. All measurement items in this thesis show loadings between 0.70 – 0.90 on their intended constructs. Therefore, all four requirements for the statistical power analysis are achieved. In testing the hypotheses presented in this research, the sample was drawn from the UK knowledge-based organizations operating in the private sector. According, to gov.uk, the number of private sector business at the beginning of 2021 were 5.6 million businesses. Given that the sample size that was retained for analysis in this research is 314, the minimum requirements to conduct analysis in PLS are fulfilled according to the ten times rule of thumb and power analysis.

5.3 Organizational Profile of Respondents

The organizational profile for the final 314 cases is shown in Table 6. The respondents are all at senior and managerial positions; 27.7% are CEOs, Managing Directors, or Owners, 28.3% are Senior Managers, and 43.9% are middle managers/supervisors. The size of the organizations ranged between 51.3% employing less than 500 employees, 22.6% employing 500-1000 employees, and 26.1% employing more than 1000 employees. The sample mainly constituted organizations that are more than 10 years old (59.2%), while 30.3% are organizations that are 5-10 years old, and 10.5% are organizations that are less than 5 years old.

Table 6*Organizational Profile of Respondents*

Organizational Profiling		Frequency (n=314)	Percentage (%)
Age of Organization	Less than 5 years old	33	10.5
	5-10 years old	95	30.3
	More than 10 years old	186	59.2
Size of Organization	Less than 500 employees	161	51.3
	500 – 1000 employees	71	22.6
	More than 1000 employees	82	26.1
Position of Respondent	CEO / Managing Director / Owner	87	27.7
	Senior Management	89	28.3
	Middle Management / Supervisory Level	138	43.9

5.4 Preliminary Data Evaluation

Preliminary data evaluation was conducted in preparation for the assessment of the measurement and structural models. Initially, the data was inspected visually where responses with the same answer selection for all questionnaire questions (i.e. neutral) were eliminated from the collected responses. There were no errors or missing data as the data was collected through an online questionnaire tool, all responses were answered through a multiple-choice selection, and all questions were mandatory. This was followed by tests for violations of statistical assumptions including normality and outliers (Hair et. al., 2007; Pallant, 2001).

5.4.1 Normality and Outliers

Using SPSS, the data was assessed for normality by obtaining the skewness and kurtosis values. The skewness value relates to the symmetry of the data distribution, whereas the kurtosis value represents the peakedness of the distribution (Pallant, 2001). The absolute value of skewness 1.0 or lower indicates that the data is normally distributed. According to Collier (2020), the acceptable kurtosis range is between -10 to +10 for the data to be considered normally distributed. The results, presented in Table 7, of both skewness and kurtosis are in an acceptable range for the data to be considered normally distributed.

Table 7

Skewness and Kurtosis

Constructs	Items	Skewness	Kurtosis	
Talent Management	TM1	-0.339	-0.508	
	Talent Attraction	TM2	-0.749	0.249
	TM3	-0.429	-0.616	
	TM4	-0.474	-0.594	
	Talent Retention	TM5	-0.239	-0.916
	TM6	-0.089	-0.949	
Agile Creativity	CR1	-0.892	0.689	
	CR2	-0.789	0.800	
	CR3	-0.506	-0.105	
	CR4	-0.595	-0.044	
Operational Adjustment Capacity	OR1	-0.697	-0.062	
	OR2	-0.403	-0.441	
	OR3	-0.421	-0.377	
Market Capitalizing Agility	MC1	-0.629	-0.003	

Agile Innovation		MC2	-0.542	-0.248
		MC3	-0.543	-0.265
		IN1	-0.425	-0.304
		IN2	-0.520	-0.271
		IN3	-0.518	-0.119
		IN4	-0.393	-0.171
		IN5	-0.402	-0.470
		IN6	-0.449	-0.348
		IN7	-0.491	-0.323
		IN8	-0.469	-0.176
		AC1	-0.521	-0.121
	Acquisition	AC2	-0.603	-0.052
		AC3	-0.755	0.270
		AC4	-0.724	0.274
Absorptive Capacity	Assimilation	AC5	-0.732	0.282
		AC6	-0.557	-0.336
		AC7	-0.576	-0.061
		AC8	-0.701	0.194
	Exploitation	AC9	-0.662	0.057
		AC10	-0.734	0.369
		AC11	-0.755	0.075
		AC12	-0.513	-0.036
	Transformation	AC13	-0.787	0.438
		AC14	-0.731	0.329

Using SPSS, the data was evaluated for outliers by obtaining Boxplots for all items (see Appendix 5). A total of 33 cases were identified as outliers. These cases were removed

from the data set. Further screening of the data has resulted in a final 314 cases obtained for data analysis and hypothesis testing.

5.4.2 Common Method Bias

This study adopted a self-reported, single informant technique in data collection, it is crucial to assess the data for common method bias (Lee & Podsakoff, 2003). Initially, prior to data collection, a few measures were considered in an attempt to avoid bias in the data. This included setting all survey questions as mandatory, ensuring the survey reaches the targeted audience, and assuring respondents that all responses are kept confidential. After conducting data collection, the data was assessed for potential common method bias using two approaches; the first is the Harman's one factor test (Podsakoff & Organ, 1986), and the second is Multicollinearity testing (Koch, 2015).

The Harman's one factor test was conducted in SPSS. Factor analysis with the constructs was performed. The number of factors were not constrained and an unrotated principal component analysis (PCA) was performed. If a factor emerges with more than 50% of the explained variance then the data is possessing common method bias. Six factors in this research are presented and the most co-variance explained by one factor is 37.9%. This indicates that common method bias is not a likely contaminant of research results.

Multicollinearity tests were conducted in smartPLS using the value of VIF. The occurrence of a VIF value greater than 3.3 is proposed as an indication of a pathological collinearity and also an indication that the model can be contaminated by common method bias. Therefore, if VIF values at the item levels resulting from a full collinearity test have the value of 3.3 or lower, the model can be considered free of common method bias (Kock, 2015).

Also, when assessing the VIF values considering each latent variable and how it is impacted with other latent variables, a value of 3.3 or lower indicates that the model can be considered free of common method bias (Kock, 2015). In this research, the VIF values for each item was check. All values are less than 3.3. Furthermore, collinearity tests were conducted to assess VIF values considering how each latent variable is impacted by all the other latent variables. All VIF values obtained were less than 3.3 (see Table 28 in Appendix 6) further supporting that common method bias is not likely a contaminant of research results.

5.5 Measurement Items

The conceptual framework for this thesis is composed of six constructs; two of which are reflective-reflective higher order constructs, and four of which are reflective lower order constructs (as indicated in Table 8). The measurement items for all constructs are adapted from previously validated constructs. The advantage of reusing previously validated scales is that the reliability and validity testing of the measures has already been established, giving the researcher confidence on the quality of the measurement instrument (Bryman & Bell, 2007). According to Straub (1989), it is advisable to reuse previously validated scales. Furthermore, Straub (2004) state that the homological validity of constructs can be established when tested and validated with a variety of samples.

Table 8*Constructs and Measurement Items*

Constructs	Operationalization	Constructs Codes	Items Codes
Talent Management	Higher Order Reflective	TM	
Talent Attraction	Lower Order Reflective	TMA	TM1, TM2, TM3
Talent Retention	Lower Order Reflective	TMR	TM4, TM5, TM6
Market Capitalizing Agility	Lower Order Reflective	MCA	MC1, MC2, MC3
Agile Creativity	Lower Order Reflective	CR	CR1, CR2, CR3, CR4
Agile Innovation	Lower Order Reflective	IA	IN1, IN2, IN3, IN4, IN5, IN6, IN7, IN8
Operational Adjustment Capacity	Lower Order Reflective	ORC	OR1, OR2, OR3
Absorptive Capacity	Higher Order Reflective	AC	
Acquisition	Lower Order Reflective	ACAQR	AC1, AC2, AC3
Assimilation	Lower Order Reflective	ACASM	AC4, AC5, AC6, AC7
Exploitation	Lower Order Reflective	ACEXPT	AC8, AC9, AC10, AC11
Transformation	Lower Order Reflective	ACTRM	AC12, AC13, AC14

All constructs were evaluated for reliability and validity as part of the measurement model assessment. This was conducted prior to performing the assessment of the structural model.

5.6 Data Analysis

5.6.1. *Structural Equation Modelling (SEM)*

Structural Equation Modeling (SEM) is a type of multivariate analysis technique employed to explore direct and indirect relationships between one or multiple independent variables and one or multiple latent variables (Gefen et. al., 2000). Structural Equation Modeling is more advantageous than first generation techniques such as principal component analysis, multiple regression, factor analysis, or canonical correlation analysis for example. Structural Equation Modeling allows for a number of multivariate statistical analyses to be conducted such as regression analysis, path analysis and factor analysis (Gefen et. al., 2000; Urbach & Ahlemann, 2010). SEM allows the assessment of interplay between theory and data (Chin, 1998a). Structural Equation Modeling assesses the hypothesized structural linkages among latent variables (constructs) and also the linkages that exist between a construct and its representative measures (add reference). Structural Equation Modeling allows researchers to test the structural model and to evaluate the overall fit of a model (Chin, 1998b; Gefen et. al., 2000). Researchers are able to use Structural Equation Modelling to assess the following: (1) model the relationship between multiple predictors and criterion variables; (2) construct unobservable latent variables; (3) model the errors in measurement for observed variables; and, (4) statistically test a priori and measurement assumptions against empirical data (Chin, 1998a). Two types of SEM exist; the Covariance-Based SEM (CB-SEM) and the Partial Least Squares-SEM (PLS-SEM).

5.6.2 Rules for Selecting CB-SEM or PLS-SEM

Several factors guided the researcher's selection between CB-SEM and PLS-SEM (Hair et. al., 2011). According to Hair et. al. (2011), the selection between CB-SEM and PLS-SEM can be made based on a number of factors including the objectives of the research, the specification types of the measurement model, the modelling of the structural model, the characteristics of the data and model evaluation.

CB-SEM can be used if the research objective is to test or confirm a theory. Testing a theory requires the ability to understand to what extent a theoretical model fits the observed data (Barclay et. al., 1995). Also, CB-SEM can be used for modelling when the objective is to minimize the covariance matrix (Barclay et. al., 1995). On the other side, PLS-SEM is appropriate where the research objective is prediction and theory development. In this type of modelling, the researcher aims to determine the best predication of relationships between variables and the main purpose is to maximize the amount of covariance between latent variables in order to increase the interpretation of the model (Sosik et. al., 2009).

CB-SEM is limited to research models that use reflective constructs. According to Chin (1998b), utilizing CB-SEM for research employing formative constructs would lead to the inability to explain the covariance of all indicators. On the other hand, PLS-SEM can be utilized to analyze research models constituted of both reflective and formative constructs (Chin, 1998b). PLS-SEM allows researchers to use reflective, formative, or the combination of both reflective and formative constructs at the same time.

When utilizing CB-SEM, a set of assumptions need to be met before proceeding with the analysis. These assumptions include the assessment of: 1) data multivariate normality, 2) observation independence, and 3) variable metric uniformity (Sosik et. al., 2009).

Furthermore, CB-SEM requires the data to have a normal distribution and a large sample size. According to Hair et. al. (2011), failure to meet any of these assumptions will lead to inaccurate CB-SEM results. On the other hand, when utilizing PLS-SEM, the researcher is able to analyze data with non-normality distribution. Furthermore, data normality is not a requirement when utilizing PLS-SEM as PLS-SEM employs standardization techniques that transform non-normally distributed data into data that adheres to the central limit theorem (Beebe et. al., 1998).

Moreover, PLS-SEM's main purpose is to test and/or predict the theoretical model that is suggested based on the literature and not to test which alternate model fits the data better (as is the case when utilizing CB-SEM) (Sosik et. al., 2009).

5.6.3 Partial Least Squares (PLS)

An econometrician named Herman Wold originated Partial Least Square (PLS) in the 1970s (Chin, 1998b). PLS includes alternating least squares algorithms, which extend principal component and canonical correlation analysis (Henseler et. al., 2009). As explained by Henseler et. al. (2009), the path of PLS models are applied to two sets of linear equations i.e. the measurement model (i.e. the outer model) and the structural model (i.e. the inner model). The measurement model specifies the relationships between latent variables, whereas the structural model specifies the relationships between a latent variable and its manifest variables (items).

PLS algorithm is a sequence of regressions related to weight vectors involving a number of stages including 1) iterative estimation of latent variable scores that are repeated until convergence is reached, the iterative procedure includes outer estimation of latent

variable scores, estimation of inner weights, inner approximation of latent variable scores, and estimation of the outer weights, 2) estimation of outer weights/loading and path coefficients, 3) estimation of location parameters (Henseler et. al., 2009).

This dissertation follows an established analysis criteria that utilizes the Partial Least Square-SEM (PLS-SEM) technique as the statistical method used to estimate the research model. This decision is guided by a number of inputs: 1) the analysis in this dissertation is not to involve the measurement of model invariance, but rather the purpose is to predict factors impacting Talent Management and Competitive Organizational Agility, 2) the research model is complex including a number of latent variables, 3) the purpose is to assess the relationships according to prior theoretical knowledge, and PLS-SEM allows for the evaluation of correlations between residuals and their effects on the model.

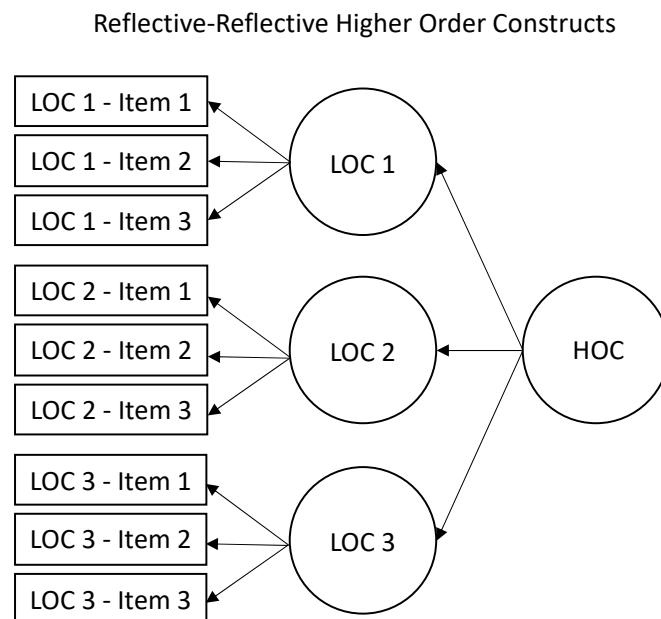
5.7 Assessing Measurement and Structural Models using Partial Least Square

The model in this thesis, is a Hierarchical Component Model (HCM) also known as higher-order constructs. HCM refers to a more general construct that is measured at a higher level of abstraction, while simultaneously assessing all sub-components. Such models provide a framework to model a construct on a more abstract dimension referred to as higher-order components and its more concrete subdimensions referred to as lower-order components. Hence, by identifying lower-order components, HCM covers the core traits of a more general conceptual variable of interest (Hair et. al., 2018). Higher-order constructs reduce the number of path model relationships, therefore contributing to model parsimony (i.e. simple with great explanatory predictive power). Also, higher-order constructs enhance the preciseness of testing (i.e fidelity) and minimizes the variety of information (i.e. bandwidth).

When using higher-order constructs, the relationship between the higher-order components and the lower-order components has to be identified (Wetzels et. al., 2009). Such a relationship can be reflective or formative. According to Cheah et. al. (2019), Ringle et. al. (2012), and Becker et. al. (2012), there are four types of higher-order constructs. These are reflective-reflective (Type I), reflective-formative (Type II), formative-reflective (Type III), and formative-formative (Type IV). Figure 5 illustrates the type of higher-order constructs used in this thesis; the reflective-reflective type (Type I).

Figure 5

Reflective-Reflective Higher Order Constructs



In analyzing hierarchical component models a number of methods can be applied. According to Sarstedt et. al. (2019), Hair et. al. (2018), and Ringle et. al. (2012), the most prominent approaches are the repeated-indicators approach or the two-stage approach. In this thesis, the disjoint two stage approach was used. In the first stage, the model connecting all the lower order components (endogenous and exogenous constructs) was created. Figure 6

demonstrates the lower order components model. The initial model assessment focuses on the reflective measurement of the lower order components. In the second stage, the latent variables of the lower order components from the first stage are used to create and assess the higher order model. To conduct this second step, the scores of the lower order components of the higher order constructs were added as new variables to the dataset. The evaluation of stage two is initiated with an assessment of the reflective measurement model of the higher order component. The model created for stage two is in Figure 7. In doing so Cronbach's alpha, Composite Reliability, AVE and Discriminant Validity need to be assessed. This is followed by an assessment of the structural model.

Figure 6

Lower-order Components Model of the Disjoint Two-Stage Approach

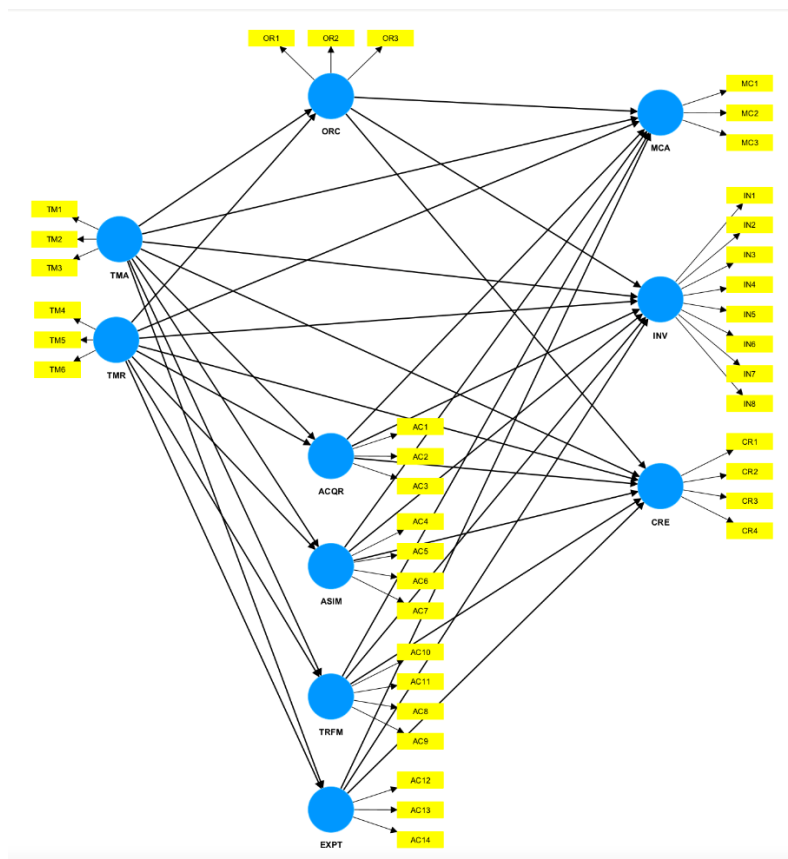
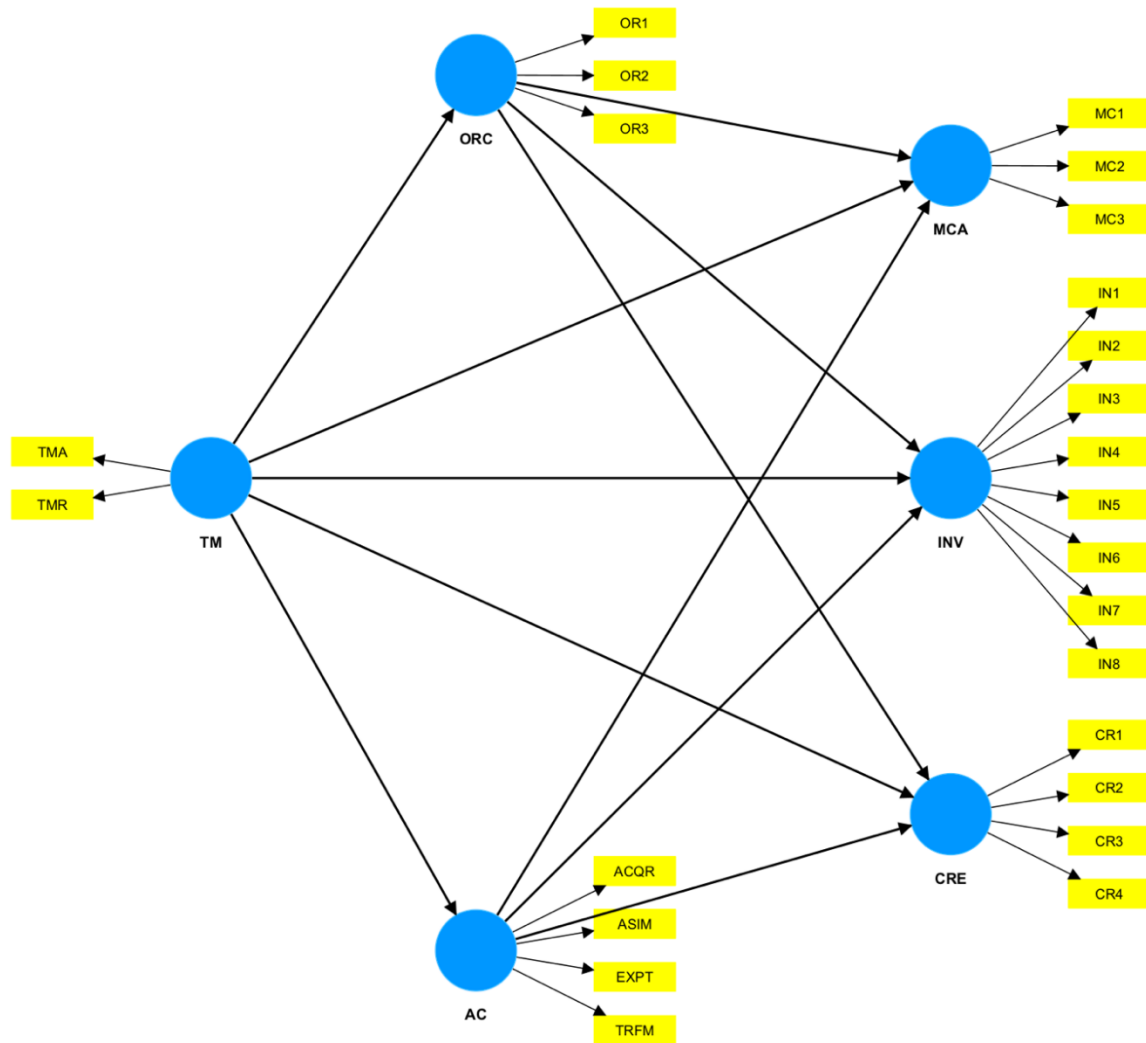


Figure 7

Higher-Order Components Model of the Disjoint Two-Stage Approach



Further the research model was evaluated following a two-step process. First, the measurement model was evaluated, then, the structural model was assessed. Steps are followed to confirm model validation where both the measurement and structural models are assessed to ensure their fit within the quality criteria for empirical research as described by Urbach and Ahlemann (2010). And since this model is a hierarchical component model

composed of higher (second) order constructs and lower (first) order constructs, the reliability and validity, and discriminant validity was assessed for both the lower order components and the higher order components.

As the constructs utilized in the research model are reflective, internal consistency, construct reliability, convergent validity, and discriminant validity are utilized to ensure validation (Lewis et. al., 2005; Straub et. al., 2004). In PLS-SEM, the presence of convergent validity and discriminant validity establish construct validity. To assess the structural model, a number of tests were employed including significance and relevance for path coefficients, Q2, PLS predict.

5.8 Assessment of the Measurement Models (Outer Model)

The quality of the constructs in the study is evaluated based on the assessment of the measurement model. The assessment of the quality criteria starts with evaluation of the factor loadings which is followed by establishing the construct reliability and construct validity.

In assessing the measurement model, all possible outer and inner links were illustrated in SmartPLS software (Figure 8). The assessment then followed the steps recommended by Becker, Klein and Wetzels (2012). Two latent variable constructs (Talent Management and Absorptive Capacity) are specified as higher order (second order) reflective-reflective constructs in a hierarchical component model. Four latent variable constructs (Operational Adjustment Capacity, Innovation Agility, Creativity Agility, and Market Capitalizing Agility) are specified as lower order (first order) reflective constructs.

As indicated, the disjoint two-stage approach was employed for the hierarchical component model evaluation. By applying this approach, the original reputation model was first created and estimated as displayed in Figure 8, in which all the antecedent constructs to

the lower-order components are connected, as well as the lower order components with the endogenous constructs are connected. In this approach, the model assessment first focuses on the reflective measurement models of the lower-order components, which should satisfy all the relevant assessment criteria (i.e. internal consistency, convergent validity, and discriminant validity).

In stage two, the latent variable scores of the lower order components obtained from stage one to create and estimate the stage two model were used (Figure 9). Therefore, for this purpose the scores of the lower order components were located and added as new variables to the dataset. The evaluation of stage two started with focusing on the reflective measurement model of the higher-order component (Figure 9). In this thesis, the second-order constructs (Talent Management and Absorptive Capacity) are measured in a disjoint two-stage approach. Given that the second-order constructs are reflective, the mode of measurement for the disjoint approach was specified as Mode A, in which the arrows pointed from the second-order constructs into the respective indicators (first-order constructs). Figure 5 illustrates the reflective-reflective type 1 model. The legend for the indicators and measurement constructs created for the disjoint two stage indicator approach Mode A model is indicated in Table 8.

The measurement model evaluates the validity and reliability of the measures. According to Sekaran (2007), reliability shows the stability and consistency of the scale in measuring the concept while validity indicates the ability of a scale to represent the concept being measured.

Figure 8

Measurement Model - PLS Algorithm

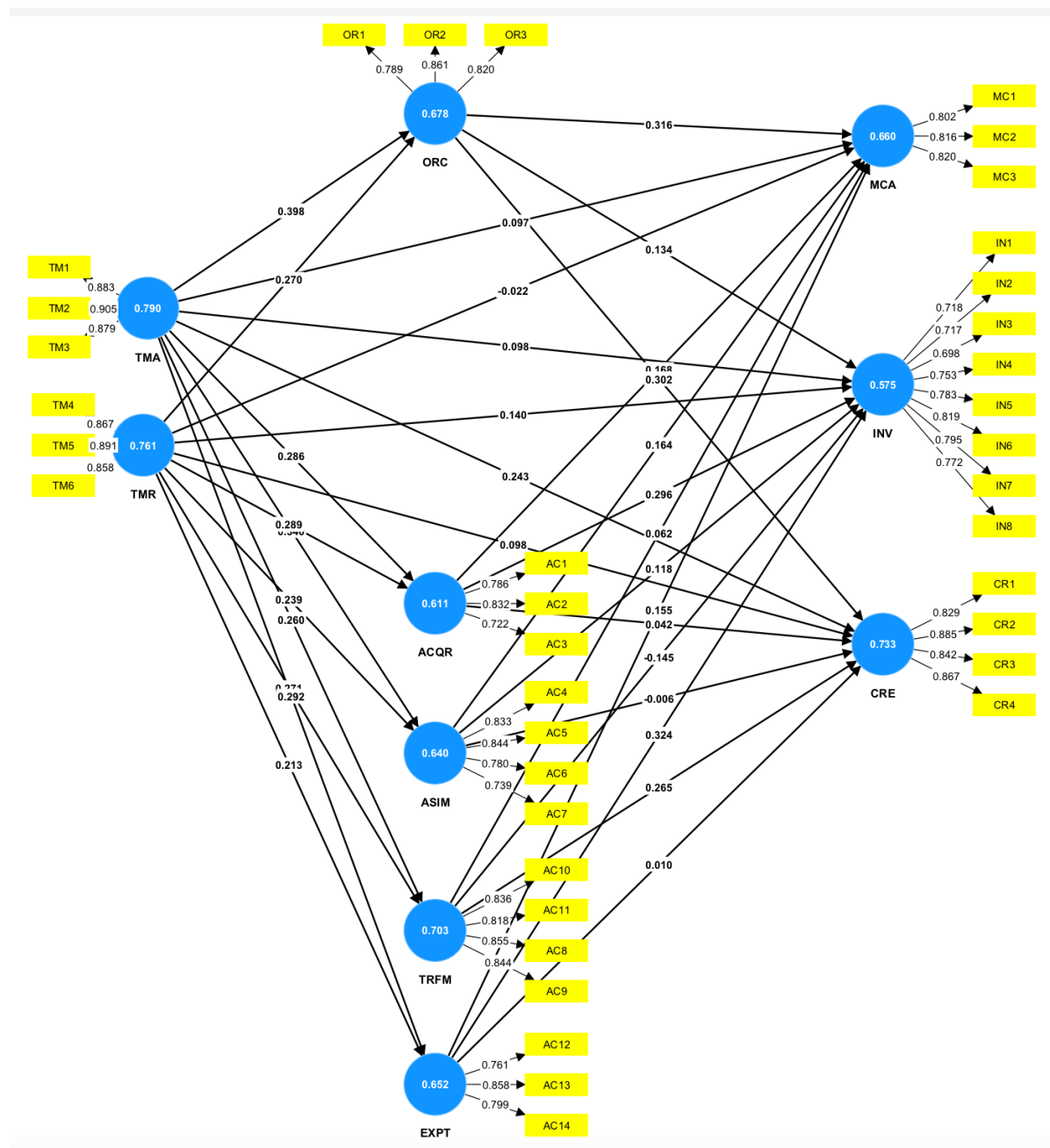
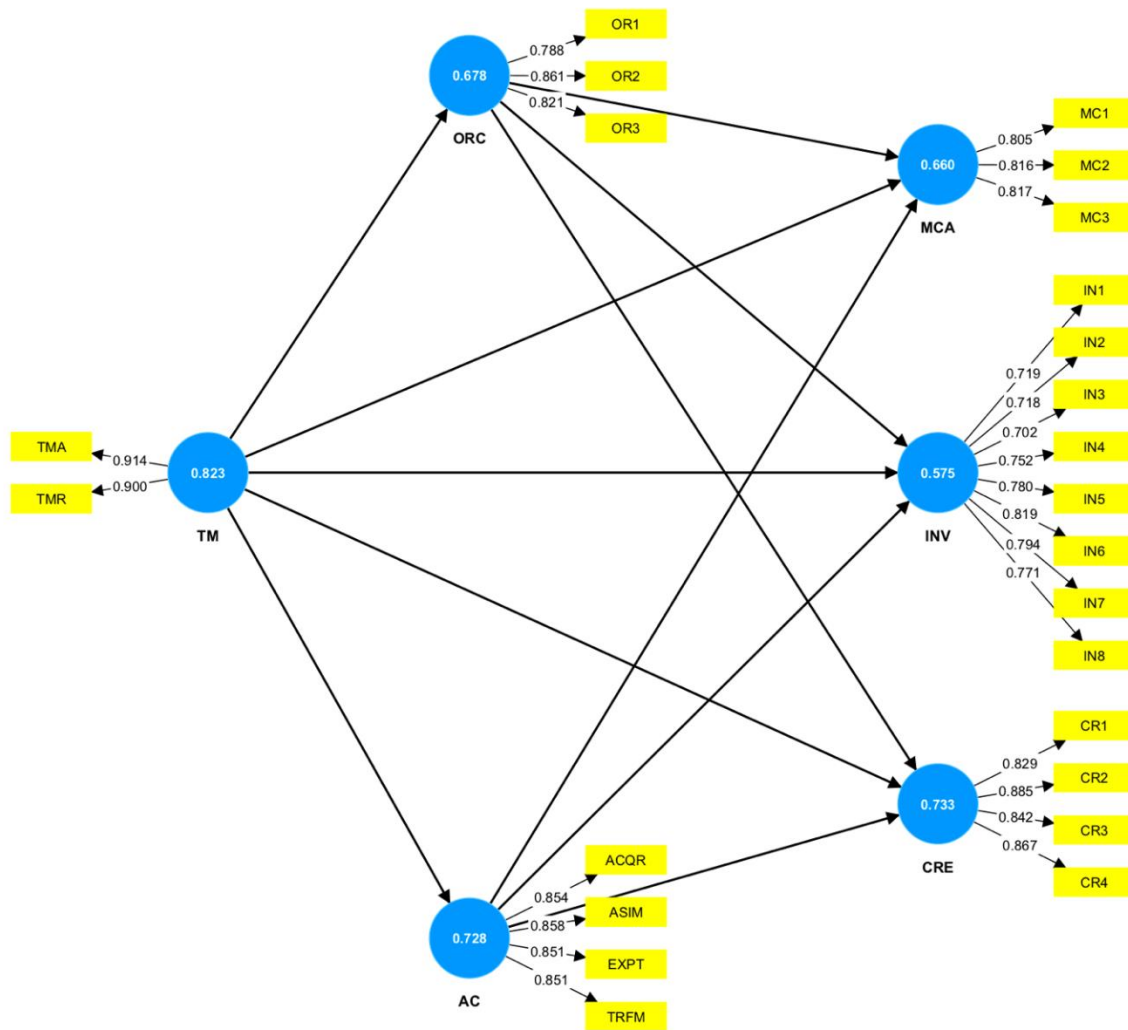


Figure 9*Structural Model - PLS Algorithm*

The measurement items representing the reflective first-order constructs in the measurement model need to demonstrate reliability, and convergent and discriminant validity. A confirmatory factor analysis (CFA) was conducted to confirm the unidimensionality of the measurement items that reflect the underlying constructs (Wilden et. al., 2013). CFA aims to validate that a set of measurement items share sufficient common variance to be considered as measurers of an intended single factor (Bagozzi & YI, 2012). CFA is used to identify and

remove measurement items that load weakly (below a set threshold) on intended constructs hence, establishing uni-dimensionality.

In this thesis, CFA is utilized rather than exploratory factor analysis (EFA) as the latter is an exploratory method utilized to identify factor structure between a set of observed variables without relying on predetermined relationships (Treiblmaier & Filzmoser, 2010). When predictions are supported by the literature about the underlying factor structure of a measure, it is more appropriate to test whether the proposed factor model fits the data by performing CFA rather than EFA (Russell, 2002). According to Bagozzi and Yi (2012), CFA is a more rigorous approach than EFA. Therefore, CFA is considered more appropriate as the researcher has relied on existing knowledge regarding the factor structure of the measures. Based on theory and/or past research, the relationships between the measures and the factors were hypothesized and statistically assessed through CFA (Treiblmaier & Filzmoser, 2010).

5.8.1 Indicator Reliability – Factor Loadings

For PLS algorithm calculation, the inner weighting option was set using the path weighting scheme. The maximum number of iterations was 300. The path weighting scheme takes into consideration the direction of the relationships specified in the models (Vinzi, Trinchera and Amato, 2010), hence it was used in this thesis rather than the factorial and centroid weighting scheme. From this technique, the factor loadings for the measurement items were determined.

The factor loading represents the extent to which each of the items in the correlation matrix correlates with the given principal component. The range for factor loadings is from -1.0 to +1.0, the higher absolute value indicates a higher correlation of the item with the

designated factor (Pett et. al., 2003). Hair et. al. (2016) recommends a factor loading minimum value of 0.50, while other studies such as Hair, Ringle & Sarstedt (2013) suggest that item loadings should be at least 0.7 or more in order to achieve item reliability of approximately 0.5. Since loadings are correlations and the item reliability is the square of the loading, the loading value of 0.707 means that item reliability of 0.5 is achieved indicating that 50% or more of the variance in the observed variables is due to the construct (Hulland, 1999).

Following the above-mentioned criteria for this thesis, none of the items in this study has a value less than 0.50. Factor loadings are presented in Table 9. Therefore, the original items are maintained and no items were removed. Therefore, we conclude that all items loaded on their intended constructs achieving unidimensionality as reported in Table 9.

Table 9

Factor Loading

	ACQR	ASIM	EXPT	TRFM	CRE	INV	MCA	ORC	TMA	TMR
AC1	0.786									
AC2	0.832									
AC3	0.722									
AC4		0.833								
AC5		0.844								
AC6		0.780								
AC7		0.739								
AC8				0.855						
AC9				0.844						
AC10				0.836						
AC11				0.818						

AC12	0.761		
AC13	0.858		
AC14	0.799		
CR1		0.829	
CR2		0.885	
CR3		0.842	
CR4		0.867	
IN1		0.718	
IN2		0.717	
IN3		0.698	
IN4		0.753	
IN5		0.783	
IN6		0.819	
IN7		0.795	
IN8		0.772	
OR1			0.789
OR2			0.861
OR3			0.820
MC1		0.802	
MC2		0.816	
MC3		0.820	
TM1			0.883
TM2			0.905
TM3			0.879
TM4			0.867
TM5			0.891

TM6	0.858
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5.8.2 Indicator Multicollinearity

The Variance Inflation Factor (VIF) statistic is used to assess the multicollinearity in the indicators (Fornell & Boookstein, 1982). Multicollinearity is not an issue if the value of VIF is less than 5 (Hair et. al., 2016). The VIF values for the indicators in this study are below the recommended threshold value. Table 10 presents the VIF values for the indicators in this study indicating that the VIF for each of the indicators is below the recommended threshold.

Table 10

Multicollinearity Statistics (VIF) for Indicators

	VIF
AC1	1.318
AC2	1.409
AC3	1.285
AC4	1.900
AC5	2.014
AC6	1.553
AC7	1.466
AC8	2.255
AC9	2.157
AC10	2.001
AC11	1.933
AC12	1.365
AC13	1.619

AC14	1.458
CR1	1.934
CR2	2.604
CR3	2.074
CR4	2.402
IN1	1.659
IN2	1.694
IN3	1.622
IN4	1.836
IN5	2.099
IN6	2.346
IN7	2.178
IN8	1.946
MC1	1.396
MC2	1.836
MC3	1.639
OR1	1.434
OR2	1.508
OR3	1.497
TM1	2.340
TM2	2.526
TM3	2.057
TM4	1.800
TM5	2.482
TM6	2.107

5.8.3 Construct Reliability Analysis

Reliability is referred to as the extent to which a measuring instrument is stable and consistent. The core of reliability is the ability to obtain the same results upon repeating the administration of the instrument over and over again (Mark, 1996). Two methods are commonly used for establishing reliability; these are Cronbach Alpha and Composite Reliability (CR). Composite reliability is an indication of the degree to which the indicators measure the latent construct. Cronbach's Alpha evaluates the degree to which the indicator's measure a unidimensional construct, hence, yielding low alpha values for multidimensional constructs (Gotz, Liehr-Gobbers & Krafft, 2010).

In this study, Cronbach's Alpha ranged from 0.700 to 0.896 whereas Composite Reliability ranged from 0.869 to 0.928. Both reliability measures have values over the required minimum value 0.70 (Hair et. al., 2011). Therefore, construct reliability is established. The results for the Cronbach's Alpha and Composite Reliability are presented in Table 11.

Table 11

Construct Reliability Analysis (Cronbach's alpha and Composite Reliability)

	Cronbach's Alpha	Composite Reliability
ACQR	0.682	0.824
ASIM	0.811	0.876
EXPT	0.732	0.848
TRFM	0.859	0.904
CRE	0.878	0.916
IA	0.894	0.915
MCA	0.743	0.854

ORC	0.762	0.863
TMA	0.867	0.919
TMR	0.844	0.905

5.8.4 Convergent Validity

The level to which multiple repetitions to measure the same concept are in agreement is referred to as convergent validity (Bagozzi et. al., 1991). According to Bagozzi et. al. (1991), two or more measures of the same concept are expected to covary highly if they are valid measures of the concept. In other words, convergent validity is evident when each measurement item correlates strongly with its intended theoretical construct (Gefen & Straub, 2005).

Convergent validity of the first-order constructs in this thesis was examined using Average Variance Extracted Values (AVE) as suggested by Fornell and Larcker (1981). According to Chin (2010), AVE shows the average variance shared between a construct and its measures relative to the amount of measurement error. An AVE value that is greater than or equal to 0.50 indicates that items converge to measure the underlying construct, therefore, convergent validity is established (Fornell & Larcker, 1981). This indicates that a construct explains more than 50% of the variance among the scale indicators (Hair, Ringle & Sarstedt, 2011). In this study, convergent validity results based on the AVE values indicate that all constructs have an AVE value greater than 0.50. Therefore, convergent validity is established. Table 12 shows the AVE value for each of the constructs.

Table 12*Convergent Validity*

	Average Variance Extracted (AVE)
ACQR	0.611
ASIM	0.640
EXPT	0.652
TRFM	0.703
CRE	0.733
IA	0.575
MCA	0.660
ORC	0.678
TMA	0.790
TMR	0.761

Furthermore, AVE values are an indication of the quality of the measurement model. All values for first-order constructs are between 0.611 and 0.790, greater than the cut-off value of 0.5 (Fornell & Larcker, 1981), assuring the quality of the measurement model.

5.8.5 Discriminant Validity

The degree to which measures of different constructs are different is referred to as discriminant validity. Chin (2010) describes discriminant validity as the indication of the extent to which each construct is more highly related to its own measures than with other constructs. According to Bagozzi et. al. (1991), if two or more concepts are unique, then the valid measures of each concept should not correlate too highly. Discriminant validity is achieved when two criteria are fulfilled; first, the measurement items load highly on their

intended constructs and not on other constructs (Gefen & Straub, 2005), second, the square root of the AVE is greater than the inter-construct correlations (Gefen & Straub, 2005; Fornell & Larcker, 1981). This is an indication that the shared variance between each construct and its indicators is greater than the variance shared among other constructs. In this thesis, discriminant validity was examined through the Fornell and Larcker Criterion (Correlation Matrix), the cross loadings, and the heterotrait-monotrait ratio of correlations (HTMT).

5.8.5.1 Fornell and Larcker Criterion. When comparing the square roots of the AVE for each construct with the correlations among other constructs, results in Table 13 shows that the square root of AVE as the diagonal values are larger than the off-diagonal correlations in rows and columns. Therefore, the discriminant validity at the construct level is supported. This confirms the reliability and validity of the reflective construct measures.

Table 13

Fornell and Larcker Criterion

	ACQR	ASIM	EXPT	TRFM	CRE	IA	MCA	ORC	TMA	TMR
ACQR	0.781									
ASIM	0.642	0.800								
EXPT	0.641	0.623	0.807							
TRFM	0.616	0.663	0.639	0.838						
CRE	0.533	0.529	0.516	0.616	0.856					
IA	0.676	0.599	0.669	0.505	0.470	0.758				
MCA	0.619	0.617	0.616	0.589	0.579	0.638	0.813			
ORC	0.544	0.536	0.563	0.579	0.670	0.587	0.663	0.824		
TMA	0.473	0.495	0.430	0.436	0.615	0.540	0.518	0.572	0.889	
TMR	0.474	0.459	0.402	0.440	0.551	0.535	0.452	0.527	0.646	0.872

5.8.5.2 Cross Loadings. Cross loadings assess if an item belonging to a particular construct loads strongly on its own construct and not on other constructs within the study. The results in Table 14 indicate that factor loadings of all the items is stronger on the underlying construct to which they belong instead of other constructs within the study. Hence, based on the assessment of cross loadings discriminant validity is attained.

Table 14

Cross Loadings

	ACQR	ASIM	EXPT	TRFM	CRE	IA	MCA	ORC	TMA	TMR
AC1	0.786	0.427	0.424	0.404	0.402	0.582	0.506	0.394	0.357	0.334
AC2	0.832	0.606	0.599	0.631	0.485	0.556	0.520	0.480	0.433	0.473
AC3	0.722	0.465	0.473	0.386	0.349	0.436	0.417	0.398	0.307	0.285
AC4	0.529	0.833	0.502	0.540	0.467	0.488	0.517	0.454	0.422	0.370
AC5	0.552	0.844	0.583	0.541	0.463	0.462	0.506	0.454	0.373	0.380
AC6	0.488	0.780	0.472	0.532	0.392	0.492	0.476	0.436	0.457	0.441
AC7	0.485	0.739	0.433	0.508	0.366	0.476	0.476	0.367	0.324	0.270
AC8	0.552	0.608	0.531	0.855	0.504	0.457	0.478	0.508	0.377	0.415
AC9	0.479	0.574	0.498	0.844	0.531	0.436	0.506	0.510	0.367	0.344
AC10	0.541	0.516	0.539	0.836	0.521	0.431	0.513	0.479	0.394	0.374
AC11	0.494	0.523	0.579	0.818	0.509	0.366	0.478	0.441	0.320	0.340
AC12	0.459	0.530	0.761	0.512	0.412	0.454	0.456	0.416	0.321	0.314
AC13	0.587	0.522	0.858	0.547	0.416	0.632	0.542	0.454	0.382	0.361
AC14	0.499	0.461	0.799	0.488	0.424	0.522	0.489	0.494	0.335	0.296
CR1	0.410	0.445	0.377	0.497	0.829	0.357	0.448	0.585	0.545	0.487
CR2	0.474	0.447	0.438	0.526	0.885	0.402	0.500	0.591	0.558	0.506
CR3	0.466	0.453	0.479	0.518	0.842	0.417	0.515	0.564	0.503	0.440
CR4	0.474	0.467	0.473	0.569	0.867	0.435	0.519	0.555	0.497	0.452

IN1	0.502	0.487	0.507	0.391	0.379	0.718	0.512	0.458	0.421	0.405
IN2	0.447	0.438	0.495	0.377	0.345	0.717	0.431	0.417	0.352	0.334
IN3	0.485	0.511	0.480	0.408	0.423	0.698	0.551	0.464	0.439	0.459
IN4	0.492	0.435	0.509	0.364	0.299	0.753	0.495	0.456	0.398	0.391
IN5	0.586	0.418	0.535	0.386	0.361	0.783	0.490	0.484	0.431	0.424
IN6	0.572	0.503	0.492	0.371	0.350	0.819	0.506	0.442	0.459	0.387
IN7	0.485	0.409	0.508	0.380	0.306	0.795	0.414	0.419	0.380	0.385
IN8	0.514	0.426	0.527	0.384	0.384	0.772	0.459	0.412	0.384	0.451
OR1	0.448	0.414	0.451	0.502	0.638	0.434	0.526	0.789	0.515	0.393
OR2	0.447	0.442	0.478	0.460	0.532	0.511	0.542	0.861	0.446	0.454
OR3	0.448	0.468	0.460	0.467	0.482	0.506	0.570	0.820	0.452	0.456
MC1	0.456	0.502	0.468	0.485	0.483	0.486	0.802	0.577	0.418	0.424
MC2	0.505	0.482	0.531	0.517	0.471	0.495	0.816	0.508	0.394	0.292
MC3	0.547	0.521	0.502	0.436	0.457	0.573	0.820	0.532	0.450	0.385
TM1	0.358	0.383	0.387	0.337	0.497	0.462	0.451	0.495	0.883	0.534
TM2	0.448	0.492	0.375	0.394	0.581	0.474	0.445	0.499	0.905	0.551
TM3	0.449	0.440	0.385	0.426	0.557	0.502	0.485	0.531	0.879	0.634
TM4	0.479	0.462	0.369	0.463	0.554	0.460	0.439	0.531	0.607	0.867
TM5	0.348	0.334	0.329	0.328	0.454	0.473	0.348	0.425	0.511	0.891
TM6	0.397	0.390	0.349	0.342	0.418	0.468	0.385	0.408	0.562	0.858

5.8.5.3 Heterotrait-Monotrait (HTMT). HTMT is based on the evaluation between of the correlation between the constructs. Discriminant validity is established based on HTMT ratio. Teo et. al. (2008) recommended a threshold of 0.90 or less for HTMT. Table 15 indicates the HTMT results, showing that the HTMT ratio reported is less than the recommended threshold of 0.90.

Table 15

HTMT

	ACQR	ASIM	EXPT	TRFM	CRE	IA	MCA	ORC	TMA	TMR
ACQR										
ASIM	0.859									
EXPT	0.898	0.810								
TRFM	0.791	0.794	0.808							
CRE	0.681	0.626	0.646	0.710						
IA	0.857	0.705	0.821	0.576	0.531					
MCA	0.863	0.796	0.833	0.738	0.717	0.781				
ORC	0.752	0.681	0.754	0.714	0.818	0.711	0.881			
TMA	0.605	0.586	0.538	0.501	0.702	0.611	0.645	0.702		
TMR	0.605	0.545	0.508	0.507	0.632	0.615	0.565	0.650	0.748	

5.8.6 Higher Order Model

Measurement model assessment is also conducted for the higher order model. In assessing the higher order model, construct reliability, convergent validity, collinearity, and discriminant validity has been evaluated as indicated in this section.

5.8.6.1 Higher Order Construct Reliability and Convergent Validity. Cronbach's Alpha ranged from 0.785 to 0.876 whereas Composite Reliability ranged from 0.903 to 0.915. Both reliability measures have values over the required minimum value 0.70 (Hair et. al., 2011). Therefore, construct reliability is established. The results for the Cronbach's Alpha and Composite Reliability are presented in Table 16. The convergent validity results based on the AVE values indicate that all constructs have an AVE value greater than 0.50. Therefore, convergent validity is established. Table 16 shows the AVE values for each of the constructs.

Table 16

Higher Order Constructs Reliability and Convergent Validity

	Cro'bach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
AC	0.876	0.915	0.728
TM	0.785	0.903	0.823

5.8.6.2 Higher Order Model – VIF. Table 17 presents the VIF values for the indicators indicating that the VIF for each of the indicators is below the recommended threshold of 5. Hence, multicollinearity is not an issue.

Table 17

Multi-Collinearity Statistics (VIF)

	VIF
ACQR	2.124
ASIM	2.225
EXPT	2.133
TRFM	2.193
TMA	1.717
TMR	1.717

5.8.6.3 Higher Order Model – Fornell and Larcker Criteria. The results in Table 18 show that the square root of AVE as the diagonal values are larger than the off-diagonal correlations in rows and columns. Therefore, the discriminant validity at the construct level is supported. This confirms the reliability and validity of the construct measures.

Table 18

Higher Order Model - Fornell and Larcker Criteria

	AC	CRE	IA	MCA	ORC	TM
AC	0.853					
CRE	0.642	0.856				
IA	0.720	0.471	0.758			
MCA	0.715	0.579	0.639	0.813		
ORC	0.651	0.670	0.587	0.663	0.824	
TM	0.583	0.644	0.593	0.536	0.607	0.907

5.8.6.4 Higher Order Model – HTMT. Table 19 indicates the HTMT results, showing that the HTMT ratio reported is less than the recommended threshold of 0.90.

Table 19

Higher Order Model - HTMT

	AC	CRE	IA	MCA	ORC	TM
AC						
CRE	0.733					
IA	0.811	0.531				
MCA	0.887	0.717	0.781			
ORC	0.797	0.818	0.711	0.881		
TM	0.703	0.773	0.706	0.700	0.783	

5.9 Structural Model (Inner Model)

The structural model reflects the paths hypothesized in the research model. In the structural model, the term exogenous and endogenous are referred to different constructs. An exogenous construct refers to the latent constructs that have no arrows representing the structural path relationships pointing towards. An endogenous construct refers to the latent constructs that are explained by other constructs through structural path relationships and therefore have arrows pointing towards them (Hair, Ringle & Sarstedt, 2011). In this thesis, Talent Management is a reflective second-order exogenous construct, and is the only exogenous construct in the model. All other constructs are reflective first-order (Operational Adjustment Capacity, Agile Innovation, Market Capitalizing Agility, and Agile Creativity) or reflective second order (Absorptive Capacity) endogenous constructs.

After the measurement model is validated with satisfaction, the structural model is assessed. According to Urbach and Ahlemann (2010), successful validation of the structural model supports the systematic evaluation of whether the hypotheses expressed by the structural model are supported by the data. In assessing the structural model, at least two steps are followed: (1) evaluation of each latent variable's coefficient of determination (R^2), which assesses the relationship of a latent variable's explained variance to its total variance, (2) evaluation of the path coefficient value, which predicts the strength of the relationship between two latent variables. To assess the relationship between two latent variables, path coefficients, algebraic sign, magnitude and significance must be examined.

In this thesis, the structural model is assessed based on the following steps as provided by Hair et. al. (2014):

Step 1: Assess the significance and relevance of the structural model relationships.

Step 2: Assess the level of R^2 .

Step 3: Assess the effect sizes f^2 .

Step 4: Assess the predictive relevance Q^2 .

Further analysis to assess the structural model was also conducted including:

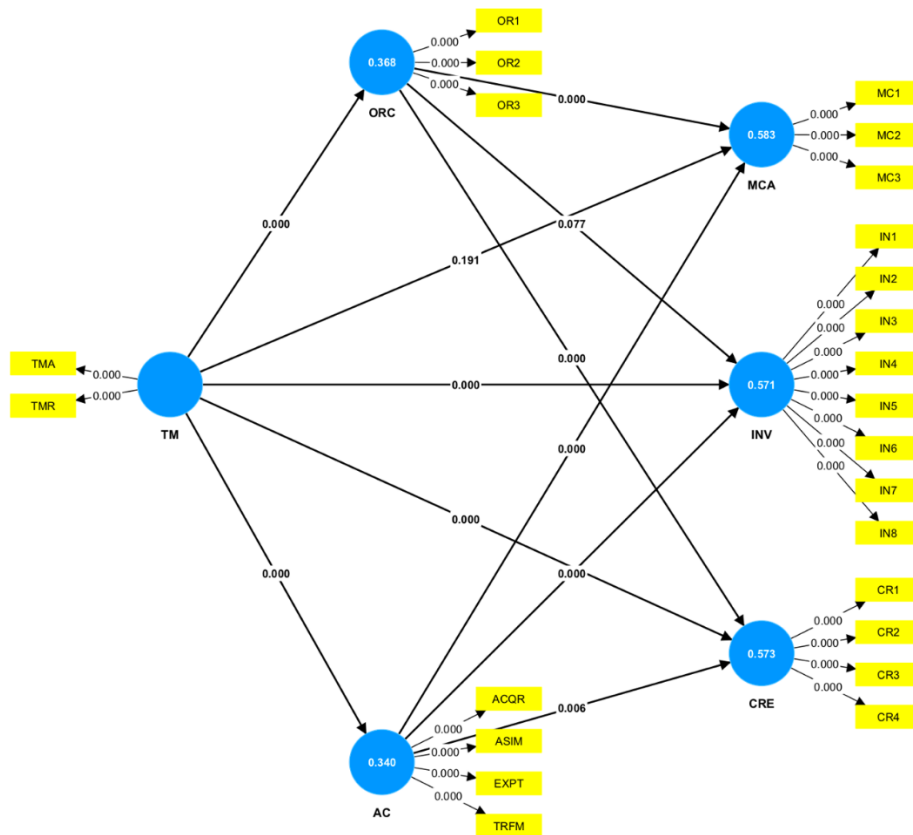
Step 5: SRMR

Step 6: Bias-corrected CI

Step 1: Assessment of the significance and relevance of the structural model relationships.

Initially, the significance and the sign and magnitude of the path coefficients were identified through the analysis of t-values and path coefficients obtained through performing non-parametric bootstrapping procedure (Peng & lai, 2012; Henseler, Ringle & Sinkovics, 2009). To assess the statistical significance of each path coefficient, the t-values were used. A critical t-value for a two-tailed test is 1.96 at the 0.05 significance level (Hair, Ringle & Sarstedt, 2011). Further, the structural model validity is taken satisfactory when the path coefficients values between latent variables are at least 0.1 (with the correct algebraic sign i.e. positive or negative) and are significant at a value of at least 0.05. To assess the goodness of fit for the model, hypotheses were tested, using the bootstrap procedure, to assess the significance of the relationship between the exogenous and endogenous constructs. The results from the bootstrapping procedure are shown in Figure 10 and detailed in Table 20.

The results indicate a strong positive significant relationship between fourteen hypotheses out of seventeen: as indicated H2, H3, H4, H5, H6, H8, H9, H10, H11, H12, H14, H15, H16 and H17, whereas, H1, H7, and H13 are not supported.

Figure 10*Structural Model - Bootstrapping*

H1 evaluates whether Talent Management has a significant impact on Market Capitalizing Agility. The results revealed that Talent Management has an insignificant impact on Market Capitalizing Agility ($\beta = 0.072$, $t = 1.287$, $p = 0.198$). Hence, H1 is not supported. H2 evaluates whether Talent Management has a significant impact on Agile Innovation. The results revealed that Talent Management has a significant impact on Agile Innovation ($\beta = 0.222$, $t = 3.776$, $p = 0.000$). Hence, H2 is supported. H3 evaluates whether Talent Management has a significant impact on Agile Creativity. The results revealed that Talent

Management has a significant impact on Agile Creativity ($\beta = 0.298$, $t = 4.351$, $p = 0.000$).

Hence, H3 is supported.

H4 evaluates whether Talent Management has a significant impact on Operational Adjustment Capacity. The results revealed that Talent Management has a significant impact on Operational Adjustment Capacity ($\beta = 0.607$, $t = 14.809$, $p = 0.000$). Hence, H4 is supported. H5 evaluates whether Talent Management has a significant impact on Absorptive Capacity. The results revealed that Talent Management has a significant impact on Absorptive Capacity ($\beta = 0.583$, $t = 13.286$, $p = 0.000$). Hence, H5 is supported.

H6 evaluates whether Operational Adjustment Capacity has a significant impact on Market Capitalizing Agility. The results revealed that Operational Adjustment Capacity has a significant impact on Market Capitalizing Agility ($\beta = 0.315$, $t = 5.072$, $p = 0.000$). Hence, H6 is supported. H7 evaluates whether Operational Adjustment Capacity has a significant impact on Agile Innovation. The results revealed that Operational Adjustment Capacity does not a significant impact on Agile Innovation ($\beta = 0.119$, $t = 1.752$, $p = 0.080$). Hence, H7 is not supported. H8 evaluates whether Operational Adjustment Capacity has a significant impact on Agile Creativity. The results revealed that Operational Adjustment Capacity has a significant impact on Agile Creativity ($\beta = 0.321$, $t = 4.357$, $p = 0.000$). Hence, H8 is supported.

H9 evaluates whether Absorptive Capacity has a significant impact on Market Capitalizing Agility. The results revealed that Absorptive Capacity has a significant impact on Market Capitalizing Agility (MCA) ($\beta = 0.469$, $t = 8.049$, $p = 0.000$). Hence, H9 is supported. H10 evaluates whether Absorptive Capacity has a significant impact on Agile Innovation. The results revealed that Absorptive Capacity has a significant impact on Agile Innovation ($\beta = 0.513$, $t = 7.173$, $p = 0.00$). Hence, H10 is supported. H11 evaluates whether Absorptive

Capacity has a significant impact on Agile Creativity. The results revealed that Absorptive Capacity has a significant impact on Agile Creativity ($\beta = 0.259$, $t = 2.795$, $p = 0.005$). Hence, H11 is supported.

The results demonstrate that the exogenous construct Talent Management positively contributes to explaining the variance in Agile Innovation, Agile Creativity, Operational Adjustment Capacity, and Absorptive Capacity. Examining the relevance of significant relationships between Talent Management with these endogenous variables, the results show that Talent Management impacts Operational Adjustment Capacity and Absorptive Capacity the highest, and with relatively comparable weights with path coefficients that are similar in magnitude ($\beta = 0.607$ and $\beta = 0.583$ respectively). Moreover, Talent Management carries comparable weights in impacting both Agile Innovation and on Agile Creativity with path coefficients that are similar in magnitude ($\beta = 0.222$ and $\beta = 0.298$ respectively). On the other hand, the results show that Talent Management does not have direct significant impact on Market Capitalizing Agility.

Operational Adjustment Capacity positively contributes to explaining the variance in Market Capitalizing Agility, and Agile Creativity. Examining the relevance of the significant relationships between Operational Adjustment Capacity with Market Capitalizing Agility and Agile Creativity, the results show that Operational Adjustment Capacity carries comparable weights in impacting Market Capitalizing Agility and Agile Creativity with path coefficients that are similar in magnitude ($\beta = 0.315$ and $\beta = 0.321$ respectively). On the other hand, Operational Adjustment Capacity does not have direct significant impact on Agile Innovation.

Absorptive Capacity positively contributes to explaining the variance in Market Capitalizing Agility, Agile Innovation, and Agile Creativity. Examining the relevance of the

significant relationships between Absorptive Capacity with Market Capitalizing Agility, Agile Innovation, and Agile Creativity, the results show that Absorptive Capacity impacts Agile Innovation the highest, then Market Capitalizing Agility, and the least Agile Creativity ($\beta = 0.513$, $\beta = 0.469$, and $\beta = 0.259$ respectively).

Table 20

Assessment of Structural Model Results

	β	STDEV	T Statistics	P Values	0.025	0.975
TM -> CR	0.298	0.068	4.351	0.000	0.160	0.428
TM -> MCA	0.072	0.056	1.287	0.198	0.038	0.181
TM -> IA	0.222	0.059	3.776	0.000	0.109	0.339
TM -> ORC	0.607	0.041	14.809	0.000	0.522	0.680
TM -> AC	0.583	0.044	13.286	0.000	0.486	0.660
ORC -> CR	0.321	0.074	4.357	0.000	0.181	0.467
ORC -> MCA	0.315	0.062	5.072	0.000	0.189	0.430
ORC -> IA	0.119	0.068	1.752	0.080	0.016	0.251
AC -> CR	0.259	0.093	2.795	0.005	0.089	0.445
AC -> MCA	0.469	0.058	8.049	0.000	0.349	0.578
AC -> IA	0.513	0.072	7.173	0.000	0.362	0.644
	R^2	$Q^2 (=1-SSE/SSO)$	SRMR			
AC	0.340	0.243	0.057			
CR	0.573	0.414				
IA	0.571	0.322				
MCA	0.583	0.377				
ORC	0.368	0.246				

Step 2: Assessment of Coefficient of Determination (R^2).

By assessing the significance and relevance of the path coefficients, the explanatory power of the structural model was determined. The explanatory power was examined by the coefficient of determination, R^2 values (Hair et. al., 2012b). R^2 represents the amount of variance in the endogenous constructs, in this thesis agile creativity, agile innovation, market capitalizing agility, operational adjustment capacity and absorptive capacity, that is explained by the model (Chin, 2010). For R^2 , a value of 0.67 is considered substantial, a value of 0.33 is considered average, and a value of lower than 0.19 is considered weak (Chin, 1998b).

The results in Table 20 show that all R^2 values are over 0.30. Referring to Table 20, the results indicate a robust model with 57.3% ($R^2=0.573$) of the variance in agile creativity, 57.1% ($R^2=0.571$) of the variance in agile innovation, and 58.3% ($R^2=0.583$) in market capitalizing agility explained by other constructs in the model namely talent management, operational adjustment capacity, and absorptive capacity. Hence, the predictive capability is established. Precisely, with respect to Chin's (1998b) recommendation, the explained variance of agile creativity, agile innovation, and market capitalizing agility can be interpreted as relatively substantial given it is in the upper range of moderate R^2 (i.e. more than 0.33 and close to 0.67).

Step 3: Assess the effect sizes f^2 .

The quality criteria of the structural model is determined through the assessment of two measures: f^2 value and the predictive relevance Q^2 (Stone-Geisser's Q^2). Initially, the effect size of the structural model is evaluated using Cohen's f^2 (Cohen, 1988). This is calculated by taking the increase in R^2 (R^2 included – R^2 excluded) relative to the proportion of variance that remains un explained in the endogenous constructs ($1 - R^2$ included) (Peng &

Lai, 2012). R^2 included and R^2 excluded are the R^2 values estimated for endogenous constructs when the exogenous construct under examination is included or excluded from the model.

Table 20 indicates the R^2 values obtained when all constructs are included as part of the model. Then the structural model is estimated again by removing the selected exogenous construct yielding R^2 excluded (Hair et. al., 2014). The effect size was then calculated for each of the significant path coefficients. The f^2 effect size measures the influence of a selected predictor construct has on R^2 values of an endogenous construct. F^2 values of 0.02, 0.15 and 0.35 respectively are considered small, medium and large effect sizes of the predictive variables (Cohen, 1988). Table 21 indicates the effect size of the relationships between the exogenous constructs and the endogenous constructs, the values indicate that talent management significantly and positively impacts agile creativity and agile innovation with a small to medium effect size; $f^2 = 0.118$ and $f^2 = 0.065$ respectively. With regards to the relationship between talent management and market capitalizing agility, the value indicates that talent management has no direct significant impact on market capitalizing agility and effect size of between the two is very minimal as $f^2 = 0.007$. Moreover, absorptive capacity impacts agile innovation the highest ($f^2=0.319$) followed by market capitalizing agility ($f^2=0.274$) and the lowest impact is on agile creativity ($f^2=0.082$). Operational adjustment capacity impacts agile creativity and market capitalizing agility with relatively similar weights ($f^2=0.120$ and $f^2=0.118$ respectively), and has no impact on agile innovation ($f^2=0.016$).

Table 21*Effective Size measured through f^2*

	AC	CR	IA	MCA	ORC	TM
AC		0.082	0.319	0.274		
ORC		0.120	0.016	0.118		
TM	0.515	0.118	0.065	0.007	0.583	

Step 4: Assessment of the predictive relevance Q^2 .

The second quality assessment criterion for the structural model is the Stone-Geisser's Q^2 , analyzed to determine the predictive relevance using the blindfolding procedure in SmartPLS (Hair, Ringle & Sarstedt, 2011). According to Urban and Ahlemann (2010), Q^2 measures the extent to which the prediction of the model is successful, Q^2 establishes the predictive relevance of the endogenous constructs. A Q^2 value above 0 confirms the presence of predictive relevance (Hair et. al., 2014). According to Hair et. al. (2014), computation of Q^2 is applicable for reflectively measured endogenous constructs. Therefore, the Q^2 value was computed for agile creativity, agile innovation, market capitalizing agility, absorptive capacity and operational adjustment capacity. For these constructs, the analysis (as indicated in Table 20) shows that all Q^2 values are 0.24 and above. The Q^2 values from the blindfolding are indicated in Table 20, the Q^2 values of agile creativity, agile innovation, market capitalizing agility, absorptive capacity and operational adjustment capacity are $Q^2=0.414$, $Q^2=0.322$, $Q^2=0.377$, $Q^2=0.243$ and $Q^2=0.246$ respectively. Therefore, since all endogenous constructs have a value of Q^2 above 0, it is an indication that the model has predictive relevance. The results indicate that there is significance in the prediction of the constructs.

Step 5: Model Fit Assessment through SRMR

Furthermore, the model fit is assessed using SRMR. As indicated in Table 20, the SRMR value for the model 0.057, which is below the value of 0.10 indicating that the model fit is acceptable (Hair et. al., 2016).

5.10 Evaluation of Mediating Effects

In total there are seventeen hypotheses in this thesis. Six hypotheses are evaluated for mediating effects; H12, H13, H14, H15, H16 H17.

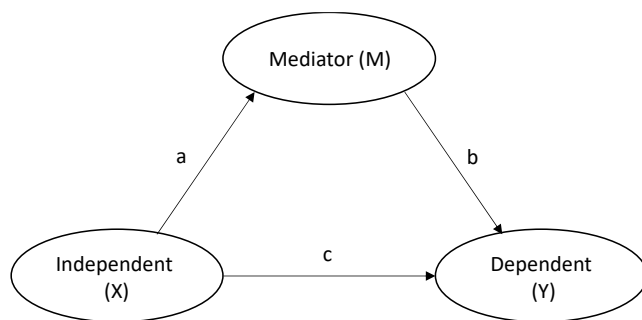
1. Mediating effect of Operational Adjustment Capacity between Talent Management and Market Capitalizing Agility (12).
2. Mediating effect of Operational Adjustment Capacity between Talent Management and Agile Innovation (13).
3. Mediating effect of Operational Adjustment Capacity between Talent Management and Agile Creativity (H14).
4. Mediating effect of Absorptive Capacity between Talent Management and Market Capitalizing Agility (H15).
5. Mediating effect of Absorptive Capacity between Talent Management and Agile Innovation (H16).
6. Mediating effect of Absorptive Capacity between Talent Management and Agile Creativity (H17).

The mediation analysis performed to assess the mediating role of Operational Adjustment Capacity, and Absorptive Capacity is shown in Table 23. The analysis followed the guidelines outlined by Zhao, Lynch and Chen (2010). A mediation model was mapped

based on figure 11, where the effect of the independent variable X (or exogenous construct) on a mediator M is indicated by a. The effect of the mediator on dependent variable Y (or endogenous construct) is represented by b. M is a third variable or an intermediary variable in the link between X and Y (Fairchild & McQuillin, 2010). Hence, the indirect effect is a product term of $a \times b$. The total effect of X and Y relationship includes two parts that are the direct effect of X on Y represented by c and the indirect effect of X on Y through M ($a \times b$). The total effect of X on Y is $c' = (a \times b) + c$.

Figure 11

Three Variable Causal Model



a, b and c are path coefficients.
Source: Zhao, Lynch and Chen (2010).

5.10.1 Criteria for Evaluating Mediation Effects

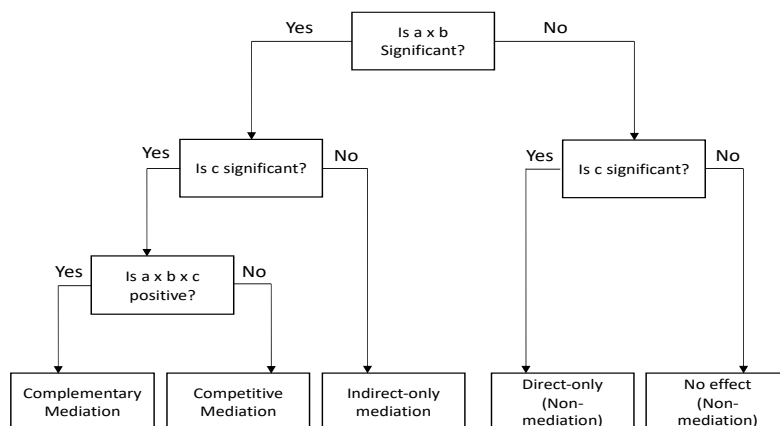
Figure 12 illustrates the mediation effects identification schemes. A decision tree diagram recommended by Zhao, Lynch and Chen (2010) was used as a guide in assessing the mediating effect of Operational Adjustment Capacity and Absorptive Capacity. This is illustrated in Figure 12. Zhao, Lynch and Chen (2010) indicate that the only requirement needed to establish mediation is that the indirect effect $a \times b$ is significant in a non-recursive three variable causal model. A significant effect of X on Y (c) is not a necessary precondition for mediation to exist (Rucker, Preacher, Tormala & Petty, 2011; Shrout & Bolgger, 2002).

Preacher & Hayes (2008) explain that the indirect effect $a \times b$ is equivalent to the difference between the total and direct effects.

Zhao, Lynch and Chen (2010) identify three steps in testing mediation. First, researchers should use the size of an indirect effect to measure and assess the strength of the mediation effect. Second, the requirement for identifying a mediation effect is the significance of the indirect effect $a \times b$. Third, a bootstrap test is used to assess the significance of the indirect path $a \times b$. Bootstrapping is regarded as a highly powerful and rigorous method for testing the significance of indirect effects. The bootstrapping test yields high statistical power (Hair et. al., 2014; Preacher and Hayes, 2008). Figure 12 provides an illustration of the decision tree used in classifying and interpreting the results of mediation analysis, this is suggested by Zhao, Lynch and Chen (2010). Prior to mediation analysis, the path coefficients a , b and c and their significance were assessed simultaneously through PLS, where the significance and the relevance of the path coefficients is indicated. Then mediation analysis was conducted.

Figure 12

Identification Schemes for Mediation Effect



Source: Zhao, Lynch and Chen (2010).

In conducting mediation analysis, initially, it is necessary to identify the significance of the indirect effect $a \times b$, to establish mediation and decide between two main classifications of mediation or non-mediation. The significance of the indirect effects was evaluated by conducting non-parametric bootstrapping procedures. Then, the significance of the direct effect c is assessed to determine the type of mediation effect. If the direct effect c is significant, then $a \times b \times c$ is assessed. A positive $a \times b \times c$ indicates a complementary mediation, otherwise the mediation is said to be competitive. If the direct effect c is not significant, then the mediation is indirect only. Zhao, Lynch and Chen (2010) identify a typology of mediation models to determine the types of mediation and non-mediation according to the schemes identified in Table 22.

Table 22

Typology of Mediation Effects and Identification Schemes

Type of Mediation according to Zhao, Lynch and Chen (2010)	Other Names for the Type of Mediation	When does it occur?	Impact on Mediation Hypotheses
Complementary Mediation	Partial Mediation (Baron and Kenny 1986)	Occurs if the indirect effect $a \times b$ and the direct effect c are both significant and have the same directions	Data supports the hypotheses for mediation
Competitive Mediation	No Mediation (Baron and Kenny 1986)	Occurs if the indirect effect $a \times b$ and the direct effect c are both significant and have opposite directions	Data supports the hypotheses for mediation

Indirect-only Mediation	Full Mediation (Baron and Kenny 1986)	Occurs if indirect effect $a \times b$ is significant, but not c	Data supports the hypotheses for mediation
Direct-only non-mediation	No Mediation (Baron and Kenny 1986)	Occurs if the direct effect c is significant, but not the indirect effect $a \times b$	Data does not support hypotheses for mediation
No effect non-mediation	No Mediation (Baron and Kenny 1986)	Occurs if both indirect effect $a \times b$ and direct effect c are insignificant	Data does not support hypotheses for mediation

5.10.2 Results for Mediation Effects

The mediation effects analysis for hypotheses H12, H13, H14, H15, H16 and H17 are indicated in Table 23. The mediation analysis performed to assess the mediating role of Operational Adjustment Capacity, and Absorptive Capacity. Results indicating a P value less than 0.05 is considered significant. The results in Table 23 reveal that Operational Adjustment Agility partially mediates the relationship between TM and CR (H14: $\beta=0.195$, $t = 4.013$, $P = 0.000$), fully mediates the relationship between TM and MCA (H12: $\beta=0.191$, $t = 4.685$, $P = 0.000$), and has no mediating role on TM and IA (H13: $\beta=0.072$, $t = 1.740$, $P = 0.082$). Absorptive Capacity partially mediates TM and CR (H17: $\beta=0.151$, $t = 2.446$, $P = 0.014$), fully mediates the relationship between TM and MCA (H15: $\beta=0.273$, $t = 6.985$, $P = 0.000$), and partially mediates the relationship between TM and IA (H16: $\beta=0.299$, $t = 6.600$, $P = 0.000$).

Table 23*Mediation Effects Analysis*

	Total Effect (β)	T	P	Direct Effect (β)	T	P	Specific Indirect Effect	(β)	T	P
TM -> EC	0.644	17.135	0.000	0.298	4.348	0.000	TM -> ORC -> CR	0.195	4.013	0.000
							TM -> AC -> CR	0.151	2.446	0.014
TM -> MCA	0.536	11.990	0.000	0.072	1.313	0.189	TM -> ORC -> MCA	0.191	4.685	0.000
							TM -> AC -> MCA	0.273	6.985	0.000
TM -> IA	0.593	12.527	0.000	0.222	3.707	0.000	TM -> ORC -> IA	0.072	1.740	0.082
							TM -> AC -> IA	0.299	6.600	0.000

Table 24 presents the summary of results for the mediating effects of Operational Adjustment Capacity and Absorptive Capacity.

Table 24

Summary of Results for Hypothesized Mediating Effects

	Hypothesis	Result	Mediation Type
H12:	Operational Adjustment Capacity mediates the relationship between Talent Management and Market Capitalizing Agility	Supported	Full Mediation (Indirect-only)
H13:	Operational Adjustment Capacity mediates the relationship between Talent Management and agile innovation	Not Supported	Non-Mediation (Direct only)
H14:	Operational Adjustment Capacity mediates the relationship between Talent Management and agile creativity	Supported	Partial Mediation (Complementary)
H15:	Absorptive Capacity mediates the relationship between Talent Management and Market Capitalizing Agility	Supported	Full Mediation (Indirect-only)
H16:	Absorptive Capacity mediates the relationship between Talent Management and agile innovation	Supported	Partial Mediation (Complementary)
H17:	Absorptive Capacity mediates the relationship between Talent Management and agile creativity	Supported	Partial Mediation (Complementary)

5.11 Results for All Hypothesized Relationships

Based on the Structural Model Assessment explained earlier, Table 25 shows that all proposed hypotheses are supported except for three hypotheses, which are H1, H7 and H13.

Table 25

Results for All Hypothesized Relationships

	Hypothesis	Result
H1:	Talent Management will have a positive relationship with Market Capitalizing Agility	Not Supported
H2:	Talent Management will have a positive relationship with agile innovation	Supported
H3:	Talent Management will have a positive relationship with agile creativity	Supported
H4:	Talent Management will have a positive relationship with operational adjustment capacity	Supported
H5:	Talent Management will have a positive relationship with absorptive capacity	Supported
H6:	Operational adjustment capacity has a positive relationship with market capitalizing agility	Supported
H7:	Operational adjustment capacity has a positive relationship with agile innovation	Not Supported
H8:	Operational adjustment capacity has a positive relationship with agile creativity	Supported

H9:	Absorptive capacity has a positive relationship with market capitalizing agility	Supported
H10:	Absorptive capacity has a positive relationship with agile innovation	Supported
H11:	Absorptive capacity has a positive relationship with agile creativity	Supported
H12:	Operational Adjustment Capacity mediates the relationship between Talent Management and Market Capitalizing Agility	Supported
H13:	Operational Adjustment Capacity mediates the relationship between Talent Management and Innovative Capacity	Not Supported
H14:	Operational Adjustment Capacity mediates the relationship between Talent Management and Organizational Creative Capacity	Supported
H15:	Absorptive Capacity mediates the relationship between Talent Management and Market Capitalizing Agility	Supported
H16:	Absorptive Capacity mediates the relationship between Talent Management and Innovative Capacity	Supported
H17:	Absorptive Capacity mediates the relationship between Talent Management and Organizational Creative Capacity	Supported

5.12 Control Variables

In this study, two control variables were used in the model; organization size and organization age. Organization size was measured using the natural logarithm of the number of employees in the organization, three options were provided: less than 500 employees, 500-1000 employees, and more than 1000 employees. Organization age was measured using the natural logarithm of the number of years from the date of establishment of the organization, three options were provided: less than 5 years old, 5-10 years old, and more than 10 years old. Since both organization size and age have more than two categorical variables as options, dummy variables were created for each of the options. The significance of the relationships between the control variables and the endogenous variables are presented in Table 26.

Table 26

Summary of the Control Variable Analysis Results

	Total Effect (β)	T	P
Age -> AC	0.079	0.462	0.644
Age -> CRE	0.022	0.164	0.869
Age -> INV	0.003	0.019	0.985
Age -> MCA	0.200	1.684	0.092
Age -> ORC	0.034	0.220	0.826
Size -> AC	0.201	1.741	0.082
Size -> CRE	0.039	0.421	0.674
Size -> INV	0.139	1.435	0.151
Size -> MCA	0.154	1.495	0.135
Size -> ORC	0.131	1.124	0.261

Results indicating a P value less than 0.05 is considered significant. The results in Table 26 reveal that both control variables; organization age and size, has no significant impact on any of the endogenous variables in this study. The effect of age on the endogenous variables Absorptive Capacity, Agile Creativity, Agile Innovation, Market Capitalizing Agility, and Operational Adjustment Agility respectively are $\beta=0.079$, $t = 0.462$, $P = 0.644$, $\beta=0.022$, $t = 0.164$, $P = 0.869$; $\beta=0.003$, $t = 0.019$, $P = 0.985$; $\beta=0.200$, $t = 1.684$, $P = 0.092$; $\beta=0.034$, $t = 0.220$, $P = 0.826$. The effect of size on the endogenous variables Absorptive Capacity, Agile Creativity, Agile Innovation, Market Capitalizing Agility, and Operational Adjustment Agility respectively are $\beta=0.201$, $t = 1.741$, $P = 0.082$, $\beta=0.039$, $t = 0.421$, $P = 0.674$; $\beta=0.139$, $t = 1.435$, $P = 0.151$; $\beta=0.154$, $t = 1.495$, $P = 0.135$; $\beta=0.131$, $t = 1.124$, $P = 0.261$.

Chapter 6. Discussion

6.1 Introduction

This chapter discusses the results presented in Chapter 5. In discussing the results, the research questions outlined in Chapter 1 are addressed. At the begin of each section within the chapter, the hypotheses are provided. This chapter presents the findings of this study in consideration of existing literature and research with highlights on the positioning of the research with previous studies. A summary of this chapter is presented at the end concluding the findings.

6.2 Talent Management and Competitive Organizational Agility

In this section, findings are discussed in accordance with three hypotheses (H1, H2, H3) tested to assess the impact of Talent Management on the three features of Competitive Organizational Agility including Market Capitalizing Agility, Agile Innovation, and Agile Creativity.

6.2.1 The Impact of Talent Management on Market Capitalizing Agility

One of the main objectives of this thesis is to understand the impact of Talent Management on the Competitive Organizational Agility dimension: Market Capitalizing Agility in knowledge-based organizations in the private sector in the UK, which leads to the hypothesis that Talent Management has a positive and significant relationship with Market Capitalizing Agility. Therefore, the first proposed hypothesis is as follows:

H1 Talent Management will have a positive relationship with Market Capitalizing Agility

This thesis found that Talent Management has an insignificant impact on Market Capitalizing Agility ($\beta = 0.072$, $t = 1.287$, $p = 0.198$), thus H1 is not supported.

Previous research indicates that organizations that manage their human capital in an effective way are more likely to achieve sustainable competitive advantage (Rop and Kwasria, 2015). Hence, organizations need to implement effective Talent Management practices to better utilize its resources in achieving a sustained competitive advantage (Al Ariss, Cascio & Paauwe, 2014; Vaiman, Scullion & Collings, 2012). A number of empirical studies show a positive relationship between Talent Management practices and Organizational Performance. Talent attraction and talent retention has a significant impact on organizational performance in the telecommunication sector (Devi, 2017). Compensation and rewards of talented employees has a positive significant impact on organizational performance (Almohtaseb et. al., 2020). Furthermore, training and development of talented employees has a significant impact on organizational performance (Almohtaseb et. al., 2020). Empirical studies show evidence that talent management practices are positively associated with sustainable competitive advantage. Jibril and Yesiltas (2022) indicate a positive impact of Talent Attraction and Talent Retention on sustainable competitive advantage in the Northern Cyprus hotel industry. Ibrahim and AlOmari (2020) found a significant relationship between talent management and market innovations of the organization. This is attributed to talent management practices utilizing the knowledge and capabilities of talented human capital in the organization to sense and response to new market opportunities. Furthermore, Ho et. al. (2018) found that the utilization of talented employees' capabilities is crucial in capitalizing on opportunities in the external

environment. Li, L. et. al. (2020) study the effect of e-commerce capabilities on market capitalizing agility in agriculture firms. Their research defines talent capabilities as a dimension of e-commerce capabilities. Li, L. et. al. (2020) results indicate that talent capability has a positive significant impact on Market Capitalizing Agility. Off note, this research found that Effective Talent Management does not have a direct positive relationship with Market Capitalizing Agility. This could be due to the internal organizational context and the existence of internal factors that might be hindering the direct impact of Talent Management on Market Capitalizing Agility. This is in line with Gallardo-Gallardo, Thunnissen and Scullion (2020) argument that Talent Management is affected by external and internal organizational factors. According to Gallardo-Gallardo, Thunnissen and Scullion (2020) context affects the effectiveness and value-adding implementation of Talent Management. Contextual factors affect the conceptualization, implementation and usefulness of Talent Management to organizations. Talent Management cannot be effectively comprehended as a ‘silo’ phenomenon as it is designed and implemented in organizations, which, as a result, is part of a broader context of operations and factors. This is supported by contextually based Human Resource models (i.e. Paauwe and Farndale, 2017; Paauwe, 2004), which state that external and internal organizational factors influence Strategic Human Resource systems (SHRM) and performance. Such HR systems are externally affected by competitive market mechanisms such as organizational efficiency, effectiveness, quality, innovation, flexibility, and speed. SHRM is affected internally by the organizational, administrative, and cultural heritage of the organization including its structure, culture, strategy and human capital. In addition, SHRM models address the role of leadership and key decision makers in shaping the SHRM system. Furthermore, the finding of this research is in

line with Vandenabeele, Leisink and Knies (2013) who emphasize on the role of organizational context and its internal stakeholders which makes the HR process extremely dynamic. Also, our finding is in line with other studies that found no evidence of a direct significant relationship between talent management practices and organizational performance and emphasized on the role of organizational factors needed to create a positive relationship such as culture, leadership style and other factors. Having a pool of talented employees is not sufficient for an organization to achieve a successful implementation of talent management (Coculuva, Svetozarovova and Bertova, 2020). Other factors come into play as contributors to an effective talent management implementation (Coculuva, Svetozarovova and Bertova, 2020). In line with this, Almohtaseb et. al. (2020) found that talent recruitment and attraction has no significant impact on organizational performance. Also, Almohtaseb et. al. (2020) indicate that talent management planning has no significant impact on organizational performance. Furthermore, Al Aina and Atan (2020) found that talent attraction and talent retention have no positive impact on organizational performance.

This is in line with the essence of the contingency theory paradigm which assumes that the competitiveness of organizations is fostered by contingencies reflecting the ability of organizations to operate and respond according to its business environment (Donaldson, 2001). Depending on extra and intra-organizational factors, effective talent management practices can influence the capitalization of market opportunities (this is explained in the upcoming sections of this chapter).

6.2.2 The Impact of Talent Management on Agile Innovation

This section explains the results of studying the impact of Talent Management on the Competitive Agility dimension: Agile Innovation, which leads to the hypothesis that Talent Management has a positive and significant relationship between Talent Management with Agile Innovation. Therefore, the second proposed hypothesis is as follows:

H2 Talent Management will have a positive relationship with Agile Innovation.

This thesis found that Talent Management has a significant impact on Agile Innovation ($\beta = 0.222$, $t = 3.776$, $p = 0.000$), thus H2 is supported. Our finding is in line with a number of studies that describe innovativeness as an important and critical factor in achieving competitive advantage, and is leveraged by the skills possessed by the human capital in an organization. This has been evidenced in a number of sectors including the banking sector, hotels sector, and the health sector for example. In an empirical study conducted by Ibrahim and AlOmari (2020) in the banking sector in Jordan, Talent Management has shown evidence of a significant positive impact on product, process, and marketing innovation. Innovativeness strategies can be achieved by implementing knowledge-based human resource management strategies to remain competitive such as talent management strategies (Ibrahim & AlOmari, 2020). To innovate in the organization's products and processes, focus must be given to the organization's human capital. Innovations are a product of human capabilities that are translated into a form of new ideas and prototypes. Innovation is primarily a human creation as it demands input from the human asset in an organization (Ibrahim & AlOmari, 2020). Therefore, to innovate in products and processes, a high level of attention needs to be given to human capital. Beaver-stock (2018) found that organizational excellence requires the integration of talent management as a tool for organizational competitive advantage.

McDonnell et. al. (2017) found that talent management practices increase the proactiveness of employees which is an essential element in product innovation.

When organization's are striving to attain competitive advantage, the strength of competition in today's dynamic environments makes it challenging to maintain it or retain it (Ibrahim & AlOmari, 2020). The uniqueness of the finding of this research relies in the fact that the rapid responsiveness and agility in producing innovation is examined. Being agile in producing new products and processes is a critical factor in today's dynamic environments for organizations to gain competitive advantage through their talented resources. According to a study conducted by Cooper (2019), some innovations are successful, while other innovations are not successful. Cooper (2019) describes the drivers of success of new products and innovations. New products and innovations that are successful are driven by market demand and changes in the needs and preferences of customers (Cooper, 2019). Furthermore, speed in responding to market demands is another factor that contributes to the success of new products and innovations (Cooper, 2019). Speed offers the competitive advantage of being the first on the market, it means that the market situation has less likely to have changed, therefore the rapidness in innovation is admirable (Cooper, 2019). An agile approach to innovation is a sound principle that leads to the success of organizations in responding to dynamic market changes and reducing the time-to-market through the flexibility and rapidness that agility reflects on the organization.

Accordingly effective talent management practices are empirically evidenced to support innovativeness. This research finding further supports these studies by indicating a positive relationship between effective talent management practices and agile innovation. Effective talent management practices fuel the individual's motivation to perform promptly

and at an optimum, producing new products in a rapid way. In today's dynamic environments, innovation through an agile response is needed to ensure a prompt response to changes in the external environment adding to the capabilities of the organization in attaining a competitive advantage over other organizations. This supports a main research assumption which states that the dynamic capability theory is an enhancement of the resource-based view (RBV) theory as it describes the capability approach of an organization in leveraging on its competencies to respond to the vigorously changing business situation and dynamic environment (Teece, Pisano & Shuen, 1997). Accordingly, effective talent management practices can foster agile innovation as an organizational dynamic capability, and it is situated as a core value-adding characteristic of the organization in responding to market demand in a very dynamic and competitive environment.

6.2.3 The Impact of Talent Management on Agile Creativity

This section explains the results of studying the impact of Talent Management on the Competitive Agility dimension: Agile Creativity, which leads to the hypothesis that Talent Management has a positive and significant relationship between Talent Management with Agile Creativity. Therefore, the third proposed hypothesis is as follows:

H3 Talent Management will have a positive relationship with Agile Creativity.

This thesis found that Talent Management has a significant impact on Agile Creativity ($\beta = 0.298$, $t = 4.351$, $p = 0.000$), thus H3 is supported. This is in line with a number of studies that emphasize on the importance of organizational human capital skills in producing creative and unique features and attributes in new products. This has been evidenced in a number of sectors including construction and architectural design organizations. Ibrahim and AlOmari

(2020) research indicate that organizations implementing talent management practices, specifically talent attraction and talent retention, are able to leverage on their talent capabilities in creating new and unique ideas and processes. In an empirical study conducted by Othman and Khalil (2018), the impact of lean talent management on solving barriers to individual creativity was investigated in architectural design firms (ADFs). Othman and Khalil (2018) identified a number of barriers that affect creativity in ADFs, these include lack of motivation and demotivation. The findings of their research indicate that the integration of lean concepts into talent management practices leads to solving barriers and increasing creativity in ADFs. Furthermore, Ingram (2016) investigated the mediating effect of individual creativity on the relationship between talent management and organizational performance. The research finding suggests that enabling organizations to achieve high performance as a result of talent management requires an organizational setting that is supportive of individual creativity. Consistent with previous empirical studies, this research suggests a direct positive relationship between effective talent management practices and agile creativity at the organizational level. Our findings are consistent with the findings of Othman and Khalil (2018).

6.3 The Mediating Effect of Operational Adjustment Capacity and Absorptive Capacity

Besides investigating the direct relationship between the predictor variable (effective talent management practices) and the outcome variables (market capitalizing agility, agile innovation, and agile creativity), this research investigated those direct relationships through the mediating effects of operational adjustment capacity and absorptive capacity based on the perspective of dynamic capabilities. The results indicate that operational adjustment capacity and absorptive capacity play a mediation role between effective talent management practices and market capitalizing agility, and agile creativity. In addition, absorptive capacity plays a

mediation role between effective talent management practices and market capitalizing agility, agile innovation, and agile creativity. The detailed discussion on the mediation results is addressed in sections 6.3.1 and 6.3.2 of this chapter.

6.3.1 The Mediating Effect of Operational Adjustment Capacity

This section explains the results of studying the mediating effect of Operational Adjustment Agility on the relationship between Talent Management and the three features of Competitive Organizational Agility investigated in this study; Market Capitalizing Agility, Agile Innovation and Agile Creativity, which leads to the hypotheses that Operational Adjustment Agility mediates the relationship between Talent Management and market capitalizing agility, agile innovation, and agile creativity. In particular, proposed hypotheses in this context are as follows:

H12 Operational Adjustment Capacity mediates the relationship between Talent Management and Market Capitalizing Agility.

H13 Operational Adjustment Capacity mediates the relationship between Talent Management and agile innovation.

H14 Operational Adjustment Capacity mediates the relationship between Talent Management and agile creativity.

This thesis found that Operational Adjustment Agility fully mediates the relationship between Talent Management and Market Capitalizing Agility (H12: $\beta=0.191$, $t = 4.685$, $P = 0.000$), thus H12 is supported. Furthermore, this thesis found that Operational Adjustment Agility has no mediating effect on the relationship between Talent Management and Agile

Innovation (H13: $\beta=0.072$, $t = 1.740$, $P = 0.082$), this H13 is not supported. Moreover, this thesis found that Operational Adjustment Agility partially mediates the relationship between Talent Management and Agile Creativity (H13: $\beta=0.195$, $t = 4.013$, $P = 0.000$), thus H13 is supported.

Previous research studies emphasized on the importance of organizational capabilities. When the external environment is more turbulent, organizations treat capability as a critical source of sustaining competitive advantage (Grant, 1996). Organizational operational capabilities include executing and coordinating various tasks required to perform operational activities, and adapt operational capabilities to new-value creating responses (Liu et. al., 2013).

Contextualized factors play crucial roles in determining which internal capabilities contribute to the various features of competitive organizational agility. From the contingency perspective, external and internal organizational factors can affect organizational agility. The contingency theory can be leveraged to contribute a framework from talent management to competitive organizational agility in which operational adjustment capacity serves as a mediator. In the context of this research, operational adjustment capacity does not mediate the relationship between effective talent management practices and innovation, while it mediates the relationship between market capitalizing agility and agile creativity. This can be reasoned to the contextualized factors around each feature of competitive organizational agility. In the context of market capitalizing agility and comprehensiveness of market changes and external stimuli, operational adjustment capacity plays a critical role in the rapid adaptation of internal processes to external stimuli (Lin et. al., 2020). In sensing external stimuli, rapid reconfigurations of internal operational processes are needed (Lin et. al., 2020). In the context

of agile creativity, Darvishmotevali et. al. (2020) indicates that adaptations to external environmental uncertainty requires organizational internal operational processes to become more agile in order to continue to achieve sustained competitive advantage through creativity. On the contrary and in the context of agile innovations and new products developments, operational adjustment capacity has no significant impact on the effectiveness of talented employees in producing innovations. This is attributed to the different drivers of success in producing innovations. These findings are in line with previous research, for example, Cooper (2019) indicate a number of drivers for talented employees to produce successful innovativeness. These include the uniqueness of the products, the alignment with market-requirements, portfolio management, leveraging core competencies, targeting attractive markets, having the right resources in place, and having the right culture for innovativeness. None of these drives are highlighting a role for the reconfiguration of internal operational processes. The findings of this research are in line with the findings of previous research (i.e. Cooper, 2019). These findings are consistent with the premises of the dynamic capability theory theoretical argument of the organization's dynamic orientations. Dynamic orientations are seen as the set of actions that accommodate for the evolutionary nature of resources in a turbulent environment and explicitly connects those resources with the external environment with the ultimate aim of gaining sustainable competitive advantage for the organization through the reconfiguration of its actions (Harsch & Festing, 2020). Furthermore, these findings are consistent with the premises of the contingency theory as the essence of the contingency theory paradigm is that organizational competitiveness is a characteristic of the fitting of the organization within the context of the contingencies that reflect the status of the

organization in terms of the environment in which it operates, and its responding actions (Donaldson, 2001).

6.3.2. The Mediating Effect of Absorptive Capacity

This section explains the results of studying the mediating effect of Absorptive Capacity on the relationship between Talent Management and the three features of Competitive Organizational Agility investigated in this study; Market Capitalizing Agility, Agile Innovation and Agile Creativity, which leads to the hypotheses that Absorptive Capacity mediates the relationship between Talent Management and market capitalizing agility, agile innovation, and agile creativity. In particular, proposed hypotheses in this context are as follows:

H15 Absorptive Capacity mediates the relationship between Talent Management and Market Capitalizing Agility.

H16 Absorptive Capacity mediates the relationship between Talent Management and Innovation Agility.

H17 Absorptive Capacity mediates the relationship between Talent Management and Organizational Creative Capacity.

This thesis found that Absorptive Capacity fully mediates the relationship between Talent Management and Market Capitalizing Agility (H15: $\beta=0.273$, $t = 6.985$, $P = 0.000$), thus hypothesis H15 is supported. Furthermore, this thesis found that Absorptive Capacity partially mediates the relationship between Talent Management and Agile Innovation (H16: $\beta=0.299$, $t = 6.600$, $P = 0.000$), thus hypothesis H16 is supported. Moreover, this thesis found

that Absorptive Capacity partially mediates the relationship between Talent Management and Agile Creativity (H17: $\beta=0.151$, $t = 2.446$, $P = 0.014$), thus H17 is supported.

Previous studies have offered frameworks that emphasize on the importance of absorptive capacity, knowledge management capability, and organizational learning in enhancing organizational performance and competitive advantage gain (i.e. Mao et. al., 2020; Latuka and Veselova, 2019; Cai et. al., 2017; Wu et. al., 2019; Duan et. al., 2020; Verma et. al., 2017; and Ahmed et. al., 2019) in multiple contexts including intellectual capital utilization, information technologies, high-tech manufacturing firms, and innovation performance. From the view of dynamic organizational capabilities and specifically, the dynamic capabilities theory and contingency theory, the current study investigates such frameworks empirically in the context of talent management and competitive organizational agility. In this context, the mediation effects of absorptive capacity highlighted in chapter five are consistent with the dynamic capability theory and contingency theory. Knowledge absorptive capacities, which are the ability to acquire, assimilate, transform, and exploit external knowledge are essential and a major organizational capability in the context of dynamic environments (Verma et al., 2017). Acquisition and assimilation of knowledge are also referred to as potential absorptive capacity and transformation and exploitation are referred to as realized absorptive capacity. In the context of this study, potential absorptive capacity is a crucial capability in identifying and acquiring new knowledge from the external turbulent environment and in assimilating that knowledge to the benefit of the organizational competitive stance. Furthermore, in the context of this research, realized absorptive capacity is a crucial capability in ensuring the transformation and exploitation of newly absorbed knowledge in such a way that will drive new insights that will enrich the competitiveness of

the organization through supporting the agile response of enhancing the products and services provided by the organization. In today's turbulent and competitive environment, the enhancement of products and services entails rapid innovative and creative capabilities that are aligned to the changes sensed in the turbulent environment.

These findings are consistent with the premises of the dynamic capability theory theoretical argument of the organization's dynamic orientations. Furthermore, these findings are consistent with the premises of the contingency theory as the essence of the contingency theory paradigm is that organizational competitiveness and effectiveness arise from the fitting characteristics of the organization to contingencies that reflect the status of the organization in terms of the environment in which it operates and its responding actions (Donaldson, 2001). Talented human capital facilitates organizations' access to external knowledge resources and to knowledge within those resources. Talented human capital encourages organizations to access external sources of knowledge, and acquire that knowledge for the purposes of innovating and creatively responding to demands of the turbulent environment. Talent management targets absorptive capacity leading to increased organizational competitiveness. This finding offers a new perspective related to understanding the mechanisms that fosters competitive organizational agility. Along the premises of the contingency theory, these findings indicate that talent is tacit and doesn't, as a standalone practice, achieve the desired outcomes on organizational performance. Other organizational capabilities must exist in order to ensure the transferability of an organization's absorptive capacity into more comprehensive organizational capabilities that define the agile competitiveness of organizations. Thus, when investing in talent management an organization must also develop knowledge management

practices and intellectual potential realization tools, this ensures investment in talent management would return expected results.

The findings support previous empirical evidence i.e. Mao et. al., 2020; Wu et. al., 2019; Liu et. al., 2013; Ahmed et. al., 2019 which investigate the mediating effects of absorptive capacity in various contexts. These previous empirical evidences demonstrate a mediating effect of absorptive capacity in relationships between IT competencies and market capitalizing agility (Mao et. al., 2020). Mao et. al. (2020) propose that absorptive capacity partially mediates the effects of IT knowledge and IT operations on market capitalizing agility. Wu et. al. (2019) assesses the mediating effect of absorptive capacity on the relationship between IT capabilities and innovation performance in 232 organizations in China. Their study suggests a mediating effect of absorptive capacity in the relationship between internal and external IT capability and open innovation performance. Furthermore, Liu et. al. (2013) IT capabilities can enhance firm performance through absorptive capacity. Ahmed et. al. (2019) studied the mediating role of absorptive capital between intellectual capital and business performance. Their study suggests that realized absorptive capacity has a dynamic role a mediator in the relationship of intellectual capital with business performance.

6.4 Effective Talent Management Practices and Absorptive Capacity

This section explains the results of studying the relationship between effective talent management practices and absorptive capacity, which leads to the hypotheses that effective talent management practices have a positive relationship with absorptive capacity. In particular, the proposed hypothesis in this context is as follows:

H5 Talent management will have a positive relationship with absorptive capacity

This thesis found that effective talent management practices have a positive relationship with absorptive capacity (H5: $\beta=0.583$, $t = 13.286$, $P = 0.000$), thus hypothesis H5 is supported.

Organizations' talented employees have become one of the main determining factors in achieving a long-term organizational success (McDonnell et. al., 2017). Previous studies have emphasized on the importance of intellectual capital as a key driver for absorptive capacity indicating that capable workforce has the ability to facilitate the acquisition, assimilation, transformation, and exploitation of knowledge. This demands a rethinking of the role of talent management and its implications in knowledge-based organizations, specifically in the context of knowledge acquisition, management, and organizational learning. From the view of dynamic organizational capabilities and specifically, the dynamic capabilities theory and contingency theory, the current study investigates such role of talented employees through the context of talent management and absorptive capacity. In this context, the positive relationship between talent management and absorptive capacity highlighted in chapter five is consistent with the dynamic capability theory and contingency theory. Effective talent management practices stimulate the agile acquisition and assimilation of intangible assets, creating a competitive advantage for organizations. Talented employees are more successful in acquiring knowledge due to individual competencies, they are also successful in delivering it to other individuals within their organizations and in motivating them. This results in an improvement at the organizational level in dynamic knowledge acquisition and assimilation (Latuka & Veselova, 2019).

Furthermore, the ability of talented employees to design knowledge-transfer, assimilation, and sharing mechanisms within their organizations contributes value to the organizational outcomes in turbulent environments. Furthermore, this finding supports the dynamic capability theory which emphasizes on the importance of organizational capabilities and the reconfiguration of its internal and external competencies to counter the vigorously changing business contexts (Teece, Pisano & Shuen, 1997). Hence, the ability of effective talent management practices in positively impacting the absorptive capacity of organizations is a critical organizational capability that leads to sustainable competitive advantage in turbulent environments. Moreover, the evident- importance of the reconfiguration of internal and external competencies fostered by effective talent management practices is in line with the essence of the contingency theory paradigm which assumes that the competitiveness of organizations is fostered by contingencies reflecting the ability of organizations to operate and respond according to its business environment (Donaldson, 2001). These finding are in line with previous empirical evidence suggesting that intellectual capital has a positive relationship with absorptive capacity (i.e. Soo et. al., 2017; Minbaeva et. al., 2014; Ahmed, 2019). Also, the finding is in line with Latukha and Veselova (2019) where talent management has been found to have a positive relationship with knowledge acquisition and knowledge exploitation.

6.5 Absorptive Capacity and Competitive Organizational Agility

In this section, findings are discussed in accordance with three hypotheses (H9, H10, H11) tested to assess the impact of Absorptive Capacity on the three features of Competitive Organizational Agility including Market Capitalizing Agility, Agile Innovation, and Agile Creativity. In particular the findings of the following hypotheses are discussed:

H9 Absorptive capacity will have a positive relationship with market capitalizing agility

H10 Absorptive capacity will have a positive relationship with agile innovation

H11 Absorptive capacity will have a positive relationship with agile creativity

This thesis found that Absorptive Capacity has a significant impact on Market Capitalizing Agility ($\beta = 0.469$, $t = 8.049$, $p = 0.000$), thus H9 is supported. Furthermore, this thesis found that Absorptive Capacity has a significant impact on Agile Innovation ($\beta = 0.2513$, $t = 7.173$, $p = 0.000$), thus H10 is supported. Moreover, this thesis found that Absorptive Capacity has a significant impact on Agile Creativity ($\beta = 0.259$, $t = 2.795$, $p = 0.000$), thus H11 is supported.

The integration of absorptive capacity is a crucial mechanism for delivering talent-enabled outcomes. The utilization of absorptive capacity can support organizations in developing increased levels of agility in adaptation to rapidly evolving business contexts (Cooper & Molla, 2017). The research finding that absorptive capacity influences the three features of organizational agility studied in this research is in line with the view of dynamic capability theory and contingency theory. Studies based on dynamic capability theory discuss the conceptual explanations of absorptive capacity outcomes including innovation, flexibility and performance (Iyengar et. al., 2015). Within the context of dynamic capability theory, the role of competitive organizational agility entails that absorptive capacity and organizational agility are both related as dynamic capabilities (Felipe et. al., 2016). In this research, absorptive capacity contributes to the explanation of organizational dynamic sensing and responding abilities. Furthermore, contextualizing external knowledge as an input for competitive organizational actions including market capitalization, innovation, and creativity

contributes to the explanation of the contingency theory. In line with the essence of the contingency theory, knowledge absorption from the external environment increases the effectiveness of organizations due to the fitting actions of the organization to contingencies occurring in the environment in which the organization operates (Donaldson, 2001).

These findings are in line with previous research. Previous research indicates that absorptive capacity facilitates market capitalizing agility (Mao et. al., 2020). Other research indicates a role of absorptive capacity in enhancing different types of agility including for example supply chain agility (Liu et. al., 2013). Absorptive capacity has a positive impact on the innovation performance of high-tech manufacturing firms (Duan et. al., 2020). Access to knowledge in the external environment and its utilization within the internal environment enhances organizational dynamic capabilities in responding to change through the creation of innovative solutions (Duan et. al., 2020). Realized absorptive capacity plays a crucial role in open innovation through the facilitation of the integration of acquired external knowledge with existing internal knowledge which improves innovation performance. An enhancement in innovation performance occurs through the ability of organizations in combining external and internal knowledge (Wu et. al., 2021).

Furthermore, previous research emphasizes on the importance of knowledge gain in gaining a creative edge specially in turbulent environments. Turbulent environments are often associated with complexity and variability resulting from changes in customer preferences, technological innovations, or competitors' positioning in the market (Darvishmotevali et. al., 2020). Acquiring knowledge from the external environment on competitors provides opportunities for organizations to analyze internal processes and improve their creative

performance to attract customers which leverages the competitive stance of organizations (Darvishmotevali et. al., 2020).

6.6 Effective Talent Management Practices and Operational Adjustment Capacity

This section explains the results of studying the relationship between effective talent management practices and operational adjustment capacity, which leads to the hypotheses that effective talent management practices have a positive relationship with operational adjustment capacity. In particular, the proposed hypothesis in this context is as follows:

H4 Talent management will have a positive relationship with operational adjustment capacity

The results revealed that Talent Management (TM) has a significant impact on operational adjustment capacity (ORC) ($\beta = 0.607$, $t = 14.809$, $p = 0.000$). Hence, H4 is supported.

These findings are in line with previous research. Previous research indicates the importance of human resource capabilities and talent management in particular as a strategic cornerstone in achieving organizational effectiveness in general. In existing dynamic contexts, traditional schemes of attaining efficiency and effectiveness have proven inadequate. On the contrary, organizations are heavily relying on their human capital in order to create the right internal reconfigurations and restructuring to survive and attain competitive advantage (Kontoghiorghes, 2015). In fact, increasing arguments are presented in the literature supporting the existence of talent management as a critical competitive tool for organizations in turbulent business contexts.

6.7 Operational Adjustment Capacity and Competitive Organizational Agility

In this section, findings are discussed in accordance with three hypotheses (H6, H7, H8) tested to assess the impact of Operational Adjustment Capacity on the three features of Competitive Organizational Agility including Market Capitalizing Agility, Agile Innovation, and Agile Creativity. In particular the findings of the following hypotheses are discussed:

H6 Operational adjustment capacity will have a positive relationship with market capitalizing agility.

H7 Operational adjustment capacity will have a positive relationship with agile innovation.

H8 Operational adjustment capacity will have a positive relationship with agile creativity.

This thesis found that Operational Adjustment Capacity has a significant impact on Market Capitalizing Agility ($\beta = 0.315$, $t = 5.072$, $p = 0.000$), thus H6 is supported. Furthermore, this thesis found that Operational Adjustment Capacity has an insignificant impact on Agile Innovation ($\beta = 0.119$, $t = 1.752$, $p = 0.080$), thus H7 is not supported. Moreover, this thesis found that Operational Adjustment Capacity has a significant impact on Agile Creativity ($\beta = 0.321$, $t = 4.357$, $p = 0.000$), thus H8 is supported.

These findings are in line with previous research. Previous research indicates that the agile reconfigurations of internal operational processes are critical in sensing changes in the external environment (Lin et. al., 2020). Furthermore, agile reconfigurations of internal operational processes are crucial for organizations in responding to external environmental turbulence, and is a critical capacity for organizations in achieving creativity that supports the competitive stance of the organization (Darvishmotevali et. al., 2020). On the contrary, agile

innovativeness is not impacted with the configuration of internal operational processes, other organizational factors play as important drivers in achieving agile innovativeness (Cooper, 2019). These findings contribute to the dynamic capability theory by demonstrating the critical role of operational adjustment capacity as a dynamic capability in enhancing the competitiveness of organizations in dynamic environments. Furthermore, these findings contribute to the contingency theory by demonstrating the importance of the fitting characteristics of the organizations within the changing environment that it operates in.

Chapter 7. Conclusion and Future Research Directions

7.1 Introduction

This chapter provides a conclusion on the findings of this research in relation to the central research question and addresses how the research findings address the objectives of the study. It further explains the theoretical contributions and the practical contributions of this research. Theoretical implications and practical implications are also discussed. The limitations of the study are addressed. Furthermore, recommendations on future research are presented.

7.2 Theoretical Contributions and Implications

The central research question of this study is to investigate how effective talent management practices influence competitive organizational agility in knowledge-based organizations in the private sector. By investigating the relationship of effective talent management practices and market capitalizing agility, agile innovation, and agile creativity using the foundational theories of dynamic capabilities theory and contingency theory, the study contributes to the literature and practice as it not only extends empirical studies on talent management and organizational agility but also provides recommendations for organizations that will guide them to sense market changes and act accordingly with ultimate outcome of sustaining agile competitive advantage when facing changes in the dynamic environments that they operate within. Essentially, organizations build their competitive capabilities of being able to sense and capitalize on changes in the market, and respond with fluid innovations and creativity when they are capable of executing effective talent management practices, aligning internal operations, and utilizing knowledge. In return, the resulting sensing and responding of such organizations when facing dynamic environments will be novel and serve as the basis for

sustaining a competitive advantage through capturing opportunities and responding innovatively and creatively.

This study puts forward a number of theoretical contributions addressing multiple gaps identified in the literature. This study addresses the call for more conceptual work on Talent Management (Yildiz & Esmer, 2023). Furthermore, this study addresses the impact of organizational functions and the role of context-specific influencing factors on Talent Management (Thunnissen & Gallardo-Gallardo, 2019). Moreover, this study addresses calls for a more comprehensive approach to Talent Management to investigate the dynamics around Talent Management (Gallardo-Gallardo, Thunnissen & Scullion, 2020). Furthermore, this study addresses the research call by Kale, Aknar and Basar (2019) to examine the role of other organizational functions on Absorptive Capacity and on other types of agility, and addresses the need to study agility-related concepts, separating strategic agility from other agility types. Moreover, this study addresses calls to introduce mediators to understand how Talent Management can lead to innovation.

Considering the above-mentioned calls for research that have been addressed by this study, this is the first research study up to the researcher's knowledge that made an attempt to quantitatively study the impact of Effective Talent Management practices on Competitive Organizational Agility. This addresses the call for quantitative research by Harsch and Festing (2020) to study the relationship between Talent Management and Organizational Agility. The study considers three features of Competitive Organizational Agility including Market Capitalizing Agility, Agile Innovation, and Agile Creativity with the consideration of contextual organizational factors including Operational Adjustment Capacity and Absorptive Capacity, addressing calls for further research that scientifically solidifies the understanding of

the concept of organizational agility (Walter, 2021). It is determined that Effective Talent Management practices will lead to Agile Innovation and Agile Creativity, and these outcomes are more enhanced through Operational Adjustment Capacities and Absorptive Capacities. Furthermore, it is determined that Effective Talent Management practices will lead to enhanced sensing agility featured by market capitalization through organizational capacities including Operational Adjustment Capacity and Absorptive Capacity. These results have enriched the dynamic capability theory and contingency theory. Furthermore, this research analyzes the mediation effects of Operational Adjustment Capacity and Absorptive Capacity adding an important theoretical value to the literature. Operational Adjustment Capacity and Absorptive Capacity are introduced as mediators when analyzing the relationships between Effective Talent Management practices and Market Capitalizing Agility, Effective Talent Management practices and Agile Innovation, and Effective Talent Management practices and Agile Creativity.

As the present study addresses multiple gaps, it makes important contributions (see Table 27). First, this study extends the limited research on the understanding of effective talent management practices and its impact on competitive organizational agility features. This study is one of the first to consider effective talent management practices as an important antecedent of competitive organizational agility features. In particular, this study extends the understanding of effective talent management practices on agile innovation, and agile creativity.

Second, this study assesses the mediating role of operational adjustment capacity on effective talent management practices and market capitalizing agility, agile innovation, and agile creativity. Thus, explaining one mechanism through which effective talent management

practices can influence competitive organizational agility features. Third, this study assesses the mediating role of absorptive capacity on effective talent management practices and market capitalizing agility, agile innovation, and agile creativity. Thus, explaining a second mechanism through which effective talent management practices can influence competitive organizational agility features. This addresses calls by Ibrahim and AlOmary (2020) in understanding critical mediating organizational functions in the relationship between Talent Management and innovative practices.

Fourth, this study is one of the first to explore a number of interdependent agility dimensions, specifically the sensing agility dimension (referred to as market capitalizing agility) and the responding agility dimensions of agile innovation and agile creativity. Fifth, no previous study to the best of the author's knowledge and through search in peer-reviewed databases has empirically explored the effects of operational adjustment capacity as an antecedent of competitive organizational agility features market capitalizing agility and agile creativity. Sixth, no previous study to the best of the author's knowledge and through search in peer-reviewed databases has empirically explored the effects of absorptive capacity as an antecedent of competitive organizational agility features market capitalizing agility, agile innovation, and agile creativity. Seventh, existing research on both, the Talent Management concept and the organizational agility concept dimensions have primarily focused on settings other than knowledge-based organizations. This study is one of the early studies to consider both concepts: Talent Management and Organizational Agility, in the context of knowledge-based organizations.

The theoretical lens for the study is the Dynamic Capabilities (DC) theory and the Contingency theory that support the explanation of the proposed relationships between

effective talent management practices and competitive organizational agility features, operational adjustment capacity, and absorptive capacity, with the mediating role of absorptive capacity and operational adjustment capacity in the relationship between effective talent management practices and competitive organizational agility features.

The Dynamic Capability (DC) theory focuses on an organization's competitiveness in a dynamic environment that is characterized by rapid and unpredictable change (Eisenhardt & Martin, 2000). Dynamic Capability theory is seen as an enhancement of the resource-based view (RBV) theory (Wernerfelt, 1984; Barney, 1991). The resource-based view argues that organizations gain their competitive advantage through its unique, valuable, and imperfectly imitable resources (Barney, 1991). Within the context of this research that focuses on Talent Management and Competitive Organizational Agility all of which are dynamic capabilities, the resource-based view does not possess the explanatory ability needed and is rather limited to static market mechanisms (Eisenhardt & Martin, 2000). The core of the dynamic capability theory relates to the reconfiguration of resources in a manner that will align actions with external changes in the external business environment hence identifying the path to be followed to attain competitive advantage (Teece et. al., 1997; Eisenhardt & Martin, 2000). Furthermore, the dynamic capability theory is seen as the basis of the knowledge-based view (KBV) theory.

The Contingency Theory explores the concept of fit and correspondence among a large set of factors in an organizational setting, these are referred to as contingency factors. Such contingency factors indicate that one factor depends on other factors, and for organizations to be fully effective they must reach a "goodness of fit" between their internal configurations and actions, and their external environment (Donaldson, 2001; Van den Ven & Drazin, 1984).

According to the contingency theory, there is no one model-fits-all in managing a situation as it depends on factors in the external environment and the reconfigurations and actions taken in the internal environment. This implies that organizations are able to achieve efficiency and competency through possessing an agile and flexible stance to any changes within their environment.

The present study integrates two theoretical approaches (i.e. dynamic capability theory and contingency theory). The current study extends the research concerning effective talent management practices and the competitive organizational agility features (market capitalizing agility, agile innovation, agile creativity) by investigating the distinct mechanisms of operational adjustment capacity and absorptive capacity through the integration of dynamic capability theory and the contingency theory. In doing so, the research adds to the theoretical development by integrating dynamic capability theory and the contingency theory with effective talent management practices and how it fosters competitive advantage gain through enhancing competitive organizational agility features, and organizational capabilities including operational adjustment capacity and absorptive capacity.

Therefore, for the context of this research, the dynamic capability theory can best explain the relationships between the constructs presented in the study. Hence, based on the dynamic capability theory, the study intends to ascertain the importance of effective talent management practices in shaping competitive organizational agility features including market capitalizing agility, agile innovation, and agile creativity. The study would add to the theoretical development by integrating dynamic capability theory with market capitalizing agility, agile innovation, and agile creativity and how these features foster competitive organizational agility and hence the competitive advantage of organizations.

Moreover, in this research, a direct positive relationship was not established between effective talent management practices and market capitalizing agility indicating that other contextual factors are needed to drive a positive relationship, given that a direct relationship is established between effective talent management practices and other types of agility (as proposed in this research for example agile innovation and agile creativity). Explained by the contingency theory, this research views operational adjustment capacity and absorptive capacity as mechanisms and key enablers by which effective talent management practices can lead to a competitive market capitalizing agility. Furthermore, and as explained by the contingency theory, there is no one correct configuration for effective talent management practices to influence agile capabilities within the organizational context. However, the most appropriate and effective practices are dependent on the internal business circumstances and external factors to the organization in which actions driven through talent management will create a “goodness of fit” between the organizational internal configurations and the external dynamic business environment. Furthermore, explained by the contingency theory, this research views operational adjustment capacity and absorptive capacity as mechanisms by which effective talent management practices can lead to agile innovation, and agile creativity. This adds to the theoretical development by integrating the contingency theory with agile innovation and agile creativity and how these features are driven by effective talent management practices through organizational capacities including operational adjustment capacities and absorptive capacity.

Table 27*Summary of Theoretical Contributions*

Theoretical Contributions	Relationship Type
Operational adjustment capacity mediates the relationship between effective talent management practices and market capitalizing agility	Full Mediation (Indirect-only)
Operational adjustment capacity mediates the relationship between effective talent management practices and agile creativity	Partial Mediation (Complementary)
Absorptive capacity mediates the relationship between effective talent management practices and market capitalizing agility	Full Mediation (Indirect-only)
Absorptive capacity mediates the relationship between effective talent management practices and agile innovation	Partial Mediation (Complementary)
Absorptive capacity mediates the relationship between effective talent management practices and agile creativity	Partial Mediation (Complementary)
Effective talent management practices has a direct positive relationship on agile creativity	Direct positive
Absorptive capacity has a direct positive relationship on agile creativity	Direct positive
Effective talent management practices has a direct positive relationship on agile innovation	Direct positive

Theoretical Implications

The theoretical contributions of this study can guide knowledge-based organizations operating in the private sector on how to better enhance the outcomes of implementing effective talent management practices and that is through contextualizing such efforts with other organizational capacities including operational adjustment capacities and absorptive capacities. In addition, the study provides guidance on how to leverage organizational agile creativity, and that is through absorptive capacity. Furthermore, the study provides guidance for organizations on the importance of effective talent management practices in achieving agile innovation and agile creativity. These findings are further enriching the dynamic capability theory and contingency theory.

This research contributes to the theoretical concepts of dynamic capability by investigating the influence of a number of dynamic capabilities and the relationships between them, including the impact of effective talent management practices on absorptive capacity, the impact of effective talent management practices on operational adjustment capacity, and the impact of effective talent management practices on agile innovation and agile creativity, followed by the impact of absorptive capacity on competitive organizational agility features including market capitalizing agility, agile innovation, and agile creativity. These relationships were tested using structural equation modeling (SEM) as a powerful and robust technique. In addition, the study expands on existing talent management literature by studying its role within the context of dynamic capabilities based on the scope of knowledge-based organizations operating in the private sector. The empirical results support the relationships between effective talent management practices and agile innovation, agile creativity, absorptive capacity, and operational adjustment capacity. Furthermore, this study contributes

to further understanding of competitive organizational agility features demonstrated by sensing agility and acting agility, and how they are impacted by effective talent management practices, absorptive capacity, and operational adjustment capacity.

7.3 Practical Contributions and Implications

Along with the theoretical contributions, this study has a number of substantial practical implications for organizations. This study argues that effective talent management practices aimed at achieving a sustainable competitive advantage for organizations through competitive agility must be designed in a systematic manner to ensure the optimization of organizational sensing and its ability to capitalize on opportunities appearing in the surrounding dynamic environment, and to ensure the optimization of organization responding abilities through rapid innovations and creativity to capitalize on the opportunities arising in the external environment. For effective talent management practices to lead to a competitive capitalization of market opportunities, organizations need to ensure the adequate operational adjustments in their internal environments in addition to ensuring the proper absorption of knowledge residing in the external environment. The implementation of effective talent management practices on its own is not sufficient to achieve agility in market capitalization and must be considered as part of a bigger context that emphasizes on organizational factors including, as argued by this research, the adjustment of operations to align with the arising opportunities and market demands, and the absorption of knowledge to drive the proper and agile capitalization on arising opportunities and market demands.

Furthermore, given the direct link established through the explorations of this study between the implementation of effective talent management practices and agile innovation and creativity, this study argues that key organizational practices aimed at effective talent

management will build a competitive advantage for organizations in responding in an agile manner to the dynamic external environment, such practices will lead to competitive innovations and creative outputs.

In addition, as the link between effective talent management practices, operational adjustment capacity, absorptive capacity, and the features of competitive organizational agility considered by this study was revealed, the study argues that when implementing talent management practices contextual dynamic capability factors such as operational adjustment capacity will stimulate the overall level of competitive organizational agility features including market capitalization and creativity. Moreover, contextual dynamic capability factors such as absorptive capacity will stimulate overall level of competitive organizational agility features including market capitalization, innovation, and creativity. Furthermore, in such context, innovations can be rapidly and directly achieved as a result of effective implementation of talent management practices and are not influenced by internal operations. However, knowledge absorption is a key element in enhancing rapid and fluid market capitalization, innovations, and creative outputs.

Practical Implications

From an organizational perspective, with consideration of the knowledge-based sector, this study demonstrates the importance of effective talent management practices in achieving competitive organizational agility featured by market capitalization, innovation, and creativity. The study also demonstrates the importance of effective talent management practices in enhancing knowledge absorption and the adjustment of operations in a way that supports the rapid response to changes in the external environment. Organizations are encouraged to adopt effective talent management practices to achieve competitive organizational agility, in

particular, to capitalize on market opportunities, innovate and produce creative outputs rapidly. Organizations are also encouraged to adopt effective talent management practices in order to absorb external and internal business-related knowledge for the organization's competitiveness, and then to integrate the newly acquired knowledge and execute it for the benefit of achieving sustained competitiveness.

Furthermore, the investigated relationships between operational adjustment capacity and the features of competitive organizational agility specifically innovation and creativity demonstrate the importance of aligning operations in accordance to changes sensed in the external environment. Therefore, organizations are encouraged to adjust and align their operations as they sense the changes in the external environment in order to create the right context that will support the organization in rapidly responding to those changes through the creation of innovations and creative outputs that will address those changes and leverage the competitiveness of the organization.

Moreover, the investigated relationships between the absorption of knowledge from the external environment and its integration within the context of the organization demonstrate the importance of the utilization of such knowledge in sensing the opportunities that arise in the external environment and capitalizing on them through acting towards rapidly producing new products and services and responding through creatively addressing newly discovered market needs. Therefore, organizations are encouraged to absorb knowledge from the external environment and deploy it within the organization to achieve competitive capitalization of arising market opportunities, rapidly product innovation and creative outputs that will leverage the competitive advantage possessed by the organization. Knowledge absorbed from the external environment and effectively exploited within the organization can predict

opportunities for the future (Duan et. al., 2020). Therefore, absorptive capacity can enhance the acting ability of organizations in the scope of agile innovations and creativity in the future, and is an important impact factor on competitive organizational agility and the sustainability of competitive advantage (Duan et. al., 2020)

Knowledge-based organizations operating in the private sector should fully recognize the importance of effective talent management practices in obtaining sustainable competitive advantage for organizations through achieving organizational agility. The context through which organizational agility can be best achieved and create competitiveness for the organization should also be recognized. Effective implementation of talent management practices as a stand-alone approach towards sensing and capitalizing on market opportunities is not sufficient. Organizations with the ability to sense changes in the external environment and recognize the potential opportunities arising can reconfigure their resources in a manner that supports the competitiveness action as a return. Organizations that are unable to sense changes and recognize the potential opportunities arising will lose the opportunities to innovate in a way that will fulfill such opportunities (Park et. al., 2017). Proper sensing abilities will support organizations in acting according to the demands arising in the market and hence will enhance their changes in leveraging their competitive advantage.

In order for the implementation of effective talent management practices to support the organization in capitalizing on market opportunities, internal and external organization factors must be considered. Organizations need to possess the capacity to adjust their operations and acquire and utilize knowledge existing outside of the organization for the benefit of leveraging on existing market opportunities. Features of competitive organizational agility such as agile innovation and agile creativity can be achieved through effective talent management practices

and enhanced through the consideration of internal and external contextual factors such as the capacity to align operations and acquire and utilize knowledge from the external environment. A more contextualized approach towards the utilization of talent management practices will enhance the ability of organizations to sense potential opportunities and act accordingly through agile innovations and creativity to sustain competitive advantage.

7.4 Limitations and Future Research Directions

Although this research provides valuable theoretical and practical implications as abovementioned, the implications are presented with a number of limitations. First, the sample size collected for the purpose of testing the hypotheses is less than the minimum sample size of 384 that is recommended for generalizations of the findings. Therefore, it is recommended that future studies explore the relationships tested in this study through a wider sampling scope. Second, the study is restricted to the knowledge-based organizations in the private sector in the UK. Future research can consider a wider scope in terms of the region and the industry covered. Third, this study adopted a cross-sectional data collection design where both the predictor variable and the outcomes variables are explored at a time, and self-reported data was utilized. Therefore, future studies should consider longitudinal data collection designs in order to solidify the relationships between the predictor variable and the outcome variables. Fourth, the data in this study was collected from a single source, future research should consider testing the relationships using data collected through multi-method, multi-measure approach.

In addition to addressing the limitations stated above, future research should expand on the conceptual scope presented in this study. This study focused on effective talent management practices and the impact on competitive organizational agility with consideration

of the ability of the organization to adjust its internal operations and with consideration of the ability of the organization to absorb knowledge from the external environment, other contextualization's were not taken into consideration. Achieving the optimal advantage out of implementing talent management practices is influenced by external and internal contextual factors. Hence, further consideration of contextual factors may also contribute to the relationships examined in this research. Such factors may include leadership style and organizational culture. Those concepts can be introduced to the model as moderators. The moderation effects of organizational culture and leadership style can be tested on operational adjustment capacity, absorptive capacity, market capitalizing agility, agile innovation, and agile creativity. In addition, since talent management is part of bigger scope human resource management, we recommend enhancing the model tested in this thesis through the addition of different mediators such as employee proactivity, employee fluidity, and highly adaptable organizational infrastructure.

Moreover, the effective talent management practices that are considered in this study are talent attraction and talent retention. Future research can expand on the scope of talent management practices considered in this research to include talent development and talent rewarding in addition to other dynamic features of talent management practices. Furthermore, one of the literature gaps that are addressed in this research is to quantitatively test the relationship between talent management and organizational agility, which was qualitatively explored by Harsch and Festing (2020). In their qualitative exploration, Harsch and Festing (2020) list more features of organizational agility than explored in this research. This research focuses on three organizational agility features (market capitalizing agility, agile innovation, and agile creativity). Therefore, further studies are needed to quantitatively explore the

relationship between effective talent management practices and additional features of organizational agility including profitability, quality, agile organizational culture, and strategic implementation and orientation towards agility. Strategic implementation is a critical factor in achieving competitive advantage (Barney, 2001) and has been presented in the literature as a success factor of human resource management.

7.5 Conclusions

This research study was executed with the aim of fulfilling the gaps between various concepts in the literature. The empirical findings of this research provide insights and connections between talent management literature, dynamic capabilities literature, organizational agility literature, absorptive capacity literature, and innovation and creativity literature through the theoretical and empirical investigation of the relationship between effective talent management practices, absorptive capacity, operational adjustment capacity, and competitive organizational agility from the perspective of market capitalization, innovation, and creativity. Therefore, it is expected that this research will trigger future research investigations with the aim of providing further insights on the findings of this research, which can be summarized as follows: effective talent management practices has a significant positive impact on agile innovation and agile creativity, effective talent management practices has a significant positive impact on operational adjustment capacity which in turn has a significant positive impact on market capitalizing agility and agile creativity, effective talent management practices has a significant positive impact on absorptive capacity which in turn has a positive impact on market capitalizing agility, agile innovation, and agile creativity. Additionally, effective talent management practices have a

significant positive impact on market capitalizing agility through operational adjustment capacity and absorptive capacity.

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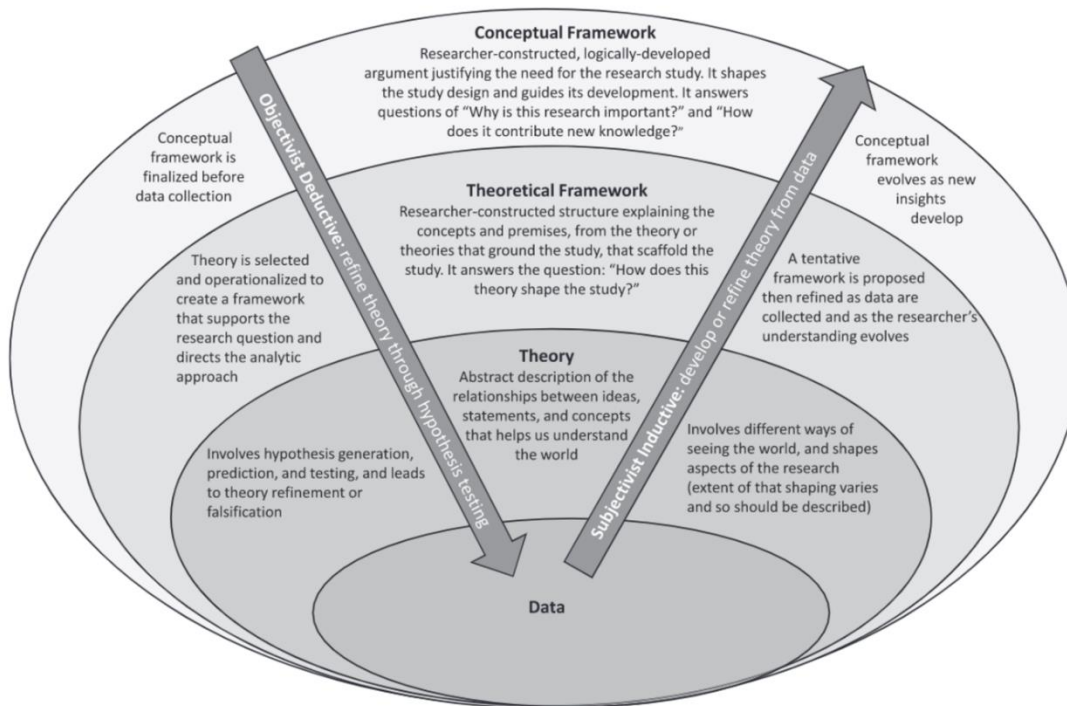
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Appendices

Appendix 1 – Research Methodologies Approaches



Similarities and differences across objectivist deductive and subjectivist inductive approaches to research in terms of theory, theoretical framework, and conceptual framework, adopted from Vaprio et. al. 2020, p. 991.

Appendix 2 – Research Ethics Form



Research and Grant Office

Research ethics form self-assessment

Application for approval of research activity involving human participants, personal data, or confidential material

This application form is to be used by researchers seeking approval from the Research Ethics Committee. All research associated with The British University in Dubai must not begin until ethical approval has been obtained.

Section I is a general research identification table.

Section II is for the details of the ethical matters your research might involve and the necessary steps you are planning to take to address them.

Section III is an ethics checklist that will help you identify your research risk level. If you answer 'Yes' to any one of the high risk statements, then your research is High Risk. If you answer 'Yes' to any one of the medium risk statements, and 'No' to all high risk statements, then your research is Medium Risk. If you answer 'No' to all high risk and medium risk statements, then your research is Low Risk.

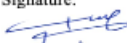
If you have documents related to the ethical considerations of the research such as, for example, a consent letter, evidence of external approval, questionnaire samples or interview questions, you can enclose them with this form before submission.

I. Research identification

	Name	Alanoud Al-Ali
	Faculty/Programme	Business and Law / PhD in Business Management
	Contact number	050-7078827
	Email	20199925@student.buid.ac.ae
	Research type	☐ Research project ☒ Doctoral/Masters research ☐ Module assignment
	Research title	The Influence of Talent Management of self-initiated expatriates on Employee Creativity and the Mediating Role of Organizational Agility and Innovative Capacity
	Date	04/07/2021
	Submitted to (name)	☐ Faculty Nominated Member (Research Projects): ☒ Director of Studies (Doctoral Research): Professor Stephen Wilkins ☐ Dissertation Supervisor (Masters Research):



☐ Not approved	
Signature: 	Date: 8.11.2021

Students	
Dean of Faculty	
Name: Professor ~~Aymen Masadeh~~	
☒ Approved ☐ Not approved	
Signature: 	Date: 8.11.2021

Authorisation for conducting research (only if approval is obtained):

The Committee has confirmed that this project fits within the University's Policies for Research and I authorise the low risk research proposal on behalf of BU's Research Ethics Committee.

Print name: ____ Dr. Khalid Al Marri ____

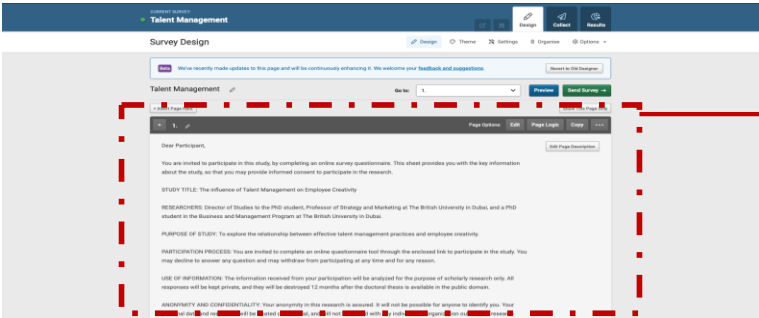
Signature:  Date: ____ 8.11.2021 ____

(Chair of the Research Ethics Committee)

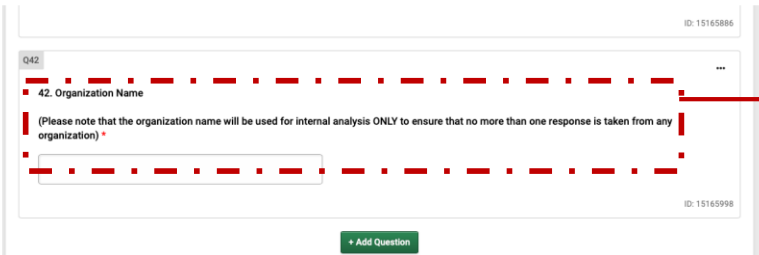
FOR OFFICE USE ONLY
MEDIUM RISK RESEARCH

Staff and Students
Endorsement by the Faculty's Research Ethics Committee member after electronic referral to all Research Ethics Committee members
Name: _____

Appendix 3 – Consent Form and Anonymity



On the first page of the questionnaire, the purpose of the study was addressed to participants and their anonymity was assured.



The last question of the questionnaire was asking for the organization name of participants. Next to this question the purpose of including the question was stated.

Appendix 4 – Data Collection and Sample Size

The figure consists of three screenshots of the SmartSurvey web interface, illustrating the process of administering a survey and the resulting data.

Top Screenshot: Shows the SmartSurvey dashboard. The 'Collect Responses' section is highlighted with a red dashed box. A red arrow points from the 'Collect Responses' section to the text: "SmartSurvey panel was used to administer the survey questionnaire online."

Middle Screenshot: Shows the 'Default Link' section. A red dashed box highlights the 'Default Link' input field, which contains the URL: <https://www.smartsurvey.co.uk/s/0E57M7/>. A red arrow points from this link to the text: "A questionnaire link was created through SmartSurvey panel."

Bottom Screenshot: Shows the 'Recent Surveys' section. A red dashed box highlights the 'Talent Management' survey, which has 404 responses. A red arrow points from the '404 Responses' text to the text: "A total of 404 responses were received."

Appendix 5 – Evaluation of Outliers through Boxplots



Appendix 6 - Assessing Common Method Bias through VIFs

Table 28

Assessing Common Method Bias through VIFs

	ACQR	ASIM	CRE	EXPT	INV	MCA	ORC	TRFM
ACQR			2.231		2.231	2.231		
ASIM			2.324		2.324	2.324		
EXPT			2.214		2.214	2.214		
TRFM			2.314		2.314	2.314		
ORC			2.045		2.045	2.045		
TMA	1.717	1.717	2.041	1.717	2.041	2.041	1.717	1.717
TMR	1.717	1.717	1.904	1.717	1.904	1.904	1.717	1.717

Appendix 7 – Updated Survey Questionnaire Tool for Full-Scale Study

Table 29

Updated Survey Questionnaire Tool for Full-Scale Study

Beginning of Questionnaire	
Section 1:	
1.	Our organization's recruiting efforts always attract the best talent on the market (<i>Strongly Disagree, Moderately Disagree, Slightly Disagree, Neutral, Slightly Agree, Moderately Agree, Strongly Agree</i>)
2.	Our selection procedures assure that only the best possible candidates are selected for the job (<i>Strongly Disagree, Moderately Disagree, Slightly Disagree, Neutral, Slightly Agree, Moderately Agree, Strongly Agree</i>)
3.	All of our employees are of the highest caliber found in the industry (<i>Strongly Disagree, Moderately Disagree, Slightly Disagree, Neutral, Slightly Agree, Moderately Agree, Strongly Agree</i>)
4.	This organization has no problem retaining its talented employees (<i>Strongly Disagree, Moderately Disagree, Slightly Disagree, Neutral, Slightly Agree, Moderately Agree, Strongly Agree</i>)
5.	The best performers never leave this organization to go to a competitor (<i>Strongly Disagree, Moderately Disagree, Slightly Disagree, Neutral, Slightly Agree, Moderately Agree, Strongly Agree</i>)
6.	Overall, turnover among talented employees is non-existent in this organization (<i>Strongly Disagree, Moderately Disagree, Slightly Disagree, Neutral, Slightly Agree, Moderately Agree, Strongly Agree</i>)
7.	Employees in my organization have the ability to solve problems creatively. (<i>Strongly Disagree, Moderately Disagree, Slightly Disagree, Neutral, Slightly Agree, Moderately Agree, Strongly Agree</i>)
8.	Employees in my organization are good at generating novel ideas

(Strongly Disagree, Moderately Disagree, Slightly Disagree, Neutral, Slightly Agree, Moderately Agree, Strongly Agree)

9. Employees in my organization have a knack for further developing the ideas of others

(Strongly Disagree, Moderately Disagree, Slightly Disagree, Neutral, Slightly Agree, Moderately Agree, Strongly Agree)

10. Employees in my organization are good at finding creative ways to solve problems.

(Strongly Disagree, Moderately Disagree, Slightly Disagree, Neutral, Slightly Agree, Moderately Agree, Strongly Agree)

11. We fulfill demands for rapid-response, special requests of our customers whenever such demands arise; our customers have confidence in our ability.

(Strongly Disagree, Moderately Disagree, Slightly Disagree, Neutral, Slightly Agree, Moderately Agree, Strongly Agree)

12. We can quickly scale up or scale down our production / service levels to support fluctuations in demand from the market.

(Strongly Disagree, Moderately Disagree, Slightly Disagree, Neutral, Slightly Agree, Moderately Agree, Strongly Agree)

13. Whenever there is a disruption in supply from our suppliers we can quickly make necessary alternative arrangements and internal adjustments.

(Strongly Disagree, Moderately Disagree, Slightly Disagree, Neutral, Slightly Agree, Moderately Agree, Strongly Agree)

14. We are quick to make and implement appropriate decisions in the face of market/customer-changes.

(Strongly Disagree, Moderately Disagree, Slightly Disagree, Neutral, Slightly Agree, Moderately Agree, Strongly Agree)

15. We constantly look for ways to reinvent/reengineer our organization to better serve our market place.

(Strongly Disagree, Moderately Disagree, Slightly Disagree, Neutral, Slightly Agree, Moderately Agree, Strongly Agree)

16. We treat market-related changes and apparent chaos as opportunities to capitalize quickly.

(Strongly Disagree, Moderately Disagree, Slightly Disagree, Neutral, Slightly Agree, Moderately Agree, Strongly Agree)

Please select the level of your agreement / disagreement that your organization is competitive regarding the following statements (statements 17-24)

17. The level of newness (novelty) of our organization's new products / services.
(*Strongly Disagree, Moderately Disagree, Slightly Disagree, Neutral, Slightly Agree, Moderately Agree, Strongly Agree*)
18. The use of latest technological innovations in our new products / services.
(*Strongly Disagree, Moderately Disagree, Slightly Disagree, Neutral, Slightly Agree, Moderately Agree, Strongly Agree*)
19. The speed of our new product / service development.
(*Strongly Disagree, Moderately Disagree, Slightly Disagree, Neutral, Slightly Agree, Moderately Agree, Strongly Agree*)
20. The number of our new products / services that is first-to-market (early market entrants).
(*Strongly Disagree, Moderately Disagree, Slightly Disagree, Neutral, Slightly Agree, Moderately Agree, Strongly Agree*)
21. The technological competitiveness of our company.
(*Strongly Disagree, Moderately Disagree, Slightly Disagree, Neutral, Slightly Agree, Moderately Agree, Strongly Agree*)
22. The speed with which we adopt the latest technological innovations in our processes.
(*Strongly Disagree, Moderately Disagree, Slightly Disagree, Neutral, Slightly Agree, Moderately Agree, Strongly Agree*)
23. The updated-ness or novelty of the technology used in our processes.
(*Strongly Disagree, Moderately Disagree, Slightly Disagree, Neutral, Slightly Agree, Moderately Agree, Strongly Agree*)
24. The rate of change in our processes, techniques and technology.
(*Strongly Disagree, Moderately Disagree, Slightly Disagree, Neutral, Slightly Agree, Moderately Agree, Strongly Agree*)
25. The search for relevant information concerning our industry is every-day business in our organization.
(*Strongly Disagree, Moderately Disagree, Slightly Disagree, Neutral, Slightly Agree, Moderately Agree, Strongly Agree*)
26. Our management motivates the employees to use information sources within our industry.
(*Strongly Disagree, Moderately Disagree, Slightly Disagree, Neutral, Slightly Agree, Moderately Agree, Strongly Agree*)
27. Our management expects that the employees deal with information beyond our industry.
(*Strongly Disagree, Moderately Disagree, Slightly Disagree, Neutral, Slightly Agree, Moderately Agree, Strongly Agree*)

28. In our organization ideas and concepts are communicated cross-departmental.
(*Strongly Disagree, Moderately Disagree, Slightly Disagree, Neutral, Slightly Agree, Moderately Agree, Strongly Agree*)
29. Our management emphasizes cross-departmental support to solve problems.
(*Strongly Disagree, Moderately Disagree, Slightly Disagree, Neutral, Slightly Agree, Moderately Agree, Strongly Agree*)
30. In our organization there is a quick information flow, e.g., if a business unit obtains important information it communicates this information promptly to all other business units or departments.
(*Strongly Disagree, Moderately Disagree, Slightly Disagree, Neutral, Slightly Agree, Moderately Agree, Strongly Agree*)
31. Our management demands periodical cross-departmental meetings to interchange new developments, problems, and achievements.
(*Strongly Disagree, Moderately Disagree, Slightly Disagree, Neutral, Slightly Agree, Moderately Agree, Strongly Agree*)
32. Our employees have the ability to structure and to use collected knowledge.
(*Strongly Disagree, Moderately Disagree, Slightly Disagree, Neutral, Slightly Agree, Moderately Agree, Strongly Agree*)
33. Our employees are used to absorb new knowledge as well as to prepare it for further purposes and to make it available.
(*Strongly Disagree, Moderately Disagree, Slightly Disagree, Neutral, Slightly Agree, Moderately Agree, Strongly Agree*)
34. Our employees successfully link existing knowledge with new insights.
(*Strongly Disagree, Moderately Disagree, Slightly Disagree, Neutral, Slightly Agree, Moderately Agree, Strongly Agree*)
35. Our employees are able to apply new knowledge in their practical work.
(*Strongly Disagree, Moderately Disagree, Slightly Disagree, Neutral, Slightly Agree, Moderately Agree, Strongly Agree*)
36. Our management supports the development of prototypes.
(*Strongly Disagree, Moderately Disagree, Slightly Disagree, Neutral, Slightly Agree, Moderately Agree, Strongly Agree*)
37. Our organization regularly reconsiders technologies and adapts them accordant to new knowledge.
(*Strongly Disagree, Moderately Disagree, Slightly Disagree, Neutral, Slightly Agree, Moderately Agree, Strongly Agree*)
38. Our organization has the ability to work more effectively by adopting new technologies.

(Strongly Disagree, Moderately Disagree, Slightly Disagree, Neutral, Slightly Agree, Moderately Agree, Strongly Agree)

Section 2:

1. Organization Age

- Less than 5 years old
- 5-10 years old
- More than 10 years old

2. Organization Size

- Less than 500 employees
- 500-1000 employees
- More than 1000 employees

3. Position Level:

- CEO / Managing Director / Owner
- Senior Management
- Middle management / Supervisory level
- Other (please specify _____)

4. Organization Name: (_____)

End of Questionnaire