



Envisioning Workforce Agility Through Embracing a Dynamic Capabilities Model

تصور رشاقة القوى العاملة من خلال تبني نموذج القدرات الديناميكية

by

NOUR HUSSEIN TAWFEEQ SHAKHOUR

**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**

December 2022

الجامعة
البريطانية في
دبي



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ABSTRACT

This empirical research study investigates how dynamic talent management capabilities as a strategic asset contribute to employee agility as a necessary organizational outcome. Through the mediating effects of absorptive capacity and strategic agility as robust dynamic capabilities, under the moderation effect of adaptive organizational culture. The research context is knowledge workers, which has not been a very popular research context in relation to the examined constructs compared to information technology companies, including Small and medium-sized enterprises (SMEs) (Ajgaonkar, Neelam & Wieman, 2022) and manufacturing (Gunasekaran, 1999). The finding is based on a deductive quantitative research design using a positivist approach and a cross-sectional survey collected from knowledge workers holding managerial roles working within the UAE with a sample size of 406 at a 95% confidence interval. The data was analyzed through a covariance-based approach to structural equation modeling (CB-SEM) using IBM SPSS-AMOS version 26. The finding indicates a statistically significant positive relationship between dynamic talent management capabilities and employee agility, both direct and sequential, through the mediating effect of absorptive capacity and strategic agility. Unlike the traditional human resources practices that were widely accepted, it hardly leads to a direct impact on organizational performance. Alternatively, it impacts the resources of the business, which are ultimately associated with performance. Furthermore, adaptive organizational culture plays an important role in positively moderating the relationship between dynamic talent management capabilities and employee agility. To the best of the researcher's knowledge, this is one of the first research studies that attempted to operationalize the dynamic talent management capability after its original conceptualization by Harsch and Festing (2020) through qualitative exploration. Unlike the vast majority of studies, which focus

on the objective, immediate, and typical side of organizational performance, such as financial performance (Faems et al., 2005; Way et al., 2017), this research study proposes that strategic human resources management in general and dynamic talent management capabilities in particular are influential in fostering employee agility as a less distal outcome compared with financial outcomes such as profit.

KEYWORDS

Dynamic Talent Management Capabilities; Absorptive Capacity; Strategic Agility; Employee Agility; Adaptive Organizational Culture.

المخلص

تبحث هذه الدراسة البحثية التجريبية في كيفية مساهمة قدرات إدارة المواهب الديناميكية كأصل إستراتيجي في رشاقة الموظفين كنتيجة تنظيمية ضرورية. من خلال التأثيرات الوسيطة للقدرة الاستيعابية وخفة الحركة الاستراتيجية كقدرات ديناميكية قوية ، تحت تأثير الاعتدال للثقافة التنظيمية التكيفية. سياق البحث هو العاملين في مجال المعرفة ، والذي لم يكن سياقًا بحثيًا شائعًا للغاية فيما يتعلق بالبنى التي تم فحصها مقارنة بشركات تكنولوجيا المعلومات ، بما في ذلك المؤسسات الصغيرة والمتوسطة الحجم (Ajgaonkar, Neelam & Wieman, 2022) والتصنيع (Gunasekaran, 1999). تستند النتائج إلى تصميم بحث كمي استنتاجي باستخدام نهج إيجابي ومسح مقطعي تم جمعه من العاملين في مجال المعرفة الذين يشغلون مناصب إدارية يعملون داخل دولة الإمارات العربية المتحدة بحجم عينة يبلغ 406 بفصل ثقة 95٪. تم تحليل البيانات من خلال نهج قائم على التغيرات لنموذج المعادلات الهيكلية (CB-SEM) باستخدام الإصدار 26 من IBM SPSS-AMOS. وتشير النتيجة إلى وجود علاقة إيجابية ذات دلالة إحصائية بين قدرات إدارة المواهب الديناميكية وخفة حركة الموظفين ، سواء المباشرة أو المتسلسلة ، من خلال التأثير الوسيط للقدرة الاستيعابية وخفة الحركة الاستراتيجية. على عكس ممارسات الموارد البشرية التقليدية التي تم قبولها على نطاق واسع ، فإنها بالكاد تؤدي إلى تأثير مباشر على الأداء التنظيمي. بدلاً من ذلك ، فإنه يؤثر على موارد العمل ، والتي ترتبط في النهاية بالأداء. علاوة على ذلك ، تلعب الثقافة التنظيمية التكيفية دورًا مهمًا في التوسط الإيجابي للعلاقة بين قدرات إدارة المواهب الديناميكية وخفة حركة الموظفين. على حد علم الباحث ، هذه واحدة من أولى الدراسات البحثية التي حاولت تفعيل القدرة الديناميكية لإدارة المواهب بعد تصورها الأصلي من قبل Harsch and Festing (2020) من خلال الاستكشاف النوعي. على عكس الغالبية العظمى من الدراسات ، التي تركز على الجانب الموضوعي والفوري والنموذجي للأداء التنظيمي ، مثل الأداء المالي (Faems et al. 2005 ؛ Way et al. 2017) تقترح هذه الدراسة البحثية أن الموارد البشرية الاستراتيجية الإدارة بشكل عام وقدرات إدارة المواهب الديناميكية على وجه الخصوص لها تأثير في تعزيز مرونة الموظف كنتيجة أقل بعدًا مقارنة بالنتائج المالية مثل الربح.

DEDICATION

This effort is dedicated to my parents who instilled the love of knowledge and learning from a young age, whom without I would not be able to pursue my dreams to the fullest. Thank you for teaching me to believe in myself.

My special thanks to my husband, Daud, over the years he encouraged me to develop and use my potential to grow. He is a big fan of change and without his inspiration and support, I would not be in this position to continue my education.

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LIST OF ABBREVIATIONS

KBO	Knowledge-based Organizations
SHRM	Strategic Human Resources Management
SEM	Structural Equation Modeling
CB-SEM	Covariance-based Structural Equation Modeling
AMO	Ability-Motivation and Opportunity
PMA	Post-merger Agility
MA framework	Morphological Analysis Framework
ISO	International Organization for Standardization
RBV	Resource-based View
VRIN	Valuable, Rare, Inimitable, and Non-substitutable
HR system	Human Resources System
FIHRP	Flexibility-inducing Human Resources Practices
DTMC	Dynamic Talent Management Capability
WA	Workforce Agility
SA	Strategic Agility
AOC	Adaptive organizational Culture
ACAP	Absorptive Capacity
KBV	knowledge-based View
VUCA world	Volatile, Uncertain, Complex, and Ambiguous
UAE	United Arab Emirates
IWB	Innovative Work Behavior
CIPD	Chartered Institute of Personnel Development
CMV	Common Method Variance
CLF	Common Latent Factor
EFA	Exploratory Factor Analysis
CFA	Confirmatory Factor Analysis

CHAPTER ONE: INTRODUCTION

1.1 Introduction

This chapter commences by providing a comprehensive overview of the research, focusing on the research context and background of the study, demystifying the main literature gaps to be addressed along with the rationale and significance of the study. It presents the main and investigative research questions that were set to be answered, along with the research objectives and hypothesis. It also outlines a high-level research strategy, which includes the methodology employed to undertake the research, with insights about the sample characteristics and size; data collection; and data analysis. While the last section of this chapter outlines the theoretical and practical contributions.

1.2 Research Background and Context

Research Environment

This research study focuses on knowledge workers who are serving in managerial roles within the service industry, manufacturing industry, or mixed industries (both services and products). Knowledge workers are those who analyze, apply, evaluate, organize, present, retrieve, secure, share, and store knowledge (Reinhardt et al. 2011). Moreover, knowledge workers have three main features, including: being educated with a high competency level, being certified by a university degree or equivalent, performing complex tasks that require critical thinking and advanced communication ability; and working within the following categories: managers, professionals, or associate professionals (Brinkley 2006).

The respondents of this research study work for knowledge-based organizations (KBO, hereafter). One of the idiosyncratic characteristics of KBO is that they heavily rely on their people as the main organizational assets to generate, acquire, and apply knowledge to produce

competitive products and services with which they can sustain their position in the market. This is the vibrant differentiator from other organizations in the manufacturing and service industries, including "people organizations" or "facilitator services" like estate agencies.

The other distinctive characteristic of KBO's is its standardized intangibility. The KBO deploys its assets uniquely, so the emphasis is on the capacity to produce, not the product itself. Which makes the product sufficiently intangible and hard to classify as a commodity that can be easily traded, yet sufficiently standardized to permit it to be distinguished from services delivered by others and therefore traded broadly.

According to Winch and Schneider (1993), there are various classifications of KBO. The first group trades in a distinctive competence of *probity*, such as accountants and lawyers, who act as third parties to ensure that business records are accurate and fair. The second group is the one that enunciates their distinguishing competence in technology, such as software and consulting engineers, who try to solve the technical issues of their clients. Whereas the third group articulates the KBO's distinctive competence around *creativity*. Here, the KBO's role is to provide creative solutions in response to the client's issues and challenges, which is considered the principal source of their competitive advantage. Management consultants, legal advisors, and financial advisors are exemplary of creativity as a distinctive competence, and this category reflects the main target of this research study.

Accordingly, within the context of this research study, human resources refer to the talented employees that possess special knowledge, skills, and abilities that add value to the business through providing creative solutions to their clients. Such talent requires strategic and high-quality human resources practices capable of making strategic decisions that clearly govern all talent-related choices, from attracting and selecting to the development and retention of talent (Lewis & Heckman 2006).

Human capital, which is an integral part of intellectual capital, is not only a profit lever of the knowledge economy, but also a source of innovation and strategic renewal. From the perspective of KBO, human capital is the economic value of the talent, experience, knowledge, skills, and abilities that they strive to develop and invest in to achieve the strategic goals of the organization and sustain their competitive advantage (Nicolaescu et al. 2020).

Theoretical and Conceptual Background

Inferring from the above discussion human is a vital capital for KBO and in fact, this is one of the main challenges since “the capital goes down the elevator every night” (Teece 2003), and it is so challenging to ensure they come back with motivation to deliver creative solutions to their clients. Unlike in the industrial setting, where there is co-specialization between the employee and the physical environment of the industry (expensive tools and equipment) to deliver business value. This makes the human capital a more valuable contributor to the organization’s competitive advantage and profit than physical capital. Accordingly, business investment decisions are mostly centered on attracting and recruiting talent, identifying and differentiating talent, using talent, developing talent, maintaining a positive relationship with talent, and talent retention (Nicolaescu et al. 2020).

Besides the described challenge, a more contemporary one is that today’s KBOs are challenged by universal dynamic changes within the business environment from one side and the new economies of information and networks on the other side. These changes mandate the business leaders as well as the human resources professionals of KBOs to recognize the importance of agility since it is viewed as the most contemporary approach that organizations are encouraged to envision in order to develop the dynamic capabilities of the workforce to react to changes appropriately and at the right time (Doz 2020). Consequently, and in response to the current,

hyperactive and turbulent business environment, KBOs realize that being agile, adaptive, and highly responsive to internal and external changes is not optional anymore.

According to Darvishmotevali and his colleagues (2020), organizational agility is the most vigorous and contemporary approach that should replace the traditional management approaches since it can help organizations to bask in the welfare of responding proficiently and efficiently to the vitality within the business environment. In order for organizations to reach the desired level of agility in a way that complements the turbulent environmental conditions, business stakeholders need to consider three main forms of agility, strategic agility (Doz 2020), operational agility (comprises culture, structures, and systems) (Van Oosterhout et al. 2006; Zhang & Sharifi 2000), and workforce agility (Dyer & Ericksen 2006; Dyer & Shafer 1998, 2003; Sherehiy, Karwowski & Layer 2007).

Agile organizations display two core capabilities. First, the capacity of the organization to respond proactively to the unpredicted fluctuations and risks within the business environment in the best possible manner and in the shortest possible time. Second, the ability of the organization to realize and exploit opportunities in the most efficient and timely manner (Zhang & Sharifi 2000). Agile organizations require an agile and malleable workforce that can proficiently manage an undefined business environment to accomplish business sustainability (Youndt et al. 1996). So, what is workforce agility?

The following definition of workforce agility has been adopted in this study for its appropriateness and consonance with the research framework, which is a dynamic talent capability in the KBO setting. Zhang and Sharifi (2000, p. 497) defined an agile workforce as “people with a broad vision and capabilities to deal with marketplace turbulence by capturing the advantageous side of such dynamic conditions, such as occasional abrupt shifts in customer

preferences and account structure”. Fostering workforce agility necessitates multifaceted organizational efforts, particularly in KBO settings, because workforce agility, which stems from employee adaptability, usually translates into a strategic competitive advantage for the organization (Nicolaescu et al. 2020).

The main argument of this research study is that for companies to envision workforce agility, it is important to integrate dynamic talent management capabilities, along with strategic agility and absorptive capacity. As such, dynamic capabilities are viewed as processes that explain the evolutionary nature of resources in a fluctuating environment and overtly link organizational resources with the external environment for the purpose of creating sustainable competitive advantage by reconfiguring a critical set of resources.

Companies adopt agile and dynamic talent practices where core business functions have substituted the long-term succession plans, annual performance appraisals, career path programs, and pre-defined competency models with nimbler approaches that promote workforce agility (Cappelli & Tavis 2018). It is vital to recognize that talent management practices are highly context-dependent, hence the following talent practices might significantly differ in start-up settings than in multinational corporations or family businesses, or KBO (Collings, Mellahi & Cascio 2019). For instance, an annual appraisal performed by one manager within the KBO context might not make sense because usually experts work on various projects of various lengths, led by different managers, and organized around functional teams. Likewise, talent compensation is changing in response to adapting to agile practices. Therefore, spot bonuses are becoming more prominent as an immediate reward rather than waiting for the end-of-year salary review (Cappelli & Tavis 2018).

There are three main reasons for investigating the contribution of talent management capabilities on workforce agility, through the mediating effect of strategic agility and absorptive capacity. First, it is widely accepted that strategic human resources management (SHRM) has hardly led to a direct impact on organizational performance. Alternatively, it impacts the resources of the business, which are ultimately associated with performance (Boon, Den Hartog & Lepak 2019; Delery 1998). Also, Ulrich (1997) contended that a straightforward and simple relationship between human resources and organizational performance is not sufficient. Second, this research integrated strategic agility as a mediator to fill the literature gap on how dynamic talent management capabilities contribute to strategic agility (Ahammad, Glaister & Gomes 2020; Doz 2020). Third, strategic agility and absorptive capacity are considered organizational capabilities that have positive effects on the overall organizational agility (Mao et al. 2013; Kale, Aknar & Başar 2019).

Strategic agility came to prominence after critiquing the following concepts as being tautological and ambivalent, strategic planning, the resource-based view, and sustainable competitive advantage (Weber & Tarba 2014). Such vitality within the business environment requires tactical leaders to be more responsive, flexible, and adaptive. Accordingly, strategic agility is defined as "the ability of management to constantly and rapidly sense and respond to a changing environment by intentionally making strategic moves and consequently adapting the necessary organizational configuration for successful implementation" (Weber & Tarba 2014, p.7). Additionally, strategic agility is knowledge-based and proactive (Kale, Aknar & Başar 2019). For proper implementation of the concept, the three meta-skills (strategic sensitivity, leadership unity, and resource fluidity) should be integrated to achieve optimal agility level (Doz & Kosonen 2010).

Moreover, absorptive capacity is a dynamic capability that greatly influences the nature and sustainability of the organization's competitive advantage (Cohen & Levinthal 1990; Jansen et al. 2005; Tu et al. 2006; Zahra & George 2002). Absorptive capacity is defined as the “ability of a firm to recognize the value of new, external information, assimilate it, and apply it into commercial ends” (Cohen & Levinthal 1990: p.128). Sambamurthy et al. (2003) highlighted the importance of knowledge reach and richness for attaining the desired agility at various levels of the organization. Moreover, Mao, Liu, and Zhang (2014) augured that knowledge capabilities have positive effects on organizational agility.

This research study adopted the adaptive organizational culture construct as a moderator between the dynamic talent management capabilities construct, workforce agility construct, and absorptive capacity. The adaptive organizational culture is a critical element for KBO to adapt effectively to the dynamism of the business environment and can perform as an adaptation process by empowering its organizational members to spot environmental threats and develop solutions to transform rapidly (Costanza et al. 2016; Barney 1986; Schneider et al. 2013).

According to Neagu (2008), a KBO intelligently develops and applies knowledge by integrating the appropriate organizational culture, supported by a flexible organizational structure, and the deployment of the appropriate mixture of communication technologies and information to incorporate all essential processes of knowledge transformation and exploitation to the organization both internally and externally. Congruently, a KBO is one in which the main resource is constituted of skilled and well-educated talent and forms the market value with the efficient implementation of knowledge to the provision of superior services for its clients (Deng 2008).

1.3 Significance of the Research

Dealing with a highly volatile, dynamic, and unpredictable change within the business world has been a predominant subject both in industry and academia for a few decades (Mitsakis 2020; Sherehiy et al. 2007). In fact, the business environment is becoming more tempestuous sooner than organizations are becoming agile. In accordance with a study initiated by Deloitte, 94% of the surveyed companies viewed agility as a critical success factor (Walsh & Volini 2017). Agility is considered a facilitator for organizations because it supports them performing adaptively in a dynamic environment. The foremost drivers for agility include disruptive technological innovations, competitive markets, variations in customer expectations, and changes in social factors (legal, ecological, or workforce and workplace issues) (Abdelilah, ElKorchi & Balambo 2018; Tseng & Lin 2011). Moreover, based on the systematic literature review of Salmen and Festing (2021) around 58% of the agility frameworks indicated the role of people and people practices in fostering agility at different levels.

The notion of workforce agility has been identified as the central power for establishing agile organizations, which accomplishes greater environmental flexibility, adaptability, responsiveness, and pro-activeness in contexts of turbulence and unpredictable change (Sherehiy et al. 2007; Sharifi & Zhang 1999; Erande & Verma 2008).

Previous research suggests a positive impact of workforce agility on the organization's performance by contributing to the organization's success in different ways. It is well recognized for achieving market share, productivity, and profit (Goldman et al. 1995 cited in Breu et al. 2002), enhances the business prospects for prosperity and survival (Gehani 1995), boosts the business ability to grow in an aggressively competitive market where unpredictable changes are the norm (Katayama & Bennett 1999 cited in Breu et al. 2002), and accelerates the

learning curve, customer satisfaction, and quality improvements (Sherehiy, Karwowsky & Layer 2007). Additionally, the development and integration of agile workforce analytics are becoming so prevalent within the evidence-based decision management practices since it supports not only discovering, diagnosing, and realizing emerging problems, but can design evidence-based solutions that adapt successfully to the changing needs, dynamic environments, and fluctuating business requirements (McIver, Lengnick-Hall & Lengnick-Hall 2018).

Based on a recent review by Skjølsvik, Perner and Løwendahl (2017) using qualitative and iterative content analysis of high-ranking journals, nine recurring research themes were identified in which human resource strategy and knowledge were on the top of the researcher's publications within KBO's mainly professional service firms followed by market and client strategy; international strategy; management and organization; archetypes and institutional strategy; innovation; strategic analysis; and mergers and collaborations. Refer to appendix (1) for the illustrative chart. Accordingly, human resources strategy and knowledge management strategy continues to attract the extensive interest of scholars over the last 15 years, which reflects the significant role they play in achieving competitive advantage and growth, especially within the context of KBO.

In view of the recent developments in social cognitive neuroscience and neuroeconomics, human resources play a pivotal role in organizations, especially in the dynamic business environment, since it paves the way toward adopting new strategies for the formulation and implementation of human activities which results in organizational learning, adaptation, and performance (Hodgkinson & Healey 2011; Harsch & Festing 2020). According to Cappelli and Tavis (2018), human resources practices deal with every aspect and every employee within the

organization, therefore its agile transformation might be more extensive and challenging than conversions in other functions.

Moreover, absorptive capacity has played a substantial role in diverse aspects of the field of business, and its importance has been prominent across the fields of international business, strategic management, organizational economics, and technology management (Zahra & George 2002).

1.4 Research Aim and Objectives

In an attempt to contribute to the knowledge pertaining to the organizational agility paradigm, it is vitally important to understand how organizations can achieve workforce agility, particularly within the context of KBO, since the workforce is the bedrock of a successful organization.

Accordingly, the study aims to examine how dynamic talent management capabilities can contribute to the achievement of workforce agility through the mediating effect of strategic agility and absorptive capacity, as both are dynamic organizational capabilities. Moreover, the research is intended to understand the moderating impact of adaptive organizational culture on the relationship between dynamic talent management capabilities and workforce agility. Also, the research is envisioned to understand the moderating influence of adaptive organizational culture on the relationship between dynamic talent management capabilities and absorptive capacity. Additionally, the research aims to empirically test the impact of dynamic talent management capabilities that emphasize talent attraction, talent selection, talent development, and talent retention when considered as a comprehensive system, on strategic agility (strategic sensitivity, resource fluidity, and leadership unity).

Additionally, the study objectives are:

1. To empirically test the impact of dynamic talent management capabilities that emphasize talent attraction, talent selection, talent development, and talent retention when considered as a comprehensive system, on absorptive capacity (acquisition, assimilation, transformation, and exploitation).
2. To empirically test the impact of absorptive capacity (acquisition, assimilation, transformation, and exploitation) on strategic agility (strategic sensitivity, resource fluidity, leadership unity).
3. To empirically test the impact of each strategic agility dimension (strategic sensitivity, resource fluidity, leadership unity) on workforce agility (proactiveness, adaptability, and resilience).
4. To empirically test the impact of dynamic talent management capabilities that emphasize talent attraction, talent selection, talent development, and talent retention when considered as a comprehensive system, on workforce agility (proactiveness, adaptability, and resilience).
5. To empirically test the impact of dynamic talent management capabilities that emphasize talent attraction, talent selection, talent development, and talent retention when considered as a comprehensive system, on workforce agility (proactiveness, adaptability, and resilience) through the sequential impact of both absorptive capacity and strategic agility.
6. To empirically test the moderating effect of adaptive organizational culture on the relationship between dynamic talent management capabilities and workforce agility.
7. To empirically test the moderating effect of adaptive organizational culture on the relationship between dynamic talent management capabilities and absorptive capacity.

1.5 Research Questions

The central research question for this research study is to what extent do the following dimensions of dynamic talent management capabilities that emphasize (talent attraction, talent selection, talent development, and talent retention) when considered as a comprehensive system influence workforce agility?

While the investigative research questions are:

1. What is the mediating effect of absorptive capacity and strategic agility on the relationship between dynamic talent management capabilities and workforce agility?

2. How the adaptive organizational culture influences the direct relationship between dynamic talent management capabilities and workforce agility from one side and the mediated relationships from the other side?

1.6 Research Strategy

Methodology

To achieve the stated aims and objectives of the study, a deductive quantitative research design with a positivist approach is adopted as the appropriate fit for undertaking this research study since it requires testing of the causal link between the various variables in the research model. Accordingly, a structured approach with a “top-down” orientation is followed in order to discover reality and create knowledge (Hair, Ringle & Sarstedt 2011).

Sample Size and Characteristics

Considering the workforce as the fundamental unit of analysis for this research study, the sample selections targeted mainly managers as they are anticipated to have a wider and more comprehensive view of the business strategic directions and importance of the workforce than individual level employees. Accordingly, the proposed sample size is 384 at a 95% confidence interval.

Data Collection and Analysis

The data was collected through a cross-sectional survey gathered from individual managerial employees working within UAE knowledge-based services organizations (such as financial advisors and legal advisors) using a self-reported questionnaire instrument. The data will be analyzed using structural equation modeling (SEM) using the covariance-based (CB-SEM) approach using IBM SPSS-AMOS version 26.

The questionnaire items and scales were adapted from existing literature to ensure better reliability and validity. The dynamic talent management capabilities items were adopted from

Jayaraman, Talib & Khan (2018) and they consist of 26 items, of which 4 items represent the talent attraction and selection practices, 11 items illustrate the talents, learning and development, and the remaining 11 items are for the talent retention practices. Strategic agility items proposed by Doz and Kosonen (2008, 2010). The selected scale includes 3 items under each of the strategic agility dimensions, namely leadership unity, strategic sensitivity, and resource fluidity. Absorptive capacity was measured through the items suggested by Flatten et al. (2011) and it includes the following main four dimensions (Acquisition, Assimilation, Transformation, and Exploitation) of ACAP as per the definition of Zahra and George (2002). The workforce agility items were adopted from Griffin and Hesketh (2003), and the scale consists of three subscales: proactivity, adaptability, and resilience, measured through 13 items. The adaptive organizational culture scale consists of 9 items and was adopted from Costanza et al. (2015).

1.7 Research Gap

Despite the growing interest in agile human resources practices among human resources, academics and practitioners the concept has received virtually no attention within the strategic human resources management literature (McMackin & Heffernan 2020). Yet recent empirical evidence suggests a strong association between investments in human resources management capabilities and organizational performance, mainly employee productivity, stressing the need for a greater SHRM focus on this subject (Subramony, Guthrie & Dooney 2020).

Moreover, a recent empirical investigation by Das, Mukhopadhyay and Suar (2022) suggested a positive significant effect of talent management practices on workforce agility and the paper calls for further empirical investigations to test the same relationship through mediation effect.

Besides that, there is limited understanding concerning the role of dynamic talent management capabilities within strategic agility, and a better understanding is vital (Ahammad, Glaister &

Gomes 2020). A similar gap has been contended by Doz (2020), through highlighting the following: “while a growing number of papers have focused on strategic agility , scant research exists exploring the connection between strategic agility and dynamic talent management, despite the fact that HR has a key contribution to make: select, develop, and prepare managers and staff to contribute to strategic agility in the future, and not simply play an effective role in today's prevailing conditions” (P.3).

Moreover, the strategic agility concept has been examined at an organizational level and is widely conceptualized as an organizational capability, mostly as “the ability to quickly recognize and seize opportunities, change direction, and avoid collisions” (McCann 2004, p. 47). In parallel to research studies that have investigated strategic agility at the organizational level of analysis, distinct strands of research studies have emerged which assess agility within specific organizational contexts, most noteworthy knowledge concentrated businesses and manufacturing industries. Research in these contexts tends to draw attention to the association between agility and state of the art technologies (Sherehiy et al. 2007). However, little is known about human resource management strategies and systems enabling strategic agility (Ahammad, Glaister & Gomes 2019).

Additionally, Xing et al. (2020) highlighted several future research directions that are awaiting further scholarly investigation, in which exploring the link between human resources strategies and strategic agility is remarkable, especially in managing effective entrepreneurial teams in differing contexts and currently the literature is lacking. Moreover, Khan and his colleagues (2020) contributed by identifying the need for future empirical research studies that could examine potential micro-macro level factors, such as leadership, organizational culture, and

human resources management practices (ability-motivation and opportunity enhancing ones, AMO), that can impact agility and in particular post-merger agility (PMA).

Following the above issue papers and the addressed future research agenda highlighted by various empirical studies, a recent qualitative exploration by Harsch and Festing (2020), in which the main claim was that there is still a lot to investigate in terms of dynamic talent management capabilities and agility. One of the major results of the study is that there are three main types of dynamic talent management capabilities, which are individualized talent management, paternalistic talent management, and sophisticated talent management. Further into the proposed conceptual model that explains the impact of dynamic talent management capabilities on organizational agility, one of the main recommendations for future research is to include the individual talent level and hence explicitly include workforce agility.

Grounded in a recent dynamic capabilities' morphological analysis framework, (MA framework) interestingly, the identified research gap connects various dimensions within the proposed MA framework (Vijaya, Ganesh & Rahul 2019). The suggested dynamic capability framework consists of five crucial dimensions (building blocks, input variables, influencing factors, desired outcomes, and assessment yardsticks). This research study interconnects human resources and knowledge which are considered as important input variables, with organizational culture and leadership - central sub-dimension of the strategic agility construct - as fundamental endogenous factors, along with agility and flexibility as an ultimate desired outcome. Additionally, the paper calls for quantitative testing of the suggested relationships within the framework. For details about the morphological analysis framework, refer to appendix (2).

Therefore, this research study responds to the call for investigating the linkages, or inter-relationships, between the individually identified dynamic capabilities with the primary goal of

overcoming the fragmented view of dynamic capability by conceptualizing it as an organizational level ecosystem. This gap is relevant to the research context which is KBO since based on recent qualitative research, knowledge-based work is an interesting research avenue to further illuminate the challenging question of how talent management is conceived, executed, and developed in the so-called new organizational forms of business, such as non-hierarchical organizations with self-managing teams (Järvi & Khoreva 2020).

Besides the discussed gap between dynamic talent management capabilities and strategic agility, the literature review revealed a limited number of studies that investigate strategic agility in relation to absorptive capacity. However, some studies provide indirect support for this relationship through investigating the dimensions of strategic learning (knowledge acquisition, interpretation, dissemination, and activation) with the strategic agility construct (Idris & Al-Rubaie 2013).

Additionally, there is recent research that investigated the relationship between strategic agility and absorptive capacity in relation to firm performance in the tourism industry, and the paper calls for more empirical research in this area considering more specific outcomes such as (financial performance, customer satisfaction, innovation performance, agility-related outcomes such as organizational agility, or workforce agility) and testing the relationship in other relevant contexts such as KBO (Kale, Aknar & Başar 2019).

1.8 Research Contributions

Theoretical Contribution

The results of this study are expected to contribute to different bodies of literature such as the KBO literature, organizational agility literature, strategic human resources literature, and

strategic management literature. Moreover, this is the first research study up to the researcher's knowledge that made an attempt at the operationalizations of the dynamic talent management capability construct after the original conceptualization addressed by Harsch and Festing (2020) through qualitative exploration. Furthermore, this research study contributes to the understanding of the impact of the dynamic talent management capabilities on workforce agility which has been considered as an important area that needs further investigations (Ahammad, Glaister & Gomes 2020; Doz 2020). Unlike the vast majority of studies which focus on the objective, immediate, and typical side of organizational performance, such as financial performance (Faems et al. 2005; Way et al. 2017), this research study proposes that, strategic human resources management in general, and dynamic talent management capability in particular, is influential in fostering workforce agility as a less distal outcome compared with financial outcomes such as profit.

Additionally, this research study proposes that dynamic talent management capabilities are able to influence, directly and indirectly (through mediation effects) organizational outcomes. Unlike the traditional human resources practices which were widely accepted, they hardly led to a direct impact on organizational performance. Alternatively, it impacts the resources of the business, which are ultimately associated with performance. Moreover, the study provides empirical evidence on the impact of talent management practices on workforce agility, through the mediating role of strategic agility and absorptive capacity and the moderation of effect of adaptive organizational culture.

This study accentuates the need to adopt a holistic framework that aligns dynamic talent management practices through strategic agility and absorptive capacity to achieve workforce agility. Moreover, this research systematically investigates the effect of the mediation effect of strategic agility and absorptive capacity on workforce agility. Additionally, the outcomes of

this study are expected to further reinforce the notion that strategic agility and absorptive capacity are strategically important inter-firm capabilities that enhance workforce agility (Harsch & Festing in 2020). Also, defining the role of strategic agility in relation to absorptive capacity is a relatively new subject within the management literature (Kale, Aknar & Başar 2019). Accordingly, this understanding contributes to the effects of using absorbed and renewed knowledge strategically and quickly. Further details about the theoretical contributions are highlighted in the discussion chapter.

Practical Contribution

The study is expected to result in a significant organizational awareness about the importance of dynamic talent management capabilities in relation to fostering workforce agility. Additionally, human resources professionals will attempt to generate systematic policies and procedures that promote workforce agility through the influenceable impact of dynamic talent management capabilities, strategic agility, and absorptive capacity. Moreover, the employment of agile principles within the talent management standards is expected, most relevantly the regulators of international standards such as International Organization for Standardization (ISO) specifically ISO 30409:2016- Workforce Planning Standards, ISO/TS 30433-2021 Succession planning metrics cluster, and Workforce productivity metrics cluster ISO/TS 30432) and other standards as applicable.

Leaders are expected to adopt agility as a modern management style and consider it as a key element when planning future organizational initiatives. In practical terms, the findings of this study may guide organizational leaders and managers to embrace the culture that fosters workforce agility as a new way of governing organizations (Mergel, Ganapati & Whitford 2020), along with its strategically important contributing factors (dynamic talent management capabilities, strategic agility, and absorptive capacity). Additionally, senior management is

expected to encourage the development of learning culture by developing competence of acquiring, using, and developing agile strategies that can be obtained from the outside world. Accordingly, the decision-making intentions will be directed toward rapidly updating the acquisition and use of information and strategies for best utilization and reconfiguration of resources.

The finding of this research might reemphasize the importance of improving the dynamic talent management capabilities not only to improve the overall organizational performance, but also to detect internal and external information required for the business, to integrate them with present information, and to use it for the benefit of promoting agility at different levels (Kale, Aknar & Başar 2019). Managers working as knowledge workers are expected to promote and adopt an adaptive organizational culture since it acts as an orchestrator between dynamic talent management practices and workforce agility. Managers might take serious steps toward the following actions in order to promote a more discernible adaptive culture such as: paying attention to its external environments by reading and interpreting signals from their environments, identifying internal and external, current and future environmental changes, embracing change; being more receptive to innovation; exhibiting flexibility; and willing to take risks.

Thesis Structure

Thesis includes seven main chapters:

Chapter 1: includes the introduction, research background and context, research aim, and objectives. The research questions, mythology, gap, and contributions.

Chapter 2: repents the literature review including the key concepts with latest arguments in the literature, working definitions, and related dimensions for every construct.

Chapter 3: presents the research conceptual model, and the research framework, along with the hypothesis development section.

Chapter 4: outlines the research methodology approach, philosophy design, unit of analysis, study setting, time horizon, generalizability, data collection instrument, data analysis procedures and test, ethical consideration, and pilot study procedures and results.

Chapter 5: describes the collected data and presents the results of exploratory factor analysis validity, reliability, and confirmatory factor analysis tests. The chapter reports the results of structural equation models and hypotheses.

Chapter 6: presents the discussion of results, analysis of the model relationships, and the relation to the previous body of knowledge.

Chapter 7: covers the research conclusion, practical and theoretical contributions, limitations, and the recommendations for further research.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

The contemporary business environment is confronted by the variety and severity of the sources of change such as disruptive technology, deregulation, and globalization. Such dynamism in the business environment has led organizations and their leadership to the quest for a new organizational configuration that promotes dynamic capabilities in order to help them sustain their market position within the turbulent business environment (Darvishmotevali et al. 2020). The prescribed dynamism has led to the prominence of agility at the level of the organizations and employees. Organizations have started to recognize that a hyperactive and turbulent business environment necessitates being agile, adaptive, and highly responsive to internal and external changes. Otherwise, organizations will stumble and might fall rapidly and suffer from a ‘hypercompetitive’ business environment in which competitive advantage is temporary and cannot be sustained (Ananthram, Nankervis & Chan 2013; Darvishmotevali et al. 2020).

Agility is viewed as the most contemporary approach that organizations are encouraged to envision in order to develop the dynamic capabilities of the organization to anticipate and respond to changes in an appropriate way and at the right time (Holbeche 2018). Accordingly, organizational agility is defined as “the organization’s capacity to respond, adapt quickly, and thrive in the changing environment” (Holbeche 2018, p.9). Agility as a concept has been discussed in many aspects within the literature such as organizational agility, strategic agility, leadership agility, and other forms of agility. This research study investigates the impact of dynamic talent management capabilities on workforce agility through the absorptive capacity and strategic agility and the moderating effect of adaptive organizational culture. Accordingly,

this chapter aims at exploring the theoretical underpinning of the dynamic talent management capabilities, strategic agility, absorptive capacity, workforce agility, and adaptive organizational culture. Knowing that, the talent management is viewed from the dynamic capabilities perspective to address the deficiencies of the resource-based view mainly with regards to the static view of resources which neglects the process of developing and adapting the critical resource bundles (Schilke, Hu & Helfat 2018).

2.2 Review of Dynamic Talent Management Capabilities

2.2.1 Introduction

The prime concern for the strategic management field is to sustain competitive advantage, and the resource-based view (RBV) argues that resources that are instantaneously valuable, rare, inimitable, and non-substitutable (VRIN) are the foundation of competitive advantage (Barney 1991, 1995). Whereas the dynamic capabilities view is considered as an extension to the RBV since it is mainly concerned with the mechanisms of building, reconfiguring, and renewing resources (Ambrosini & Bowman 2009). This view is particularly important, especially in a turbulent and changing environment since resources cannot be static and valuable at the same time. Thus, resources must be continuously upgraded, otherwise knowledge-based organizations will not be able to achieve workforce agility which is widely viewed as the new frontier to sustain long-term competitive advantage (Beatty 2005; Muduli 2013; Munteanu et al. 2020).

2.2.2 Dynamic Capabilities

Dynamic capability is widely understood as the standard and systematic collective activities that an organization pursues to improve effectiveness. The term ‘dynamic’ indicates the constant

shifting character of the business environment with the prominence the vital role of innovation when timing is perilous. While the term ‘capabilities’ refers to the significant role of strategic management in properly adjusting, assimilating and re-configuring internal and external competences in response to the fluctuating environment (Bitencourt et al. 2020).

There are different ways in which organizations respond to constant turbulence within the business environment. Ad hoc problem solving is one way that is usually a response to novel or unpredictable challenges of the environment. Such a way does not involve routine or repetitive behaviors and there are no specific patterns to follow, so organizations can be as innovative as they can to produce a proper short-term solution in response to the client's problems. Whereas the other way is to exercise dynamic capabilities with high involvement of repetitive routines and long-term commitment (Winter 2003).

Teece et al. (1997) contributed to the original definition of dynamic capabilities which is “the firm’s ability to integrate, build, and reconfigure internal and external competencies to address rapidly changing environments” (Teece et al. 1997, 516). The below table illustrates further definitions of the dynamic capability and the perspective for each of them.

Table 1: Review of definition dynamic capabilities.

Definitions of Dynamic Capabilities	Nature of Dynamic Capability	Author, Year and page number
“Dynamic capabilities as the regular actions of creating, extending, and modifying the organizational resource base. By “organizations,” I refer to “assemblages of interacting human beings” (March & Simon, 1958, p. 4 cited in Kurtmollaiev 2020), whereas the “organizational resource base” characterizes their resources and routines (Helfat et al. 2007)”.	Focus on the micro-foundation’s movement	(Kurtmollaiev 2020, p. 1).
“Dynamic capabilities involve higher-level activities that can enable an enterprise to direct its ordinary activities toward high-payoff endeavors”.	Routine-based approach	(Teece 2014, p. 328).
“A dynamic capability is the firm’s potential to systematically solve problems, formed by its	Capability monitoring, perceived as multidimensional construct, treated as a	(Barreto 2010, p 271).

propensity to sense opportunities and threats, to make timely and market-oriented decisions, and to change its resource base”.	single theoretical concept	
“A firm’s behavioral orientation constantly to integrate, reconfigure, renew and recreate its resources and capabilities and, most importantly, upgrade and reconstruct its core capabilities in response to the changing environment to attain and sustain competitive advantage”.	Capability based definition	(Wang & Ahmed 2007, p.35).
“The capacity of an organization to purposefully create, extend or modify its resource base”.	Ability or capacity perspective with focus on repeatability to differentiate dynamic capability from onetime change	(Helfat et al. 2007, p. 1).
“Dynamic capabilities can be disaggregated into the capacity (a) to sense and shape opportunities and threats, (b) to seize opportunities, and (c) to maintain competitiveness through enhancing, combining, protecting, and, when necessary, reconfiguring the business enterprise’s intangible and tangible assets”.	Ability or capacity perspective, with main focus on strategic management	(Teece 2007).
“The ability to reconfigure a firm’s resources and routines in the manner envisioned and deemed appropriate by its principal decision-maker”.	Ability or capacity perspective	(Zahra et al. 2006, p.918).
“Dynamic Capabilities ‘are those that operate to extend, modify or create ordinary capabilities”.	Ability or capacity perspective	(Winter 2003, p.991).
“A dynamic capability is a learned and stable pattern of collective activity through which the organization systematically generates and modifies its operating routines in pursuit of improved effectiveness”.	Processes or routines perspective	(Zollo & Winter 2002, p.340).
“The firm’s processes that use resources – specifically the processes to integrate, reconfigure, gain and release resources – to match or even create market change. Dynamic capabilities thus are the organizational and strategic routines by which firms achieve new resource configurations as markets emerge, collide, split, evolve and die”.	Processes or routines perspective	(Eisenhardt & Martin 2000, p.1107).
“The subset of the competences and capabilities that allow the firm to create new products and processes and respond to changing market circumstances”.	Ability or capacity perspective, with main focus on strategic management	(Teece & Pisano 1994).

Although there are various definitions of dynamic capabilities that exist within the literature, there is a consensus among scholars about the primary elements that constitute the definition of dynamic capabilities construct. The fundamental elements are structured and persistent processes, and systematic routines to assimilate, reconfigure, and upgrade resources to respond competently to the constantly changing business environment. Thus, the dynamic capability concept is ultimately about apprehending the organization's survival and growth to accomplish and sustain the competitive advantage through consistent processes and routines.

The literature review revealed a greater consensus among scholars around the different typologies of dynamic capabilities. The first type of dynamic capabilities is the one that enables the business to achieve the basic functions (Collis 1994). Winter (2003) agreed and suggested that these are considered as the zero-level capabilities which include ordinary and operational type capabilities that allow the organizations to get along with the present condition. The second type is called the first-level capabilities and deals with the improvements and modifications made on the zero-level capabilities (Collis 1994; Danneels 2002; Winter 2003; Zahra et al. 2006). While the third type is the higher-order or meta-capabilities which concentrates on the learning-to-learn capabilities and as described by Collis (1994) these are the types of capabilities that help organizations to win tomorrow and to grow faster than competitors.

The main reason for considering the dynamic capability view of talent is that although organization learning, cognition, and innovation are respectable examples of fields that address change-related matters; however, dynamic capabilities view in the primary concept that emphasizes in what way organizations can change their valuable resources over time and how to do that insistently (Ambrosini & Bowman 2009). Additionally, the advent of dynamic capabilities has led to further enhancement in the resources-based view of exploring the resources and capabilities in relation to the changes within the environment. Accordingly, Wu (2010) contends that the dynamic capabilities view is considered as a major enhancement to the resource-based view, especially within the context of volatile environments where the explanatory power of dynamic capability outweighs that of the resource-based view. The below table highlights the key differences between the dynamic capability view and the resource-based view.

Table 2: Comparison between the dynamic capability view and the resource-based view.

Comparison Dimension	Dynamic Capability	Resources Based View (RBV)
Landmark Authors	Teece, Pisano & Shuen (1997) Teece, Peteraf, & Leih (2016) Linden & Teece (2014), cited in Harsch & Festing 2020 Teece (2007) Schilke (2014a, b)	- Initial insights by Penrose (1959). -Further Emphasis by Winter (1982); and Wernerfelt (1984). -Additional contributions by Day & Wensley (1988); Dierickx & Cool (1989). -Subsequent popularization of the concept by Barney (1991).
Main Argument	Argues that the main emphasis should be on the how aspect (processes) of integrating, building and reconfiguring resources.	Argues that resources (unique, valuable, and imperfectly imitable) and capabilities are the sources of competitive advantage.
Response to change	Superior returns which can be sustained and might result in competitive advantage if applied sooner than competitors.	Short lived in case faced with significant environmental changes.

The literature presents some contradictions within the dynamic capabilities construct. Based on Eisenhardt and Martin (2000), dynamic capabilities are just an additional form of capability and can be irrelevant as time passes. On the other hand, Wang and Ahmed (2007) argue that the aptitude to apply dynamic capability “sooner, more astutely, and more fortuitously” is substantially at the apex of dynamic capability.

The relationship between dynamic capabilities and competitive advantage is another area of disagreement among scholars. Some scholarly articles argue that the link is direct if dynamic capabilities can create difficult to imitate resources (Griffith & Harvey 2001; Lee et al. 2002; Priem & Butler’s 2001; Teece et al. 1997), while others (Bowman & Ambrosini 2003; Zott 2003) argue that the link is indirect since dynamic capabilities will affect first the bundle of organizational resources, processes, and competencies which then affect the organization’s performance. The other extreme notion of the linkage between dynamic capabilities and competitive advantage is indicated by Helfat et al. (2007), where the main argument is that

dynamic capabilities might not necessarily lead to competitive advantage and the change of resources might not even add value to the organization, accordingly the effect may be negative as well.

Accordingly, there are four main possible outcomes of the dynamic capabilities proposed by Wang and Ahmed (2007). First, long-term sustained competitive advantage if the resource base cannot be imitated for a long time. Second, the outcome could be a transient competitive advantage, especially in hypercompetitive environments where continuous morphing takes place (Rindova & Kotha 2001). Third, dynamic capabilities may lead to competitive parity when the resource base is achieving only standard or average results compared with competitors. Finally, the implementation of competitive advantage may result in failure if the created resource base is completely irrelevant to the business.

Today's business environment is highly volatile and dynamic. This is caused by the widespread of digitalization, the growing importance of the knowledge economy, fast-moving customer needs and expectations, rising of global competition, and disruptive innovations (Alavi et al. 2014; Beltrán-Martín & Roca-Puig 2013; Harsch & Festing 2020). Such external environment changes shape the internal forces of the organizations, including the KBO, and entails the utilization of novel organizational capabilities (Peters et al. 2014). Accordingly, having long-term talent management agendas and concise job descriptions with identified job competencies and pre-defined individual career development plans for elite employees appear to be out of position in today's dynamic circumstances (Cappelli & Tavis 2018).

Although change is not a novel phenomenon, its haste and commotion are noteworthy (Hervas-Oliver 2013). Therefore, organizations need to adapt flexibly and dynamically to respond effectively to the volatility and aggressiveness of the shifting surroundings. In response to this

notion, organizational agility has received great attention from academics and the practitioner realm. Organizational agility is defined as “enterprise's ability to quickly respond and adapt in response to continuous and unpredictable changes of competitive market environments” (Sherehiy & Karwowski 2014, p. 466).

Organizational agility is considered a dynamic capability, and it shares various characteristics with dynamic capabilities. First, both concepts work within the context of change and turbulence (Alavi et al. 2014). Second, organizational agility is not a one-time reactive response, but a continuous process that supports the proactive signaling of evolving organizational opportunities (Alavi et al. 2014).

This research argues that organizations do not live in the state of “agility” or “non-agility”, however, they can reach several levels of agility on a continuum (Harsch & Festing 2020). As stated by Teece, Peteraf, and Leih (2016) achieving organizational agility requires having strong dynamic capabilities. However, the more the better does not work in this context, since the constituents of dynamic capabilities depend on the market dynamics (Schilke 2014a).

Moreover, Teece, Peteraf, and Leih (2016) categorize dynamic capabilities into three groups: “Sensing” the unfamiliar future by aligning technological opportunities and threats to client requirements; “seizing” a chance by stimulating resources; and “transforming” through constant revitalization. Based on this and having KBO as the focus of this study, talent is perceived as the strategic source of competitive advantage of KBO (Cappelli & Tavis 2018; Nicolaescu et al. 2020) and this research conceptualizes talent management as a dynamic capability that advances agility through shaping and reconfiguring its talent.

Therefore, this research study takes a strategic approach to talent management by converging on the strategies, practices, and processes of talent management, which fulfills the purpose of attracting these talents, developing them further, orienting them appropriately, and retaining or releasing them as required, to achieve sustainable competitive advantage in a continuously changing environment (Collings & Mellahi 2009; Harsch & Festing 2020; Stahl et al. 2007, cited in Collings, Mellahi & Cascio 2019).

The following section starts first with a comprehensive review of the human resource management literature to determine implications for talent management, along with various ways to conceptualize, measure, and combine practices within human resources management.

2.2. 3 Different Conceptualizations of Human Resources Management Practices

As the world becomes more open and volatile, organizations are being challenged to gain a competitive advantage and to find more innovative sources through the right bundle of human resource management practices. Schuler and Jackson (1987) defined human resources management practices as a system that attracts, develops, motivates, and retains employees to ensure the effective implementation and the survival of the organization and its members. However, when discussing human resources practices within the agility context, the definition should be further expanded to consider aspects of effectively and proactively responding to the risks and uncertainties from the internal and external sources (Ananthram, Nankervis & Chan 2013).

Referring to a systematic literature review of 495 empirical peer-reviewed articles on 516 human resources systems there are various ways to conceptualize, measure, and combine practices within the human resources management systems (Boon, Den Hartog & Lepak 2019). Strategic

human resource management researchers tend to agree that the focus should be on human resources as a synergistic system rather than individual practice. The primary reason for such agreement is that employees are exposed to a group of human resources practices rather than a single practice at a time, and the effects of these practices are likely to be contingent on the other practices within the human resources system (Delery 1998; Doz 2020; Ulrich 1997).

According to Delery & Doty (1996), there are three main standpoints within the strategic human resources management literature. The viewpoints are universalistic, contingency, and configurational perspectives. Some authors advocated for the universalistic perspective, which supports the "best practices" or "high performance work practices," approach to strategic human resources management. This perspective is considered as the most simple and linear approach, where the relationship between a given independent variable and a dependent variable is universal across the population of organizations. The classical example of the universalist approach is the sixteen human resources practices suggested by Pfeffer (1995), such as 1. Participation and empowerment 2. Incentive pays 3. Employment security 4. Promotion from within 5. Training and skill development 6. Information sharing 7. Teams and job design 8. Cross Utilization 9. Symbolic Egalitarianism (Reduction of status differences) 10. Wage Compression 11. Employee Ownership 12. Long-term Perspective 13. Measurement of the Practices 14. Selective hiring 15. Overarching Philosophy 16. Participation and Empowerment result in improved productivity and revenue across organizations.

Continuing with the universalist perspective, a massive body of research suggested that these universal or best practices revealed substantial support to organizational innovation (Jiménez-Jiménez & Sanz-Valle 2005; Ling & Nasurdin 2010; Shipton et al. 2005).

Another group of authors proposed the contingency perspective, which argues that in order for the organization to achieve the intended outcomes, first the human resources policies should be consistent with the strategic aspects of the organization, and then the organization should make the right decision toward the human resources practices that are most relevant to the business strategy (Delery & Doty1996).

The third group of authors supports the configurational perspective which is considered as the appropriate approach to strategic human resources management since it covers both the horizontal -internal organizational consistency- as well as the vertical fit - analogy of the human resources system with other organizational characteristics, such as business strategy- (Delery & Doty1996).Furthermore, the configurational perspective assumes that the human resources system is an open system where the ultimate outcome can be reached in numerous ways. In other words, it embraces the idea of equifinality.

The universalist, contingency, and configurational perspectives are older debates and were the major issues in the 1990s, maintaining high credibility and currency in the ensuing decade. Other ways to conceptualize HR systems include high performance (Huselid 1995), involvement (Arthur 1994), and commitment (Guthrie 2001). Ceylan (2013) proposed that a high commitment practice donates a significant advancement of firm innovation through improving the core organizational and marketing core processes. Likewise, Osterman (1994) contended that several innovative work practices, such as teams, job rotation, quality circles, and total quality management, lead to significant productivity improvements.

Other researchers structure the HR system as a sub- bundle of practices such as the ability, motivation, and opportunity (AMO) model (Jiang et al. 2012). Moreover, Schuler (1992) proposed the 5-P Model, which includes the following key elements: philosophy, policies,

programs, practices, and processes. Other approaches taken by the strategic human resources management theorists are the “traditional” versus “innovative” human resources system (Ichniowski, Shaw & Prennushi 1995).

Strategic human resources scholars have used the term ‘architecture’ frequently to describe the phenomena of talent value creation in organizations (Kang et al., 2007; Wright, Dunford & Snell 2001). A human resources architecture includes talent management value creation practices in which the organizations select, interest, and develop valuable and unique resources (Sparrow & Makram 2015; Sparrow & Otake-Ebede 2014). Consequently, for organizations to successfully exploit their talent and create value, they need to manage the human resources architecture in such a way that they create the capacities of their workforce, which consequently may improve organizational performance. Within the context of the current study the intended organizational performance is workforce agility.

2.2.4 Talent Management

The talent management topic received massive attention from academics and practitioners after a team of McKinsey consultants formulated the phrase the “War for Talent” in 1997 (Axelrod, Handfield-Jones & Michaels 2002). Talent management concepts continue to be on the top of all other agenda items of senior managers, particularly those working for KBO (Thunnissen & Gallardo-Gallardo 2017). Additionally, employers concede that a skilled, motivated, and engaged workforce is critical for achieving growth and consequently competitive advantage.

The coined phrase “Talent Management” created a total paradigm shift from the traditional human resource associated with the foundations of competitive advantage literature such as the organizational leader's literature which focuses on the role of top management (Hambrick &

Mason 1984; Miller, Burke & Glick 1998) and strategic human resource management (Huselid, Jackson & Schuler 1997; Schuler 1989) so as to approach the management of talent explicitly suitable to today's dynamic competitive, environment and as a way to achieve agility as a desired organizational performance outcome.

Despite having various definitions of talent management, several authors still argue that the conceptual boundaries of the topic are concise enough (Collings & Mellahi 2009; Lewis & Heckman 2006; Sparrow, Scullion & Ibraiz Tarique 2015). The below table delineates commonly used definitions of talent management.

Table 3: Definitions of talent management.

Definitions of Talent Management	Author/s & Year
"Talent management as an integrative and inclusive philosophy of talent management where by the organization's full workforce is seen as organizational talent in complement to the differentiated identification of specific workforce segments and individuals who are identified as having higher relative potential to contribute to the firm's performance and advantage through active development, retention and deployment in strategic positions."	(King & Vaiman 2019, p. 196)
"Talent development focuses on the planning, selection and implementation of development strategies for the entire talent pool to ensure that the organizations have both the current and future supply of talent to meet strategic objectives and that development activities are aligned with organizational talent management processes."	(Garavan, Carbery & Rock 2012, p. 6)
"activities and processes that involve the systematic identification of key positions which differentially contribute to the organization's sustainable competitive advantage, the development of a talent pool of high potential and high performing incumbents to fill these roles, and the development of a differentiated human resource architecture to facilitate filling these positions with competent incumbents and to ensure their continued commitment to the organizations."	(Collings & Mellahi 2009, p. 304)
"Talent management can be defined as the implementation of integrated human resource strategies to attract, develop, retain and productively utilize employees with the required skills and abilities to meet current and future business needs".	(Kontoghiorges & Frangou 2009, p.70)
"Talent management is the systematic attraction, identification, development, engagement/retention and deployment of those individuals with high potential who are of particular value to an organization".	CIPD (2006, 2008)

A various group of authors emphasized that talents are high potential employees that help their organization's to constantly achieve the organization's strategic objectives, learn new

knowledge and acquire new skills quickly, with a great capacity for risk management (Garavan, Carbery & Rock 2012; Ready, Conger & Hill 2010).

The below table summarizes the talent management practices operationalized in previous empirical research or suggested to be used through a critical literature review or qualitative exploration.

Table 4: Summary of talent management practices.

Talent Management Practices	Paper Type	Author/s and Year
Talent attraction, Talent retention, learning and development, and career management .	Empirical study- Quantitative Design- SEM	Al Aina & Atan (2020)
Talent attraction, Talent selection, Talent Development, and Talent retention . These practices have been explored within the dynamic capability concept in relation to the achievement of organizational agility.	Qualitative exploration using 24 semi-structured interviews	Harsch & Festing (2020)
Global Talent Management Practices: Routine 1: Pivotal positions, Routine 2: Global talent pools, and Routine 3: a differentiated HR architecture through considering the high-performance work systems (HPWS) .	Conceptual paper with the development of a theoretical framework illustrating the association between GTM and performance of headquarters.	Collings, Mellahi & Cascio (2019)
Motivation and recognition, professional training, and professional development .	Empirical study- Quantitative Design- PLS	Benitez-Amado, Llorens-Montes, & Fernandez-Perez (2015) .
Attraction, recruitment and selection, training and development, retention and identification of talent .	Literature Review	Collings & Mellahi (2009)

2.2.5 Dynamic Talent Management Capabilities

The following conceptualization of talent management is adopted, talent management is a dynamic capability that considers talents as the organization's key resources, the talent management processes and practices serve the purpose of attracting these human resources, developing them further, inducting them appropriately, and retaining or releasing them as

needed, to gain and sustain a competitive advantage in a constantly changing environment (Stahl et al. 2007, cited in Collings, Mellahi & Cascio 2019). Moreover, talent management has come to prominence since the late 1990s, and it has been identified as one of the most crucial human resource management functions (Strack 2014, cited in Harsch & Festing 2020). Moreover, the dynamic capability concept is deeply rooted in the resource-based view of the organization, which defines the resource as being valuable, rare, unique, and non-substitutable. Barney (1991) and Wernerfelt (1984) emphasized that these types of resources are very essential for achieving a sustained competitive advantage.

In addition to that, talent management is highly context-dependent which indicates the bundle of human resources practices to be selected to investigate the relationship between the study variables should be context driven (Sparrow & Makram 2015). Thus, practices and processes that work well for a start-up setting out to select, develop, and retain employees might not necessarily work successfully for a large multinational organization (Collings, Mellahi & Cascio 2019; Farndale et al. 2010; Sparrow, Scullion & Tarique 2014, cited in Harsch & Festing 2020). For organizations functioning in a dynamic setting, dynamic capabilities are important for long-term sustainability and success, as they allow for flexible and adaptable reconfiguration of the set of organizations' resources according to its requirements (Eisenhardt & Martin 2000; Wang & Ahmed 2007).

Capabilities refer to an organization's capacity to deploy resources regularly, by combining and encapsulating both explicit processes and the tacit elements (such as know-how and leadership) embedded in the processes. Hence, capabilities are often an organization's specific and are established over time through complex interactions between the organization's resources, including human resources (Amit & Schoemaker 1993). Therefore, dynamic capabilities refer

to “the capacity of [the] organization to purposefully create, extend, or modify its resource base” (Helfat et al., 2007: 4). Such capabilities illustrate the organization’s capacity to assimilate, shape, and reconfigure internal, and external resources to react rapidly to the changing business contexts (Linden & Teece 2014, cited in Harsch & Festing 2020).

There is agreement among scholars that flexibility symbolizes a dynamic capability that helps organizations to act proactively, and to respond effectively and timely, to the constantly changing competitive environments and thus advance and/or sustain competitive advantage over time (Ansoff 1965; Bahramin 1992; Teece, Pisano and Shuen 1997; Hitt et al. 1998; Eisenhardt & Martin 2000; Winter 2003; Teece 2007).

Flexibility is the ability of the organization to respond effectively to the numerous mandates from its dynamic competitive environment (Sanchez 1995). Strategic management and human resources management scholars proposed that the flexibility of the human resource is a valued organizational capability among the other resources base, and this is particularly true within the contemporary business environment where volatility invades from multiple sources (Harsch & Festing 2020; Sanchez 1995; Wright and Boswell 2002). Building on these insights, HR flexibility is viewed as a dynamic capability since it aims at adapting employee attributes (knowledge, skills, and behaviors) to the fluctuating environmental conditions (Bhattacharya, Gibson & Doty 2005).

Wright and Snell (1998) suggested that HR flexibility encompasses three sub-dimensions: human resources practice flexibility, employee skill flexibility, and employee behavioral flexibility. Moreover, the authors applied the concept of coordination flexibility to the human resources practices and deduced that it entails, how rapidly the practices can be resynthesized,

reconfigured, and redeployed in order to adapt to the strategic needs of the business environment.

Bhattacharya, Gibson, and Doty (2005) contributed further to Wright and Snell's (1998) study by investigating to what extent the identified sub-dimensions are distinct from each other and analyzed the degree to which they are linked with organizational performance. The exploratory factor analysis of the proposed scale (22 items) revealed that the dimensions are distinct but interrelated and the discriminant validity was reasonable. For more details about the exploratory factor analysis for HR Flexibility scales see appendix (3).

Ketkar and Sett (2009) expanded the work of Bhattacharya, Gibson, and Doty (2005) by adding a fourth dimension, which is flexibility-inducing human resources practices (FIHRP). The main argument was that when a bundle of human resource practices, appropriately planned and deployed in a suitable context, can encourage malleable skills and behaviors of employees. Furthermore, the article highlighted the main human resources practices that promote flexibility "employee selection and staffing; training and development; performance management; compensation, rewards, and incentives; employee communication; employee participation; and employee empowerment" (Ketkar & Sett 2009 p.1012). The identified human resources practices institute an ambidextrous HR system, which is considered as a strategic asset that attains long-term competitive advantage.

As inferred from the above literature review, the most challenging part is selecting the right bundle of talent management practices within the context of dynamic capabilities to be empirically tested in relation to strategic agility, absorptive capacity, and workforce agility. The only consensus found within the strategic human resources management research is that the best way to study effects on organizational performance is by considering a bundle of human

resources practices that form a synergetic system rather than individual practices. Although the human resources system is considered a crucial element for the achievement of strategic agility, not many empirical studies have provided a clear direction of which set of human resources practices are most vital in the context of agility and innovation.

Building on the above extensive literature reviews, including the most recent ones (Al Aina & Atan 2020; Collings, Mellahi & Cascio 2019; Harsch & Festing 2020; Ketkar & Sett 2009), this research study argues that talent management is a dynamic capability where talent symbolizes the KBO's most crucial resources, and the talent management processes and routines fulfill the requirements for attracting, selecting, developing, and retaining talent to achieve competitive advantage in a highly volatile business environment. Thus, the following talent management practices are adopted in this study (talent attraction, talent selection, talent development, and talent retention) and labeled as “dynamic talent management capabilities” since these practices have been widely explored within the context of agility, and dynamic capability. The below figure represents a recent qualitative exploration where the adopted practices in this study have been explored qualitatively in relation to organizational agility.

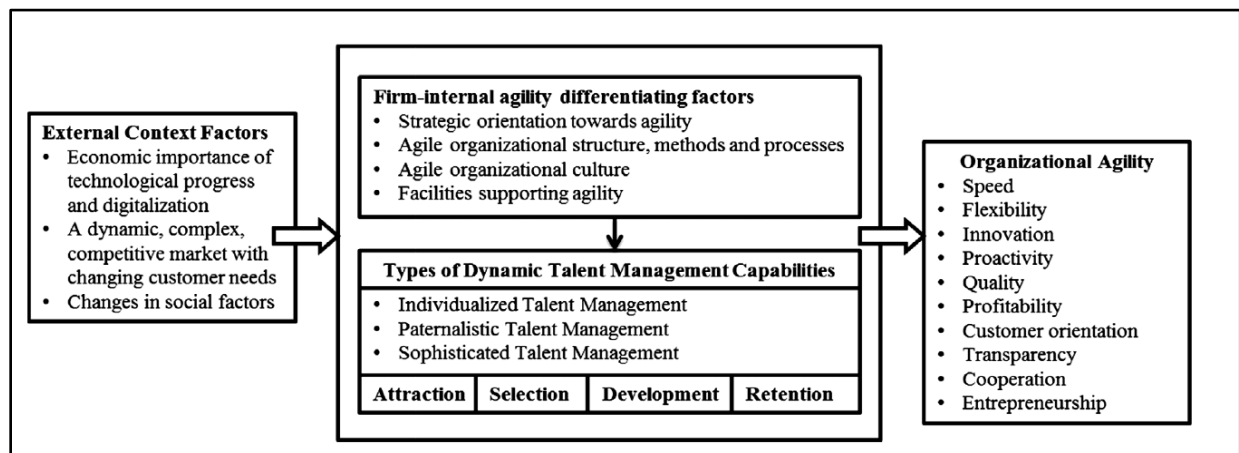


Figure 1: Framework explaining the impact of DTM capabilities on organizational agility

(adopted from Harsch & Festing 2020, P. 55).

2.3 Review of Strategic Agility

2.3.1 Organizational Agility

Strategic agility is one of the main forms of organizational agility. This section tries to connect the different forms of agility that will take place in this research study and discusses how organizational agility differs from the other concepts being investigated. Organizational agility is widely defined as the organization's ability to sense and respond rapidly to environmental changes (Dove 2001, Overby, Bharadwaj & Sambamurthy 2006; Zitkiene & Deksnys 2018). The definition clearly points to the sensing and the responding elements in Dove (2001) associated the responding component with the organization's physical ability to act, while the sensing component to the knowledge management as the intellectual ability to discover the most suitable things to act on.

Researchers have identified common traits of agile organizations such as making quick and intelligent business decisions, promoting high-performance organizational culture, exhibiting nimbleness of management processes and practices, and reconfiguring resources and adopting organizational structures that support alliances among the internal and external forces (Carvalho et al. 2019; Holbeche 2018).

Organizational agility reposes on other management concepts which mainly relate to an organization's success in turbulent environments, for example, dynamic capabilities (Teece et al., 1997), absorptive capacity (Cohen & Levinthal 1990; Zahra & George 2002), and strategic flexibility (Ansoff 1980; Grewal & Tansuhaj 2001). Nevertheless, organizational agility is different from these concepts in many central ways.

While the dynamic capabilities concept shares several aspects with organizational agility, predominantly its application to the fast fluctuating business environments – dynamic capabilities is a much wider concept. The dynamic capabilities concept is applicable to all types of organizations processes. However, organizational agility comprises specifically the processes pertinent to the sensing and responding elements within the change context. In a general sense, organizational agility can be empowered by a particular subset of dynamic capabilities (Overby, Bharadwaj & Sambamurthy 2006).

Accordingly, another important notion of agility is workforce agility and this research proposes that workforce agility – as a predominant form of organizational agility- can be further enhanced by the proper deployment of dynamic talent management capabilities. Workforce agility has been recognized as a fundamental element for the development of overall organizational agility (Dyer & Ericksen 2006; Dyer & Shafer 1998, 2003; Sherehiy, Karwowski & Layer 2007). Workforce agility includes the workforce's ability to deal with ambiguous business scenarios, learn from them, develop innovative business solutions, and bring specific skills required by the business (Breu et al. 2002; Muduli 2013).

2.4 Strategic Agility

2.4.1 Introduction

Strategic agility came to prominence after critiquing the following concepts: strategic planning (H Igoransoff 1968), the resource-based view (Barney 1991), and sustainable competitive advantage (Hoffman 2000), as being ambivalent and tautological and not sufficient for companies to deal with the current complexity and volatility of the business environment. The

speed of change has been accelerated by talent and employee mobility, disruptive technology, deregulation, and globalization (Weber & Tarba 2014).

Such dynamism in the business environment has led to the prominence of agility at the level of organizations and employees. Organizations have started to recognize that a hyperactive and turbulent business environment necessitates being agile, adaptive, and highly responsive to internal and external changes. Otherwise, organizations will stumble and might fall rapidly and suffer from a “hyper-competitive” business environment in which competitive advantage is temporary and cannot be sustained (Ananthram, Nankervis & Chan 2013).

There is concurrence among scholars around the importance of strategic agility in the view of globalization, mergers and acquisitions, a dynamic environment, and a hastening rate of innovation (Weber & Tarba 2014). Strategic agility is considered as an essential organizational capability that originates after the systematic interconnection of several strategic components of which people- human resources- is the most indispensable one (Ahammad, Glaister & Gomes 2020; Doz 2020).

2.4.2 Strategic Agility Definition and Dimensions and sub-dimensions

Within the contemporary turbulent circumstances, following the approved business plan is not always or even rarely the case. The prescribed vitality necessitates organizations and strategic leaders to be more adaptive, flexible, and responsive to change. Accordingly, strategic agility is defined as:

“the ability of management to constantly and rapidly sense and respond to a changing environment by intentionally making strategic moves and consequently adapting the necessary organizational configuration for successful implementation” (Weber & Tarba 2014, p.7).

It is implied from the definition that strategic agility is not about one-time change in which

organizations handle effectively, but rather its ability to constantly change its approach to achieve competitive advantage. Additionally, there are common themes (Cunha et al. 2019; Doz 2020; Weber & Tarba 2014) around the definition that has evolved over the last two decades. First, strategic agility takes in a set of actions by an organization that engages in an environment characterized by fast and erratic change. Accordingly, agile organizations are those that efficiently adapt to a disruptive environment. Second, strategic agility necessitates a routine type of changes that is unique. Third, speed is an imperative element for organizations to sense environmental changes and to satisfactorily reply to it.

Thus, strategic agility is explicated as a robust organizational capability and it predominantly means that the organization can respond efficiently, promptly, and continuously to fast-changing situations by taking the necessary strategic moves rapidly, but carefully applying the essential measures to sustain business sustainability (Doz 2020). Accordingly, strategic agility academics contend that organizations must accomplish instantaneously the subsequent meta-capabilities: collective commitment, strategic sensitivity, and resource fluidity in order to be deemed strategically agile (Lewis, Andriopoulos & Smith 2014).

It is important to note that for organizations to be strategically agile, the three addressed meta-capabilities need to be incorporated; one or even two of them will not be sufficient to achieve the full potential of strategic agility (Doz & Kosonen 2008).

Strategic Insights and foresights

Collective Commitment

As prescribed by Morton, Stacey, and Mohn (2018, p.2) “organizational leaders do not just enable a one-time transformation and realization of strategic agility but weave strategic agility into the fabric of their organizations”.

Collective commitment signifies the competence of the senior management team to execute an agreed vision and shared strategic objectives without getting bogged down in “win-lose” politics (Doz 2020).

Additionally, collective commitment is conceived as the most important dimension, and in case it is absent the other two dimensions (strategic sensitivity and resource fluidity) cannot be implemented (Xing et al. 2020).

The strategic component of collective commitment includes the enablement of strategy and business model renewals through innovative and adaptive leadership efforts and leadership team, which are indispensable. Additionally, based on Doz and Kosenen (2010) and Morton, Stacey, and Mohn (2018), having a clear leadership agenda under each of the strategic agility dimensions is fundamental for the communication and conceptualization of building and maintaining strategic agility not only at the organizational level but also in practice.

Thus, the proposed leadership agendas under leadership unity are as follows: First, implementing shared dependency and cabinet collective responsibility to sidestep the political stalemates and personal uncertainties at the top in strategy-making. Second, adopting a collaborative leadership style is one way to foster unity at the top. Third, harmonizing together as a collective team to ensure that wise strategic decisions are taken rapidly and successfully.

Strategic Sensitivity

Strategic sensitivity is another strategic component, and it involves the consolidation of external alignment and internal responsiveness and attention (Doz & Kosonen 2008). Moreover, it implies real-time sensing of the strategic situation as it emerges and develops. Strategic sensitivity is nurtured by the amalgamation of a robust externally oriented and internally

participative strategy process, a high level of attentiveness, and a rich, powerful, and open internal dialogue (Doz & Kosonen 2008).

According to Doz and Kosenen (2010) and Morton, Stacey, and Mohn (2018), there is an important leadership agenda that should be presumed to realize strategic sensitivity. First, enabling and encouraging open strategic conversations. Second, empowering and allowing the development of business experiments to take place. Third, fostering internal dialogue to ensure connectivity and collaboration among organizational members.

Strategic Response (Acting Agility)

Resource Fluidity

Resource fluidity denotes an acting agility where the business formulates the capability to free resources from current business activities and re-allocate them swiftly but carefully to novel development opportunities (Doz 2020). Furthermore, it is considered as an internal business capability to recompose business systems and reorganize resources swiftly to achieve a faster and easier transformation of business models and work systems. In order to ameliorate this business capability, special consideration should be directed toward the following practices: resource allocation, mechanisms and incentives, and people management practices (Doz & Kosonen 2008).

According to Doz and Kosenen (2010) and Morton, Stacey, and Mohn (2018), there is an imperative leadership agenda that should be acknowledged to grasp resource fluidity. First, separate strategy from the structure so resources can be deployed freely according to the business goals and objectives. Second, rotate people to empower them and to gain wider insights

about the strategic direction of the organization. Third, investing in the organization's resources allocation model, including incentives to maximize member contributions and collaborations.

2.5 Review of Workforce agility

2.5.1 Introductions

Agile organizations exhibit two main capabilities. First, the capability of the organization to recognize and exploit opportunities in the most effective and timely manner (Zhang & Sharifi 2000). Second, the ability of the organization to react proactively to dynamics and risks in the best possible way and in the shortest possible time. Agile organizations demand an agile and adaptable workforce that can competently deal with uncertain and unpredictable business circumstances to achieve business sustainability (Youndt et al. 1996).

The agile organization demands having an agile workforce, and workforce agility involves two key elements: the capability of the employees to react to changes in an appropriate way and at the right time, and the ability of the workforce to exploit changes and take advantage of them as opportunities (Kidd 1994, cited in Zhang & Sharifi 2000).

2.5.2 Workforce Agility Definitions and Dimensions

The following definitions of workforce agility are from the ability perspective, and they have been adopted in this study due to their suitability and congruence with the study context which, is a dynamic talent capability. Zhang and Sharifi (2000, p. 497) defined an agile workforce as “people with a broad vision and capabilities to deal with marketplace turbulence by capturing the advantageous side of such dynamic conditions, such as occasional abrupt shifts in customer preferences and account structure”. In a similar vein, Kidd (1994) cited in Muduli 2017, proposed the following definition from ability perspective “workforce agility has been described

as the ability to properly respond to change in a timely fashion and to exploit the benefits of change”. The basic assumption of the stated definitions is that employees are continuously learning and educating themselves on multiple work-related competencies through the sharing of information and knowledge within and outside their organizations.

This research study considers workforce agility as a visible agile performance or behavior exhibited in the workplace, and not as an agile personality, disposition, or traits. The proposed models by Griffin and Hesketh (2003) and Dyer and Shafer (2003) were used as the main framework to categorize the workforce’s agile performance behaviors. Dyer and Shafer (2003), Griffin and Hesketh (2003), and Sherehiy and Karwowski (2014) defined workforce agility from a behavioral or attitude perspective, where the employee is described as being adaptive, proactive, and resilience which enables the employees to be positive, open-minded, and willing to assume multiple roles and responsibilities.

Sherehiy and Karwowski (2014) clustered the behavior of the agile workforce into the subsequent dimensions. Moreover, the suggested clustering is supported by a number of other authors such as Sherehiy (2008), Griffin and Hesketh (2003), and Dyer and Shafer (2003).

- **Proactive behavior:** consists of foreseeing the issues related to change and introducing actions which result in proper solutions and overall improvements to the work condition.
- **Adaptive behavior:** involves a specialized flexibility level, which is the ability to take on numerous duties and responsibilities, move conveniently between job roles, and work concurrently on diverse tasks among varied teams.
- **Resilient behavior:** embraces a positive attitude toward change, innovative ideas, and technology with high tolerance and acceptance of ambiguous and surprising situations,

respects variances in viewpoints, and approaches; and tolerance for stressful business situations and managing stress effectively.

Dimension	Definition	Description
Proactivity	Initiation of the activities that have positive effect on changed environment	• Anticipation of problems related to change • Initiation of activities that lead to solution of the change related problems and improvements in work • Solution of change related problems
Adaptability	Changing or modifying oneself or their behaviour to better fit new environment	• Interpersonal and cultural adaptability • Spontaneous collaboration • Learning new tasks and responsibilities
Resilience	Efficient functioning under stress, despite changing environment or when applied strategies and solutions have failed	• Positive attitude to changes, to new ideas, technology • Tolerance to and dealing with uncertain and unexpected situation • Coping with stress

Figure 2: A description of workforce agility dimensions proposed by Sherehiy (2008, p. 46).

Moving from the definition and dimension to the strategic and operational importance of workforce agility, an agile workforce can strengthen strategic objectives relating to time, cost, and quality. Moreover, it is demonstrated to contribute to productivity, profits, and market shares, and to business ongoing sustainability in an uncertain environment (Hopp & Van 2004; Muduli 2013). Accordingly, it is worthwhile to explore the organizational practices that can foster workforce agility, since researchers indicate that workforce agility can be strongly influenced by organizational practices (Breu et al. 2002; Muduli 2017).

Human Resources Practices

Human resources practices, which include key functions such as employee selection, new employee orientation, training and development, promotions, and rewards and recognition influence workforce agility (Harsch & Festing 2020; Shafer et al., 2001). Additionally, researchers have investigated the effect of supportive human resource practices (such as human

capital practices, developmental appraisal, job enrichment, and equitable rewards) on both employee skill flexibility and employee behavioral flexibility indicates that supportive human resource practices meaningfully impact skill flexibility and, indirectly, behavior flexibility (Beltrán-Martín and Roca-Puig, 2013).

Among all human resources practices, employee training and development have been given special attention from both academics and practitioners in the field. Muduli (2016) emphasized that for organizations to achieve workforce agility it is important to capitalize on the employee's knowledge and skills through cross-training, nurture the development of a learning environment, and inspire the workforce to be more exposed to pursue innovative ideas. The anticipated outcome of such an investment is the profound enhancement of strategic flexibility with the adaptive ability to respond to fluctuations within the competitive market and business environments (Alavi et al. 2014; Hopp & Oyen 2004).

Reward system another other important human resource practice that can greatly influence positively and directly workforce agility (Muduli 2017; Sumukadas & Sawhney 2004). The reward practices that impact workforce agility include the skill-based pay systems (where employees are rewarded based on the number and depth of skills learned and developed, which is consistent with workforce agility), which are considered as the non-traditional-based rewards systems, improvement-based incentives, and non-monetary rewards. These practices foster workforce agility more than the traditional reward systems such as profit sharing, and end-of-year bonuses.

Organizational Culture and Collaboration

Organizational culture is perceived as a major agility source, and the type of culture that is encouraged within the agility context is the one that values skills over jobs, appreciates across collaborations cross teams and industries, and data is not to be owned but to be used for making informative decisions quickly but wisely (Chonko & Jones 2005). Breu et al. (2002) elaborated on the organization's teamwork environment, and accentuated the relevance of internal teamwork, external teamwork, intra-group teamwork and cross-functional team working as another source of contribution to workforce agility.

Information Sharing Practices

Information sharing practices is fundamentally rooted in the promotion of workforce abilities through optimizing operational flexibility by deploying flexible information technology infrastructure, including information, communication, and mobile technologies, which ameliorates the adaptation of current information sharing into and the new systems that meet the current needs of the business environment and anticipate its future needs (Breu et al. 2002). Organizations with efficient information systems provide their talents with timely business information and meaningful business intelligence which aids significantly in making informed decisions (Muduli 2017). Additionally, the following authors: Sharifi and Zhang (1999), Gunasekaran (1999), Vázquez-Bustelo et al. (2007), Vinodh et al. (2010), and Yusuf et al. (2014) emphasized the importance of technology in supporting and enhancing an organization's operational speediness and flexibility.

Employee Involvement Practices

Employee involvement practices contribute significantly to workforce agility (Oyen, Gel & Hopp 2001). Sumukadas and Sawhney (2004) investigated the impact of higher-order employee involvement practices such as self-managed teams, job enrichment, and job enlargement and the lower-order employee involvement practices such as suggestion system, regular feedback surveys, quality circles, and quality of work-life. The result was that higher-order employee involvement practices are more capable of promoting workforce agility. Moreover, the study indicated that although the lower-order employee involvement practices lay the foundations of workforce agility, only the high-power practices configured on top of that foundation lead to the remarkable impact on workforce agility. A Similar conclusion was indicated by Kathuria and Partovi (1999) within the context of the manufacturing industry.

Table 5: Summarizes research studies that empirically tested the workforce agility construct.

Variable/s Matching the Study Under Discussion	Article Name	Author & Year	Method	Instrument	Sample Size
Employee Agility	Enhancing Employee Agility Through Information Technology Competency: An Empirical Study of China	Lai et al. 2021	Quantitative	Questionnaire	167 representatives who used various IT applications for daily work routines in the organization
Workforce Agility	Modeling the Enablers of Workforce Agility in IoT Projects: A TISM Approach	Patil & Suresh, (2019)	Total Interpretive Structural Modeling (TISM)	Scheduled interviews using a close-ended questionnaire	25 experienced engineers, leads, domain experts, architects, engineering managers, program managers, program analysts and

					operation managers from five IoT projects
Workforce Agility	Workforce agility: Examining the role of organizational practices and psychological empowerment	Muduli (2017)	Quantitative	Questionnaire	524 employees in India's manufacturing and service sectors
Workforce Agility	Relationship between Workforce Agility and Organizational Intelligence (Case Study: The Companies of "Iran High Council of Informatics")	Sohrabi, Asari & Javad Hozoori (2014)	Quantitative	Questionnaire	114 completed questionnaires
Workforce Agility	Workforce agility through employee involvement	SUMUKADAS & SAWHNEY (2004)	Quantitative-covariance structure analysis	Questionnaire	58 completed questionnaires
Workforce Agility	Workforce agility: the new employee strategy for the knowledge economy	Breu et al., (2002)	Quantitative	Questionnaire	515 questionnaires valid replies from UK private and public sector organizations

2.6 Absorptive Capacity

2.6.1 Introduction

The continuously turbulent business environment has triggered organizations to pay special attention to new external knowledge as a source of competitive advantage and superior performance (da Costa et al. 2018; Ramayah et al. 2020). Absorptive capacity (ACAP) has been identified as one of the most important and continually emerging constructs within organizational research (Lane, Koka & Pathak 2006; Zahra & George 2002). Additionally, it has been used by many researchers to explore different organizational phenomena consequently,

its importance becoming prominent in various fields, including strategic management, marketing, and supply chain, global business, economics and finance, and technology learning and management (Zahra & George 2002; Volberda, Foss & Lyles 2010).

The ACAP concept has evolved and developed through the seminal works of Cohen and Levinthal (1989, 1990, and 1994), knowing that all three papers were within the context of R&D. Based on Cohen and Levinthal (1989), ACAP refers to three main dimensions which reflect the organizational ability to identify, assimilate, and exploit knowledge from its environment. The same articles emphasized that “learning” or “absorptive” capacity can greatly help organizations in generating new knowledge. Additionally, it was highlighted that the form of learning under discussion is different from the learning-by-doing which denotes programmed processes by which organizations become more experienced and consequently more efficient in doing what used to be done. In contrast, with ACAP organizations acquire external knowledge that will result in something new and unique.

Cohen and Levinthal revisited the ACAP concept in (1990) with more emphasis on the process underlying organizational learning through individuals' cognitive structures and problem-solving. Thus, the main contributions were that the individuals' learning is additive, the performance of learning is extreme when the newly assimilated knowledge is relevant to what the persons previously know, and sharing the new knowledge is critical since it will make all parts of an organization aware of the new knowledge and able to profit from it. Additionally, they expanded the definition of ACAP as the organization's ability to value, integrate, and commercially exploit novel, exterior knowledge.

The definition of ACAP got further refinement by Cohen and Levinthal (1994), where the ACAP concept was viewed not only as an organizational capability to exploit new knowledge

but also permitting the organization to foresee more precisely the nature of forthcoming technological trends. Moreover, the study shed light on how the organizations that are equipped with ACAP are more capable of accurately predicting technological advances and taking opportunities before their competitors can recognize them.

Lane and Lubatkin (1998) as well as Lane et al. (2001) have established that ACAP promotes organizational learning, and Omidvar et al. (2017) addressed the importance of the knowledge flow process from the outside into the inside of the organization for maximization of learning. Furthermore, the researcher concludes that even when organizations, such as those within a cluster, are exposed to the same amount of knowledge, they may not benefit equally due to their disparities in absorptive capacity (Giuliani & Bell 2005; Miguélez & Moreno 2015).

Wiklund and Shepherd (2003) indicated that knowledge is strategically the most important resource for gaining a sustainable competitive advantage since most knowledge resources are intangible and do not depreciate like traditional resources and they are dynamic in nature. Additionally, investing in ACAP is crucial for the long-term survival and success of the organizations since it can strengthen, complement, or refocus its knowledge base (Lane, Koka & Pathak 2006).

The concept has stimulated a wave of researchers over the past two decades as authors have investigated the ACAP antecedents (Fosfuri & Tribo 2008; Lane & Lubatkin 1998), and its value for innovation (Müller, Buliga & Voigt 2020; Tsai 2001; Xie, Zou & Qi 2018), and competitive advantage (Chang et al. 2019; Delmas, Hoffmann & Kuss 2011).

2.6.2 Conceptualization of Absorptive Capacity

Organizational academics have perceived ACAP from two universal views; as a “stock” where prior knowledge is needed and as an “ability” to absorb new knowledge (Roberts et al. 2012). Viewing knowledge as stock has been strongly opposed by many scholars (Lane, Koka & Pathak 2006; Mariano & Walter 2015; Roberts et al. 2012), and they believe that ACAP should be perceived as an organizational capability instead.

Moreover, ACAP has been conceptualized as either an asset or an ordinary capability or as a dynamic capability (Lane, Koka & Pathak 2006; Roberts et al. 2012). Understanding the differences between perspectives is critical for gaining additional insights into how to leverage ACAP within knowledge workers. The asset view is considered as the static perspective of knowledge since ACAP in this context is determined by the previous knowledge owned by the focal unit (Mowery, Oxley & Silverman 1996; Roberts et al. 2012; Tsai 2001). Conceptualizing ACAP as an asset (equal to prior relevant knowledge) fails to recognize the importance of the processes which continuously replenish the unit’s knowledge base through the identification, assimilation, transformation, and application of the valued new knowledge (Roberts et al. 2012).

Additionally, Van den Bosch et al. (1999), visibly differentiate an organization’s previous knowledge from its absorptive capacity, and other scholars further emphasized the notion and argued that “possessing relevant prior knowledge is a necessary but not sufficient condition for a firm to have absorptive capacity” (Lane, Koka & Pathak 2006, p. 852). Consequently, although an organization’s ACAP is reliant on its prior related knowledge (Cohen & Levinthal 1990), the predominant theoretical view is that ACAP is not an asset, but an organizational capability (Lane, Koka & Pathak 2006).

The ordinary (or substantive) capability perspective considers a set of routines and processes that organizations adopt to find, integrate, transform, and apply external knowledge. The following measures are pursued to capture a capability view of ACAP: compensation policies, dominant logic, knowledge-sharing routines, and competencies (Lane & Lubatkin 1998; Lane et al. 2001; Szulanski 1996).

While the dynamic capability view of ACAP entails the ability of the organization to transform or reconfigure the existing ordinary capabilities. Thus, the dynamism aspect of the capability helps to distinguish between one type of ability (the substantive ability to developing new services) and another type of ability (the ability to transform the approach of developing new services). When ACAP is conceptualized as a dynamic capability, the organization's current substantive capabilities will be reconfigured as well (Roberts et al. 2012).

2.6.3 Absorptive Capacity and Dynamic Capability View

The components of the knowledge process (acquiring, assimilating, transforming, and utilizing) are considered as the fundamental elements of dynamic capabilities, which are required by leaders to sense and seize opportunities in marketplaces (Teece 2007; Teece, Pisano & Shuen 1997). Zahra and George (2002) suggested that ACAP should be viewed as a dynamic capability "a set of organizational routines and processes by which firms acquire, assimilate, transform, and exploit knowledge" (2002: 186). They proposed two main conceptualizations of ACAP: the potential ACAP, which implies that the external knowledge that an organization could acquire and assimilate. While the realized ACAP includes the external knowledge that an organization has already transformed and utilized. Additionally, Zahra and George (2002) emphasized the efficiency aspects of ACAP through exemplifying the ratio of the realized ACAP to the potential ACAP with a note that profits are formed principally through the realized ACAP.

Viewing ACAP as a dynamic capability entails the following: it necessitates great organizational investments (Foss, Lyles & Volberda 2009), it is a high-level capability that is supported by other capabilities such as coordination capability, which enhances potential ACAP through "cross-functional interfaces, participation in decision-making, and job rotation", and the system's capabilities which boost the realized ACAP through the "connectedness and socialization tactics" (Jansen, Van Den Bosch & Volberda 2005, p. 999).

2.7 Adaptive Organizational Culture

2.7.1 Introduction

Culture is a complex, wide-ranging, and diverse word and these characteristics partly justify the different definitions suggested by numerous academic researchers. There are three main classifications of culture within the academic literature: organizational culture, national culture; and occupational culture (Hofstede et al. 1990). The variation between the three types is caused by the impact of differences; for example, organizational culture is primarily embodied in human practices, while the national culture denotes differences in human values. Occupational culture is somewhere in between both cultures and accordingly it includes differences in human values and practices (Hofstede et al. 1990).

Organizational culture is the main focus of this research study, and it is being investigated as a potential moderator between the dynamic talent management capacities construct, workforce agility, and dynamic talent management capacities and absorptive capacity. The next section discusses organizational culture and its impact on the three core research constructs, namely dynamic talent management capabilities, workforce agility, and absorptive capacity.

2.7.2 Organizational Culture

Although the concept of organizational culture has been defined since 1952 by Kroeber and Kluckhohn, the concept was not widely used in the business realm until the 1980s (Kroeber & Kluckhohn 1952, cited in Carvalho et al. 2019). Some authors perceive the concept of organizational culture as only the issue of anthropology (Robbins 1983, cited in Carvalho et al. 2017) while others argue it is an interdisciplinary phenomenon formed by multiple contributors such as psychology, sociology, anthropology, and social psychology (Lewis 1996, cited in Carvalho et al. 2019).

Organizational culture includes a compound set of shared values, beliefs, traditions, and symbols that are echoed in the form of behaviors and norms within the organizations and its members (Deal & Kennedy 1983; Schein 1983). Similarly, Cooke and Rousseau (1988) defined it as a group of shared norms and assumptions that direct the thinking and behaviours of people. While a more recent definition suggests that organizational culture is “a system of shared meanings held by members that distinguish the organization from other organizations” (Robbins & Judge 2017, p. 565), table (6) outlines other definitions for organizational culture.

The common word across almost all reviewed organizational culture definitions is the word “shared.” The genuine sharing of values, beliefs, and assumptions among all organizational members across the hierarchy is what differentiates a strong organizational culture from a weak one. Strong organization culture implies that the organization’s core values are both strongly held and broadly shared with greater effect on the workforce behaviors. Furthermore, the greater the workforce acceptance of the organizational core values, the greater the commitment to the organization (Robbins & Judge 2017). The reason is that organizational culture influences and creates organizational climates (Carvalho et al. 2019; Robbins & Judge 2017), and only then

organizational culture becomes more impactful than the formalization of instructions and regulations to govern the employee's behaviors.

Table 6: Definitions of organizational culture.

Author	Definition	Critical Analysis
Hofstede et al. (2010, p.344)	"the collective programming of the mind that distinguishes the members of one organization from others".	The definition perceives culture as a differentiation component between organizational members.
Schein (2010, p.18)	"a pattern of shared basic assumptions learned by a group as it solved its problems of external adaptation and internal integration, which has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems"	The definition highlights adaptation and integration as an essential element to respond to future challenges.
Valle (1999, p.250)	Adaptive culture is the culture that "makes use of a wider range of skills by more members. In order to accomplish the substantial tasks of information gathering and evaluation in complex environments, adaptive organizational cultures must seek information and support from diverse elements within their structure. Also, by necessity, organizational members are forced to share information, resources, and ideas. Job scope and subsequent responsibilities for outcomes are expanded".	This definition was critiqued by Costanza et al. (2016) as incomplete definition since it did not address the organizational values or attitudes.
Kluckhohn (1951) cited by Hofstede (1980, p, 23)	"patterned ways of thinking, feeling and reacting, acquired and transmitted mainly by symbols, constituting the distinctive achievements of human groups, including their embodiments in artefacts; the essential core of culture consists of traditional (i.e. historically derived and selected) ideas and especially their attached values".	This definition includes the most traditional components of culture.

2.7.3 Conceptualization of Adaptive Organizational Culture

Responding and adapting to the continuously changing environment has long been a concern of senior management. This concern is as old as “*The Art of War*” when Sun Tzu stated the value of adaptability and flexibility for organizations in varying environments (Tzu 1963). For knowledge workers to respond effectively to the surrounding threats and opportunities, it must first build its infrastructure capabilities in which organizational culture was identified as a critical resource to adapt to dynamic business environments and maintain long-term survival (Costanza et al. 2016; Denison & Mishra 1995; Schein 2017). Additionally, Schein (2017) advised that culture addresses two essential matters: confronting organizations by adapting to the external environmental changes and the prerequisite to provide internal integration.

Within the existing terrain of organizational culture research, certain culture types have been used to prognosticate specific organizational performance outcomes. For example, Hartnell et al. (2011) tested the impact of the market culture on profitability and market share and found there is a strong positive relationship compared with the other types of culture such as clan cultures.

Similarly, the adaptive organization culture type was proposed by Costanza et al. (2016) as the appropriate culture which elucidates the reason for some organizations surviving compared to others. This type of culture permits organizations to be more flexible and adaptable through promoting the behaviors and processes which enhance the suitable responses to the dynamic business environment. Accordingly, adaptive organizational culture is defined as “as a pattern of shared beliefs, values, and behaviors that indicate the organization is aware of and concerned about environmental changes and oriented toward agile and flexible action to address such changes” (Costanza et al. 2016, p. 3).

Additionally, the same study identified nine attributes of adaptive organizational culture: “external focus, anticipation, open to change, risk-taking, confidence, development of capabilities, collaborative action planning, executing change, and sustaining change” Costanza et al. (2016, p. 3). The below table illustrates the definition of each of the nine characteristics of adaptive culture, and it reflects the multidimensionality of the concept.

Table 7: Definition of the nine characteristics of adaptive culture.

Adopted from Costanza et al. (2016, p. 3).

Characteristic of Adaptive culture	Dimensions	Definition
Values about change	External focus	“The organization pays attention to its external environments, especially its customers. The organization values reading and interpreting signals from their environments”.
	Anticipation	“The organization proactively works to identify internal and external problems; the organization focuses on future problems or environment changes”.
	Confidence	“The organization believes that it has the ability to change”.
Action-orientation	Open to change	“The organization is receptive to innovation, change, and new ideas. The organization is flexible; it does not feel that it is bound by particular rules and procedures for carrying out its business”.
	Development of capabilities	“The organization develops the capacity to handle environmental situations”.
	Collaborative action planning	“The organization enables collaboration between business units that allow it to proactively and reactively develop solutions to problems”.
	Executing change	“The organization is able to implement adaptive change”.
	Sustaining change	“The organization is able to sustain the change by creating systems that reinforce the change”.
	Risk-taking	“The organization is willing to take risks”.

This research study embraces the definition of adaptive culture proposed by Costanza et al. (2016) as a multi-dimensional construct consisting of the above nine characteristics due to its suitability and applicability with the general study frameworks, namely dynamic capability and agility.

2.8 Control variables

2.8.1 Organization Size

Organization size is one of the control variables used in this research study and the number of employees is the measure of the indicator, knowing that there are other applicable indicators such as annual revenue, and assets, which are not used in this research study. Firms with a larger size have a greater level of absorptive capacity (D'Souza and Kulkarni 2015), but at the same time they lack the flexibility of acquiring and assimilating new external knowledge (Duan, Wang & Zhou 2020).

2.8.2 Organization Type

Organization type is the other control variable used in this research study based on the recommendations of several research studies (Ashrafi et al. 2019; Ravichandran 2018; Zhou et al. 2018). The following types of organizations were considered in this research study: service; product; both product and service; and each organizational type illustrates different environmental dimensions which may potentially influence the relationship among the research constructs.

2.9 Summary

Agility is an evolving phenomenon within human resources management business practice and academic research, and it is viewed as a necessity rather than an objective or a strategy. Accordingly, organizations started to realize the urgent need to develop a more agile business environment, and the human resources function has a significant role to play in the organization's journey toward sustainability. Therefore, this study aims at investigating from a human resources perspective the relevance of dynamic talent management capabilities toward

achieving workforce agility through the mediating effect of strategic agility and absorptive capacity moderated by adaptive organizational culture.

As inferred from the above literature review the most challenging part is selecting the right combination of human resources practices to study in relation to agility as a dynamic capability. The only consensus found within the strategic human resources management research is that the best way to study effects on the organizational performance is by considering a bundle of human resources practices that forms a synergetic system rather than individual practices. Although the human resources system is considered a crucial element for the achievement of strategic agility, not many empirical studies have provided a clear direction of which set of dynamic talent management capabilities are most vital in the context of agility and knowledge workers with consideration of adaptability to the turbulence faced in today's business environment.

Accordingly, this research study aims at reconnecting the missing gap between human resources management literature, strategic management literature by empirically testing the impact of the study constructs (dynamic talent management capabilities, strategic agility, absorptive capacity, workforce agility and adaptive organizational culture). The next chapter provides further details on the theoretical underpinning of the study.

CHAPTER THREE: CONCEPTUAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

3.1 Introduction

This section introduces the study conceptual model with its main building blocks, the interrelationship between the different components, along with the most relevant theories that explain the conceptual framework.

3.2 Research Conceptual Framework

Based on the literature review chapter, this research study proposes a conceptual model that illustrates the relationship between dynamic talent management capabilities and workforce agility through the mediating effect of absorptive capacity and strategic agility, moderated by adaptive organizational culture. Figure (3) presents a graphical representation of the proposed conceptual model, and it has been shown at the beginning of the hypothesis development section for more reader convenience, along with a list of the main study hypotheses.

The research framework was created based on the following key assumptions:

1. Talent management is a dynamic capability that considers talents as the organization's key resources.
2. Dynamic talent management capabilities, strategic agility, and absorptive capacity are not standalone and isolated. Instead, they should be embedded and internalized within the environment in which knowledge workers exist through promoting an adaptive organizational culture.
3. The ability and willingness to undertake the changes of the present organizational practices or resource configurations are mainly set on by the motivation, skills, and experiences of the organization's managers (Zahra & George 2002).
4. Knowledge is a strategically important resource that helps knowledge workers achieve a competitive advantage faster than their competitors.
5. Workforce agility is strategically and operationally important for knowledge workers operating as managers and can strengthen the achievement of strategic objectives

relating to time, cost, and quality, especially within an uncertain and turbulent business environment.

6. Dynamic capability theory is seen as an enhancement of the resource-based view (RBV) and the foundation of the knowledge-based view (KBV) since it perceptibly features the organization's capability approach to form its basis by incorporating, expanding, and reconfiguring the internal and external competencies to counter the vigorously changing business situations (Teece, Pisano & Shuen 1997).

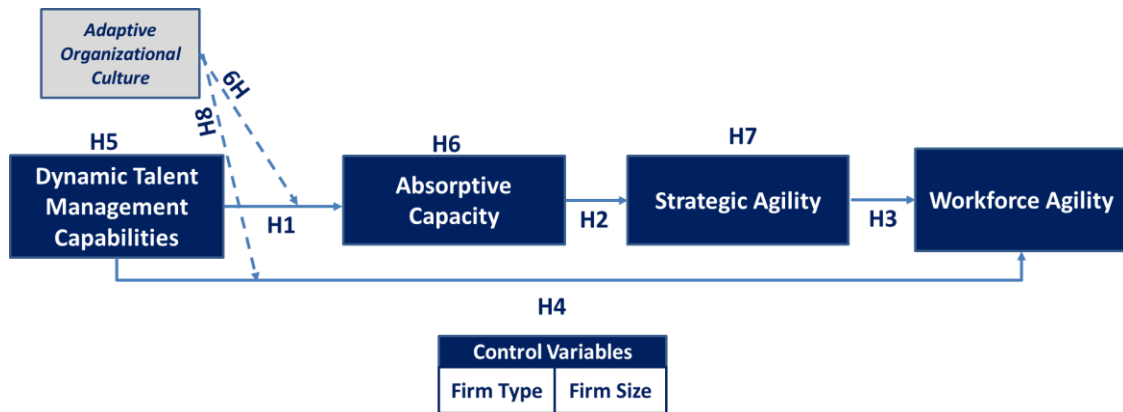


Figure 3: Initial Conceptual Model.

The proposed conceptual model aims at answering the following central research question, which is to what extent do the following dimensions of dynamic talent management capabilities that emphasize (talent attraction, talent selection, talent development, and talent retention) when considered as a comprehensive system influence workforce agility dimensions (proactiveness, adaptability, and resilience)? Additionally, the research aims at answering the following question: will the relationship between dynamic talent management capabilities and workforce agility be impacted positively and sequentially by both absorptive capacity and strategic agility?

Accordingly, the research hypothesizes are:

H1: Dynamic talent management capabilities are positively related to absorptive capacity.

H2: Absorptive capacity is positively related to strategic agility.

H3: Strategic agility is positively related to workforce agility.

H4: Dynamic talent management capabilities are positively related to workforce agility.

H5: The relationship between dynamic talent management capabilities and workforce agility is sequentially mediated by absorptive capacity and strategic agility.

H6: Absorptive capacity mediates the relationship between dynamic talent management capabilities and strategic agility.

H7: Strategic agility mediates the relationship between absorptive capacity and workforce agility.

H8: Adaptive organizational culture moderates the relationship between dynamic talent management capabilities and workforce agility.

H9: Adaptive organizational culture moderates the relationship between dynamic talent management capabilities and absorptive capacity.

3.3 Theoretical Framework

Within the context of this research study, talent is viewed as an important resource for the long-term success of the organization, and the resource-based view (RBV) argues that the organization's competitive advantage is grounded on its unique, valuable, and imperfectly imitable resources (Barney1991). However, within the dynamic capability and agility context, the explanatory power of resource-based view is limited since market mechanisms are neglected - the how aspects- and the approach itself is so static since it is limited to the understanding of the what and when aspects of resource survival (Eisenhardt & Martin 2000).

Accordingly, the dynamic capability theory best explains the study under discussion by building on the above-mentioned limitation of the resource-based view. Moreover, dynamic talent management capabilities, strategic agility, and absorptive capacity are conceived as organizational capabilities. Furthermore, workforce agility is a dynamic capability that empowers the organization to sense the future and act appropriately (Teece, Peteraf & Leih 2016). The theory visibly highlights the organization's capacity to form its basis by

reconfiguring, integrating, and developing the internal and external competencies to react actively to the constantly changing business environment (Teece, Pisano & Shuen 1997).

Moreover, the dynamic capability theory is seen as an enhancement of the resource-based view because the dynamic capability theory emphasizes that it is not enough to simply have the resources, however valuable they are, but rather how systematically developing, integrating, and reconfiguring the resources and competences to survive in changing business environments. This means that competitive advantages are resulting from the resource configurations that they create rather than the capabilities themselves (Eisenhardt & Martin 2000). Accordingly, the dynamic capability theory justifies the framework under study.

Consequently, knowledge workers need to realize the foundation of the dynamic capabilities theory to reach workforce agility as a form of competitive advantage. The main principles to be considered by knowledge working holding managerial rules are: first, the aptitude to sense the environment by carefully scanning, interpreting, and assimilating both the external and internal business surroundings for opportunities and threats. Second, the ability to seize opportunities by employing new methods and challenging threats as soon as they are discovered. Third, the ability to configure talented avenues for development or transform into superior agility and creativity (Teece 2018).

Additionally, the dynamic capability theory is seen as the foundation for the knowledge-based view (KBV) since knowledge - vital intangible resource - is perceived as the key contributor to the formation of dynamic capabilities and adds a significant value for the organization through sustaining its competitive advantage (Denford 2013; Grant 1996; Kogut & Zander 1992, 1996; Zollo & Winter 2002).

An equally important theory is the contingency theory which explores the concept of fit and congruence among a large set of elements in an organization setting and it includes (strategy, structure, system, style, staff, skills, shared values). The Australian organization theorist Lex Donaldson identified these elements as contingency factors and for organizations to be adaptive to its environment it needs to fit its structure to the contingency factors of the organization and thus to the environment (Mary Jo Hatch 2018). As per the definition of Daft (2008, p. 614) contingency theory implies “that one thing depends on other things; for organizations to be effective, there must be a “goodness of fit” between their structure and the conditions in their external environment”. Additionally, the contingency theory is seen as an extended work of both the general systems and the socio-technical systems theories (Slavich et al. 2018).

Moreover, it argues that there is no best way to manage a situation since it depends on the internal and the external circumstances (Slavich et al. 2018; Venkatraman & Camillus 1984). The fundamental assumption of the contingency theory is that organizations will be efficacious if their structure is very flexible and adaptable to any changes within the business environment (Fiedler 1964, cited in Darvishmotevali et al. 2020). Accordingly, this research views strategic agility as a key enabler that will support organizations to act proactively to complex changes with ambiguous business environments. Moreover, the contingency theory explains that there is no right or wrong mix of the talent management practices, however, the correct practices will be reliant on the business circumstances and other external factors to the organizations’ in which the knowledge leaders will decide on the basis of the situation being faced.

The third important theory is the open system theory which postulates that organizations exist within several surrounding environments that present challenges to which organizations must reply, react and adapt in order to survive within any turbulent business environment. KBO

organizations should confront the constant changes in order to avoid decline in the company performance or a possible death (Katz & Kahn 1966, cited in Costanza et al. 2016). Sørensen and Sorensen (2002) demonstrated empirically that an effective organizational culture can turn as an adaptation process by empowering people to identify environmental terrorizations and advance resolutions to transform quickly. Contrary wise, a culture that does not enhance acknowledgement and response to environmental fluctuations may hinder an organization's capability to adjust to those fluctuations, ultimately resulting in deterioration or death (Costanza et al. 2016).

Organization culture can provide its members with clear guidance on the best way to respond to the changes within the business environment through a shared understanding of process and procedures such as building social control, creating policies and procedures that empower change, and driving the direction of talent management practices (Chatman et al. 2014). Therefore, adaptive organizational cultures inspire proactive consideration to environmental pressures and generate structures which take into consideration these threats that will be more likely to adapt to their business environments.

3.4 Hypothesis development

3.4.1 Dynamic Talent Management Capabilities and Absorptive Capacity

Based on the insights gained from the seminal work of Cohen and Levinthal (1990) the investigation of dynamic talent management capabilities in relation to ACAP is theoretically appropriate since ACAP is intensely rooted within the organizations previous tacit and socially complex knowledge, and such type of knowledge is usually nested within the talented workforce (Volberda et al. 2010). The deployment of dynamic talent management capabilities may affect

the context in which organizations can cultivate, recover, and exploit such knowledge among their workforce (Martinez-Sanchez, Vicente-Oliva & Pérez-Pérez 2020 a, b).

Unlike a stable business environment where the traditional human resources management practices can effectively deal with developing the required talent skills and behaviors, in a constantly turbulent business environment the need for a flexible and dynamic talent management system is profound to inspire employees with wide-ranging skills and enable them to adapt to the growing rhythm of changes, and the increasing demand for new external knowledge (Martinez-Sanchez, Vicente-Oliva & Pérez-Pérez 2020 a,b; Wright & Snell 1998).

Particularly knowledge leaders invest in diverse organizational resources to acquire, assimilate, and exploit new external knowledge to equip their knowledge workers for reaching competitive advantage. Accordingly, ACAP is not equally relevant to all types of firms and not to all employees since, for example, core knowledge employees are more critical for forming new knowledge or achieving innovations in contrast to the provisional workforce who are employed often for responding to the volume production changes (Martinez-Sanchez, Vicente-Oliva & Pérez-Pérez 2020 a, b).

The human resources internal flexible practices such as training and development and cross-functional teams, inspire polyvalent employees to perform different roles and tasks and subsidize to enlarge their knowledge base (Martinez-Sanchez, Vicente-Oliva & Pérez-Pérez 2020 a, b), therefore empowering organizations to achieve a greater level of absorptive capacity as the new form of competitive advantage (Beatty 2005; Muduli 2013).

Denford (2013) provided seven frameworks that offer the foundations for the dimensions and categories of a knowledge-based dynamic capabilities typology which further illustrates the

relationship between talent management as a dynamic capability and absorptive capacity as a knowledge capability. Refer to figure (4) for details about each of the seven frameworks.

Figure 4: Seven frameworks clarified categories of a knowledge-based dynamic capabilities typology.

Adopted from Denford (2013, p.180).

Table I Framework comparison			
Study authors	Knowledge-based dynamic capabilities	Dynamic capabilities definition	Framework key concepts
Teece <i>et al.</i> (1997)	Build Reconfigure Integrate Replicate/imitate	The firm's ability to integrate, build and reconfigure internal and external competences to address rapidly changing environments (p. 516)	Internal or external sourcing Combination/experimentation Coordination/transfer New or existing knowledge
Eisenhardt and Martin (2000)	Gain Reconfiguration Integration	The firm's processes that use resources – specifically the processes to integrate, reconfigure, gain and release resources – to match and even create market change (p. 1107)	Internal or external transfer Combinative processes New or existing knowledge
Zahra and George (2002)	Transformation Exploitation Acquisition Assimilation	Dynamic capabilities are geared toward effecting organizational change; they are essentially strategic in nature and, therefore, define the firm's path of evolution and development (p. 188)	Internal/external sourcing Absorptive capacity Combination or transfer Exploitation or innovation
Verona and Ravasi (2003)	Creating Reconfiguring Integrating	The subset of competence/capabilities that allows the firm to create new products and processes, and respond to changing market circumstance (Teece <i>et al.</i> , 1997, p. 510)	Transfer of latent knowledge Combinative processes Absorptive capacity New or existing knowledge
Helfat and Peteraf (2003)	Recombination Reconfiguring Renewal Replication	The firm's ability to integrate, build and reconfigure internal and external competences to address rapidly changing environments (Teece <i>et al.</i> , 1997, p. 516)	Combination or mixing Search and development Redeploying knowledge New or existing knowledge
Rothaermel and Alexandre (2009)	Quadrant I Quadrant II Quadrant III Quadrant IV	The firm's ability to integrate, build and reconfigure internal and external competences to address rapidly changing environments (Teece <i>et al.</i> , 1997, p. 516)	Internal or external sourcing Absorptive capacity Exploration or exploitation New or existing knowledge
Zheng <i>et al.</i> (2011)	Generation Combination Acquisition	The firm's ability to integrate, build and reconfigure internal and external competences to address rapidly changing environments (Teece <i>et al.</i> , 1997, p. 516)	Internal or external sourcing Absorptive capacity New or existing knowledge

Therefore, the first research hypothesis is as follow:

Hypothesis 1: *Dynamic talent management capabilities are positively related to absorptive capacity.*

3.4.2 Absorptive Capacity and Strategic Agility

Gehani (1995) highlighted specific roles of an agile business such as meeting and exceeding customer expectations rapidly, innovating new products and services in a timely manner, and

engaging in and out of strategic relations quickly. Besides that, several studies have addressed the influence of knowledge reach and richness, strategic learning, and knowledge capabilities on strategic agility which indicate an indirect possible relation between absorptive capacity and strategic agility (Sambamurthy, Bharadwaj & Grover 2003; Idris & Al-Rubaie 2013; Mao, Liu & Zhang 2014).

The presence of the following meta-skills: collective commitment, strategic sensitivity, and resource fluidity are important for effective implementation of long-term strategic agility especially when competing in local, national, and international markets (Doz & Kosonen 2010; Kale, Aknar & Başar 2019). Above and beyond, the strategic agility requirements predicting the internal and external business environment, adapting quickly to organizational changes, flexibility, and strategic sensitivity must be sustained more thoughtfully and without ignoring the speed factor (Kale, Aknar & Başar 2019). Accordingly, strategic agility is knowledge-based and proactive which aims at acquiring the necessary knowledge about the anticipated changes within the market through inter-organizational connectivity.

The literature review revealed a limited number of studies that investigates strategic agility in relation to absorptive capacity, however, some studies provide indirect support for this relationship through the dimensions of strategic learning (knowledge acquisition, interpretation, dissemination, and activation) which are related to strategic agility (Idris & Al-Rubaie 2013).

Additionally, there is recent research that investigated the relationship between strategic agility and absorptive capacity in relation to firm performance in the tourism industry, and the paper calls for more empirical researches on this area considering more specific outcomes such as (financial performance, customer satisfaction, innovation performance, agility related outcomes

such as organizational agility, or workforce agility) and testing the relationship on other relevant contexts such as KBO (Kale, Aknar & Başar 2019).

A recent empirical study by Chan and Muthuveloo (2020) investigated the impact of three main organizational capabilities, namely environmental scanning, marketing capabilities, and organizational learning capabilities and the finding was that the three proposed capabilities contributed significantly to strategic agility. This study draws attention to the relevance of a possible relationship between absorptive capacity as an organizational learning capability and strategic agility.

Therefore, the second research hypothesizes is as follow:

Hypothesis 2: Absorptive capacity is positively related to strategic agility.

3.4.3 Strategic Agility and Workforce Agility

Referring to the main workforce agility dimension proposed by Sherehiy (2008), proactivity is the first and most important dimension and it entails the powerful ability to predict at an early stage the issues related to the dynamic changes with the business environment. On the same line of argument, strategic sensitivity, which is the first and the main dimension of strategic agility, suggests real-time sensing of the strategic conditions as they emerge and develop (Doz & Kosonen 2008).

Additionally, as highlighted, workforce agility required certain organizational practices such as human resources practices, organizational culture and collaboration practices, information-sharing practices, and employee involvement practices to enhance and empower workforce agility (Breu et al. 2002; Muduli 2017). Adopting, disseminating, and cascading these

organizational-level practices requires innovative and adaptive leaders and this is reflected within the leadership unity dimension within strategic agility construct (Doz & Kosenen 2010; Morton, Stacey & Mohn 2018).

Moreover, resource allocation, mechanisms and incentives, and people management practices are considered powerful organization practices that can improve the conditions in which the workforce operates, and these practices constitute the resources fluidity dimensions within the strategic agility construct (Doz & Kosenen 2008).

Therefore, the third research hypothesis is as follow:

Hypothesis 3: Strategic agility is positively related to workforce agility.

3.4.4 Dynamic Talent Management Capability and Workforce Agility

Trying to clarify the link between agile workforce and dynamic talent management capability it has been indicated by Katayama and Bennett (1999) is that an agile workforce is an organized and dynamic talent that can rapidly bring the right skills and knowledge at the right time, as dictated by business needs. An agile workforce is a well-trained and flexible workforce that can adapt swiftly and easily to new and emerging business opportunities. An agile workforce can improve an organization's ability to survive in an unpredictable business situation. Besides that, dynamic capabilities are not just processing but deep-rooted in the business processes. Processes are often obvious or codifiable structuring and a combination of resources and thus can be transferred more easily within the organization or across them.

Felin et al. (2012) contended that there are three key forms of human resources: micro-foundations, individuals, processes, and structure. Based on this conceptualization human

resources architecture is perceived as a micro-foundation since it can enable workforce agility as a capability in that human capital is the individuals working in the organizations, processes are the relationships, whereas structures are the human resources management practices executed to develop these capabilities.

More recent consideration has focused on the role of human resources in maximizing the organization's ability and tendency to adopt agile and dynamic practices. Lijauco, Gajendran, Brewer, and Rasoolimanesh (2020) concluded that workforce agility has a great influence in promoting innovation propensity since it is a crucial factor that positively impacts organization propensity to innovate because propensity is largely dependent on the human resources abilities. Workforce agility includes employee capabilities, attitudes, knowledge, and skill sets that provide the foundation for delivering value; the implementation of strategies for competing and developing within the business setting; and the employee performance through day-to-day tasks and responsibilities.

The expansion of workforce agility within the organization is related to specific conscious and systematic human resource management activities, such as work design, recruitment, and induction, training and development, employee engagement, performance evaluation and management, rewards, and recognition (Dyer & Shafer 1998, 2003).

Competition toward attracting not only talented but also agile and capable workforce has moved from the country level to the global and international level (Dyer & Shafer 1998). One of the most prominent business outcomes after the organization establishes the necessary dynamic capability and workforce agility is business sustainability which will be ameliorated mainly through the business ability to reallocate and re-engineer current resources to meet the strategic mission of the organization (Doz & Kosonen 2008; Teece et al. 1997). "Agile talents are high

achievers with potential, who act as multipliers and motivate not only themselves, but also other employees to improve the organization and build on its success. They are innovative, mobile, customer-oriented, resilient, and adaptable, have a high ability to learn and a high willingness to perform, and they call into question conventional practices” (Harsch & Festing 2020, P. 49).

Therefore, the fourth research hypothesizes is as follow:

Hypothesis 4: *Dynamic talent management capabilities is positively related to workforce agility.*

3.4.5 Dynamic Talent Management Capabilities, Absorptive Capacity, Strategic Agility, and Workforce Agility.

Strategic agility requires unique competencies in order for the organization and its leaders to be able to respond swiftly and efficiently to the constantly changing business environment. Therefore, a better understanding of the human resources management role within strategic agility is vital to sustain business continuity (Doz 2020).

Strategic agility is an organizational capability that originates after a conscious and systematic interconnection of numerous strategic components of which people- human resources- are the most indispensable. Competition for attracting not only talented but also agile workforce has shifted from country level to global and international level (Dyer & Shafer 1998). A huge body of research supported conceptually a possible positive relationship between strategic human resources management and strategic agility (Ahammad, Glaister & Gomes 2020; Doz 2020; Doz & Kosonen 2008).

While exploring the strategic agility and dynamic capability literature, the importance of human resource management was dominant and in fact, it was the central point of argument (Ananthram, Nankervis & Chan 2013). The foremost rationalization for such emphasis is that

the human element is important for organizations to stay strategically agile, given the need for flexible and adaptive employees with the agile-oriented approach and behaviors to accomplish competitive advantage (Dyer & Shafer 2003).

Based on a recent report by the Chartered Institute of Personnel Development (CIPD) the human resources management is a pivotal function in promoting strategic agility at all levels together with local, nationwide, and global markets (Zheltoukhova 2014, cited in Ahammad, Glaister & Gomes 2020).

Researches over the past decades were able to convincingly show several ways in which human resources can play a fundamental role within the business strategy during the design and implementation phase. Having a well written and comprehensive contingency plan is not enough to help organizations to respond effectively and quickly to the dynamic changes. The ability to rapidly realize and seize opportunities requires a unique organizational capability that can be fostered by human resources practices, including appropriate policies, procedures (Ahammad, Glaister & Gomes 2020).

While a growing number of researches have emphasized on the strategic agility concept (Kale, Aknar & Başar 2019) scarce research exists exploring the relationship between strategic agility and human resources management. Moreover, there is still a narrow understanding of the role of human resource management within strategic agility. In fact, this limited understanding is due to the fact that the development of organizational level agility has not been an explicit and direct objective for human resource management departments. However, an understanding of the role played by the human resource management practices in enhancing and leveraging a company's capability for agility is consistent with human resource management's increasing responsibility for effectively managing the overall organization's human capital, which in

essence, contributes towards achieving its competitive advantage and dealing with the dynamic business environment.

Despite the growing interest in agile human resources practices among human resources academics and practitioners, the concept has received virtually no attention within the strategic human resources management literature (McMackin & Heffernan 2020). Yet recent empirical evidence suggests a strong association between investments in the human resources management capabilities and organizational performance, mainly employee productivity, stressing the need for a greater SHRM focus on this subject (Subramony, Guthrie & Dooney 2020).

Besides that, there is limited understanding of the role of dynamic talent management capabilities within strategic agility, and a better understanding is vital (Ahammad, Glaister & Gomes 2020). A Similar gap has been contended by Doz (2020), through highlight the following: while a growing number of papers have focused on strategic agility, scant research exists exploring the connection between strategic agility and dynamic talent management despite the fact that “HR has a key contribution to make: select, develop and prepare managers and staff to contribute to strategic agility in the future, and not simply play an effective role in today's prevailing conditions” (P.3).

Moreover, the strategic agility concept has been examined at an organizational level and being widely conceptualized as an organizational capability, mostly as “the ability to quickly recognize and seize opportunities, change direction, and avoid collisions” (McCann 2004, p. 47, cited in Ahammad, Glaister & Gomes 2020). In parallel to research studies that have investigated strategic agility at the organizational level of analysis, distinct strands of research studies have emerged which assess agility within specific organizational contexts, most

noteworthy knowledge concentrated businesses and manufacturing industries. Research in these contexts tends to draw attention to the association between agility and state of art technologies (Sherehiy et al. 2007). However, little is known about human resource management strategies and systems enabling strategic agility (Ahammad, Glaister & Gomes 2020).

Furthermore, there is a partial understanding of the role of human resource architecture within strategic agility. In fact, the main reason for the limited understanding of the human resources architecture as a micro-foundation is related to the fact that the development of organizational level agility has not been an overt and direct objective for human resource management departments. Nevertheless, the real understanding of the role played by the human resource architecture in promoting and leveraging an organization's capability for agility is congruent with human resource management's increasing responsibility for successfully handling the overall organization human capital, basically, adds value towards accomplishing its competitive advantage and dealing with the dynamic and hyperactive business environment.

Additionally, Xing et al. (2020) highlighted several future research directions that are awaiting further scholarly investigation, in which exploring the link between human resources strategies and strategic agility is remarkable especially in managing effective entrepreneurial teams in differing contexts and currently the literature is lacking. Moreover, Khan et al. (2020) contributed by identifying the need for future empirical research studies that could examine potential micro-macro level factors, such as leadership, organizational culture, and human resources management practices (ability-motivation and opportunity enhancing ones, AMO), that can impact agility and in particular post-merger agility (PMA).

In addition to the above issue papers and the addressed future research agenda highlighted by various empirical studies, a recent qualitative exploration by Harsch and Festing (2020) in which

the main claim was there is still a lot to investigate in terms of dynamic talent management capabilities and agility, in order to obtain a comprehensive view and to enrich the theory on talent management in diverse contexts. The main result of the qualitative exploration by Harsch and Festing (2020) is that there are three main dynamic talent management capabilities which continuously shape talent and organizational agility, and these are the individualized talent management, paternalistic talent management, and sophisticated talent management. Further to the proposed conceptual model that explains the impact of dynamic talent management capabilities on organizational agility, one of the main recommendations for future research is to include individual talent level and hence explicitly include workforce agility. Additionally, the paper calls for quantitative testing of the suggested relationships within the framework. The below table summarizes the main studies which articulate the presented gaps.

Table 8: Summary of the main research gaps.

Author(s), year	Publication Title	Research findings/ recommendations	Critical Analysis
(Harsch & Festing 2021).	Paving the way for progress in employee agility research: a systematic literature review and framework	Several interesting findings: Suggested conceptualization of employee agility and the theory-based framework, reflection using the person-environment (P-E) fit theory, viewed both learning agility and innovative work behavior (IWB) as important elements under workforce agility.	The paper calls for further empirical investigation and contextualization of the HRM systems and practices in fostering employee agility.
(Harsch & Festing 2020).	Dynamic talent management capabilities and organizational agility—A qualitative exploration	Different types of dynamic TM capabilities along with Framework for explaining the impact of dynamic TM capabilities on organizational agility.	The paper identified the main HR practices that fosters organizational agility and recommends future research to empirically test the relationship among this specifying a great interest in workforce agility at individual talent level (employee agility).

Ahammad, Glaister & Gomes (2020)	Strategic agility and human resource management	Special Issue paper	-The paper clearly identifies the gap between strategic agility and human resources management and describes the current state as fragmented and call researchers to find empirical evidence
Cunha et al. (2020)	Strategic agility through improvisational capabilities: Implications for a paradox sensitive HRM <i>"Article in Press"</i>	The paper developed six HRM domains of action that could improve improvisation	-Well-developed insights about Implications for HRM-based strategic agility
Doz (2019)	Fostering strategic agility: How individual executives and human resource practices contribute <i>"Article in Press"</i>	The paper identified the enablers of the three main meta capability of strategic agility and accordingly provides the profile of skills and capabilities needed for the executives to bridge the gap between strategic agility and HR practices	-The paper suggested the main HR agenda that will contribute to bridging the discussed gap
Ananthram, Nankervis & Chan (2013)	Strategic human asset management: evidence from North America	SHRM as an organizational capability and it can be enhanced by having more collaboration with both senior and line managers	- The paper explored the concept of SHAM in different contexts (local, and global). -The paper explored the SHRM concept in general without specifying the HR practices (neither as a system nor as a sub-bundle of practices).
Dyer & Shafer (2003)	Dynamic Organizations: Achieving Marketplace and Organizational Agility with People	Vital features of a carefully crafted HR system, with great emphasis on the employee behaviors-at all level- proactive, adaptive, and generative employee behaviors	-The paper shed lights on two important concepts that foster workforce agility (HRS, and HR policies, practices, and programs)
Shafer et al. (2001)	Crafting a Human Resources Strategy to Foster organizational Agility: A case Study	The five key human resource initiatives (1) achieving contextual clarity, (2) embedding core values, (3) enriching work, (4) promoting personal growth, and (5) providing commensurate returns) were pivotal to AEHN's pursuit of organizational agility	- Although 5 HR practices were discussed in the article, the effect/relationship between practices and the initiatives were not clear. -Strategic agility was not studied based on the academically known meta capabilities; however, it was studied based on the strategic capability of AEHN's (Initiate, adapt, and deliver). -The article has more benefits to practitioners rather than academics.
Dyer & Shafer (1998)	From Human Resource	Re-conceptualizing organizational	-The paper establishes the theoretical/ conceptual link between

	Strategy to Organizational Effectiveness: Lessons from Research on Organizational Agility	effectiveness is needed, taking into account a wider view of HRS with an emphasis of vertical and horizontal alignment of HR activities	agile workforce and OE and calls for future studies to establish empirical evidence.
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Therefore, the fifth research hypothesis is as follow:

Hypothesis 5: The relationship between dynamic talent management capabilities and workforce agility is sequentially mediated by absorptive capacity and strategic agility.

3.4.6 Absorptive Capacity, Strategic Agility, and Workforce Agility

While ACAP and agility are originated in a different literature stream, interestingly both of them originated around the same time - ACAP by Cohen and Levinthal (1990) in relation to innovation and agility by Nagel and Dove (1991) cited in Bharadwaj, Verma, and Nanda (2017) in relation to lean manufacturing. The proposed definition of agile enterprise by Dove (1999) unleashed the first sign of conjunction between the two concepts “The agile enterprise is defined as one which is able to both manage and apply knowledge effectively. It is suggested that value from either capability is impeded if they are not in balance” (Dove 1999a, p.1).

Verma, Bharadwaj and Nanda (2017) critically addressed the importance of alignment among the two constituents of ACAP (potential and realized ACAP), especially within the context of a dynamic environment where the intensity and rate of change within the business environment is substantial (Volberda & van Bruggen 1997). Additionally, Overby et al. (2006) from agility perspectives accentuated the importance of aligning the sensing capability and response capability by addressing that an aligned organization “senses only those opportunities to which it can respond; consistently, the organization’s responding capabilities are useful only for those opportunities it senses. Aligned firms do not waste their capabilities, either by sensing

opportunities that cannot be seized or by having responding capabilities that lie unused” (Overby et al. 2006, p.128).

Additionally, based on the argument of Zahra and George (2002), ACAP is considered a dynamic capability since it inspires the organizational ability to create and develop the necessary knowledge that will eventually maximize other organizational capabilities such as the workforce agility to transform and strive in dynamic and fluctuating markets.

Integrating knowledge within the organization is a primary task for management through establishing the necessary organizational routine that aims at incorporating organizational knowledge to produce a sustainable competitive advantage (Grant 1996). Accordingly, the main assumption is that resources and capability-based returns are resulting from the greater accessibility to and integration of the specialized knowledge which builds the foundation of the knowledge-based theory (Grant 1996).

Moreover, Joroff summarized the relationship between an agile workforce and ACAP by saying, “An agile workplace is one that is constantly transforming, adjusting and responding to organizational learning” (Joroff et al. 2003, p. 293).

Based on the literature review, ACAP is widely operationalized as a mediator, and the below table summarizes a range of research studies that demonstrate the mediation effect of ACAP, along with the study context and main findings.

Table 9: Review of research studies that conceptualized ACAP as a mediator.

Author and Year	Journal Rank	Mediation Relationship	Study Context	Study Results
Martínez-Sánchez, Vicente-Oliva & Pérez-Pérez (2020)	Q1	ACAP as a mediator between HR flexibility and innovation output	1666 Spanish industrial firms	- Human resources flexibility dimensions that are more knowledge-intensive are more influential on the development of ACAP . - The mediator effects of both Human resources flexibility and ACAP are positively related to innovation performance/output .
Wang, Ling & Chok (2020)	Q1	ACAP as a mediator between relational embeddedness and disruptive innovations	251 firms in China (Software and Information Technology, biopharmaceutical and chemical, mechanical manufacturing, food and textile, professional services)	- ACAP specifically exploratory learning mediates relational embeddedness and disruptive innovation .
Hernández-Perlines, Moreno-García & Yáñez-Araque, (2017)	Q1	ACAP as a mediator between entrepreneurial orientation and firm performance	218 respondents from Spanish family firms	- There is a total mediation effect which suppresses the direct relationship between entrepreneurial orientation and firm performance .
Naqshbandi (2016)	Q1 in Business, management, and Accounting.	Realized ACAP as a mediator between managerial ties and two types of open innovation (Inbound and outbound) .	259 middle and top managers working in diverse sectors within the UEA .	- The mediating effects of the realized ACAP was established .
Soo et al. (2016)	Q1	ACAP as a mediator between intellectual capital and firm's innovation performance	Wide variety of industries with firms from different sizes	- Several intellectual capitals (enhancing HR practices) impact innovation performance by their influence on the firm's ACAP .
Wang et al. (2014)	Q1	Individual ACAP as a mediator between fairness of reward and job autonomy (as independent variables and innovation with use of information systems (IS) .	205 employees using SAP business intelligence systems in China .	- The effect of reward and job autonomy on innovation with use of IS is fully mediated by ACAP .

Liao et al. (2009)	Q1 Library and Information Sciences Q2 Information Systems	ACAP as a mediator between knowledge acquisition and innovation capability	362 respondents from Taiwan's knowledge intensive industries (<i>financial and manufacturing industries</i>)	- ACAP mediates the relationship between knowledge acquisition and innovation capability .
Francalanci & Morabito (2008)	Q1	ACAP as a mediator between IT and business performance .	66 SMEs sited in Italy .	- The results designate that ACAP has a mediation effect . - Assigning a role to ACAP other than mediator found to be insignificant .

Therefore, the sixth and seventh research hypotheses are as follows:

Hypothesis 6: Absorptive capacity mediated the relationship between dynamic talent management capabilities and strategic agility.

Hypothesis 7: Strategic Agility mediates the relationship between absorptive capacity and workforce agility.

3.4.7 Adaptive Organizational Culture and Dynamic Talent Management Capabilities

Based on an integrative literature review about understanding talent development, cultural influence was identified as one of the main themes (Hedayati Mehdiabadi & Li 2016). This is not a surprise since Glastra and Meerman (2012) declared that talent management involves social acceptance and fitness within social contexts and is not purely cognitive. Moreover, organizational culture provides its talents with the sense of how to appropriately react when the change happens through a communal understanding of the organizational processes and procedures (Chatman et al., 2014). Furthermore, Costanza et al. (2016) clarified that organizational cultures that boost proactive consideration to environmental threats and generate structures to address these threats will be more likely to adapt to their environments through social control, creating policies and procedures which enhance the organization's response to change, and redirect the human resource policies and practices.

The adaptive organizational culture can exert a form of social control where it can overtly impact the behaviors, values, beliefs, and assumptions of its members and leads to a shared understanding of the organizational goals and values. Hence, it directs its members to work for the best interests of their organizations by responding appropriately to the fluctuating demands (Costanza et al. 2016; Schein 2010; Sørensen & Sorensen 2002).

In the same way, it can guide the way its members perceive the reward and incentive systems of their organization and then start to link their actions with compensation which keeps them constantly motivated. For instance, adopting and acting within an adaptive culture builds a successful team with a high capability of developing new products and services, sensing the customer's needs, and responding promptly to emerging concerns (Costanza et al. 2016).

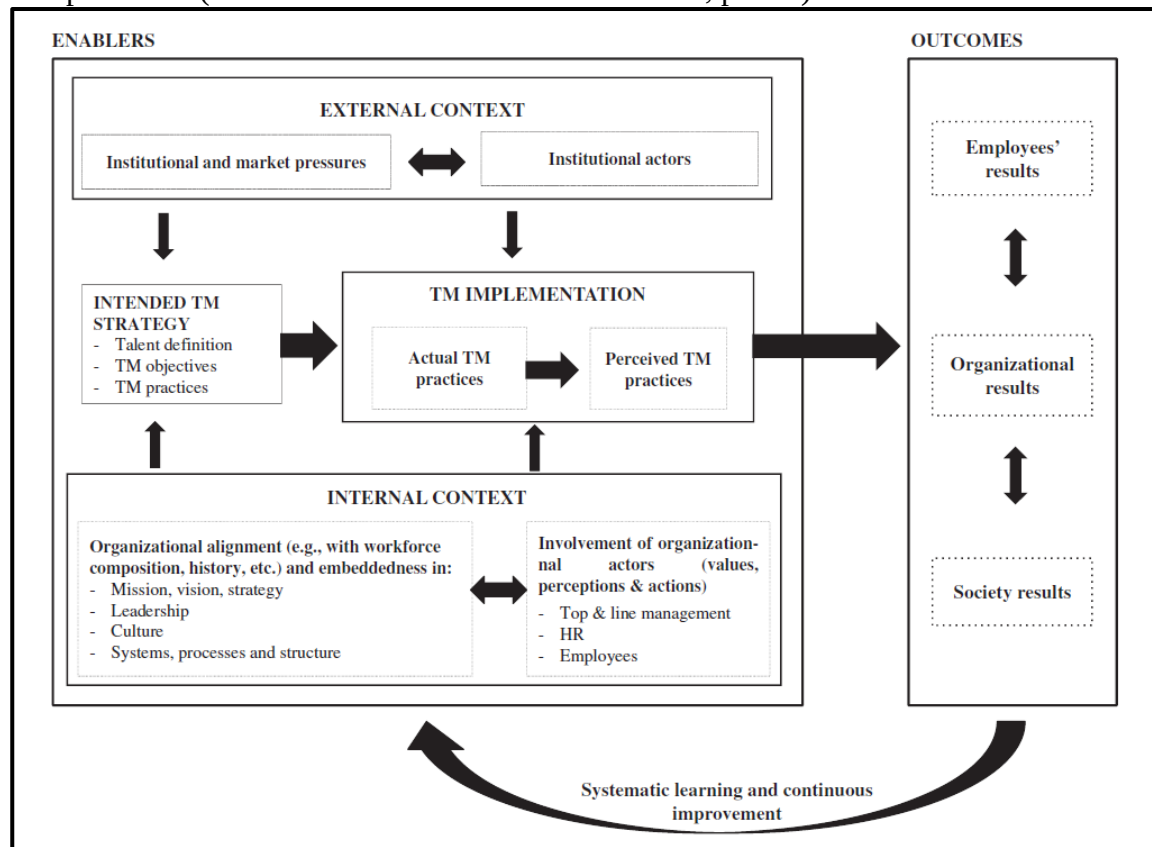
The other way that adaptive culture could impact the performance outcome of an organization is through impacting its human capital (Lengick-Hall et al. 2011; Schein 2010). The accumulation of the talent's knowledge, skills, and abilities enhances an organization's adaptive performance and leads to a longer competitive advantage compared to others that do not adopt such a type of culture (Barney 1991; Coff & Kryscynski 2011). Furthermore, the skill and unique capabilities of the adaptive and talented performers, collectively with the growing knowledge exploration and exploitation, influence the extent of organization adaptation to the internal and external business environment (Coff and Kryscynski 2011; Lengick-Hallet al. 2011; Pulakos et al. 2000).

Organizations with embedded adaptability values in their culture and structure and more likely to attract and select employees who are innovative, talented, flexible, and adaptive to change and risk-taker (Coff and Kryscynski 2011; Costanza et al. 2016; Thunnissen & Gallardo-Gallardo 2017). Accordingly, this research study assumes that adaptive culture promotes organizational leaders to adopt and implement clusters of dynamic talent management

capabilities which will lead to consistency of adaptive behavior across its talents and consequently improves the workforce agility. This assumption is further supported by an integrated and dynamic talent management model proposed by Thunnissen and Gallardo-Gallardo (2017) which clarifies the importance of culture as an internal organizational context that should be aligned with the overall leadership efforts toward agility. For details about the proposed model, refer to figure (5).

Figure 5: An Integrated and Dynamic Talent Management Model.

Adopted from (Thunnissen & Gallardo-Gallardo 2017, p. 114).



3.4.8 Establishing the link between Adaptive Organizational Culture and Agility

Organizational culture influences the way organizations respond to external events and how it makes their strategic options (Liu et al. 2010). Organizational practices, including agility and dynamic talent management practices should be aligned with the organizational strategic

directions and embedded within the organizational culture. Additionally, it is worth addressing that the specific mix of organizational practices and processes is based on the different organizational goals and cultures (Harsch & Festing 2020).

The organizational culture within the agility context reflects the following characteristics: knowledge sharing is the norm, failure and mistakes are welcomed for learning purposes and feedback culture is appreciated along with constant changes for enhancement purposes (Carvalho et al. 2019; Harsch & Festing 2020). Moreover, the workforce act proactively, supportively non-judgemental, with attention to customer needs and expectations. For the workforce to acts in an agile manner and to exhibits agile behaviors organization need to provide the necessary support, including information and communication tools, flexible interior design and equipment, agile practices such as flat hierarchies, autonomy, and teamwork (Alavi et al. 2014; Harsch & Festing 2020).

The following authors defined different aspects of agility from the adaptability perspectives: Dyer and Shafer (1998); Charbonnier-voirin (2011); Goldman, Nagel and Preiss (1995); Joroff et al. (2003); and Shafer (1997). For example, Charbonnier-voirin (2011) defined organizational agility as the aptitude to adapt continuously to a multifaceted, turbulent, and ambiguous environment. This definition is consistent with the definitions of Shafer (1997) and Dyer and Shafer (1998).

Referring back to the definition of adaptive organizational culture proposed by Costanza et al. (2016), such culture is greatly oriented toward agile and flexible actions as the appropriate response to the turbulent environmental changes. The external focus was one of the first characteristics identified by Costanza et al. (2016) and it is considered an important element

within the sensing aspect of organizational strategy to the external environmental conditions, since organizations do not live in isolation of their environment.

Thus, adaptive organization culture values the understanding of the external business context and encourages the recognition and interpretation of external signals such as new customer need, emerging technologies, and others (Denison & Mishra1995; Fey & Denison2003; Gillespie et al.2008; Kilmann1985; Nadler & Nadler1998; Ployhart & Turner 2014; Valle 1999). On the contrary, organizations that are more internally focused will have more struggle adapting to the changing business demands and thus not as agile as the externally focused organizations (Kotrba et al.2012).

The other important characteristic of the adaptive organizational culture is anticipation (Costanza et al. 2016). As discussed there is a wide range of studies that focused on the importance of being vigilant about the external environment and its signals -external focus-, however, this is not enough to reach strategic agility since maintaining collective values and assumptions that foster proactive and anticipative thinking - foreseeing forthcoming trends and anticipating environmental revolution- is equally important (Chakravarthy 1982; Chatman et al.2014; Kotter & Heskett 1992).

Moreover, Weber and Tarba (2014) underscored the importance of adaptive organizational culture for reaching organizational agility since it involves inventing and managing new business transformations and reorganizing the old business models is not enough. Adaptive culture resembles an effective coping mechanism to the mounting strategic gaps and disruptions which encourages the organization to be strategically sensitive, and structurally flexible (Verdu-Jover, Alos-Simo & Gomez-Gras 2018).

3.4.9 Adaptive Organizational Culture and Workforce Agility

There are numerous research studies that support the indirect relationship between adaptive culture and workforce agility. For instance, Alavi et al. (2014) investigated through empirically testing the relationship between workforce agility in relation to two organizational characteristics, namely organizational learning and an organic structure, and the finding was organizational learning positively and significantly correlated with workforce agility. One of the main managerial implications of the study was around the importance of creating an organizational learning culture by establishing the four dimensions (i.e. "commitment to learning, open-mindedness, shared vision, and knowledge sharing") within their organizations to encourage agile behaviors.

Therefore, the eighth research hypothesizes is as follow:

Hypothesis 8: Adaptive organizational culture moderates the relationship between dynamic talent management capabilities and workforce agility.

3.4.10 Adaptive Organizational Culture and Absorptive Capacity

As addressed earlier, “learning” or “absorptive” capacity can significantly aid organizations in producing new knowledge. Verdu-Jover, Alos-Simo, and Gomez-Gras (2018) contend that adaptive culture strengthens and enhances the direct relationship between learning processes and practices and organizational innovation outcomes through effectively combining reflexive learning and structural flexibility. The dynamic system standpoint concentrates on adaptive culture attributes to reflect the varying practices and reconfiguration of cognitive processes which affects the way organizations learn and gain new external knowledge from the market (Kitayama 2002).

Additionally, based on Costanza et al. (2016) the anticipation characteristic of adaptive culture indicated that organizations with strong anticipation power acquire, assimilate, and evaluate information fluently from their environment. A similar notion was indicated by Valle (1999) and Baer and Frese (2003) through the reasoning that changes cannot be made without unforeseen matters along the way, signifying that agile organizations are expected to anticipate and adapt accordingly by the unceasing search for new external knowledge.

Accordingly, this research study adopts the adaptive view of culture since the knowledge worker seeks to make constant changes and updates within the organizational routines and such changes require construction and recombination of knowledge from the external environment for establishing suitable sensing and response strategies.

Grounded on a recent dynamic capabilities' morphological analysis framework (MA framework) interestingly, the identified research gap connects various dimensions within the proposed MA framework (Vijaya, Ganesh & Rahul 2019). The suggested dynamic capability framework consists of five crucial dimensions (building blocks, input variables, influencing factors, desired outcomes, and assessment yardsticks).

Accordingly, the research gap identified in this research study interconnects human resources and knowledge which are considered as important input variable dimensions, with organizational culture and leadership - central sub-dimension of strategic agility construct-as fundamental endogenous factors, along with agility and flexibility as an ultimate desired outcome.

Therefore, this research study responds to the call for investigating the linkages, or inter-relationships, between the individually identified dynamic capabilities with the primary goal of

overcoming the fragmented view of dynamic capability by conceptualizing it as an organizational level ecosystem.

Moreover, the adaptive organization culture construct includes the external focus dimension which reflects that adaptation is an organization's reaction to and values about the external conditions of the environment (Costanza et al. 2016), in the same vein absorptive capacity emphasizes the importance of sensing new external knowledge. Additionally, to add further support to the hypothesized relationship organizations do not exist in isolation; rather they are part of a larger environment and their environment presents challenges and threats to survival. Therefore, in order to be adaptive, organizations need to value the understanding of their external environments and recognize and appropriately interpret such signals.

Is this gap relevant to the research context, knowledge worker?

Based on recent qualitative research, knowledge-based work is an interesting research avenue to further illuminate the challenging question of how talent management is conceived, executed, and developed in the so-called new organizational form of business such as non-hierarchical organizations with self-managing teams (Järvi & Khoreva 2020).

Therefore, the ninth research hypothesizes is as follow:

Hypothesis 9: Adaptive organizational culture moderates the relationship between dynamic talent management capabilities and absorptive capacity.

3.5 Summary

This chapter explains the hypothesized theoretical relationships between the different study constructs with the main aim to reconnect the missing gap between human resources management literature, strategic management literature, and knowledge management literature.

Accordingly, the study results are expected to feed in various theoretical and practical contributions, strengthened by the study context which is the KBO which is widely conceived as a role model organization for the public and most private organizations.

Dynamic capabilities theory is argued to be the best fit to justify the conceptual model under discussion and it is perceived as an extension to the resource-based view and the foundation of the Knowledge-based view. Additionally, the conceptual model has five main constructs where the dynamic talent management capabilities is the independent variable, workforce agility as the dependent variable, both strategic agility, and absorptive capacity are conceptualized as mediators, and adaptive organizational culture as a moderator.

CHAPTER FOUR: RESEARCH METHODOLOGY

4.1 Introduction

This chapter presents the adopted research philosophy, research approach, research design, including the research strategy, time horizon, and generalizability of results. Additionally, this section delineates the data collection instrument, the sample and sampling characteristics, the ethical consideration of the research study, and the pilot study details.

4.2 Research Philosophy

As it has been recently prescribed by (Park, Konge & Artino 2020, p. 1) “positivism is aligned with the hypothetico-deductive model of science that builds on verifying a priori hypotheses and experimentation by operationalizing variables and measures; results from hypothesis testing are used to inform and advance science”. This research study falls under the positivist philosophy which commonly emphasizes on finding explanatory relations or causal relationships through quantitative methodology, where empirically grounded conclusions from credible data that is collected objectively, and large sample sizes are favored.

The guiding principles of the positivist science are generalizable inferences, replication of findings with a focus on observable phenomena that can provide credible data (Park, Konge & Artino 2020). Moreover, objectivism is the dominant ontology in this research study since the researcher is considered as an external and independent of social actors and has no influence over the respondent and facts being collected. Managers who are the target sample are perceived in this research study as an objective entity located to formal organizational structure and follow specific procedures to achieve the required business outcomes (Saunders, Lewis & Thornhill 2015).

Axiology involves the researcher's understanding of the role of values in the research study. Research studies with positivist philosophy, such as this study, where the researcher is external and independent of the data, is less likely that the personal values of the researcher will influence the results (Varpio & MacLeod 2020). Accordingly, positivism depends profoundly on objectivity and so dismisses the value of individuals' subjective experiences and perceptions (Park, Konge & Artino 2020).

4.3 Research Approach

There are three main research approaches: qualitative, quantitative, and mixed methods. Indisputably, the addressed approaches are not as distinct as they first seem. As Creswell (2015), and Newman and Benz (1998) argued that qualitative and quantitative approaches should not be regarded as rigid, discrete classifications, polar opposites, or dichotomies. As an alternative, they denote different ends of a continuum. Appendix (4) clarifies the flow of the reasoning approach for the quantitative (deductive) research and the qualitative (inductive) research. Despite the differences between both approaches in terms of generalizability aspects, logic, approach and stage of using the collected data, both inductive and deductive research approaches are an approach toward theory development.

This research study follows the quantitative deductive approach to evaluate relationships between the proposed study constructs, which is defined by Creswell and Creswell (2018, p. 43) as:

“an approach for testing objective theories by examining the relationship among variables. These variables, in turn, can be measured, typically on instruments, so that numbered data can be analyzed using statistical procedures. The final written report has a set structure consisting of introduction, literature and theory, methods, results, and discussion. Like qualitative researchers, those who engage in this form of inquiry have assumptions about testing theories deductively, building in protections against bias, controlling for alternative or counterfactual explanations, and being able to generalize and replicate the findings.”

The main objectives of quantitative research are to test or verify theories and to make a generalization of a phenomena based on statistical projections, which will contribute to theory through enabling the researcher to envisage, explicate, and understand a phenomenon. Unlike qualitative research where the main objectives are to generate new theory and hypothesis and to establish a deeper understanding of a phenomena through rich description of the participant experience (Trochim & Donnelly 2008).

Accordingly, quantitative research is considered as explanatory research where the primary drive is to elucidate the reasons for the occurring events and to shape, elaborate, expand, or test theories. There are multiple strategies in such a form of research. In some explanatory studies, the researcher develops a new explanation and then offers empirical evidence to confirm it or contest it, and this is the strategy followed in this research study. While other studies outline more than one contending explanations and then provide evidence for each in a confrontational form to see which argument is more valid than the other. In still others, the researcher begins with an explanation resulting from social theory or previous research and then extends it to clarify a novel issue, situation, or group of people to assess how well the proposed explanation is or whether it requires further amendment or is restricted to only specific conditions (W Lawrence 2014).

There are specific assumptions that underlie quantitative research. First, the reality is something objective, and it is independent of the researcher. Second, the researcher should stay detached and independent of what is being investigated. Third, research is grounded predominantly on deductive forms of logic, and theories and hypotheses are verified in a cause-effect principle.

4.4 Research Design

Based on the research objectives and the central and investigative research questions, the chosen strategy is a survey arranged in a self-administered questionnaire. Various aspects of research design are explained within the succeeding sections, including research strategy, unit of analysis, study setting, time horizon, and generalizability.

4.5 Research strategy

There are various research strategies for collecting quantitative data such as experiments, surveys, nonreactive content analysis, secondary analysis, and existing statistics (W Lawrence 2014). This research study applied the one-time survey strategy, which is the most common and most widely used data-gathering technique within the social science field. This technique allows systematic collection of data through the researcher from a large number of respondents by asking the same set of questions and recording their responses (W Lawrence 2014). Using survey strategy imposes a various possible type of methodological biases which is further explained with their counter measures in the subsequent sections.

4.6 Unit of analysis

The unit of analysis denotes the level of aggregation of the data gathered throughout the subsequent data analysis phase (Sekaran & Bougie 2016). The unit of analysis in this research study is the individual managers working for knowledge-based organizations. The principal reason for targeting employees working at the top and middle management role is that such type of individuals are expected to have a broader view of the strategic values of the workforce compared to the other personnel working at lower levels in the organization's hierarchy (Breu et al. 2002; Thunnissen & Gallardo-Gallardo 2017). Additionally, having the dynamic capability

perspectives governing this research study senior leaders are always the concerned party since as stated earlier the capability and willingness to commence organizational level changes to the practices or to perform resource configurations are mainly set on by the motivation, skills, and experiences of the organization's managers (Zahra & George 2002).

Moreover, when qualitative studies were conducted to explore the dynamic talent management capability (Harsch & Festing 2020), or human resources function capability (Sparrow & Otaye-Ebede 2014) the interviews are done with senior management teams at the organizations, since senior leaders are actively heavily involved in the talent management practices and process as their top priorities, including the selection, recruitment, development, and retention of talent (Thunnissen & Gallardo-Gallardo 2017). Furthermore, line managers play an essential role mainly as a change agent whenever the KBO faced with turbulence (Gope, Elia & Passiante 2018), and they are considered as the owners of talents since they are largely accountable for making informative decisions about the best ways to invest in their talents (Thunnissen & Gallardo-Gallardo 2017; Ulrich & Allen 2014). Moreover, in this particular research study managers are considered as a relevant key informant since they are the most aware members within the organization with a complete overview of the company's operations including the human resources operation, knowledge sharing operations, strategic management, and decision-making operations, and workforce agility operations (Kumaret al. 1993).

4.7 Study Setting

The study environment is non-contrived, where the research took place within the natural business environment where everyday business activities will continue to happen with no interference from the researcher. This type of study setting is called a field study since it is free from any artificial manipulation of the research environment (Sekaran & Bougie 2016).

4.8 Time Horizon

There are different frequencies of data collection and various data collection setups available for the researcher to choose from to reach the optimum way to achieve the study objectives. There is the one - shot design in which the researcher studies one group of individuals or any other group of interest only one-time using surveys, experiments, or field studies (Johnston & Vanderstoep 2009). The study of Inman, McDonald, and Ruch (2004) is one of the famous studies that used a one-shot design to examine first hand impressions based on secondhand information.

While longitudinal design implies studying the same group of individuals over several data collection intervals (Johnston & Vanderstoep 2009). Repeated independent sample design is another approach in which the researcher investigates diverse samples of people over recurrent trials to monitor variations in behaviors or attitudes (Johnston & Vanderstoep 2009).

This research study follows the cross-sectional design in which the researcher collected data at one time period only from people working within the UAE knowledge-based services organizations (such as financial advisors, legal advisors, management consultants) to achieve the main research objectives which are to empirically test the relationship between dynamic talent management capabilities and workforce agility through the mediating effect of strategic agility and absorptive capacity and the moderating effect of adaptive organizational culture in knowledge-based organizations.

The following criteria suggested by Rindfleisch et al. (2008) have been examined to verify the appropriateness of employing the cross-sectional design of this research study. First, the nature of the key study constructs, since as proposed by Rampton and Wagner (1994); Jap and Anderson (2004) cited by Rindfleisch et al. (2008) when the research constructs are more

externally oriented, verifiable, and concrete the cross-sectional design is more feasible and they are believed to generate low common method variance (CMV) bias compared to the constructs that are abstract, internally oriented, and non-verifiable such as attitude and satisfaction. As addressed earlier within the literature review, this research study considers workforce agility as a visible agile performance or behavior exhibited in the workplace, and not as an agile personality, dispositions, or traits (Griffin & Hesketh 2003; Dyer & Shafer 2003).

Additionally, the first dimension of the adaptive organizational culture construct is being externally focused where the organization pays special attention to the external environment, mainly its customers and it illustrates the importance of reading and interpreting the external signals from the surrounding business environment (Costanza et al. 2016). Moreover, the other prominent characteristic of the adaptive organizational culture construct is action-orientation where the organization is open to innovation and any other value-added change which will profoundly lead to better organizational performance.

Besides that, the dynamic talent management capabilities construct (Mellahi & Cascio 2019), the strategic agility construct (Ahammad, Glaister & Gomes 2020; Doz 2020), and the absorptive capacity construct (Cohen & Levinthal 1994) are considered organizational capabilities. As per Laaksonen & Peltoniemi (2018) organizational capabilities can be verified through managers' evaluation, financial data, and organization and employee experiences, actions, and performance. Thus, based on this discussion, the study constructs are considered as externally oriented, verifiable and concrete, therefore cross-sectional design is the appropriate design of this research study.

The second criterion that was examined is the likelihood of response bias, which is vastly reliant on both a survey's measure and its informants. Since the study variables are not sensitive and

the data collection items do not represent individual level capability, but rather the organizational level accordingly, the socially desirable response bias is less likely to occur. Similarly, the acquiescence bias type is improbable since the proposed sample consists of educated adults who are knowledge workers holding managerial positions, and this type of bias usually occurs when the study sample is among young (children), low education level, or from a minority population (Primi et al. 2019).

Third, the measurement format and scales should be greatly considered by the researcher's since using a homogenous format is usually attributed to decrease validity level and increase the chance of consistency biases (Rindfleisch et al. 2008). Thus, it is recommended to use a mixed format of measurement scales, as it has been demonstrated in this research study where the adaptive organizational culture construct used the semantic-differential format in addition to the seven-point Likert scale for the other constructs.

Fourth, the start and end date of the construct should be taken into account since longitudinal study design requires the researcher to have the necessary knowledge about the beginning and the end of the predictor variable (Rindfleisch et al. 2008). The predictor variable in this research study is dynamic talent management capabilities and as stated by Schilke (2014) the more the better from dynamic capability does not work since it depends on the market dynamics. Accordingly, the researcher can argue that the cross-sectional design is more appropriate than the longitudinal design due to the fact that there is no guarantee that the market dynamics will remain unchanged, and the dynamic talent management capabilities is an inherently dynamic construct and thus difficult to mark clearly with a defined start and end date.

Fifth, the theoretical foundation is another criterion to be evaluated while attempting to choose between cross-sectional and longitudinal design. A well-developed theoretical underpinning facilitates causal inferences through proving a clear guiding principle on how to choose the

study constructs, with the specification of the path of casual flow, and proposing a range of moderators and mediators that are useful in eradicating other competing theories. As illustrated earlier from the literature review chapter the study constructs are well developed with a strong theoretical background where the end result of the literature review was a conceptual model accordingly this is a theory-driven research study and cross-sectional design is deemed appropriate (Rindfleisch et al. 2008).

4.9 Generalizability

Generalization is considered as a characteristic of the deductive quantitative design and it reflects the extent to which the findings from the sample can be generalized to the entire population. For researchers to be able to statistically generalize the conclusions reached, the selected study sample should be of sufficient numerical size. Generalizability of research findings is usually associated with the positivist research philosophy since it entails dealing with observable social reality. Generalizability is widely viewed as an external validity (Saunders, Lewis & Thornhill 2015), which is usually a concern for most researchers, especially in the case of small idiosyncratic samples.

Generalizability to similar research contexts is less likely to be an issue in this research study due to the large sample size. Thus, the study findings can be generalizable to the target population, which is knowledge workers in the UAE with managerial roles. However, generalizability to other contexts (other than knowledge workers) will require further testing by replicating the proposed model.

Besides the small sample size, non-response bias is another threat to the generalizability of the findings. Non-response bias is a significant latent source of bias, specifically in survey studies.

The method for dealing with this non-response bias is further explained within the coming sections.

4.10 Goodness of Measures

Evaluating the goodness of the developed measures is essential in order to ensure the scientific quality of the research study. Accordingly, this research study considered the following tests to measure the goodness of used measures. The first test is the item analysis where every item was examined to what extent it belongs to the variable the researcher is trying to measure. Item analysis was followed by a validity and reliability test, further details are available within the next chapter.

Items Analysis

The analysis of the gathered data started by performing the items analysis test. This statistical technique allows the researcher to evaluate the effectiveness of the test items by providing more information about the item's difficulty, item spread, and item discrimination (Sekaran & Bougie 2016). The procedure is to separate the 25% highest total scores subjects from the lowest 25% subjects and then the significance of the means was assessed through a t-test. The test indicated the highly discriminating items in the instrument, and those are the ones to be retained by the researcher. Afterward, the reliability of the research instrument and validity of the measures was investigated.

Validity Measures

Validity is defined as “the extent to which a scale truly measures the established operational definition of the intended phenomenon” (Younas & Porr 2020, p.30). There are three fundamental types of validity that were investigated within the context of this research study:

content validity, construct validity including both convergent and discriminant (divergent) validity, and nomological validity.

Content Validity

The main objective of content validity is to assess the correspondence of the variables to be encompassed in a summated scale and its conceptual definition. Where summated scale formed by joining numerous individual variables into a single composite measure (Hair et al. 2014). Additionally, content validity where a group of experts evaluates the scale in terms of the items used for its operationalization, wording, and content with consideration of the original conceptual definition of the phenomenon (Field 2009; Younas & Porr 2020). Content validity was used in this research study since it is more structured than face validity, and it enables the researcher to determine validity through expert consensus (Sekaran & Bougie 2016; Younas & Porr 2020).

Additionally, this type of validity is considered as a prerequisite for evaluating all other types of validity, especially during the early stage of instrument development, which is not the case in this research study, however it is recommended to start with this type of validity since it is the most basic form of assessing goodness of measure. Accordingly, the questionnaire was shared with three scholars as per the recommendation of (Lynn et al. 1986, cited in Almasreh, Moles & Chen 2019) who are experts in the field of talent management and strategic management. Additionally, further feedback was provided by the university director of studies (DOS) and student academic tutor (SAT). After that, the questionnaire was sent to the legal translation center in order to ensure accurate meanings which are valid for the context of the survey.

Afterward, an invitation letter through email was sent to the selected experts, requesting their participation in revising the survey items and evaluating to what extent the items operationalized

measure the targeted concepts. Valuable feedback, including twenty-two recommendations was received and reflected on the last version of the questionnaire ranging from rewording some statements, modifications of Arabic translation, to adjusting the questionnaire layout and the sequence of questions, for more details on the expert's recommendation refer to appendix (11).

Construct Validity

The other type of validity test that was investigated by the researcher is the construct or congruent validity, which attests to how well the results gathered from the use of the measure correspond with the theories around which the test is designed. Moreover, the convergent and discriminant validity were assessed in order to reflect the overall construct validity.

Convergent Validity

Convergent validity indicates the degree to which the scale correlates positively with other measures of the same construct (Cheah et al. 2018). The investigation was done through correlation analysis, and the average variance extracted (AVE) is above 0.5 for all constructs. Accordingly, the researcher can claim that convergent validity is achieved, and this is according to the Fornell-Larcker criterion for convergent validity (Fornell & Larcker 1981). For details about the AVE value refer to tables (14a,14b). Based on a more recent review of the accurate criterion for convergent validity, standardized factor loadings of all items were evaluated, and none of the items were significantly less than 0.5 (Cheung & Wang 2017).

Discriminant Validity

Valuation of discriminant validity or divergent validity is a necessity in any study which encompasses latent variables for the inhibition of multicollinearity issues (Ab Hamid, Sami & Sidek 2017). The discriminant was assessed in order to ensure that the scale used to measure a

different construct is definitely measuring a discrete one (Ketchen & Bergh, 2004). It can be achieved when the square root of the average variance extracted (AVE) is greater than the inter-construct correlations (Hair et al. 2014). The main source for the inter-construct correlations is the Component Correlation Matrix, which is one of the essential factor analysis outputs.

Nomological Validity

Assessment of the nomological validity is vital in order to investigate the extent to which the study constructs that are expected to correlate are actually correlated with each other. This type of validity is a purely theoretical plausibility test used to evaluate if the relationships make sense and if they are consistent with the theoretical framework of the study (Hair et al. 2014). Accordingly, this study evaluated the nomological validity through testing the correlation among the measurement model constructs using the matrix of construct correlations (significance of the inter-construct correlations) to assess the extent to which these constructs relate to others in a theoretically consistent way. Refer to tables (14a and 14b) for details about inter-construct correlations presented as part of the first order and second order confirmatory factor analysis.

Validity Concerns and Procedural Remedies

Common Bias Test

One of the most common validity concerns that researchers aim to reduce is the common method variance (CMV) bias (Hulland, Baumgartner & Smith 2017; Rindfleisch et al. 2008). This research study considered several procedural design remedies in addition to the statistical remedies and post hoc methods at different stages as recommended by (Goldthorpe 2001; Hulland, Baumgartner & Smith 2017; Podsakoff & Organ 1986; Rindfleisch et al. 2008) to ensure that the effect of CMV bias is minimized to the maximum level and to justify that the

feasibility of the cross-sectional approach as a less costly method of reducing CMV bias (Rindfleisch et al. 2008).

Procedural Design Remedies

Starting from the survey design technique the survey incorporated a mix of both the semantic differential measurement for the (adaptive organizational culture), and Likert scale for the (workforce agility, strategic agility, and absorptive capacity) (Podsakoff et al. 2003; Rindfleisch et al. 2008).

Due to the fact that this study considered a single method for data collection (survey) in which both data for dependent and independent factors were collected using one instrument a post hoc procedure using Harmon's single-factor test was performed to examine the possibility of common method variance (CMV) issues. Despite the limitations of this test it is still recommended to perform the test since it provides useful insight about the presence of a substantial single or general factor that will lead to most of the covariance among the measures, where the threshold value is 50% (e.g. Podsakoff, MacKenzie, Lee, et al. 2003; Podsakoff & Organ 1986).

Harmen's single factor or one-factor test is one of the commonly conducted tests by researchers after collecting the data to address the issue of common method variance (Podsakoff et al. 2003). It is important to realize that there are some potential problems associated with the test such as the procedure does not statistically control for common method variance. Moreover, there are no specific guidelines on how much variance the first factor should extract before it is considered a general factor. Additionally, the likelihood of obtaining more than one factor increases as the number of variables examined increases, thus making the procedure less

conservative as the number of variables increases (Podsakoff et al. 2003). Accordingly, the researcher decided to use additional statistical tests to check for the CMV bias such as common latent factor method test (CLF) where the standardized loading of the measurement model with the CLF is compared against the standardized loading of the original measurement model achieved after CFA.

Reliability Measures

Reliability indicates the level of stability and consistency of a scale in measuring the concept and assessing the “goodness” of the measure (Sekaran & Bougie 2016; Younas & Porr 2020). As illustrated earlier, the most common measure of reliability in quantitative research is internal consistency which is mainly indicated through the reliability coefficient Cronbach’s alpha (Santos-Vijande & Alvarez-Gonzalez 2007). Cronbach’s alpha (Coefficient alpha) is the most common measure for scale reliability (consistency of measurement) among the other reliability indicators, where the main purpose of the test is to determine if the items of a scale measure the same underlying dimension (construct). Moreover, Cronbach’s alpha was introduced in (1952) after the split-half reliability and Kuder-Richardson which is used exclusively for the items that were scored dichotomously. It measures the internal consistency reliability among a set of items - when considered as a group - within a set of questions in a survey instrument. Additionally, it is important to note that Cronbach’s alpha is not a measure of homogeneity or unidimensionality. Moreover, Cronbach’s alpha does not indicate the stability or consistency of the test over time. Furthermore, a scale of less than 10 variables could cause Cronbach’s alpha to be low.

The following especial statistical considerations were followed by this study in order to achieve accurate reliability results through Cronbach’s alpha: All items should be coded the same way,

means that all items are measured using the same number of scales (e.g. all items are measured using a 7-item scale) (Field 2013). The negative statements should be reversely coded (Field 2013). Items with 0, 1 should be eliminated (Field 2013). Important to run a separate reliability analysis for each subscale (Field 2013). Moreover, the inter-item correlation was performed to assess the internal consistency of the measures through examining the extent to which each item is correlated with its global (composite) factor (Cohen & Swerdlik 2005). The result indicates that the correlations among the individual items and their composite scores are strong since all correlations are > 0.70 , which indicates high internal consistency among the items (Nunnally & Bernstein 1994).

4.11 Data Collection Instrument

Based on the literature review, the following measurement scales were identified. Details of every scale in terms of original source, item description, and scale reported limitations are outlined in the subsequent sections. Moreover, the full version of the questionnaire in both languages (English and Arabic) is available in appendix (6). The translation was done by a professional translation center in Abu Dhabi by a legal translator.

Measurement of the Dynamic Talent Management Construct

The dynamic talent management capabilities construct was measured through the four main talent management practices (talent attraction, talent selection, talent development, and talent retention) which were identified by (Al Aina & Atan 2020; Collings, Mellahi & Cascio 2019; Harsch & Festing 2020; Ketkar & Sett 2009) as an important talent management practices that are widely investigated within the agility, flexibility, and dynamic capability context.

The scale is adopted from Jayaraman, Talib, and Khan (2018) and it consists of 26 items, in which 4 items represent the talent attraction and selection practices, 11 items illustrate the talents learning and development, and other 11 items for the talent retention practices. The original scale uses a 7-point Likert scale.

Measurement of the Strategic Agility Construct

The strategic agility construct was measured through a nine-item scale adopted from Doz and Kosonen (2008, 2010). The selected scale includes three items under each of the strategic agility dimensions, namely collective commitment, strategic sensitivity, and resource fluidity. Each dimension is measured through three main items, the leadership unity or collective commitment items measure the extent to which the top management teams make informative decisions through continuous collaboration among the board members. Moreover, it assesses the extent to which the strategic questions are answered appropriately by the top management member with the main focus on business benefits without bogging down in top-level "win-lose" politics. While the strategic sensitivity items measure the extent to which the organization is sensitive to the external business environment changes, including new technologies, emerging customer demands, new competitors, and others. Additionally, it evaluates the organization's ability to integrate different mechanisms to be aware as early as possible of the strategic developments along with faster communication of the required strategic adaptations.

The resources fluidity dimension is measured through 3 items scale, and it reflects the organization's ability to reallocate and utilize resources as per the business needs. Additionally, it measures if employees with competencies are highly mobile without organizational barriers. Moreover, it's the extent to which the organizational structure is flexible to promote effective redeployment of resources across the organization.

The main reason for adopting the scale of Doz and Kosonen is that it is aligned with the three meta- capabilities of strategic agility unlike other strategic agility scale suggested by Tallon and Pinsonneault (2011) which lists eight generic items with no mapping to the original capabilities proposed by Doz and Kosonen. For more details on the items proposed by Tallon and Pinsonneault (2011) refer to appendix (7) for details.

Measurement of the Adaptive organizational Culture Construct

The adaptive organizational culture scale was adopted from Costanza et al. (2016) and consists of nine dimensions as presented earlier in table (7), which reflect the main characteristics of an organization with an adaptive culture. Three dimensions describe the organization's value for change, and the other four dimensions describe the organization's action orientation. Each characteristic is scaled based on the low, medium, and high anchors. Anchors were positioned on a 7-point scale with the lower anchor between points 1 and 2, the medium anchor between 3 and 5, and the high anchor between points 6 and 7. For more details on the items proposed by Costanza et al. (2016), refer to appendix (6). Table (7) illustrates the definition of each of the eight characteristics of adaptive culture, and it reflects the multidimensionality of the concept. One of the main scale limitations that were reported by the original scale developers Costanza et al. (2016) is that some of the inter-rater reliabilities were lower than ideal, which impacted the strength of the observed relationship (LeBreton and Senter 2007). The authors relate this finding to the difficulties that raters experienced while rating adaptive organizational culture, which is an extremely complex construct using fairly short articles and single markers of each characteristic. Additionally, the other proposed justification of this limitation is that raters may be depicted upon supplementary information when scoring organizations with which they were familiar, which might have affected the rating accuracy and the reliability of the adaptive culture

scale. Despite this limitation, the authors declared that even so with the lower reliabilities, substantial and meaningful results were obtained signifying fairly vigorous relationships among the scale items (Costanza et al. 2016).

Measurement of the Absorptive Capacity Construct

The ACAP construct measures adopted from (Flatten et al. 2011) the scale includes the main four dimensions (Acquisition, Assimilation, Transformation, and Exploitation) of ACAP as per the definition of Zahra and George (2002). The organization's ACAP process is indicated by 14 items scale altogether, three items for the acquisition dimension, four items for the assimilation dimension, another four for the transformation dimension, and the last three items for the exploitation dimension. For more details on the items proposed by Flatten et al. (2011) refer to appendix (6). The original questionnaire used a 7-point Likert scale.

The acquisition dimensions measure the extent to which the organization employs external resources (social and business networks, seminars, databases, market research, and others) to attain new and relevant information that will add value to the organization's decisions. Moreover, the management expects and motivates its employees to seek information that is within and beyond their industry.

While the assimilation dimensions build on the ACAP process by assessing the organizational ability to effectively communicating the collected information across the organization by addressing different component pertaining to the communication structure such as cross-departmental meetings to share and exchange information about current or future business issues, new technologies, recent laws and regulations, and latest achievements. Additionally, the items reflect the extent of management support toward fast information flow that is cross-departmental with the main aim of an effective resolution of business problems.

The transformation dimension covers the information processing aspects, and it measures the business ability to organize effectively, use and absorb the newly collected and communicated knowledge and the ability to link it to existing knowledge. Additionally, it reflects the ability to use and apply the newly collected knowledge within the practical work.

The exploitation dimension reflects the organization's ability to commercially exploit the new knowledge, including the development of a prototype, and new technologies. Also, it evaluates whether the work has become more effective after the exploitation process of the new knowledge.

As reported by Flatten et al. (2011) the scale has some limitations that should be addressed. First, the scale was developed within the context of research-intensive German companies, thus applying the scale in a different country and within a different context might affect the applicability of the four dimensions when applied to research studies with diverse contexts. However, research-intensive companies are considered as knowledge-based organizations which apply to the context of this research study (Choain & Malzy 2016). Additionally, the scale applied to other countries and the scale validity and reliability was parallel to the originally reported results by Flatten et al. (2011) below quote is a sample of these studies:

“This study strived to validate the ACAP scale (Flatten et al., 2011) in the Pakistani context, more precisely in the banking sector of Pakistan. The CFA findings have concluded that ACAP is a multi-dimensional construct, comprising four dimensions namely Acquisition, Assimilation, Exploitation and Transformation. The findings are parallel to the previous studies (Flatten et al., 2011) that validated the ACAP dimensions. The CFA, reliability and validity tests have confirmed the four dimensions of ACAP are evidently appropriate to measure absorptive capacity in the banking sector of Pakistan as well.” (Umrani, Ahmed & Memon 2015, P. 1057).

Measurement of the Workforce Agility Construct

The workforce agility scale consists of three subscales proactivity, adaptivity, and resilience.

The proactivity attribute is measured through a four-items scale built based on Griffin and

Hesketh's (2003), Pulakos et al. (2000), and Dyer and Shafer (2003) and it reflects the respondents perceived abilities to initiate specific work activities to enhance the working environment, anticipate the issues that might be faced by the organization due to change, solve work-related problems and deal with crises, and be able to take advantage of available opportunities.

The scale for adaptability includes five items adopted from Sherehiy et al. (2007), Breu et al. (2002), Gunasekaran (1999), Dyer & Shafer (2003) and combined, adapted and tested by Al-Faouri, Al-Nsour & Al-Kasasbeh (2014). Adaptation implies the ability to change the behavior to better fit a new business environment. Adaptability items include the perceived capacity for adaptation and acceptance of new roles and responsibilities, demonstrate enthusiasm to learn new skills, the ability to work in teams with multiple tasks, and the ability to be flexible to changes within the organization and to the external business environment.

The resiliency scale contains four items derived from Griffin and Hesketh (2003), and Sherehiy et al. (2007) and combined, adapted, and tested by Al-Faouri, Al-Nsour & Al-Kasasbeh (2014). The items are intended to measure the extent to which the respondent believes that she/he does not mind working within an ambiguous business environment, willingness to receive novel ideas and technology pertaining to work, accommodate different sources of work related pressures, and comprehends the diverse approaches in dealing with business issues. The original scale used a 7-point Likert scale. For more details on the items proposed by Al-Faouri, Al-Nsour & Al-Kasasbeh (2014) refer to appendix (6). The below table represents a summary of adopted measurement scales in this research study.

Table 10: Summary of measurement scales.

Construct Name	Dimensions	Item codes	Variable Type	Scale Main Sources	Number of Items
Dynamic Talent Management Capabilities	Talent Attraction and Selection Talent Training Talent Development Talent Retention	DTMC	Independent variable	Jayaraman, Talib & Khan (2018).	26
Strategic Agility	Strategic Sensitivity Collective Commitment/Leadership Unity Resource Fluidity	SA	Mediator	Doz & Kosonen (2008, 2010).	9
Absorptive Capacity	Acquisition Assimilation Transformation Exploitation	AC	Mediator	Flatten et al. (2011).	14
Adaptive Organizational Culture	External focus Anticipation Confidence Open to change Development of capabilities Collaborative action planning Executing change Sustaining change	AOC	Moderator	Costanza et al. (2016).	9
Workforce Agility	Proactivity	WA	Dependent Variable	Griffin & Hesketh (2003), Dyer & Shafer (2003) & Pulakos et al. (2000).	13
	Adaptability			Sherehiy et al. (2007), Breu et al. (2002), Gunasekaran (1999), Dyer & Shafer (2003). Scale adapted by:	

				Al-Faouri, Al-Nsour & Al-Kasasbeh (2014).	
	Resilience			Griffin & Hesketh (2003) & Sherehiy et al. (2007).	

4.12 Sample and Sampling Characteristics

Study Population

This research is conducted in the United Arab Emirates (UAE), where many knowledge workers play an important role in contributing to the overall economy of the country. Knowledge workers operate in various industries such as knowledge-based organization, manufacturing industry, or mixed. Knowledge based organizations were professional services firms such as management consultants, legal advisors, financial advisors, and auditors that constituted 55.4% of this research study. These services reflect KBO's distinctive competence around creativity, where the services are directed toward providing innovative solutions to the client's concerns and challenges, and this is considered as the major source of competitive advantage within the KBO context (Winch & Schneider 1993).

Although the target population is all knowledge workers in the UAE, the study collected a sample which is "a subset of measurements selected from the population. Sampling from the population is often done randomly, such that every possible sample of (n elements) will have an equal chance of being selected. A sample selected in this way is called a simple random sample, or just a random sample. A random sample allows the chance to determine its elements (Aczel & J Sounderpandian 2009, p. 5). The targeted sample consists of multiple internal actors including top, middle management as well as line managers working for UAE's KBO

organizations. The justification for choosing managers as the target sample was explained under the unit of analysis section.

Sample Size and Sampling Frame

Knowledge workers for management consulting companies and other manufacturing companies worldwide are grouped into regions (North America, Europe, Middle East, and North Africa” MENA”) and most of the published statistical reports are region-based. Therefore, no specific data about UAE total workforce, including managers ratio and breakdown per position and industry were found. However, the total number of employees under MENA region, including UAE for the top 10 consulting firms (Strategy& (PwC), Bain & Company, Boston Consulting Group, Boston Consulting Group, Kearney, Deloitte, Oliver Wyman, Ernst & Young, Roland Berger, and Aon Consulting Worldwide) is around (9700) employees as reported by the “Management Consulted” website, knowing that not all companies addressed their number of employees. The management to employee ratio at professional services organizations, specifically management consultants, is (9.13) as per the “Statista Website” updated in February 2019, for more details see appendix (8). Accordingly, the estimated number of managers and leaders is 1062 managers in the MENA region. However, how many managers are in the UAE is the number that was not available. Additionally, no clear facts found about knowledge workers within the manufacturing industry whether in the UAE or in the MENA region.

Lack of sampling frame details is one of the major study challenges, which obligates the researcher to adopt the non-probability convenience sampling method. Nonetheless, this limitation was covered by planning for a large sample size of 384 managers. Knowing that the actual sample size of this research study is 406 respondents. Additionally, an alternative methodological estimation of sample size was used, as discussed in the next section.

Methodological Aspect of Sample Size

The planned data analysis technique is the covariance-based approach of structural equation modeling (SEM). Unlike other multivariate methods, SEM is very sensitive to sample size, to the extent that the statistical algorithms might not be reliable with a small sample size (Fornell & Bookstein 1982; Hair et al. 2014). Thus, the selected method requires a large sample size to produce trustworthy results.

The following aspect has been considered when planning the sufficient sample size for SEM. The first aspect is model complexity; this study consists of five main constructs. Hair et al. (2014) guidelines are that for models with five or fewer constructs, each with over three items as the case in this study, and with high item communalities equal to or more than 0.6 the sample size should be less than 100. Additionally, based on the rule of five to ten observations per every item (Comrey & Lee 1992, cited in Yong & Pearce 2013) the optimal sample size for this research is between (355- 710) since the study survey consists of 71 items. Based on the sample size table, a sample size of more than 384 becomes indifferent even if the population size is more than a million population (Ahmad & Halim 2017; Krejcie & Morgan 1970). Accordingly, the planned sample size of 384 should be representative of the population at a 95% confidence interval (Black 2009). Knowing that the actual sample size is 406 respondents.

Besides that, the following methodological considerations were investigated such as normality of the data, the amount of missing data, and the average error variance between the reflective indicators (Hair et al. 2014).

4.13 Data Collection

This research study used an electronic online survey, to gather the responses to the survey items from the target sample through electronic channels such as emails. The reason for selecting the

electronic form of survey is to enhance the accessibility to the targeted individuals who would be difficult, if not impossible, to reach through other channels. Using this approach supported in reaching respondents from across the emirates and thus covering a wide geographical area. Nowadays the technology enables the researcher to spread the survey link to a large number of respondents where they can answer at their convenience, besides the gathering more accurate results due to bypassing the phase of data entry which makes the process more effective in terms of costs, time, and energy (Sekaran & Bougie 2016).

The most challenging aspect of the electronic survey is the return rates, which are typically low in such forms of surveys. The target of this research study is to reach at least a 30% response rate since it is considered satisfactory, and in many cases even extraordinary (Sekaran & Bougie 2016). After the finalization of the data collection, the following measures were reported as applicable: the original sample contacted, the number agreeing to participate, the number receiving the survey, and the ultimate number of respondents who completed the survey. The aim of this research study is to maximize response rates and to carefully evaluate the possibility of non-response bias.

For increasing the response rate, the following measures were taken: the researcher considered the feedback that was received by the expert's post-pilot study, including rephrasing words, eliminating unnecessary ones, simplifying sentences, and others as applicable so the survey will be more understandable to the target respondents. Second, sending notifications prior to sending the survey with a brief about the study might get respondents interest and follow-up emails, after sending the survey with caution since respondents might complain about it (Wright 2005). Despite the intention to carry out these measures, high response rate does not preclude non-response bias (Barclay 2002).

Accordingly, non-response bias (participation bias) was investigated in order to make sure those who answered the survey do not differ significantly from those who did not answer. Levene's homogeneity of variance test (one-way ANOVA) was performed in order to assess the mean differences between the early and late respondents, assuming that late respondents are similar to non-respondents (or differences between the various waves of respondents) are significant. The desired outcome is not significant Levene's test results where p value is greater than 0.05 which indicates that variances were similar (Field 2009). The Levene's test result is not significant for all research variables, including the demographic one, for details on each variable refer to appendix (13) which illustrates the ANOVA table with F values and significance level.

4.14 Data Analysis

Data Preparation and Screening

Before starting the data analysis phase, a number of essential steps were considered, including data coding, data screening, data cleaning, checking missing data if any, discovering unengaged respondents. This phase is important to detect and correct cases such as illogical response (outlier), inconsistent (not in harmony), or omissions (unanswered items) in the returned information. The plan was that appropriate decisions will be taken as necessary, for example if more than 25% of the items are missing (not answered) that specific questionnaire will not be included in the final data set for analysis (Sekaran & Bougie 2016), and questionnaires with few unanswered items (two to three) will be reserved and considered for analysis, and such items will be coded differently. However, in this research study there was no missing data since the force completion option was activated in google forms. The other data screening aspects that were considered are the assumptions of linearity, normality, and independence. Results are reported as part of the data analysis and results chapter.

Data Exploration and Presentation

Initially the data was explored by visual summary using various types of charts such as tables, histograms, multiple box plots, scatter, pie, column, and line graphs. Moreover, descriptive statistics illustrate the description and comparison of the study variables numerically. Descriptive statistics included mainly frequencies, measures of central tendency (mean, median, and mode), and dispersion (range, variance, standard deviations, and interquartile range).

Examining Relationships between Variables, Differences and Trends

Significance or hypothesis testing (probability of making a Type I error or alpha (α),) was done in order to study the impact of one variable on the other. The objective is to minimize type I error, and if this will be achieved type II error (beta (β)) will be reduced by a corresponding amount. Based on the data normality results, a decision was made to use parametric statistics instead of non-parametric statistics. Additionally, correlation and regression analysis were used to further explicate the relationship among all study variables.

Correlation analysis investigates the relationships between the variables, and the focus is on two main aspects to examine, correlations that are >0.9 (which indicates multicollinearity) and correlations that are <0.1 (indicating the presence of an item that is unrelated to the construct under study) (Pallant 2013). The statistical decision around omitting an item with a high correlation (>0.9) was not necessary in this research study. Details about the main test assumption are available in table (11). Additionally, exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) were performed in order to reduce multicollinearity, form aggregate variables, and improve the reliability of the aggregated scales.

After performing all the previously discussed data preparation, cleaning, and validation using the IBM SPSS-AMOS Statistics version 26, the data was imported to AMOS to perform an estimation of multiple and interrelated dependence relationships, signify unobserved concepts

in these relationships, and account for measurement error in the estimation process, define the research model to explain the complete set of associations through the implantation of Covariance-based approach of structural equation modeling (CB-SEM).

Theory Testing through Structural Equation Modeling

The methodology is quantitative using a covariance-based approach of structural equation modeling (SEM) (Fornell & Bookstein 1982; Hair et al. 2014), since it provides better outcomes than variance-based approaches in terms of parameter consistency and accuracy (Reinartz et al. 2009). SEM is a family of statistical models (regression, correlation, factor analysis, validity and reliability tests) used to estimate multiple and interrelated relations where the end product is a completely defined model where all relationships are explained. Having an underlying theory that explains the expected relationship among the constructs of interest is considered as the main foundation of the SEM model. The theoretical foundations are important for building both the measurement model and the structural model.

The endogenous construct is workforce agility, strategic agility, and absorptive capacity, and the exogenous construct in this research study is dynamic talent management capacities. Additionally, in this study there are five measurement models and one structural model, where the main objective of the measurement model is to validate that the variables identified are actually measuring the construct and the objective of the structural model is to verify the existence of a relationship among the constructs (Hair et al. 2014).

The following represent the six main stages that were performed in order to reach a valid structural model, which consequently led to substantive conclusions and recommendations. First, define the theoretical underpinning of the model, which was done as part of the literature review chapter. Second, define individual constructs and this includes operationalizing the constructs, adopting a scale from existing literature followed by validating the construct by

experts review and pilot study. Moreover, pretesting the construct was performed to check issues such as cross loading to ensure unidimensionality, or very low loading of a variable on a construct. The core value of pretesting is to purify the measures prior to the confirmatory testing, and this is particularly important for this research study since the types of factors used are reflective factors and unlike formative factors they should be validated and pretested. Accordingly, the plan was any item that is not expected to correlate highly with the other indicators of a factor was deleted. In this research study all the 71 items were retrieved since validity and reliability were achieved without the need for any item deletion.

Third, identify and assign the measurement model graphically using AMOS software to draw a path diagram with labeling of indicators or variables, constructs, and relationships among them. Fourth, design the study to produce empirical results. Fifth, assess the measurement model, through the goodness-of-fit measures, including Chi-square Test (χ^2) which indicates the degree of freedom (DF) and the ideal value is < 3 for any sample size below 750 (Hair et al. 1998), and the aim is to have a very low difference between the observed matrix and the expected matrix. Goodness-of-Fit Index (GFI) in which the values range from 0 to 1 and the ideal value is > 0.90 (Hair et al. 1998). Root Mean Square Error of Approximation (RMSEA) and the ideal value is (0.05 – 0.08). Root Mean Square Residual (RMR) ideal value is < 0.05 (Hair et al. 1998). The other approach to assess the validity of the measurement model is through construct validity. Stage's from one to five fall under the basic steps of the confirmatory factor analysis in AMOS. After successful completion of steps from one to five, the researcher continued to specify the structural model and then assess the structural model validity. Afterword, hypothesis testing was performed with a focus on the overall and relative model fit, the size and direction, and significance of the structural parameter estimates. The parameters' estimate and significance were analyzed to help in the decisions related to accepting or rejecting the hypothesis.

4.15 Ethical Considerations

This research study follows the ethical procedures of the British University in Dubai (BUID), which considers the ethical aspects of research studies from the commencement of the research idea throughout the research journey. The participation in this research study was completely voluntary, appendix (9) represents the respondent consent form. Additionally, the university achieves that by carrying out various steps, including conducting a regular research ethics committee approval where researcher is asked to fill a self-assessment form of various aspects related to the research conducted.

The respondents of this research study have been assured that no personal identifying information or IP addresses will be collected, accordingly the questionnaire is completely anonymous. Data will be kept safe with the principal investigator (researcher) as a softcopy only, and data will be used only for the purpose of this research study. Moreover, the respondents have been assured that there are no known risks, harms, or discomforts associated with this research study, and their participation is absolutely voluntary, and they can withdraw at any point if they choose not to continue. Risk, confidentiality, anonymity, voluntary participation and authorization were all integral parts of the research ethics form. Appendix (10) presents the details of the research ethics form.

The ethical and responsible research necessitates a researcher to involve in the responsible conduct of research which is defined by Steneck (2006, p. 55) as “conducting research in ways that fulfill the professional responsibilities of researchers, as defined by their professional organization, the institutions for which they work, and when relevant, the government and public”.

This study aims at confirming the ethical principles to ultimately achieve far more than just statistical conclusion validity, which states the extent to which the research findings and conclusions are correct or precise (Wester 2011). Moreover, this study aims at achieving social validity, which refers to the positive influence the study will have on the profession or on society as a whole. Social validity was maintained by asking and probing into the “so what” aspects when trying to formulate the initial research idea rather than “it is interesting, or no one has studied this before”. Additionally, significant practical and theoretical implication was initially mapped against each research question.

After ensuring that the study questions and purpose are socially valid, the next aspect that was examined is the research design, including appropriate sample, data collection approach, reliability and validity of instrumentation, and analyzes sequence, since as declared by Bersoff and Bersoff (2008) "research ethics is a methodological issue? each decision about procedures has potential ethical implications" (p. 387). As stated earlier under the sample and sampling characteristics section, this study aims at collecting data from a representative sample so conclusion validity can be achieved, type I error (inferring a relationship in the study sample when it does not exist in the population), type II error (not inferring a relationship in the study sample when it does exist in the population) can be avoided (Heppner et al. 2016), and to attain greater statistical power through bigger sample size. Moreover, this research study considered all the necessary statistical assumptions for every test so the same addressed reasons below table illustrates the main assumptions that were visited while performing data analysis.

Table 11: Statistical Tests and their Main Statistical Assumptions.

Test	Test Definition and Purpose	Test Statistical Assumptions	Author & year
Reliability Testing Cronbach's alpha	It measures the internal consistency reliability among a set of items - when considered as a group- within a set of	1. All items should be coded the same way, which means that all items are measured using the same number of scales	(Field 2013).

(Coefficient alpha)	questions in a survey instrument. Additionally, it is important to note that Cronbach's alpha is not a measure of homogeneity or unidimensionality.	(e.g. all items are measured using a 7-item scale). 2. The negative statements should be reversely coded. 3. Items with 0, 1 should be eliminated. 4. Important to run a separate reliability analysis for each subscale.	
Correlation Tests	Correlations (r) examines the associations between variables that are measured at ratio or interval ratio. Moreover, it is used to determine the strength and direction of the relationship, as well as the probability that the relationship between the two variables might be due to sampling error.	1. Data should be interval or ratio which are considered as a scale in SPSS. 2. Free of outliers. 3. Normality distributed variables, linearity and homoscedasticity. 4. Linear relationship between the variables.	(Pallant 2013).
Chi-square Test	It is used to test the association between two categorical variables.	1. The variables of interest are both categorical. 2. Each variable has at least two categories. 3. Categories are mutually exclusive for each variable.	(Field 2013).
Linear/multiple Regression Tests	The simple linear regression examines the relationship between two continuous variables, with a main purpose of predicting the values of the dependent variable based on the values of the independent variable.	1. Both variables should be continuous. 2. The relationship between the variables are approximately linear. 3. No significant outliers in the data series. 4. The errors are independent (there is no relationship between the residual variable and the independent variable). 5. The dependent variable has the same variance for all the values of the independent variable (there is homoscedasticity). 6. The residual variable is approximately normally distributed. Can be assessed by two different methods: visual (P-P plot and histogram) and numerical. If the above-mentioned assumptions are not met or seriously violated this will lead to erroneous conclusions. "	(Child 2006).
Exploratory factor analysis (EFA)	The most common use of the exploratory factor analysis (EFA) is to summarize the data – data reduction tool- in a way that makes the relationship between a large number of variables easier to be understood and interpreted by excluding the redundant variables. Other purposes are for evaluation of tests and scores, reducing multicollinearity, forming aggregate variables and improving reliability of the aggregated scales.	1. Normality is not a must.	
		2. Absence of univariate and multivariate outliers.	(Field 2009).
		3. Presence of linear relationship between the factors and the variables when computing the correlations.	(Gorsuch 1983, cited in Yong & Pearce 2013).
		4. (5 to 10) observations per every variable. Generally, a large sample size is recommended at least 300 to diminish the	(Comrey & Lee 1992, cited in Yong & Pearce 2013)

		error in the data. Additionally, the sample should be homogenous.	
		5. The correlation r must be 0.30 or greater and anything lower will indicate a weak relationship between the variables.	(Tabachnick & Fidell 2007, cited in Yong & Pearce 2013).
		6. Variables should be continuous, although it can be performed on ordinal variables as well.	(Yong & Pearce 2013)
		7. Absence of multicollinearity.	(Tabachnick & Fidell 2007, cited in Yong & Pearce 2013).

4.16 Pilot Study Procedures and Results

The importance of pilot studies can be summarized by the famous saying of De Vaus (1993: 54) “Do not take the risk. Pilot test first”. Pilot studies are often advised by academic scholars to address multiple issues that might occur during the research design starting from the item difficulty, internal consistency, item discrimination, to face or content validity, and response rates (Johanson & Brooks 2010). Additionally, pilot studies are important to establish preliminary evaluation of the study duration and to recognize potential concerns with participant fatigue (Creswell & Creswell 2018). Besides developing and testing the suitability of the research instruments, pilot studies are important to assess the feasibility of the research protocol, establish whether the sampling frame and technique are effective, and to assess the likelihood of success of the planned recruitment methods (Teijlingen & Hundley 2002).

This research considered the following pilot procedures to increase the quality and efficiency of the main study. First, the pilot subjects’ characteristics are similar to the main study sample characteristics. Second, the scale was administered to the pilot subject in the same ways as it was administered to the main study sample. Third, pilot study respondents were approached to gather feedback about the item’s ambiguities, difficulties, and time taken to fill the survey and reasonability was assessed. Fourth, necessary modifications were reflected on each item as

necessary, such as rephrasing ambiguous questions, rescaling questions, checking questions with no answers, evaluating the range of responses gathered. Additionally, the pilot participants were not included in the main study and the data from the pilot study were excluded from the main study to avoid data contamination.

The sample size of a pilot study is highly dependent on the purpose of carrying out a pilot study (Johanson & Brooks 2010). For example, for assessment of study feasibility, a sample size of 10-15 respondents is sufficient. For similar purposes, Hill (1998) proposed 10 to 30 participants for pilots in survey research. While for evaluating the adequacy of a research instrument 25 to 40 is better (Hertzog 2008), and for this research study, this was the target sample size for the pilot study, however, 78 responses were collected and analyzed since the constructs under investigation the first time is being examined together, and the adaptive organizational culture questionnaire is relatively new (published in 2016 and the first published empirical study was in 2018).

The preliminary analysis of the pilot study responses indicated a total variance explained by one factor of 43% accordingly common method bias is not an issue since it is less than 50%. Additionally, Cronbach's alpha for all research constructs were examined and all were above the recommended cut off value, which is 0.7 accordingly the used 71 items questionnaire was found to be highly reliable (Gliem & Gliem 2003). Table (12) represents a summary of the Cronbach's alpha coefficient results of the pilot study. Additionally, no patterned responses were noticed such as 1,2,3,4,5 or 1,1,2,2,3,3 or B-liners or any other pattern, and no signs of disengaged respondents since the standard deviation was not equal to zero in any response.

Table 12. Pilot study Cronbach's alpha Coefficient.

Variable	Dimension	Cronbach's alpha	Decision of Item Deletion
DTM	Dynamic Talent Management	.959	No Item Deleted
	Talent Attraction and Selection	.868	
	Talent Training	.919	
	Talent Development	.919	
	Talent Retention	.903	
WFA	Workforce Agility	.953	No Item Deleted
	Proactivity	.919	
	Adaptability	.934	
	Resiliency	.854	
SA	Strategic Agility	.930	No Item Deleted
	Strategic Sensitivity	.899	
	Collective Commitment	.882	
	Resources Fluidity	.821	
ACap.	Absorptive Capacity	.953	No Item Deleted
	Acquisition_	.842	
	Assimilation_	.872	
	Exploitation	.869	
	Transformation	.865	
AOC	AOC	.935	No Item Deleted

CHAPTER FIVE: DATA ANALYSIS AND RESULTS

5.1 Introduction

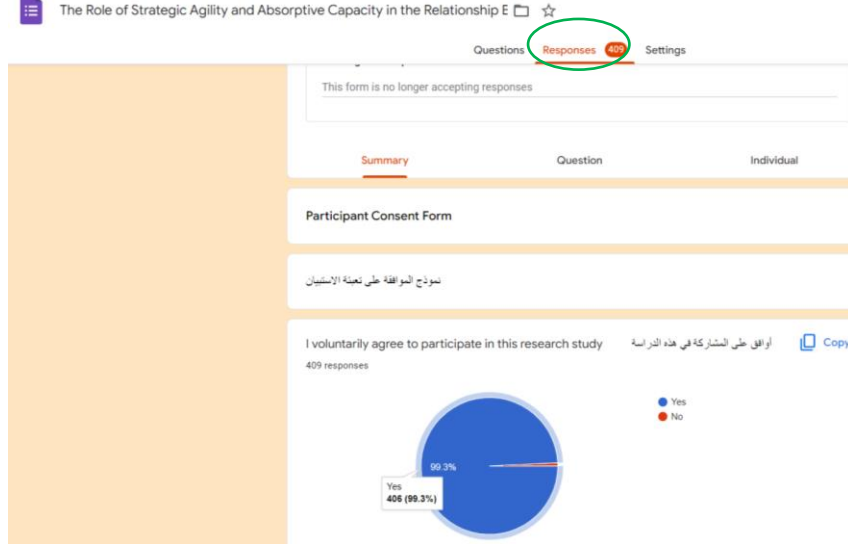
This chapter explains the complete data analysis cycle from the content validity stage to the dissemination of the questionnaire and piloting of the research instrument, moving forward to the sample profile, preliminary data analysis, exploratory and confirmatory factor analysis and finally to the hypothesis testing and main research findings. Two main software packages have been used to perform the analysis, SPSS version (26) was used for preliminary data analysis, Cronbach's alpha, and factor analysis. While AMOS version (26) was used for CFA, the measurement model, the alternative models, the structural model, and path analysis.

5.2 Sample Characteristics

A total of 409 responses were collected from managers, directors, and team leaders working as knowledge workers. Image (1) shows a screenshot of the online survey link. The survey was distributed via multiple channels ranging from outlook emails, emails and LinkedIn status. Out of 2922 notifications sent, 409 responses were received, which equated to a 14% response rate over the three-month duration of the data collection phase (starting from November 2021 till the end of January 2022).

Three responses were all blank due to the fact they refused to complete the survey, so they selected "NO" and automatically they were out of the survey. On the other hand, among the rest of the 406 responses, there was no missing data since the force completion feature within the Google Form platform was applied. Additionally, signs of disengaged responses were assessed through patterned responses (1,1,1,1,2,2,2,2, or 1,2,3,4, or any other pattern), and B-liners pattern (through the calculation of standard deviation), and the results were no cases found either with patterned responses nor with a standard deviation less than or equal to 0.5 (Schoenherr, Ellram & Tate 2015; Žmuk 2017). Accordingly, disengaged responses and speeders were not part of this research study's respondents.

Screenshot from the online survey link represents 409 total collected responses and 406 completed.



The final total sample size is 406. The sample was 34% female and 66% male, 89.4% were between the ages of 25 to 54 years old and were highly educated managers and directors of which 95.5% held bachelors, masters, and doctorate degrees, and around 80% were highly experienced with more than 11 years' experience, and 50% worked for large organizations with more than a thousand employees. Appendix (12) outlines the main demographic details of the study sample extracted from the online survey site, and table (13) illustrates the frequency distribution table of the sample demographic details (N = 406).

Table 13: Frequency distribution table of the sample demographics (N=406).

Characteristic	Category	Percentage	Characteristic	Category	Percentage
Gender	Male	66%	Education	Less than high schools	0%
	Female	34%		High School	0%
Age	>18 years old	0%		Diploma degree	4.5%
	18-24	4.2%		Bachelor's degree	44.5%
	25-34	19%		Master's degree	38.9%

	35-44	45.8%		Doctorate	11.6%
	45-54	24.6%		Other	0.5%
	55-64	4.9%	Number of employees	1-49	13.6%
	65 and above	1.5%		50-999	31.9%
Years of Experience	>5	6.9%		1000-4999	16.6%
	5-10	13.8%		>5000	33.4%
	11-15	24.9%		Don't Know	3%
	16<	54.4%		Others	1.5%
Organization Type	Service Organization	55.4%	Employee Level	Upper Management	14.3%
	Product Provider organization	5.2%		Middle Management	30%
	Both Product and service	25.9%		Junior Management	10.1%
	Others	13.5%		Team leaders, Consultant, researchers and others	45.6%

5.3 Preliminary Data Analysis

There are a number of assumptions that are central to the multivariate analysis technique, and particularly the following four assumptions, come into play in one or more of the multivariate techniques and affect every univariate and multivariate statistical technique. The assumptions are normality, homoscedasticity, linearity, and the absence of correlated errors (Gravetter et al. 2016; Hair et al. 2014). Additionally, the univariate outliers, multivariate outliers, skewness, and kurtosis indicators were investigated in this research study considering their importance in assuring virtuous data quality.

5.4 Assessing Univariate Outliers

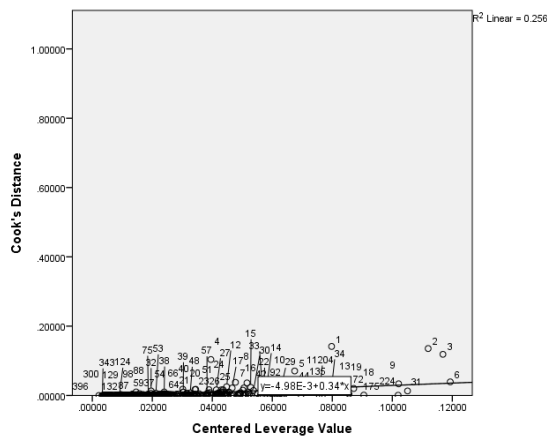
Outliers are exhibited when an observation or multiple observations are very different from other cases within a model and it can bias the statistics drastically if not properly managed (Field

2013). The univariate outlier was assessed by first converting all the raw values of the collected responses to the standardized score using the descriptive feature available in the SPSS software, and then cases were checked against the cutoff values of 4 since the sample size is large (Hair et al. 2014), knowing that for smaller sample sizes (80 or less) the threshold is not to exceed 2.5 (Hair et al. 2014). In fact, the Z score of almost all items within this research study meets the recommended cut of value of Tabachnick and Fidell (2016) and consequently the threshold of Hair et al. (2014) where all the Z score values do not exceed 3.29. Accordingly, univariate outliers are not a concern in this research study for details refer to appendix (15) which illustrates the minimum and maximum z score for each study variable.

5.5 Assessing Multivariate Outliers

“Cook’s distance is a measure of the overall influence of a case on a model. Cook and Weisberg (1982) have suggested that values greater than (1) may be cause for concern” (Field 2013, P. 1004). The result of Cook's distance indicates that all cases fall within (0.0-0.133), thus no values greater than the satisfactory threshold of (1). Accordingly, there is no evidence of multivariate outliers in this research study and no influential points were noticed. Additionally, the centered leverage value was calculated and plotted along with the cook’s distance and graphically no high influence or high leverage value was noticed since in most data sets the cases form a swarm around the centroid in multivariate space. Mahalanobis distance was not considered in this research study since various authors indicate that it could mask a real outlier if the sample size is large and the correlation among variables is high (Egan & Morgan 1998 cited in Tabachnick & Fidell 2016; Hadi & Simonoff 1993; Rousseeuw & van Zomeren 1990).

The below chart indicates that most data sets form a swarm around the centroid in multivariate space.



5.6 Univariate Assessment of Normality

Normality is considered as the most fundamental assumption in multivariate analysis (Hair et al. 2014), and what really matters is the shape of the sampling distribution and not the actual collected data that needs to be normally distributed. The central limit theory indicates that if the sample is large enough (between 100 -160), then the normality assumption is not a serious concern, unlike in small sample sizes, the outliers are a more valid concern than normality. Despite this comment, in this research study, both assumptions have been checked using various numerical and graphical methods (Field 2013; Hair et al. 2014; Tabachnick & Fidell 2016).

5.7 Numerical Methods using the skewness and kurtosis indicator

While skewness refers to the degree of asymmetry of a distribution, kurtosis refers to the degree to which a distribution is flat, peaked, or bell-shaped (Randolph & Myers 2016). Skewness affects the means, whereas kurtosis strictly impacts variances and covariances (DeCarlo1997). Accordingly, kurtosis is remarkably detrimental while performing SEM analyses since it is based on the analysis of covariance structures (Byrne 2010). As indicated by West et al. (1995), for a sample size greater than 300, it is recommended to use the absolute skewness and kurtosis instead of the z-score values since the standard errors become smaller when the sample size

increases. Therefore, the z-tests under the null hypothesis of normal distribution tend to be easily rejected in large samples, even if the distribution does not substantially vary from normality. Accordingly, an absolute value of skewness larger than 2 and a kurtosis larger than 7 indicate substantial deviation from normality.

$$Z = \frac{\text{Skew value}}{SE_{\text{skewness}}}, Z = \frac{\text{Excess kurtosis}}{SE_{\text{excess kurtosis}}}$$

As shown in appendix (13a,13b), which indicates the univariate kurtosis value listed for each study variable positive values range from .027 to 2.553 and negative values from -.025 to -1.331, reveals no item to be substantially kurtotic based on the following kurtosis cutoff values (-7 and +7) (Gravetter et al. 2016; Randolph & Myers 2016; (West et al. 1995). Similarly, the skewness value listed for each study variable, positive values range from .49 to .566 and negative values from -.24 to -1.382, reveals no item to be substantially skewed based on the following skewness cutoff values (-2 and +2) (Gravetter et al. 2016; Randolph & Myers 2016; West et al. 1995).

Accordingly, the assessment of univariate normality for all variables, including the control variables (size and type of organization), using the skewness and kurtosis indicates that the values met the rigorous threshold of skewness between (-2 and +2) and kurtosis between (-7 and +7) (Gravetter et al. 2016; Randolph & Myers 2016).

5.8 Graphical Method using the histogram and Q-Q Plot

The graphical distribution is a more robust statistical technique, than the numerical method in determining data normality, particularly in studies with large sample sizes, since the larger the sample size, the smaller the P value and the tendency to reject the null hypothesis (the data is normally distributed) when it is true is possible (Gravetter et al. 2016; Randolph & Myers 2016;

Tabachnick & Fidell 2016; West et al. 1995). Accordingly, the frequency histogram, the quantile-quantile Plot (Q-Q Plot) and the detrended plot was examined for all research variables and shapes of the distribution shows that almost all variables are approximately normally distributed resembling the normal bell shape and the points for the most cases fall along the diagonal line. For more details refer to appendix (14).

The coming section discusses multivariate normality due to the fact that univariate normality does not necessarily indicate multivariate normality (Gravetter et al. 2016; Randolph & Myers 2016; Tabachnick & Fidell 2016; West et al. 1995).

5.9 Multivariate Assessment of Normality

Multivariate normality indicates that the sampling distributions of the means of the various dependent variables and all linear combinations of them are normally distributed (Tabachnick & Fidell 2016).

5.10 Assessing Data Linearity and Homoscedasticity

The homoscedasticity assumption implies that “the standard deviations of errors of prediction are approximately equal for all predicted dependent variable scores” (Tabachnick & Fidell 2016 P. 127). The assessment of homoscedasticity was done through running regression analysis and saving the values of the “zpred” and “zresid” and plotting a scatter chart. As noticed from the below chart, there is no specific pattern that dominates, such as funnel shape or curve shape. Accordingly, the homoscedasticity assumption is met within the data set, so the linearity assumption is achieved as well. Therefore, both assumptions hold true and there is no evidence of a systematic relationship between the errors in the model and what the model predicts. Figure (6) demonstrates normality by showing that the overall shape of the scatterplot is rectangular instead of curved.

Additionally, the modified Breusch-Pagan test for homoscedasticity was performed to further validate the scattered plot and the result was a chi-square of 3.523 and nonsignificant p-value of ($\alpha = .061$). Accordingly, the researcher accepted the null hypothesis, which states that homoscedasticity is present, indicating that the residuals are distributed with equal variance in the regression model and the variance of the errors does not depend on the values of the independent variables (Huang, Wiedermann & Zhang 2022).

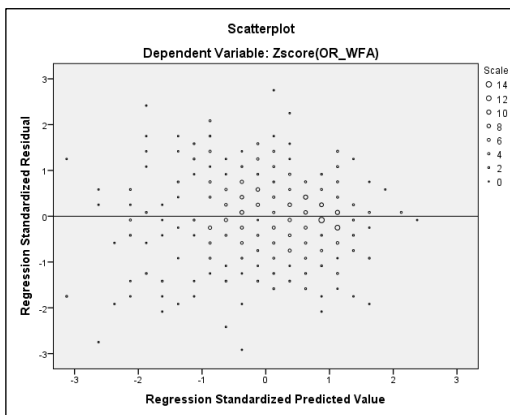


Figure 6: Scatterplot for the assessment of homoscedasticity

Tests for Heteroskedasticity

Modified Breusch-Pagan Test for Heteroskedasticity^{a,b,c}

Chi-Square	df	Sig.
3.523	1	.061

a. Dependent variable: WFA

b. Tests the null hypothesis that the variance of the errors does not depend on the values of the independent variables.

c. Predicted values from design: Intercept + DTMG + AOCG + ACAPG + SA_SS + SA_RF + DTMG * AOCG

5.11 Assessing Multicollinearity

Multicollinearity results when two or more variables are extremely correlated, which means essentially that both represent the same underlying construct (Byrne 2010). Consequently, as collinearity increases, the standard errors of the b coefficients increase and the higher the standard errors, the more variable the “bs” across samples, which ultimately means that b

coefficient in our sample is less likely to represent the population and is less trustworthy (Field 2013).

Multicollinearity was assessed through the variance inflation factor (VIF), tolerance measure, and correlation matrix. The VIF values were way below 10 in fact that maximum value was 4.9 which means that no substantial correlations ($r > 0.9$) between predictors is noticed. For more details refer to appendix (16). Additionally, the tolerance which is a measure of multicollinearity was assessed by simply taking the reciprocal of the variance inflation factor ($1/VIF$) and the result indicates that all tolerance values were way more than 0.1, which further assures that multicollinearity is not a concern in this research study.

Furthermore, the correlation matrix which reflects the relationships between the predictor and outcome variables is extremely useful for detecting possible multicollinearity (Field 2013). Accordingly, the correlation matrix was investigated, with a focus on two main aspects: correlations that are greater than (0.9) and correlations that are less (0.1) (Pallant 2013). The matrix shows neither of these cases, which indicates that there is no evidence of multicollinearity and there are no variables that are not related enough to the other variables.

5.12 Common Method Bias

Harmen's single factor, or one-factor test, is a commonly conducted test by researchers after collecting the data to address the issue of common method variance (Podsakoff et al. 2003). A common method bias occurs when one variable explains the majority of the covariance between the factors while performing the exploratory factor analysis with unrotated factor solutions (Podsakoff et al. 2012; Podsakoff & Organ 1986).

Accordingly, the test for common bias variance, Harman's test, was performed, and the result indicated only 37.983 % of the 68.007 explained variance, which is less than 50% of the total

variance. Hence, the researcher assumed that there was no issue with regard to the common method variance in this study since no single factor is responsible for the variance in the data. However, it is important to realize that there are some potential problems associated with the Harman's test, such as that the procedure does not statistically control for common method variance. Moreover, there are no specific guidelines on how much variance the first factor should extract before it is considered a general factor. Additionally, the likelihood of obtaining more than one factor increases as the number of variables examined increases, thus making the procedure less conservative as the number of variables increases (Podsakoff et al. 2003). Accordingly, additional tests were carried out to insure the absence of common bias, such as the common latent method factor test (Lindell & Whitney 2001) and marker variable technique. The common latent method factor was done after the CFA by using a single latent variable (without indicators) and then drawing a relationship from the unobserved common latent construct to all indicators within the model using the common latent factor connector plugin. Appendix (17) illustrates graphically the common latent factor approach. The analysis results indicate that common method bias is not a substantial concern in this research study since the difference between standardized regression weights of the original CFA model and the CFA with the common latent factor is all below 0.2 for all items without exceptions. Accordingly, there was no need to retain the common latent factor moving forward to the structural model. Moreover, the marker variable technique was performed to detect the existence of common method bias. The marker variables were the respondents' job role, job title, and experience, which are theoretically not related to any of the main constructs of the research, especially that the study is at the organizational level and the job role and experience of the individual managers are unlikely to be related to the study context. The result was a decrease in the common bias from .26 to .16.

Based on the above analysis, the conclusion is that the results of the evaluation of the statistical assumptions, including normality of sampling distributions, linearity, homogeneity of variance, and common method bias, were all satisfactory.

5.13 Exploratory Factor Analysis

Exploratory factor analysis (EFA) was performed to discover the underlying structure of the study in terms of how the respondents perceive every dimension and to examine the patterns of relationships among the factors. EFA is particularly important when the study has a large number of variables, such as this research study with 71 items belonging to fourteen dimensions forming five main constructs (Hair et al. 2014). Additionally, EFA aims at reducing the number of measurable variables into fewer latent – hidden- variables that share common variance and are unobservable, which is known as reducing dimensionality (Bartholomew, Knott & Moustaki 2011). Moreover, EFA plays a vital role in determining the construct validity (Field 2013).

Factor analysis achieves parsimony through explaining the maximum amount of common variance in a correlation matrix using the minimum number of explanatory constructs known as latent variables (or factors) which signify groups of variables that correlate vastly with each other. While principal component analysis (PCA) differs in that it attempts to elucidate the maximum amount of the total variance (not just common variance) in a correlation matrix by converting the original variables into linear components (Field 2018). PCA was the extraction technique used in this research study along with Promax (oblique rotation) since the assumption is that there are intercorrelations among the study components, with the additional advantages of being faster than the direct oblimin and useful for large data sets (Tabachnick & Fidell 2016). Furthermore, the current study meets the minimum sample size of 150 and the rule of more

observations than items was achieved as well (minimum of 5 observations per item). The recommended sample size as per the number of items (71 items) is 355 and the sample of this research study is 406 respondents in this research study (Hair et al. 2014).

No .	Assumption	Reference
1	Normality is not a must; however, it was achieved in the study.	(Child 2006).
2	Absence of univariate and multivariate outliers.	(Field 2009).
3	Presence of linear relationship between the factors and the variables when computing the correlations. Appendix (18).	(Gorsuch 1983, cited in Yong & Pearce 2013).
4	5 to 10 observations per every variable (accordingly in this research study a sample between 360-720 is adequate). Generally, large sample size is recommended at least 300 to diminish the error in the data. Additionally, the sample should be homogenous.	(Comrey & Lee1992, cited in Yong & Pearce 2013)
5	The correlation r must be 0.2 or greater and anything lower will indicate a weak relationship between the variables.	(Tabachnick & Fidell 2007, cited in Yong & Pearce 2013).
6	Variables should be continuous, although it can be performed on ordinal variables as well.	(Yong & Pearce 2013)
7	Absence of multicollinearity.	(Tabachnick & Fidell 2007, cited in Yong & Pearce 2013).

5.14 Individual Measurement model

Exploratory and Confirmatory Factor Analysis for the Dynamic Talent Management Capability Construct

EFA was carried out for the DTM construct using principal component analysis (PCA) with Promax rotation and scree plot extraction option, and the result was four factors, which matches the originally adopted scale with different structure and arrangement. Refer to appendix (19) for details on the initial EFA and CFA of the DTM construct. As noticed from the attached pattern matrix, the third component has only a couple of strong, meaningful items related theoretically

to each other (TR10, TR11), and the fourth component has only two items (TD4, TR5) with strong loading but theoretically not related to each other.

After consulting the literature, starting with the article in which the main construct (dynamic talent management capabilities) was derived from Harsch and Festing (2020) and based on the initial conceptualization of (Sparrow & Makram 2015) it was clearly indicated that the four subdimensions serve two main streams of talent “value creating” practices and “value protection” strategies. The “value creating” practices include talent attraction, selection practices, talent training, and development. While the “value protection” strategies include talent retention. Moreover, similar conceptualization has been indicated by Mahfoozi et al. (2018) while investigating the development of the talent management model within a dynamic and uncertainty context where the attraction, training, and development have been categorized under the “Talent Management Mindset” while the talent retention falls under the “Talent Management Strategies”. The value creating practices are similar to those of the talent management mindset, while the value protection practices symbolize the talent management strategies.

Following this discussion, the dynamic talent management capabilities have been grouped into two main dimensions. The first dimension is all about the “value creating” capabilities, which include attraction, training, and development, while the second dimension is all about the “value protection” capability which includes talent retention. Accordingly, factor extraction was forced to 2 and the result is a neat pattern matrix with a Kaiser-Meyer-Olkin (KMO) of (.958), which indicates the sample is superb based on Hutcheson and Sofroniou (1999), values above 0.9 are outstanding, knowing that it varies from 0 to 1 but the closer to 1, the better, and it should be greater than 0.6 to use PCA. So, the researcher can use PCA without issues. The correlation

matrix is adequate and the minimum correlation between the variables is (0.215) while the maximum correlation is (0.748). Bartlett's test for sphericity examines the hypothesis that a correlation matrix is an identity matrix (correlations between variables are 0). The test value is less than 0.01 (.000), which means it is significant. Based on the correlation matrix, KMO value, and Bartlett's test, the conclusion is that the dynamic talent management capability construct has enough correlations for factor analysis and the researcher can safely perform PCA. Refer to appendix (20) for the final EFA of the DTM construct, figure (7), which represents the graphical loading plot of the components where the first component refers to the value-creating aspects of dynamic talent management capabilities, which encompasses: talent attraction, training, and development, and the other complement relates to value-protection aspects, which includes talent retention.

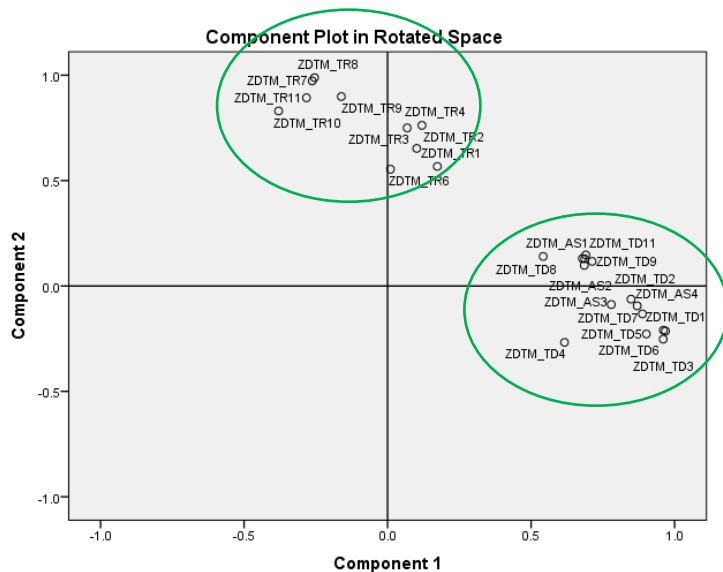


Figure 7: Graphical loading plot of the DTM components

The CFA confirmed the results of the EFA without the need for any item to be deleted and all the 26 items have been retained. Thus the EFA pattern matrix was copied to the pattern matrix

model builder plugin using AMOS software and using the master validity plugin, the construct achieved all the validity and reliability measures, master validity extracted, with excellent model fit indexes of CIMN 2.751, CFI 0.956, REMSEA 0.066 ,SRMR 0.041, and PClose 0.060. Additionally, all communalities are above 0.5, and this is acceptable in large sample sizes between 100-200 (Field 2009).

Exploratory and Confirmatory Factor Analysis for the Absorptive Capacity Construct.

The initial EFA of the ACAP construct returned one factor only, unlike the theorized scale components, which include four dimensions. When four factors have been forced the result was that all the items of assimilation and transformation loaded together. After reviewing the literature, Todorova and Durisin (2007) contended that a neat distinction between realized and potential absorptive capacity does not hold true when discussing knowledge as a capability at the organizational level. Todorova and Durisin's conceptualization were that transformation is not a step after assimilation but rather an alternative process linked with assimilation in different paths as shown in figure (8). Since this research study is at an organizational level then the conceptualization of the absorptive capacity construct as per Todorova and Durisin (2007), which is based on the seminal work of Cohen and Levinthal (1990), is more realistic as they named it "assimilation or transformation" than the earlier conceptualization of Zahra and George (2002), where transformation is a step after assimilation.

Based on the above literature review, the researcher accepted a three-factor solution for the ACAP construct where assimilation and transformation are loaded together strongly as one factor.

FIGURE 3
A Refined Model of Absorptive Capacity

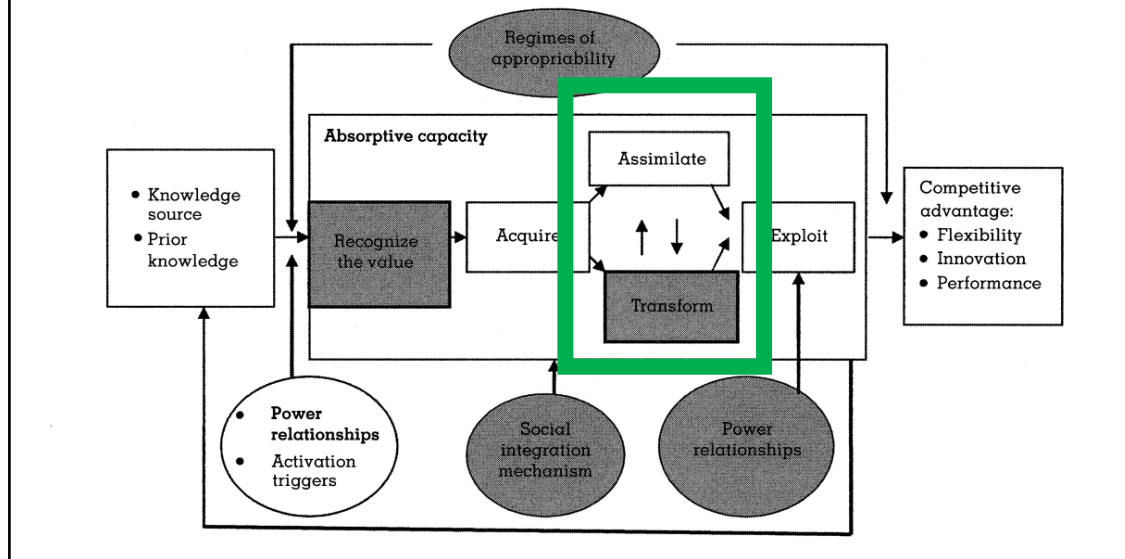


Figure 8: Absorptive Capacity Model

Adopted from (Todorova and Durisin, 2007) P.776.

Accordingly, three factors have been forced for extraction, and the CFA result confirmed the finding of the EFA for more details of the EFA of the ACAP construct, refer to appendix (21). Knowing that KMO value is (.947) and Bartlett's test with all commonalities greater than 0.5, Correlation matrix is adequate, and the minimum correlation between the variables is (0.410) and while the maximum correlation is (0.751). After that, all types of validity and reliability measures met, refer to appendix (22) with excellent model fit measures CIMN 2.562, CFI 0.980, REMSEA 0.062, SRMR 0.028, PClose 0.094.

Exploratory and Confirmatory Factor Analysis for the Strategic Agility Construct

The initial EFA revealed one factor only, and when forced to three as per the theorized dimensions, most of the items loaded only on two factors, while the third factor has just two items with very low loading. After forcing the extraction to two, all items loaded on only two

factors. The KMO value is .906, with significant Bartlett's test with all commonalities more than 0.5, Correlation matrix is adequate, and the minimum correlation between the variables is (0.407) while the maximum correlation is (0.756). The CFA confirmed the EFA's structure, and all types of validity and reliability measures were met without the need for any item deletion (see appendix (23) for acceptable model fit measures CIMN 2.132, CFI 0.992, REMSEA 0.053, SRMR 0.0228, and PClose 0.389). The factor loading corresponds with the theoretical framework of the strategic agility construct where strategic sensitivity items and collective commitment fall under strategic foresight and insight and resource fluidity is classified as a strategic response as highlighted in the literature review section (2.3.2).

Exploratory and Confirmatory Factor Analysis for the Workforce Agility Construct

The initial EFA revealed only one factor with a KMO of .947, a significant Bartlett's test, and all commonalities greater than 0.5. The correlation matrix is adequate, and the minimum correlation between the variables is (0.377) and the maximum correlation is (0.779). The CFA confirmed the structure of the EFA, all types of validity and reliability measures are met without the need for any item deletion, with acceptable model fit measures of CIMN 2.843, CFI 0.977, REMSEA 0.067, SRMR 0.0288, and PClose 0.060. Refer to appendix (24), for details about the EFA and CFA of the workforce agility construct.

Exploratory and Confirmatory Factor Analysis for the Adaptive organizational Culture Construct.

The adaptive organizational culture construct is unidimensional with nine items. EFA revealed only one factor as per the original theorization of the construct. EFA results are presented in appendix (25) with a KMO value of .938, significant Bartlett's test with all commonalities above 0.5, and acceptable model fit measures CIMN 2.413, CFI 0.986, REMSEA 0.059, SRMR 0.0291, and PClose 0.200.

5.15 Confirmatory Factor Analysis

The individual level EFA and CFA were followed by CFA for the overall measurement model in which the objective is to investigate the true relationship among a set of measured and latent variables (Tabachnick & Fidell 2016). Accordingly, CFA is “a version of factor analysis in which specific hypotheses about the structure and relations between the latent variables that underlie the data are tested” (Field 2009, P.783). The CFA assumptions were all met, including the absence of missing data, having a large sample size (406); normality and linearity; outliers; and multicollinearity (Tabachnick & Fidell 2016).

IBM-AMOS version 26 was used to run the CFA of the overall measurement model. The result was a measurement model with nine latent factors (refer to figure 9) with each having at least three or more variables to measure the factor , and all factors along with their variables were aligned as per the theoretical background of the constructs with all loading exceeding the recommended threshold of 0.5 (Hair et al. 2014). In fact, all loading exceeds (0.7) for the detailed measurement model. Refer to appendix (26) for the master validity of the first order measurement model. The measurement model has an excellent model fit index. Refer to appendix (27) for more details.

The theoretical recommendation is that the dynamic talent management capabilities be a second order construct since the adopted scale calls for an integrated talent management capability rather than an individual practice (Jayaraman, Talib & Khan 2018). Accordingly, the second order CFA for this construct was performed and validity and reliability measures were reassessed along with the model fit indexes. Additionally, absorptive capacity was operationalized as a second order construct, and the result was six factors with validity and

reliability measures all met and with an excellent model fit. Refer to figure (10) for the graphical presentation of the model.

Figure 9: First Order Confirmatory Factor Analysis

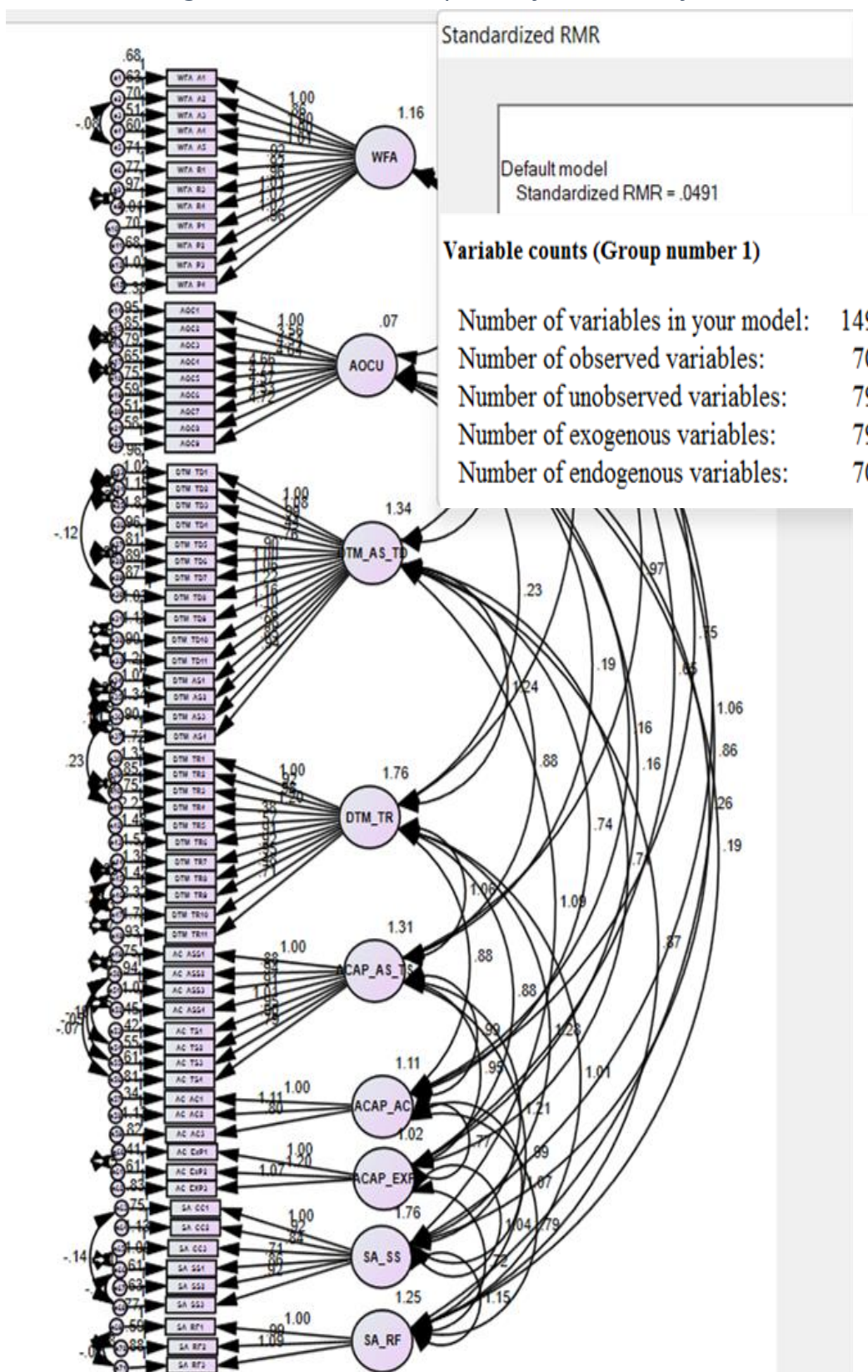


Figure 10: Second Order Confirmatory Factor Analysis

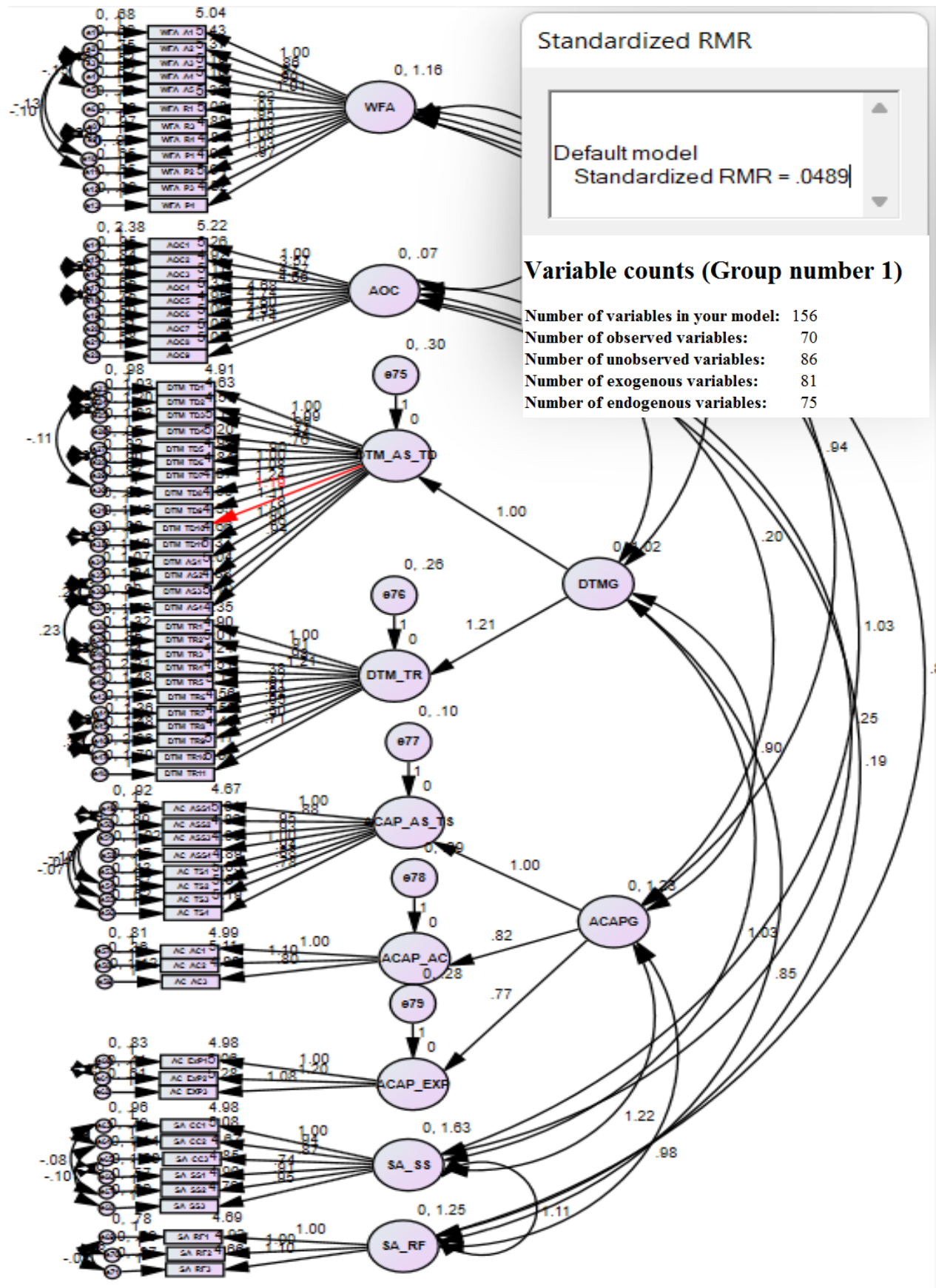


Table 14: First Order Confirmatory Factor Analysis (CFA)

	Me an	SD	C R	A V E	M SV	Max R(H)	WF A	AO C	DTM_A S_TD	DTM _TR	ACAP_ AS_TS	ACAP _AC	ACAP _EXP	SA_SS _CC	SA_ RF	Skew ness	Kurt osis	Cronb ach's Alpha
WFA	5.0 89	1.0 83	0.9 47	0.5 98	0.5 98	0.949	0.774									- 1.049	1.572	0.947
AOC	5.1 05	1.1 31	0.9 23	0.5 91	0.5 75	0.943	0.574 **	0.76 9								- 0.685	0.343	0.915
DTM_A S_TD	4.8 64	1.1 42	0.9 28	0.5 65	0.5 61	0.931	0.596 ***	0.58 1**	0.752							- 0.697	0.449	0.943
DTM_T R	4.7 23	1.1 66	0.9 05	0.5 77	0.5 61	0.917	0.617 ***	0.66 5**	0.749** *	0.76						- 0.437	- 0.268	0.892
ACAP_ AS_TS	4.9 48	1.0 99	0.9 18	0.6 52	0.6 5	0.924	0.773 ***	0.62 5**	0.623** *	0.674 ***	0.807					- 0.664	0.397	0.925
ACAP_ AC	4.9 93	1.1 38	0.8 35	0.6 3	0.6 13	0.882	0.644 ***	0.56 1**	0.566** *	0.606 ***	0.783***	0.794				- 0.617	0.379	0.794
ACAP_ EXP	5.1 08	1.1 77	0.8 54	0.6 61	0.6 5	0.867	0.590 ***	0.62 5**	0.595** *	0.654 ***	0.806***	0.706* **	0.813			- 1.072	1.406	0.836
SA_SS_ CC	4.8 74	1.2 10	0.8 92	0.6 23	0.6 16	0.901	0.750 ***	0.75 8**	0.698** *	0.700 ***	0.785***	0.745* **	0.767* **	0.79		- 0.783	0.399	0.901
SA_RF	4.7 55	1.2 47	0.8 34	0.6 26	0.5 86	0.835	0.718 ***	0.65 5**	0.655** *	0.686 ***	0.766***	0.659* **	0.651* **	0.750* **	0.79 1	- 0.592	- 0.031	0.832

Mean, standard deviation, correlations, Cronbach's alpha, skewness and kurtosis.

Significance of Correlations:

† $p < 0.100$

* $p < 0.050$

** $p < 0.010$

*** $p < 0.001$

Heterotrait-monotrait Ratio of Correlations (HTMT Analysis)

	WFA	AOC	DTM_AS_TD	DTM_T R	ACAP_AS_T S	ACAP_A C	ACAP_EX P	SA_SS_C C	SA_RF
WFA									
AOC	0.577								
DTM_AS_TD	0.613	0.597							
DTM_TR	0.642	0.669	0.756						
ACAP_AS_TS	0.79	0.624	0.649	0.698					
ACAP_AC	0.691	0.559	0.580	0.633	0.841				
ACAP_EXP	0.615	0.636	0.617	0.685	0.830	0.751			
SA_SS_CC	0.763	0.763	0.711	0.725	0.810	0.780	0.801		
SA_RF	0.724	0.639	0.671	0.68	0.786	0.711	0.669	0.775	

Thresholds From:

Hu, L., Bentler, P.M. (1999), "Cutoff Criteria for Fit Indexes in Covariance Structure Analysis: Conventional Criteria Versus New Alternatives" SEM vol. 6(1), pp. 1-55.

Henseler, J., C. M. Ringle, and M. Sarstedt (2015). A New Criterion for Assessing Discriminant Validity in Variance-based Structural Equation Modeling, Journal of the Academy of Marketing Science, 43 (1), 115-135.

Model Fit indices

First Order Measurement Model	CMIN	DF	CMIN/D F	CFI	RMSE A	RMSEA (<i>Lower boundary at 90% CI</i>) LO90	RMSEA (<i>Upper boundary at 90% CI</i>) HI 90	SRM R	PCLOSE
	4603.991	2278	2.021	.919	.049	.046	.051	.0491	.789

Table 15: Second Order Confirmatory Factor Analysis (CFA)

	Mean	SD	CR	AVE	MSV	MaxR(H)	WFA	AOC_G	SA_SS	SA_RF	DTMG	ACAP_G	Skewness	Kurtosis	Cronbach's Alpha
WFA	5.089	1.083	0.95	0.613	0.605	0.951	0.783						-1.049	1.572	0.947
AOC	5.105	1.131	0.923	0.591	0.509	0.943	0.574**	0.769					-0.685	0.343	0.915
SA_SS	4.874	1.210	0.926	0.676	0.659	0.935	0.696** *	0.711**	0.822				-0.783	0.399	0.901
SA_RF	4.755	1.247	0.842	0.639	0.634	0.843	0.711** *	0.648**	0.732** *	0.799			-0.592	-0.031	0.832
DTMG	4.805	1.073	0.896	0.812	0.643	0.9	0.682** *	0.713**	0.758** *	0.754** *	0.901		-0.538	0.265	0.952
ACAP_G	4.992	1.027	0.921	0.797	0.659	0.947	0.778** *	0.684**	0.812** *	0.796** *	0.802** *	0.893	-0.650	0.467	0.943

Mean, standard deviation, correlations, Cronbach's alpha, skewness and kurtosis.

^aAverage variance extracted is in bold on the diagonal

^bSquared correlations are below the diagonal

*p < .05 (two-tailed test); **p < .01 (two-tailed test)

Significance of Correlations:

† p < 0.100

* p < 0.050

** p < 0.010

*** p < 0.001

Heterotrait-monotrait Ratio of Correlations (HTMT Analysis)

	WFA	AOC_G	SA_SS	SA_RF	DTMG	ACAPG
WFA						

AOC_G	0.577					
SA_SS	0.753	0.745				
SA_RF	0.724	0.639	0.804			
DTMG	0.669	0.669	0.774	0.719		
ACAPG	0.768	0.658	0.840	0.797	0.748	

^aAverage variance extracted is in bold on the diagonal

^bSquared correlations are below the diagonal

*p < .05 (two-tailed test); **p < .01 (two-tailed test)

Thresholds From:

Hu, L., Bentler, P.M. (1999), "Cutoff Criteria for Fit Indexes in Covariance Structure Analysis: Conventional Criteria Versus New Alternatives" SEM vol. 6(1), pp. 1-55.

Henseler, J., C. M. Ringle, and M. Sarstedt (2015). A New Criterion for Assessing Discriminant Validity in Variance-based Structural Equation Modeling, Journal of the Academy of Marketing Science, 43 (1), 115-135.

Model Fit indices

Second Order Measurement Model	CMIN	DF	CMIN/DF	CFI	RMSEA	RMSEA (Lower boundary at 90% CI) LO90	RMSEA (Upper boundary at 90% CI) HI 90	SRMR	PCLOSE
	4756.646	2299	2.069	.901	.048	.046	.050	.0489	.958

As shown in the above matrix, the square root of the average variance extracted (AVEs) for all values is higher than the corresponding inter-construct correlations, so we can conclude that the data suggests adequate divergent (discriminant) validity of measures.

Moreover, CFA revealed the following results: $\chi^2 [4005.156] = 2021$, with the following absolute fit indices: Normed chi-square (CMIN/DF) = 1.982; Root mean square error of approximation (RMSEA) = 0.049; Standardized root mean residual (SRMR) = 0.0480. In addition to the following Incremental fit indices: Comparative fit index (CFI) = 0.903, which indicates a good model fit and around 90% of the covariation in the data can be reproduced by the model, and PClose of .711. Accordingly, the proposed model is within the acceptable fit indexes since RMSEA and SRMR are below the cutoff value of 0.08, and CFI is above the accepted threshold of 0.9, with insignificant PClose (Chen et al. 2008; Hu and Bentler 1999).

Strategic agility as two distinct constructs instead of one higher-order construct.

Validity and reliability measures of second-order constructs are as important as they are for the first-order constructs and with equal importance model identification and fit should pass the identified acceptable thresholds in terms of (RMSEA, CFI, SRMR, and PCLOSE) (Hair et al. 2014). As illustrated in appendix (28) the model displayed serious validity and reliability concerns and poorer model fit (CFI dropped from .901 to .888, and RMSEA increased from .048 to .051). Accordingly, strategic agility as a second-order construct did not meet the adequate model fit criteria along with major validity and reliability concerns, which will consequently decrease the predictive validity of the overall model.

Moreover, it is advisable to leave constructs as first-order constructs as long as each dimension donates a different and distinct meaning from the other, so it becomes theoretically enriching and meaningful to investigate the phenomena at a dimension level. In this research study, the strategic agility construct is indicated by two distinct dimensions, in which one reflects the strategic foresight and the insights, and the other dimensions reflect the strategic response component, as indicated in the literature review section 2.3.2.

Moreover, numerous articles claim that the strategic agility construct is relatively new, and it is worth investigating empirically at dimensions level for a better understanding of its impact on the intended outcome variables (Ajgaonkar, Neelam & Wieman 2022). Thus, the previous discussion favors the first order representation of strategic agility instead of a more abstract second-order construct since it is more justifiable theoretically as well as methodologically. Thus, based on the exploratory and confirmatory factor analysis, this is the revised conceptual model for this research study along with the revised hypothesis.

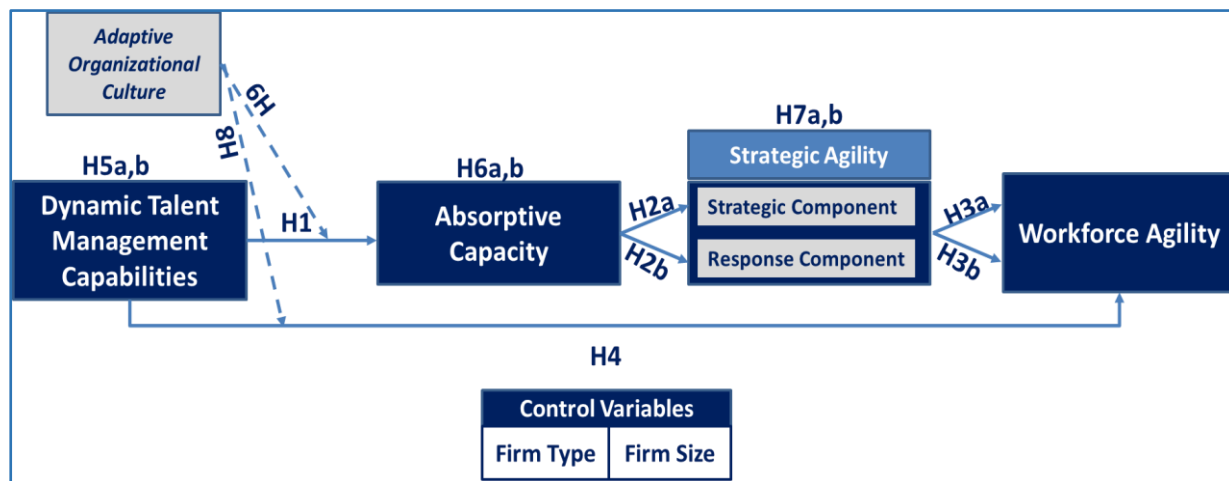


Figure 11: Revised conceptual model.

H1: Dynamic talent management capabilities are positively related to absorptive capacity.

H2: Absorptive capacity is positively related to strategic agility.

H2a: Absorptive capacity is positively related to the strategic components of strategic agility, including strategic sensing and collective commitment.

H2b: Absorptive capacity is positively related to the response component of strategic agility, including resource fluidity.

H3: Strategic agility is positively related to workforce agility.

H3a: The strategic components of strategic agility, including strategic sensing and collective commitment are positively related to workforce agility.

H3b: The response component of strategic agility, including resources fluidity, is positively related to workforce agility.

H4: Dynamic talent management capabilities are positively related to workforce agility.

H5a: The relationship between dynamic talent management capabilities and workforce agility is sequentially mediated by absorptive capacity and the strategic components of strategic agility, including strategic sensing and collective commitment.

H5b: The relationship between dynamic talent management capabilities and workforce agility is sequentially mediated by absorptive capacity and the response component of strategic agility, including resource fluidity.

H6: Absorptive capacity mediates the relationship between dynamic talent management capabilities and strategic agility.

H6a: Absorptive capacity mediates the relationship between dynamic talent management capabilities and the strategic components of strategic agility, including strategic sensing and collective commitment.

H6b: Absorptive capacity mediates the relationship between dynamic talent management capabilities and the response component of strategic agility, including resource fluidity.

H7: Strategic Agility mediates the relationship between absorptive capacity and workforce agility.

H7a: The strategic components of strategic agility, including strategic sensing and collective commitment, mediate the relationship between absorptive capacity and workforce agility.

H7b: The response component of strategic agility, including resources fluidity mediates the relationship between absorptive capacity and workforce agility.

H8: Adaptive organizational culture moderates the relationship between dynamic talent management capabilities and workforce agility.

H9: Adaptive organizational culture moderates the relationship between dynamic talent management capabilities and absorptive capacity.

5.16 Alternative Measurement Model

As indicated in table (15) below, the hypothesized model using nine factors is the best fitted model with acceptable fit indexes and is free from any discriminant validity and reliability issues. Moreover, when comparing the model fit of the hypothesized model against the one-factor model where all indicators loaded purposely on one factor the fit indexes did not remain within the acceptable range. According to Collier (2020), if the model has acceptable model fit with one construct model, then the study has a major method bias. Consequently, the hypothesized model is free from common method bias.

Table 16: presents the comparison of the alternative measurement model.

Models	CMIN	DF	CMIN/DF	CFI	RMSEA	PCLOSE	Comments
Nine factors (hypothesized model)	4756.646	2299	2.069	.901	.048	.958	No validity and reliability concerns
Eight factors (DTM_TD and DTM_TR as one first order variable)	3529.450	1549	2.279	.891	.056	.000	With major validity and reliability concerns
Eight factors (SA as one first order construct)	4721.723	2286	2.065	.888	.051	.152	With major validity and reliability concerns
Seven factors (ACAP as one first order construct)	4853.032	2293	2.116	.882	.053	.023	With major validity and reliability concerns
Six Factors (DTM, and ACAP as one first order construct)	5238.332	2299	2.279	.865	.056	.000	With major validity and reliability concerns
Five factors (DTM, ACAP, and SA as one first order construct)	5346.196	2304	2.320	.860	.057	.000	With major validity and reliability concerns
Four factors (ACAP, SA as one construct, DTM as first order construct, along with WFA and AOC)	5643.028	2308	2.445	.847	.060	.000	With major validity and reliability concerns

Three factors (DTM, ACAP, and SA as one factor along with WFA, and AOC)	6620.674	2311	2.865	.802	.068	.000	With major validity and reliability concerns
Two factors (DTM, ACAP, SA, and AOC as one factor along with WFA)	7751.239	2314	3.350	.750	.076	.000	With major validity and reliability concerns
One factors	8778.645	2315	3.792	.703	.083	.000	With major validity and reliability concerns

5.17 Construct Reliability

Reliability refers to the degree of stability and consistency of a scale in measuring the intended phenomenon (Younas & Porr 2018). Internal consistency is the most frequently used method for assessing reliability in quantitative research (Santos-Vijande & Alvarez-Gonzalez 2007), and the widely employed technique to indicate the reliability coefficient is Cronbach's coefficient alpha. A reliability analysis was performed for both the pilot data and the actual study data using Cronbach's alpha for all constructs (dependent, independent, moderators, and mediator). The overall Cronbach's alpha for the dynamic talent management construct is $\alpha = .939$, the strategic agility (resources fluidity) construct is $\alpha = 0.833$, the strategic agility (collective commitment and strategic sensitivity) is $\alpha = 0.891$, the absorptive capacity is $\alpha = 0.920$, for the adaptive organizational culture $\alpha = 0.941$, and for the workforce agility construct is $\alpha = 0.947$ most items appeared to be worthy of retention exception to this were items (AOC1). Consequently, there is enough evidence to reject the null hypotheses and to conclude that the survey scale is an internally consistent and reliable instrument.

Table 17: Cronbach's alpha coefficient for all research dimensions and composites factors.

Variable	Dimension	Cronbach's alpha	Decision of Item Deletion
DTM	Dynamic Talent Management	.952	No Item Deleted
	Talent Attraction and Selection	.861	
	Talent Training	.867	
	Talent Development	.908	

	Talent Retention	.890	
WFA	Workforce Agility	.944	No Item Deleted
	Proactivity	.895	
	Adaptability	.908	
	Resiliency	.825	
SA	Strategic Agility	.917	No Item Deleted
	Strategic Sensitivity	.845	
	Collective Commitment	.868	
	Resources Fluidity	.833	
ACap.	Absorptive Capacity	.943	No Item Deleted
	Acquisition	.795	
	Assimilation	.865	
	Exploitation	.836	
	Transformation	.903	
AOC	AOC	.918	No Item Deleted

Furthermore, inter-item correlation was performed to examine the extent to which each item is correlated with its global (composite) factor (Cohen & Swerdlik 2005). The correlations among the individual items and their composite scores are strong since all correlations are > 0.70 , which indicates high internal consistency among the items (Nunnally & Bernstein 1994).

Variable	Dimension	Pearson Correlation	Significance Level
Workforce Agility - Adaptability	WFA_A1	.821**	0.000
	WFA_A2	.827**	0.000
	WFA_A3	.873**	0.000
	WFA_A4	.891**	0.000
	WFA_A5	.864**	0.000
Workforce Agility - Proactivity	WFA_P1	.857**	0.000
	WFA_P2	.915**	0.000
	WFA_P3	.890**	0.000
	WFA_P4	.826**	0.000
Workforce Agility - Resiliency	WFA_R1	.800**	0.000
	WFA_R2	.728**	0.000
	WFA_R3	.861**	0.000
	WFA_R4	.851**	0.000
ACAP_AC	AC_AC1	.857**	0.000
	AC_AC2	.877**	0.000
	AC_AC3	.791**	0.000
	AC_ASS1	.852**	0.000

ACAP_ASS	AC_ASS2	.838**	0.000
	AC_ASS3	.862**	0.000
	AC_ASS4	.822**	0.000
ACAP_TS	AC_TS1	.891**	0.000
	AC_TS2	.894**	0.000
	AC_TS3	.887**	0.000
	AC_TS4	.849**	0.000
ACAP_EXP	AC_Exp1	.831**	0.000
	AC_Exp2	.885**	0.000
	AC_EXP3	.887**	0.000
Strategic Agility - Collective commitment	SA_CC1	.894**	0.000
	SA_CC2	.914**	0.000
			0.000
	SA_CC3	.860**	
Strategic Agility - Resources Fluidity	SA_RF1	.853**	0.000
	SA_RF2	.862**	0.000
			0.000
	SA_RF3	.883**	
Strategic Agility- Strategic Sensitivity	SA_SS1	.827**	0.000
	SA_SS2	.913**	0.000
			0.000
	SA_SS3	.880**	
Talent Attraction and Selection	DTM_AS1	.792**	.000
	DTM_AS2	.864**	.000
	DTM_AS3	.845**	.000
Talent Training	DTM_AS4	.860**	.000
	DTM_TD1	.714**	0.000
	DTM_TD2	.819**	0.000
	DTM_TD3	.745**	0.000
	DTM_TD4	.813**	0.000
	DTM_TD5	.833**	0.000
	DTM_TD6	.840**	0.000
Talent Development	DTM_TD7	.806**	0.000
	DTM_TD8	.838**	0.000
	DTM_TD9	.897**	0.000
	DTM_TD10	.865**	0.000
	DTM_TD11	.868**	0.000
Talent Retention	DTM_TR1	.747**	0.000
	DTM_TR2	.721**	0.000
	DTM_TR3	.799**	0.000
	DTM_TR4	.862**	0.000
	DTM_TR5	.7041**	0.000
	DTM_TR6	.782**	0.000
	DTM_TR7	.778**	0.000
	DTM_TR8	.757**	0.000
	DTM_TR9	.793**	0.000
	DTM_TR10	.730**	0.000
	DTM_TR11	.720**	0.000
	ZAOC1	.744**	0.000

Adaptive Organizational Culture	ZAOC2	.771**	0.000
	ZAOC3	.831**	0.000
	ZAOC4	.839**	0.000
	ZAOC5	.857**	0.000
	ZAOC6	.836**	0.000
	ZAOC7	.829**	0.000
	ZAOC8	.854**	0.000
	ZAOC9	.840**	0.000

5.18 Construct Validity

Convergent and Discriminant Validity

Both convergent and discriminant validity are essential for establishing construct validity (Campbell and Fiske 1959). Convergent validity reflects the extent to which a scale is correlated positively with other measures of the same construct, and it heavily depends upon the average variance extracted (AVE) and composite reliability (CR) scores (Malhotra 2007). Table (14) summarizes the AVE for all constructs in which values exceed 0.50 as a cutoff, and this indicates adequate convergence (Hair et al. 2014).

Discriminant or divergent validity was assessed to ensure that the scale used to measure a different construct is certainly measuring a distinct one (Ketchen & Bergh 2004). Table (14) shows the square root of the average variance extracted (AVE) and by comparing these values of the inter-construct correlations, the shared variance observed between the pairs of constructs is lower than their square root of (AVE). Consequently, the researcher can claim that discriminant validity is evident.

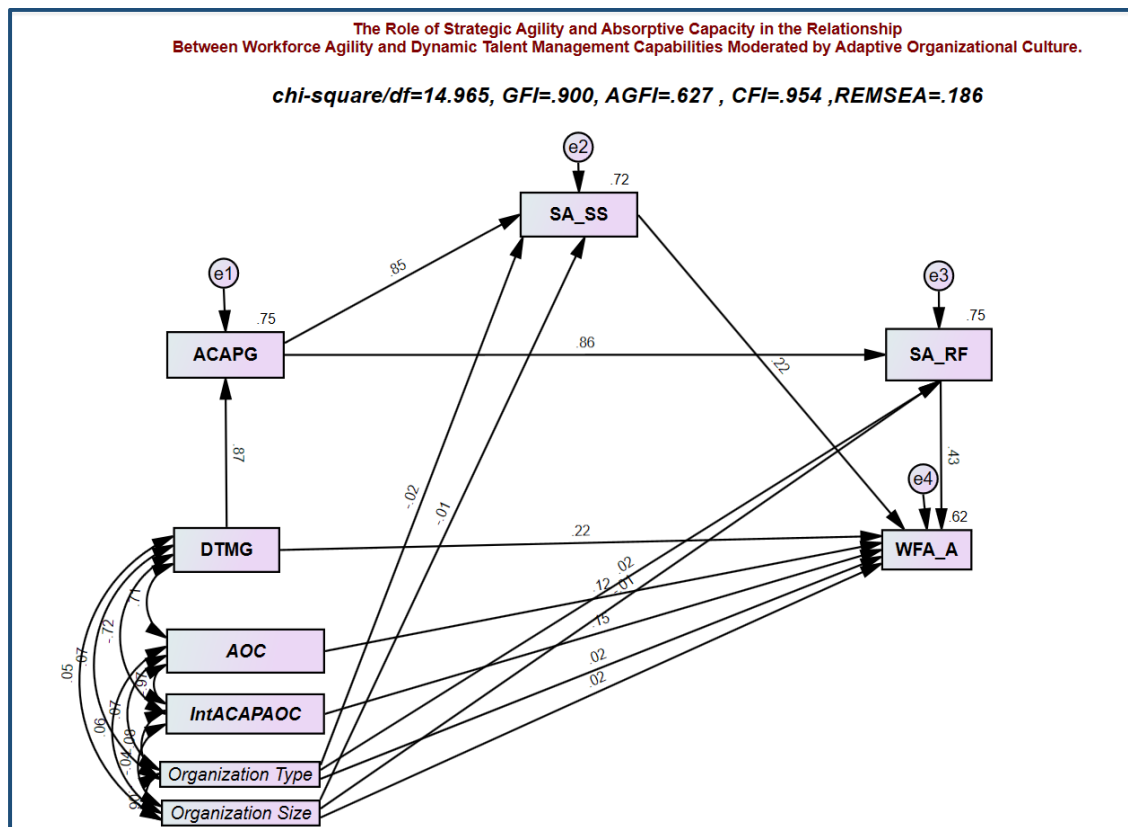
Moreover, the Heterotrait-Monotrait Ratio of Correlations (HTMT) was calculated and all values are less than 0.9. Accordingly, the data suggests adequate discriminant validity of measures (Collier 2020), for details refer to tables (14a & 14b). According to, Voorhees et al. (2016), there is an increasing trend toward the investigation of HTMT technique for the

assessment of discriminant validity since it is purported to be the best balance between a high rate of detection and a low rate of false positives in the determination of the discriminant validity of a research construct.

5.19 Structural Model and Hypotheses Testing

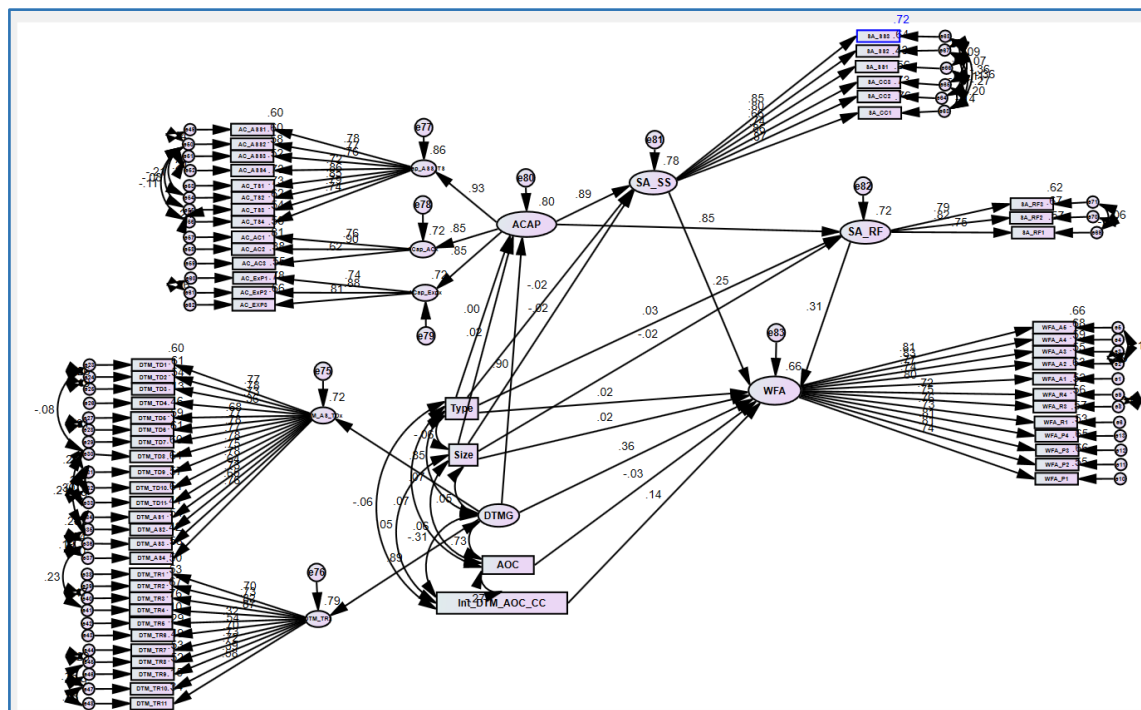
The full structural model examines the relationship between constructs along with the measurement model items and the error terms associated with every item. Unlike the path model, which examines the relationship with composite variables without including the measurement model items (Collier 2020). The researcher adopts the approach of testing the significance of the hypothesis through a full structural model rather than a path model for the following reasons. First, to overcome one of the main drawbacks of the path model, which is not accounting for measurement error and making it more difficult to explain the variance in a model, and consequently a weaker model fit (Collier 2020). In this particular research study, the structural equation model explained 66% of the variance while the path model explained only 62% of the variance. Refer to the models (1 and 2.1) for details.

Second, to avoid model fit assessment issues since there are fewer degrees of freedom, some of the model fit indices will be inflated, while others, such as RMSEA and relative chi-square/df tests, are applicable for assessing the extent to which the model fits the data. As per the recommendation of Collier (2020), if the planned research method is SEM, as in this research study, then it is always better to use a full structural model rather than a path model, so the established model will not have only the measurement items but also structural relationships along with the error terms.

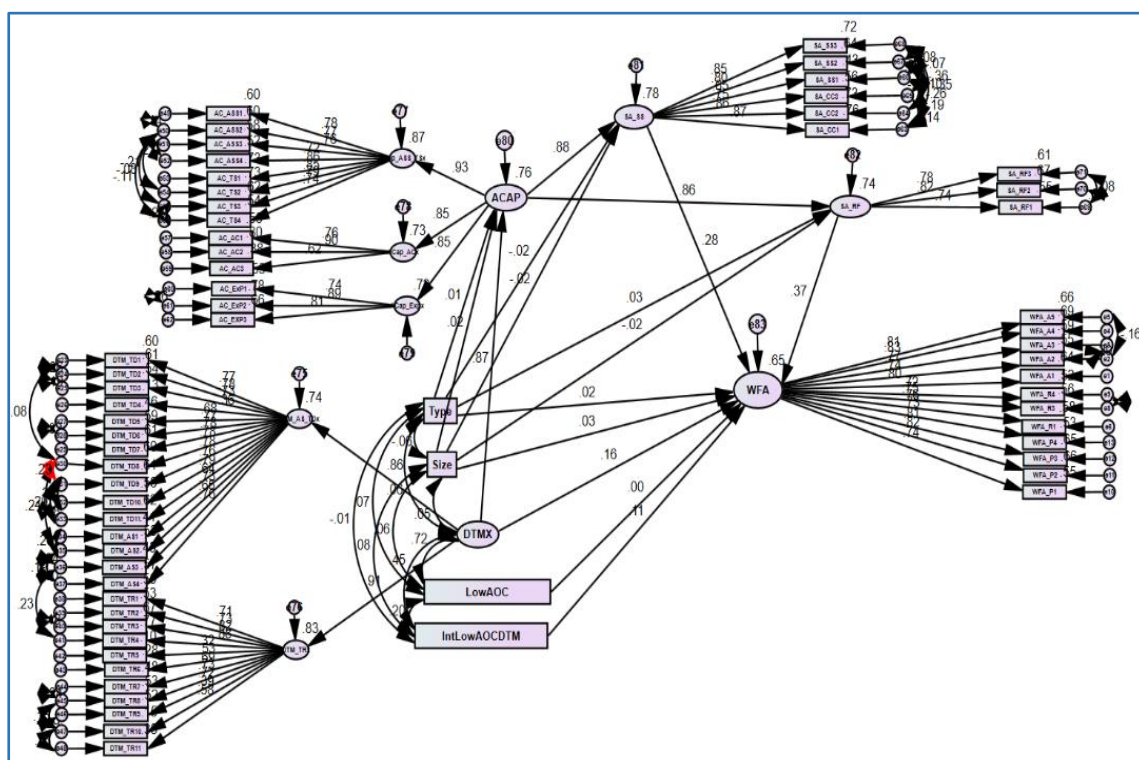


Model (1): Path Model with 62% of the variance.

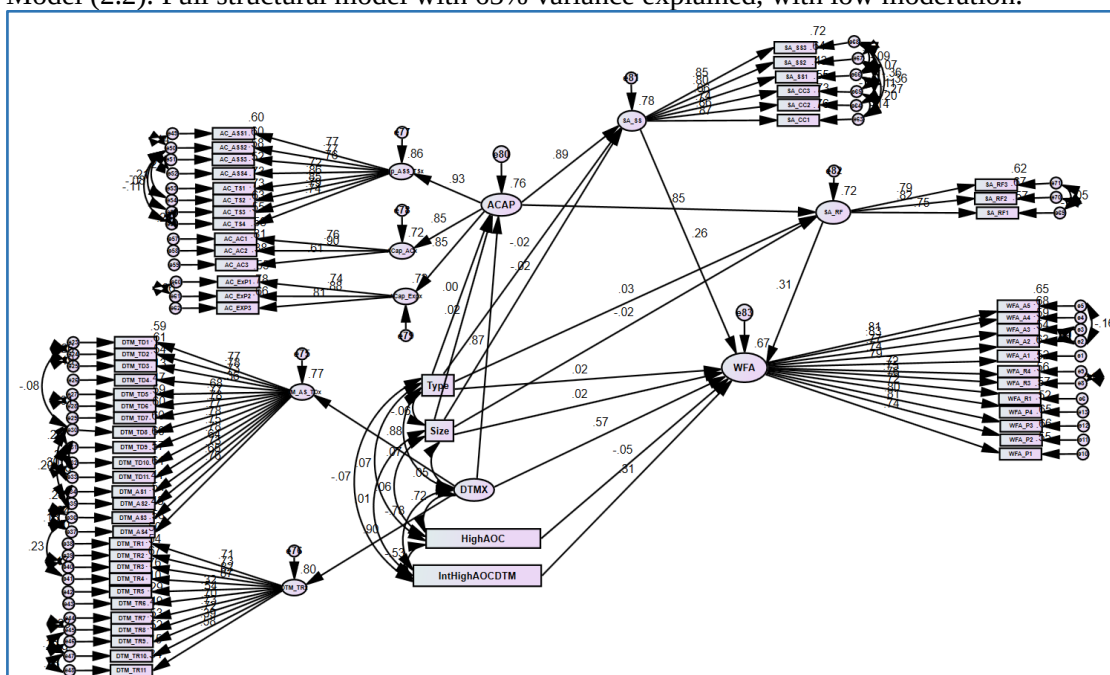
Visual diagram of the research structural model.



Model (2.1): Full structural model with 66% variance explained.



Model (2.2): Full structural model with 65% variance explained, with low moderation.



Model (2.3): Full structural model with 67% variance explained, with high moderation.

Structural Model	CMIN	DF	CMIN/DF	CFI	RMSEA	RMSEA A (Lower boundary at 90% CI) LO90	RMSEA A (Upper boundary at 90% CI) HI 90	SRMR	PCLOSE
	3771.509	1941	1.943	.904	.048	.046	.051	.0505	.894

Table 18: Structural equation modeling results (Direct paths).

	Effect	SE	t	p value	Bootstrap 95%CI		Hypothesis Results
<i>Direct effect</i>					Lower	Upper	
DTMX--->ACAP	0.968	0.076	12.662	***	.834	1.117	Supported
ACAP---> SA_SS	1.155	0.073	15.734	***	1.041	1.303	Supported
ACAP---> SA_RF	0.842	0.066	12.832	***	.732	.967	Supported
SA_SS--->WFA	0.196	0.055	3.596	***	.045	.366	Supported
SA_RF--->WFA	0.318	0.081	3.945	***	.115	.901	Supported
DTM --->WFA	0.392	0.111	3.52	***	.076	.804	Supported

Table 19: Control Variables effect

Control Variable	Relationship	Outcome Variable	Unstandardized Estimate	S.E.	C.R.	P	Standardized Estimates	Hypothesis Results
Type	-←	ACAP	0.001	0.033	0.044	0.965	0.002	Not supported
Size	-←	ACAP	0.014	0.028	0.522	0.602	0.018	Not supported
Type	-←	SA_RF	0.031	0.035	0.877	0.381	0.033	Not supported
Size	-←	SA_RF	-0.014	0.03	-0.459	0.646	-0.017	Not supported
Type	-←	SA_SS	-0.024	0.036	-0.678	0.498	-0.02	Not supported
Size	-←	SA_SS	-0.018	0.031	-0.593	0.553	-0.018	Not supported
Size	-←	WFA	0.019	0.027	0.703	0.482	0.024	Not supported
Type	-←	WFA	0.02	0.032	0.629	0.529	0.021	Not supported

In addition to the direct paths, the following indirect path has been investigated as part of this research study.

Table 20: Structural equation modeling results (Mediation paths).

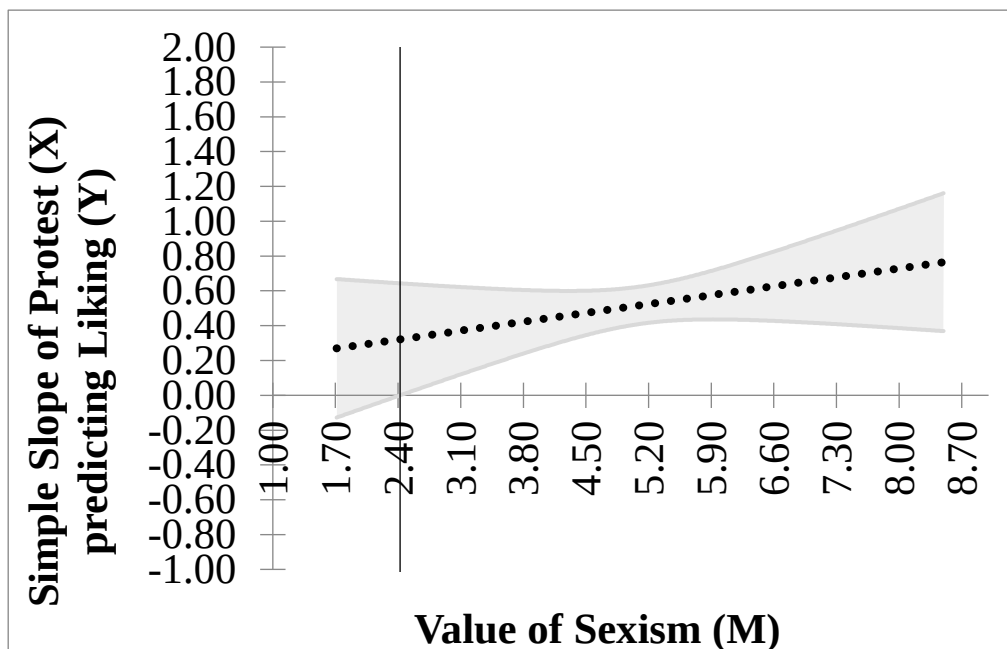
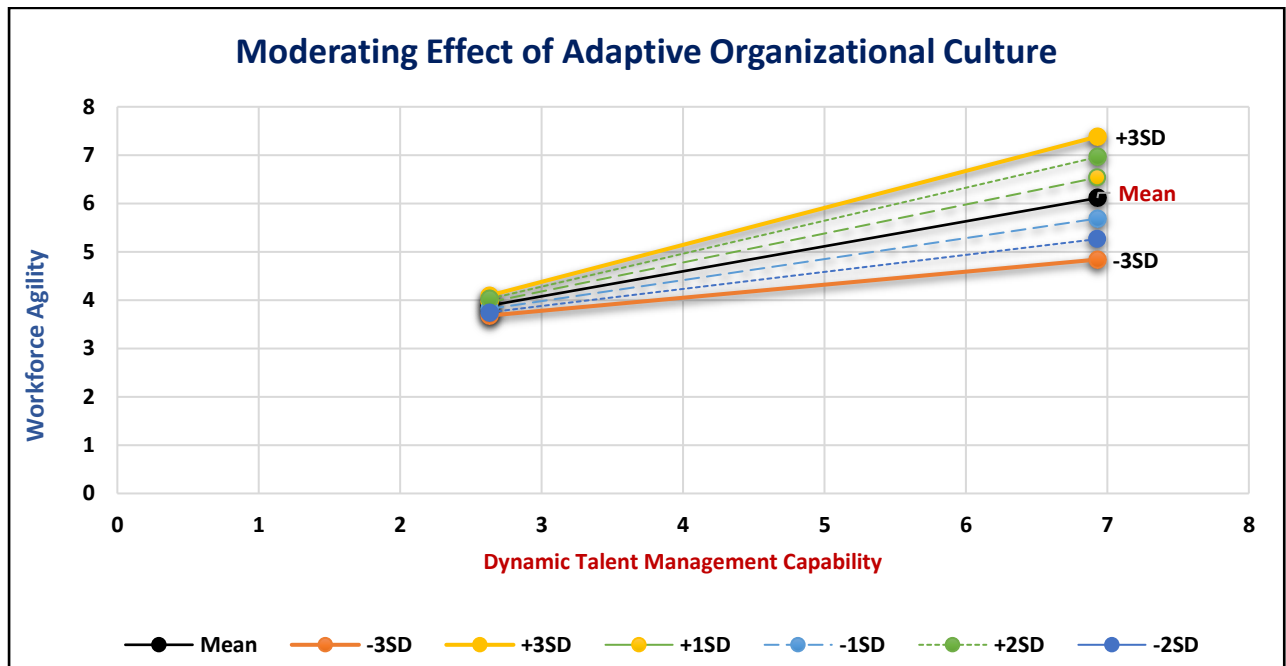
Indirect Path	Unstandardized Estimate	Lower	Upper	P-Value	Standardized Estimate	Hypothesis Results
DTMG --> ACAP --> SA_SS	1.118	0.972	1.280	0.002	0.794**	Supported
DTMG --> ACAP --> SA_SS --> WFA	0.219	0.054	0.410	.033	0.794*	Supported
DTMG --> ACAP --> SA_RF	0.816	0.677	0.937	.003	0.759**	Supported
DTMG --> ACAP --> SA_RF --> WFA	0.259	0.093	0.704	.012	0.759*	Supported
DTMG --> ACAP --> ACap_ACx	0.804	0.681	0.944	.001	0.762**	Supported
DTMG --> ACAP --> ACap_ASS_T S	0.968	0.835	1.119	.002	0.831**	Supported
DTMG --> ACAP --> ACap_Expx	0.926	0.800	1.069	.001	0.760**	Supported
ACAP --> SA_SS --> WFA	0.227	0.054	0.425	.034	0.226*	Supported
ACAP --> SA_RF --> WFA	0.268	0.098	0.748	.010	0.267**	Supported
Summary Estimates						
Total Indirect	0.478	.175	.830	.008	.441	-

Effect						
Direct Effect (DTM-->WFA)	0.392	.033	.939	.035	.361	-
Total Effect	0.871	.681	1.139	.001	.802	-

Table 21: First Moderation Effect

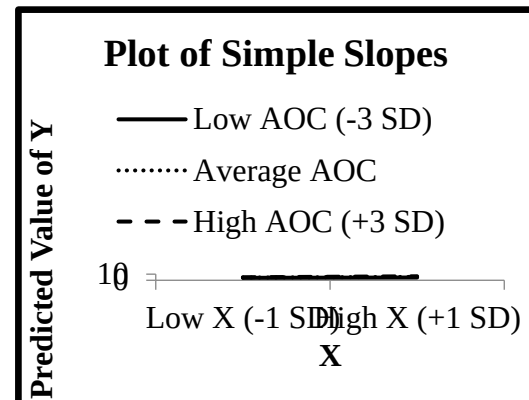
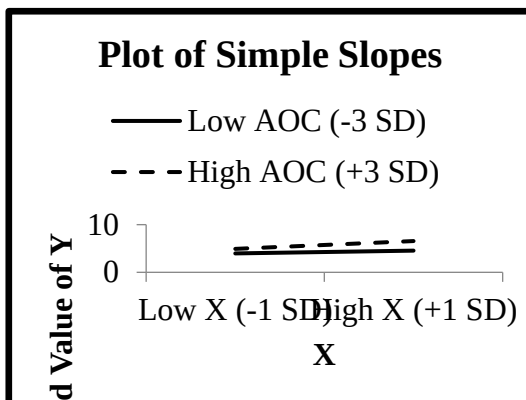
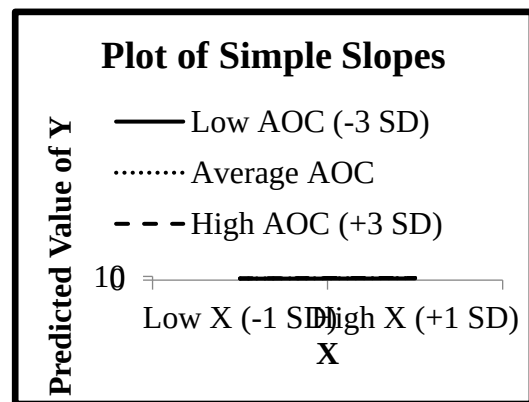
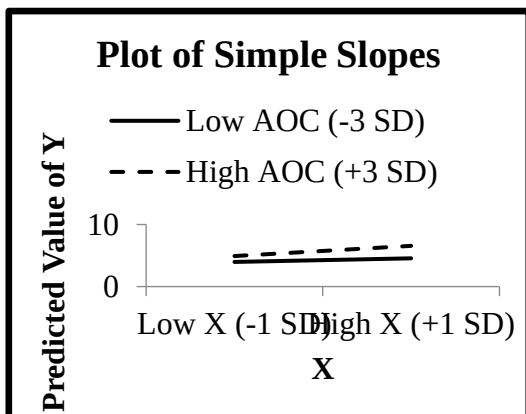
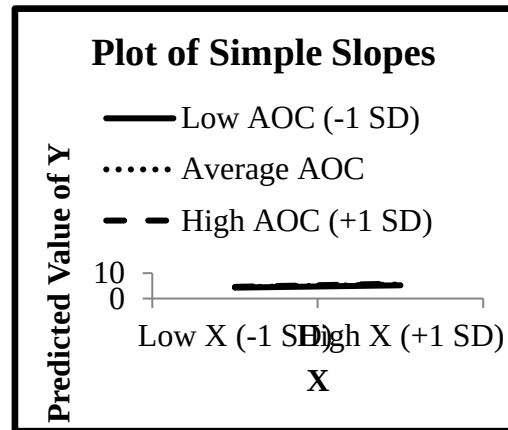
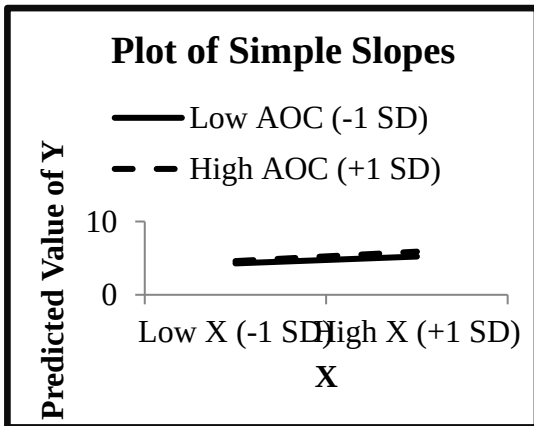
(Y is workforce agility, X is dynamic talent Management capabilities, w is adaptive organizational culture).

Predictor Variable		Outcome Variable	Unstandardized Estimate	S.E.	C.R.	P	Standardized Estimates	R Square	Hypothesis Results
At High Level of Moderator								0.67	
DTMX	<--	WFA	0.601	0.13	4.629	***	0.574		Supported
IntHighAOCDTM	<--	WFA	0.15	0.031	4.881	***	0.31		
HighAOC	<--	WFA	-0.046	0.052	-0.886	0.376	-0.048		
Mean Centered Level								0.66	
DTM	<--	WFA	0.392	0.111	3.52	***	0.361		
Int_DTM_AOC_CC	<--	WFA	0.099	0.024	4.033	***	0.142		Supported
AOC	<--	WFA	-0.027	0.051	-0.536	0.592	-0.028		
At Low Level of Moderator								0.65	
DTMX	<--	WFA	0.176	0.105	1.68	0.093	0.164		Supported
IntLowAOCDTM	<--	WFA	0.072	0.025	2.821	0.005	0.111		
LowAOC	<--	WFA	0.000	0.052	0.002	0.998	0.000		



H8: Adaptive organizational culture moderates the relationship between dynamic talent management capabilities and workforce agility.

Plot of Simple Slope



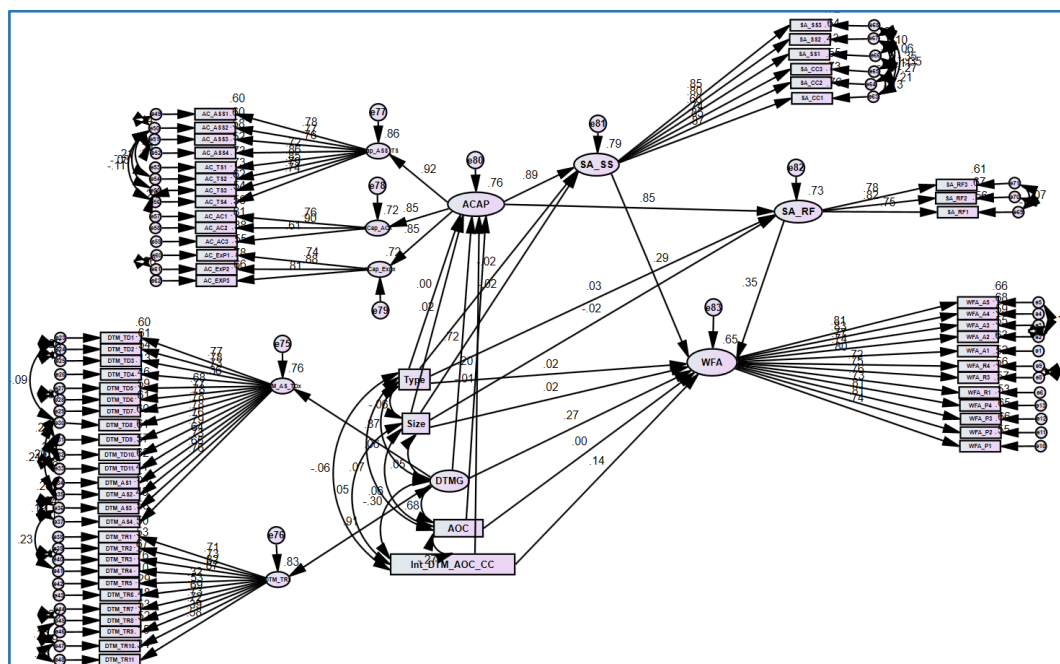
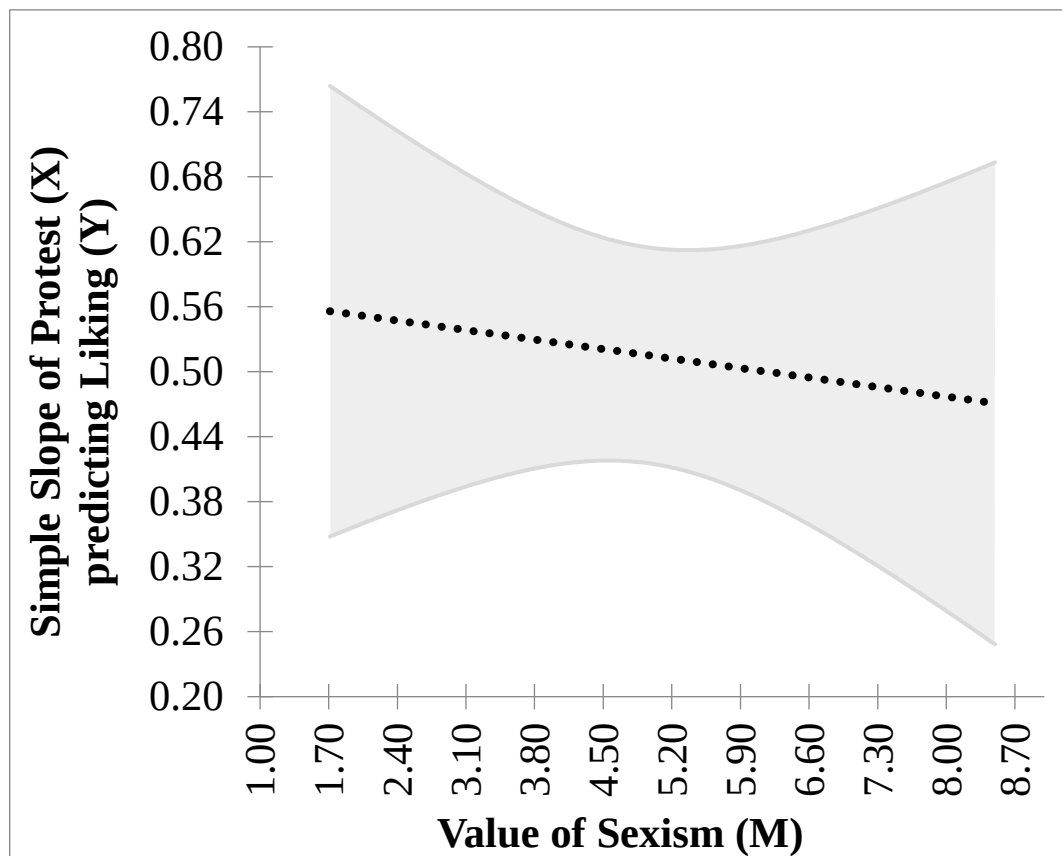


Table 22: Second Moderation Effect

(Y is absorptive capacity, X is dynamic talent Management capabilities, w is adaptive organizational culture).

Predictor Variable		Outcome Variable	Unstandardized Estimate	S.E.	C.R.	P	Standardized Estimates	R Square
Mean Centered Level								
DTM	< --	ACAP	.757	.077	9.843	***	.719	0.65
Int_DTM_AOC_C	< --	ACAP	-.008	.023	-.332	.740	-.011	
AOC	< --	ACAP	.192	.048	4.044	***	.202	



H9: Adaptive organizational culture moderates the relationship between dynamic talent management capabilities and absorptive capacity.

CHAPTER SIX: DISCUSSION CHAPTER

6.1 Introduction.

This research study aims to answer the following four key questions: First, to what extent do the following dimensions of dynamic talent management capabilities that emphasize talent attraction, talent selection, talent development, and talent retention when considered as a comprehensive system influence workforce agility (proactivity, adaptability, and resilience)? The second question is as follows: will the relationship between dynamic talent management capabilities and workforce agility be impacted positively and sequentially by both absorptive capacity and strategic agility? Third, can adaptive organizational culture moderate the relationship between dynamic talent management capabilities and workforce agility? Fourth, can adaptive organizational culture moderate the relationship between dynamic talent management capabilities and absorptive capacity?

The coming sections include relevant theoretical discussions of the nine main research hypotheses, along with the theoretical and practical implications and contributions, and the future reach recommendations and limitations.

6.2 The relationship between dynamic talent management capabilities and absorptive capacity.

H1: Dynamic talent management capabilities are positively related to absorptive capacity.

The result of the hypothesis concerning the dynamic talent management capabilities construct was compared against the talent management construct and flexibility-oriented human resources practices construct.

This research study has examined the relationships between dynamic talent management capabilities and absorptive capacity within the context of dynamic capability and knowledge workers. The result of this study supported an affirmative answer to the hypothesis, which states that there is a strong positive relationship between dynamic talent management capabilities - when considered as a system and not as a fragmented and individualized practice - and absorptive capacity. Accordingly, dynamic talent management capabilities are empirically evidenced to be a significant determinant of an organization's absorptive capability as another powerful and dynamic capability, since it is able to successfully stimulate the acquisition, assimilation, and transformation, and the exploitation of organizational knowledge. This is a new role played by dynamic talent management and it demonstrates its strategic orientation and contribution toward the creating, transferring, assimilating, and exploiting of organization specific knowledge. Moreover, this result supports one of the main research assumptions, which is that dynamic capability theory is seen as an enhancement of the resource-based view (RBV) and the foundation of the knowledge-based view (KBV), since it perceptibly features the organization's capability approach to form its basis by incorporating, expanding, and reconfiguring the internal and external competencies to counter the vigorously changing business situations (Teece, Pisano & Shuen 1997). Accordingly, dynamic talent management capabilities can foster absorptive capacity as an organizational capability, and it becomes the most valuable organizational activity within the dynamic capability context.

Moreover, the relationship between the two constructs was investigated further by examining the relationship between dynamic talent management capabilities and particular dimensions of absorptive capacity, including knowledge acquisition, knowledge assimilation and transformation, and knowledge exploitation. The hypothesis testing results confirm a significant

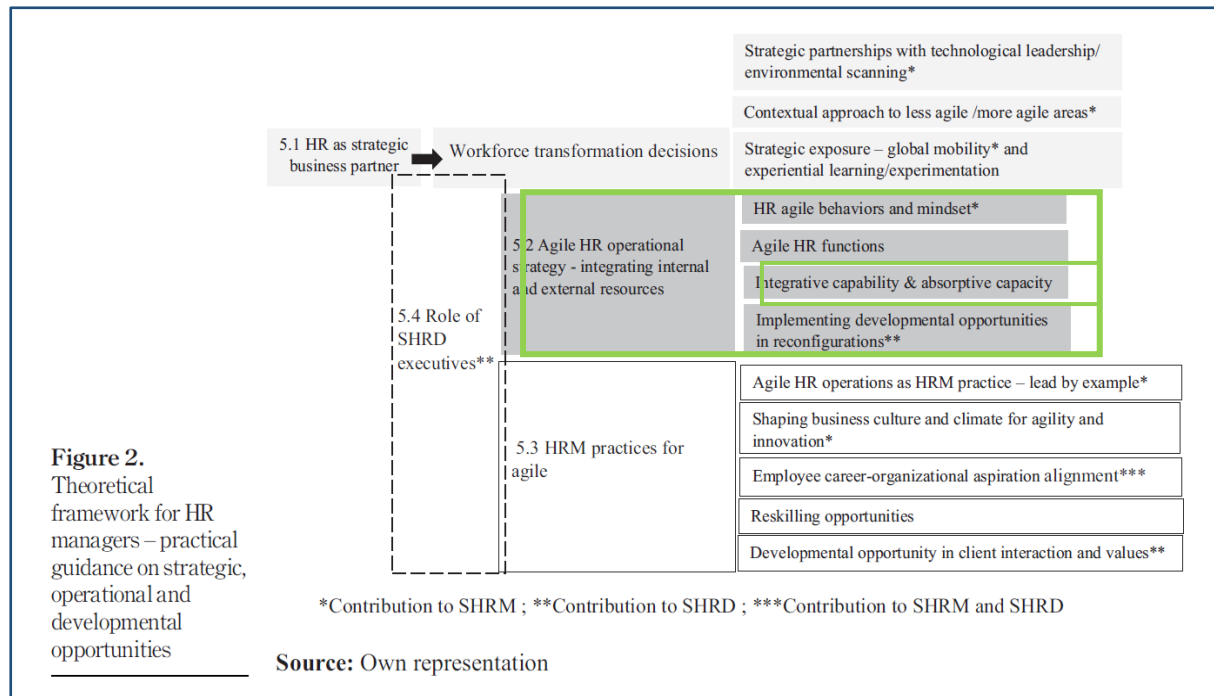
positive association between dynamic talent management capabilities and knowledge acquisition

, knowledge assimilation and transformation, and knowledge exploitation, which supports H1 as well as H1a, H1b, and H1c.

This result is partially consistent with a recent study published by Latukha and Veselova (2019), where talent management had a significant positive relationship with knowledge acquisition and knowledge exploitation, but not with knowledge transformation since it was found to be negatively associated with talent management practices. Likewise, the result of this research, partly consistent with the finding of Latukha and his colleagues (2022), indicated that talent retention and development practices significantly influenced the firm's absorptive capacity while the talent attraction did not have a significant impact on absorptive capacity and it has been rationalized by the greatest interest of the Chinese diaspora in Russia in the development perspectives of talent management rather than the traditional process of attraction organized deliberately by the firm. Accordingly, the main reasons for having varying conclusions are first due to the differences in a research context and second, applying a different research analysis method for investigating the relations among variables, such as fuzzy set qualitative comparative analysis.

On the other hand, the results of this study lend support to a recently proposed conceptual model that originated from a qualitative exploration (Ajgaonkar, Neelam & Wieman 2022), and it is worth mentioning that the same framework builds heavily on the work of Harsch and Festing (2020), which this research study was originally inspired by, and the dynamic talent management capability adopted from. The figure below depicts the framework under

consideration (Ajgaonkar, Neelam, & Wieman 2022), in which integrative and absorptive capability are central to the agile HR operational strategy.



Adopted from (Ajgaonkar, Neelam & Wieman 2022, P. 966).

6.3 The relationship between absorptive capacity and strategic agility (strategic component and response components).

H2a: Absorptive capacity is positively related to the strategic components of strategic agility, including strategic sensing and collective commitment.

H2b: Absorptive capacity is positively related to the response component of strategic agility, including resource fluidity.

The empirical research findings indicate a significant positive direct relationship between absorptive capacity and the strategic components of foresight and insights of strategic agility as well as resource fluidity as a response element. The estimates of strategic sensitivity and collective commitment as a strategic component are higher than the estimates of resource fluidity as a response component. Additionally, this research proposed a significant positive

mediating effect of strategic agility – both the strategic and the response components - between absorptive capacity and workforce agility.

Accordingly, employing the novel knowledge obtained from external sources such as external customers, competitors, media, technologies, and other channels and applying the attained knowledge to identify business opportunities can significantly and positively impact the management ability to regularly and rapidly sense and respond to the changing business environment. This is achieved by purposely creating strategic moves and subsequently adjusting new organizational configurations for successful execution through the redeployment of business resources toward a novel development opportunity aligned with the strategic directions of the organization (Doz 2020).

The result is consistent with the study of Kale, Aknar and Başar (2019), where only the acquisition and use aspects of knowledge were investigated in relation to strategic agility. In fact, this is the only study that examined directly the construct of absorptive capacity in relation to strategic agility, while other studies such as Idris and Al-Rubaie (2013) examined an indirect relationship between strategic learning which encompasses a theoretically relevant dimension to the one of absorptive capacity, including knowledge attainment, interpretation, dissemination, and activation, and found a significant relationship with strategic agility. Similarly, the study of Sambamurthy and his colleagues (2003) indicated a significant positive relationship between knowledge reach and richness in general with customer agility, operational agility and partnering agility. In the same way, Mao and other authors (2013) proposed a significant positive relationship between knowledge capability and organizational agility, and the effect of knowledge capability was greater on organizational agility compared to information technology capability.

More recently, Cho et al. (2022) investigated the impact of both realized and potential absorptive capacity as a moderator between organizational agility and firm performance in international markets. The results were that the realized absorptive capacity does moderate the relationship while the potential absorptive capacity does not, which has been attributed to the over emphasis on the acquisition and assimilation of knowledge tends to hinder the firm's ability to recognize the value of market opportunities and sensing the upcoming threats faster through transforming and exploiting knowledge, which consequently impacts the firm's ability to understand and anticipate in a timely manner the diverse conditions in foreign markets.

6.4 The relationship between strategic agility and workforce agility.

H3a: The strategic components of strategic agility, including strategic sensing and collective commitment are positively related to workforce agility.

H3b: The response component of strategic agility, including resource fluidity is positively related to workforce agility.

The findings of this research suggest a significant positive relationship between the strategic components of strategic agility namely strategic sensing and collective commitment and workforce agility. As indicated in the literature review chapter section (2.4.2), Kidd (1994) cited in Muduli (2017) emphasized that the basic assumption of workforce agility is that employees are continuously learning and educating themselves on multiple work-related competencies through the sharing of information and knowledge within and outside their organizations. Accordingly, this research asserts that when knowledge workers are highly sensitive to external changes (regarding customers, competitors, technologies, etc.) and incorporate effectively into the strategic planning of the organization, then making early strategic developments through bold and fast strategic decisions, and with the robust dissemination of information across the

organizations, all these decisive strategic actions influence another dynamic capability, which is workforce agility.

Moreover, this research study proposes a significant positive relationship between the response component of strategic agility specifically resources fluidity and workforce agility ($\beta = 0.318$, $p < .001$). The empirical investigation revealed a stronger effect of resources fluidity on workforce agility than the sensing and collective commitment jointly forming the strategic insights and foresights. This goes hand in hand with Doz (2019), when he pointed out that resource fluidity is a dynamic capability that increases the business's ability to free resources from the current routine business activities and tasks and efficiently reallocate them rapidly but cautiously to more strategic novel and innovative business development opportunities. In return, resource fluidity as a dynamic capability influences positively and significantly the education and learning abilities of several business-related competencies through the sharing of information and knowledge within and outside their organizations, thus making the workforce more agile.

The results have been compared typically against the strategic agility as a composite factor since, up to the researcher's knowledge and within the limited available literature, the construct has been investigated mostly as a global construct, except for the study conducted by Tabe Khoshnood and Nematizadeh (2017), the construct has been investigated empirically in relation to competitive capabilities in Iranian private banks at an individual dimension level, knowing that the researcher adopted a different set of dimensions to measure the strategic agility construct such as clarity of vision, core capabilities, selecting strategic targets, shared responsibilities, and taking action. The meaning of the first four dimensions by Tabe Khoshnood and Nematizadeh (2017) symbolizes the strategic components of strategic agility namely, strategic sensitivity and collective commitment, while the taking action dimension implies the meaning of response

capability, where the organizational takes the necessary actions toward moving the financial and non-financial resources, including physical and intangible organizational resources, from the less to more auspicious opportunities.

The same study of Tabe Khoshnood and Nematizadeh (2017) indicated a positive and significant relationship between strategic agility and competitive capabilities, including overall organizational innovation, quality, flexibility, reliable delivery, and cost leadership, and the result of this research study supports the findings of Tabe Khoshnood and Nematizadeh (2017) research, specifically the flexibility aspect, which includes the employee flexibility attributes since workforce agility is a dynamic organizational capability (Salmen & Festing 2021).

Similarly, Clauss et al. (2019) proposed a significant positive relationship between strategic agility and business model innovation (BMI), which consequently resulted in a significant improvement in organizational performance. A comparable conclusion was reached by ALTaweel and Al-Hawary (2021) addressing a significant positive relationship between strategic agility and innovation, including both process and product innovation, consequently resulting in a significant improvement in organizational performance, including financial and non-financial results. Also, Reed (2020) tested the impact of strategic agility on firm performance, where 73 organizations in the US state of Florida from three industries participated in the quantitative investigation, and the result is consistent with this reach study since strategic agility influenced positively and significantly organizational performance as a desirable outcome. Additionally, Kwon, Ryu, and Park (2018) proposed a significant positive relationship between dynamic capabilities and strategic agility with the process of successful opportunity pursuit in the Korean market.

As indicated by the above empirical reviews, numerous empirical investigations have established a significant positive relationship between strategic agility and various forms of organizational outcomes. This research study adds to the list of valuable contributions of strategic agility in fostering workforce agility as a favorable organizational outcome, especially in the era of uncertain environments (Salmen & Festing 2021).

6.5 The relationship between dynamic talent management capabilities and workforce agility

H4: Dynamic talent management capabilities are positively related to workforce agility. The finding of this research proposes that there is a significant positive and direct relationship between dynamic talent management capabilities and workforce agility. The result indicates that talent attraction practices, along with talent training and development, and talent retention, including reward (monetary and non-monetary) when considered as a comprehensive organizational system, impact significantly and positively the level of workforce agility. Accordingly, when managers adopt dynamic talent management practices systematically, it results in the explicit and direct creation of an agile workforce.

It is worth mentioning that the result of this hypothesis is compared against the results of flexibility human resources practices, talent management practices, and in some instances, human resources practices within dynamic capability and agility context, or even a single human resources practice. Additionally, the result of this hypothesis is discussed in relation to other relevant outcome variables such as overall organizational agility, financial performance, operational performance, and employee performance.

The finding of this research study is consistent with the finding of Doeze Jager-van Vliet, Born and van der Molen (2020), where specific human resources development interventions -

portfolio-based processes considered as a learning and training intervention- have enhanced employee agility significantly. Additionally, the study of Muduli (2016) emphasized that specific organizational practices contribute significantly to workforce agility, such as teamwork, reward and recognition systems, employee participation, overall organizational learning and training, and information sharing.

In a similar vein, the study of Melián-Alzola, Domínguez-Falcón, and Martín-Santana (2020) within the context of intensive care units (ICUs) in a health care setting, suggested that specific human resource practices, including training, participation, recognition, and communication, revealed a significant positive influence on the hospital agility. Likewise, Ketkar and Sett (2009) study provided strong evidence of the contributing of multiple human resources flexibility practice, including the skill flexibility, behavioral flexibility, flexibility of human resources system, and flexibility inducing, human resources system on employee performance and operational performance resulted in increased organizational financial performance within the context of service and manufacturing organizations. Also, Bhattacharya, Gibson, and Doty (2005) operationalized human resources flexibility practices as a dynamic capability including, employee skills and behaviors and human resources practices in relation to organizational financial performance, and the results revealed a significant positive relationship.

Contrary to the above results, and upon comparing the findings of this research study with the traditional version of human resources studies such as Delery (1998) and Ulrich (1997) it is explicit that the impact of dynamic talent management capabilities is more profound and significant in achieving various organizational outcomes, including workforce agility as key success factor for service and manufacturing organizations. Accordingly, this research study proposes that dynamic talent management capabilities are able to influence directly and

indirectly (through mediation effects) organizational outcomes. Unlike the traditional human resources practices which were widely accepted, it is hardly leading to a direct impact on organizational performance. Alternatively, it impacts the resources of the business, which are ultimately associated with performance.

Hence, when managers constantly adopts the following dynamic talent management practices: talent attraction and selection, talent development, talent training, and talent retention, including financial and non-financial rewards as a consistent organizational and strategic routines, it significantly plays a role in paving and shaping the organizational way toward establishing the agility-oriented characteristics of employees refereed as workforce agility in this research study.

Therefore, it is imperative that the dynamic talent management practices mirror the dynamism within business environment through which agile organizations circumnavigate (Jackson, Schuler & Jiang 2014) and reshape the approaches in which human resources department in the innovative world of work are managed (Hansen et al. 2019;Harsch & Festing 2020; Salmen & Festing 2021).

The Mediation Effects:

6.6 The relationship between dynamic talent management capabilities, absorptive capacity, strategic agility, and workforce agility.

H5a: The relationship between dynamic talent management capabilities and workforce agility is sequentially mediated by absorptive capacity and the strategic components of strategic agility, including strategic sensing and collective commitment.

H5b: The relationship between dynamic talent management capabilities and workforce agility is sequentially mediated by absorptive capacity and the response component of strategic agility, including resource fluidity.

Besides investigating the direct relationship between the predictor variables (dynamic talent management capabilities) and the outcome variable (workforce agility), this research study investigated the same relationship through the serial mediating effects of absorptive capacity and strategic agility based on the dynamic capabilities' perspective. The results indicate that absorptive capacity and strategic agility play a serial mediation role between dynamic talent management capabilities and workforce agility. The relationship between dynamic talent management capacities and workforce agility is stronger and more significant passing through absorptive capability and resources fluidity, than going through the strategic components of strategic agility, including strategic sensing and collective commitment .This is consistent with the original conceptual understanding of Doz and Kosonen (2010) to the resources fluidity when he stated “Even a deeply felt commitment at the top does not always translate into vibrant and effective action.” (P. 378). In this regard, making business resources more fluid is a more structured form of agility that is necessary to avoid the propensity toward increasing business rigidity.

Based on the dynamic capability theory, it is not sufficient to simply have the resources, however talented they are, but rather how systematically these resources and their competencies are developed, integrated, and reconfigured to thrive within the constantly changing environment. This indicates that workforce agility as an organizational capability is resulting from the overall resource configurations that organizations create through adopting dynamic talent management practices, constantly seeking new external knowledge, routinely sensing the environmental changes and satisfactorily responding to it (Eisenhardt & Martin 2000).

Moreover, guided by the knowledge-based theory (Grant 1996), KBO's have demonstrated that it is an institution that is characterized by integrating specialist knowledge into their employees'

rather than just creating knowledge. KBO's also extended the knowledge integration to the application of the newly assimilated external knowledge and translated it into forms of strategic and response (or acting agility) strategies, which consequently resulted in a significant and positive relationship between dynamic talent management practices as an internal organizational resource for achieving workforce agility as an organizational capability.

The result of serial mediation is stronger and more significant than the simple, direct relationship ($\beta = 0.392, p = .035$) between dynamic talent management practices and workforce agility as an organizational capability. The results are consistent with various empirical studies where absorptive capacity, and strategic agility together and separately mediated the relationships between different predictor variables and different outcome variables. For instance, Battour, Barahma and Al-Awlaqi (2021) investigated strategic agility as a mediator between human resources management strategies, including the following practices (recruitment, training and development, compensation, performance appraisal, work-life quality, and career path planning) and sustainable competitive advantage. The result of the study indicated a significant direct and mediated effect of strategic agility on human resources management strategies and sustainable competitive advantage in the context of Yemeni large and medium-sized manufacturing companies. Similarly, Khan, Majid, and Yasir (2020) suggested a significant positive mediating role of strategic agility in the relationship of social capital and strategic renewal within the context of SMEs in the emerging economy of Pakistan. Correspondingly, Liu et al. (2014) investigated absorptive capacity and supply chain agility as higher-order capabilities, which enables the organization to exploit a lower-order capability namely information technology, in order to achieve superior organizational performance. The result indicates a full mediation effect between information technology capabilities and supply chain agility.

The proposed significant serial mediation enriches the theoretical contribution of both absorptive capacity and strategic agility as a dynamic organizational capability, and overcomes the previous critique of workforce agility, which was exclusively perceived from the resources based. This research study offered a major revision to the theoretical paradigm of workforce agility by investigating empirically the influence of multiple dynamic capabilities constructs on workforce agility as a high-level strategy for an agile organization. Accordingly, dynamic talent management capabilities, absorptive capacity, and strategic agility are significant drives for workforce agility under the lens of dynamic capability theory.

Harsch and Festing (2020) indicated that integrating human resource practices within the context of agility and dynamic capability could potentially deepen the understanding of organizational performance and competitive advantage. Accordingly, this research study recommends investigating other relevant and influential organizational outcomes, such as gaining competitive advantage.

Relatedly, the above discussion regarding the serial mediation effect between dynamic talent management capabilities and workforce agility supports the mediation effect of absorptive capacity between dynamic talent management capabilities and the strategic components of strategic agility, including strategic sensing and collective commitment, and the response component of strategic agility, including resources fluidity. Additionally, the mediation of strategic agility between absorptive capacity and workforce agility. Below are the detailed hypotheses along with their estimates and significance. The sub-hypothesis results, and a brief discussion follows.

6.7 The relationship between dynamic talent management capabilities, absorptive capacity, and strategic agility.

H6a: Absorptive capacity mediates the relationship between dynamic talent management capabilities and the strategic components of strategic agility, including strategic sensing and collective commitment.

H6b: Absorptive capacity mediates the relationship between dynamic talent management capabilities and the response component of strategic agility, including resource fluidity.

6.8 The relationship between absorptive capacity, strategic agility, and workforce agility.

H7a: The strategic components of strategic agility, including strategic sensing and collective commitment, mediate the relationship between absorptive capacity and workforce agility.

H7b: The response component of strategic agility, including resource fluidity mediates the relationship between absorptive capacity and workforce agility.

There are several empirical studies that supports the mediation effects of absorptive capacity between different forms of human resources practices such as HR flexibility, and talent management and various outcome variable such as innovation in various shapes innovation performance, innovation capability, disruptive innovation was dominating along with overall organizational performance as highlighted within the literature review chapter (Martínez-Sánchez, Vicente-Oliva and Pérez-Pérez (2020); Wang, Ling and Chok (2020); Hernández-Perlines, Moreno-García and Yáñez-Araque (2017); Naqshbandi (2016); Soo et al. (2016); Wang et al. (2014); Liao et al. (2009); Francalanci & Morabito (2008).

Additionally, this particular research finding has provided a theoretical implication by giving extra empirical evidence to the domain of knowledge management theory, where absorptive capacity as a dynamic capability influenced another important organizational dynamic capability, which is strategic agility and consequently enhances the workforce's proactiveness, adaptability, and resilience.

Strategic agility necessitates inimitable competencies in order for an organization and its leaders to be able to respond swiftly and efficiently to the continuously fluctuating business environment. Therefore, leading to a better understanding of dynamic talent management capabilities' role within strategic agility is vital to sustain business continuity through workforce agility.

The strategic agility construct has been investigated empirically as a mediator in various research studies. The empirical result of this research study concerning the mediation effect of strategic

agility between absorptive capacity and workforce agility is consistent with other research findings relating to different predictor and outcome variables, for example a recent study by Haider, and Kayani (2020) suggested a positive and significant impact of strategic agility played between customer knowledge management capability and project performance. Besides that, Al-Azzam, Irtameh and Khaddam (2017) indicated that the mediation role of strategic agility is positive and significant between intellectual capital and organizational excellence with the context of the Jordan service sector.

Strategic agility has been strongly mediated by the relationship between knowledge-related factors and various forms of organizational outcomes. This result supports the developed hypothesis as well as the original conceptualization of Doz and Kosonen (2008, 2010).

Additionally, Teoh, Lee, and Muthuveloo (2017) investigated strategic agility as a mediator within the context of Malaysian public companies between the relationship of enterprise risk management implementation and overall organizational performance, including financial and non-financial indicators. The finding supports the mediation effect of strategic agility comprising the three main meta-capabilities, including strategic sensitivity, collective

commitment and resource fluidity similar to the ones adopted in this research study (Doz & Kosonen 2008, 2010).

Moderation Effects:

6.9 The moderation effect of Adaptive organizational culture on dynamic talent management capabilities and workforce agility.

Beyond understanding the direct link between dynamic talent management capability and workforce agility, this research study suggests that this relationship is conditional on the extent to which the organizational culture is adaptable to the constantly changing business environments. Precisely, this research study contends that the degree of adaptive organizational culture further reinforces the relationship between dynamic talent management capability and workforce agility within the dynamic capability framework.

H8: Adaptive organizational culture moderates the relationship between dynamic talent management capabilities and workforce agility. ($\beta = 0.099, p < .001$).

This finding is consistent with the findings of a series of organizational culture research studies in which culture was found to have a significant influence on over 48 distinct organizational outcomes, including flexibility, agility, innovation, financial outcomes, competitiveness, survival, and others. (Denison 1990; Denison & Spreitzer 1991; Denison & Mishra 1995; Hartnell, Ou & Kinicki 2011; Marcoulides & Heck 1993; Xenikou and Simosi 2006). Chatman et al. (2014) similarly conferred that when talents function within an adaptive culture atmosphere they develop a sagacity on how to appropriately respond when the change occurs to the surrounding business environment through a collective understanding of the organizational strategic directions, and operational details, including processes, procedures, and policies. Interestingly, this research study represented empirically to the recommendation for future research agenda proposed by Salmen and Festing (2021) where investigating the cultural aspects

of organizations, including internal and external, should be widely investigated since it has a great impact on the agility level of the workforce. On the same line of recommendation, Harsch and Festing (2020) proposed a more strategic approach to talent management entailing that the practices and strategies of attraction, selection, development, and retention of talent should be aligned with overall organizational strategic long-term goals and entrenched with its culture. This is especially true within the context of agility and dynamic capability due to the multifaceted challenges faced by organizations, including their leadership and agile talents.

Moreover, various research studies are conceptually consistent with this research, where the inability to build an adaptive and dynamic organizational culture is undisputedly the leading factor for organizational failure, specifically in aspects related to effective management and coping with business environmental turbulence (Cameron & Quinn 1999, Crocitto & Youssef 2003; Felipe, Roldán & LealRodríguez 2017). This finding significantly contributes to the very few previous research attempts to investigate the effect of people practices and organizational cultural aspects on workforce agility compared with technological and operational factors (Crocitto & Youssef 2003).

Accordingly, dynamic talent management capabilities support organizational leaders with ways to instill an adaptive organizational culture that encourages the talented workforce to be more adaptable, resilient, and proactive.

Model (2.1) represents a full structural model with 66% of the variance explained when the moderator exists as a regular interaction variable. While model (2.2) represents a full structural model with 65% of the variance explained, with low moderation effect, model (2.3) demonstrates a full structural model with 67% of the variance explained, with high moderation, for details refer to models (2.1-2.3).

6.10 The moderation effect of adaptive organizational culture on dynamic talent management capabilities and absorptive capacity

H9: Adaptive organizational culture moderates the relationship between dynamic talent management capabilities and absorptive capacity.

The findings of this research study did not support the hypothesized moderation effect of adaptive organizational culture on the relationship between dynamic talent management capabilities and absorptive capacity. Absorptive capacity in this research study is conceptualized as a dynamic capability, as opposed to an ability or a stock (Lane, Koka & Pathak 2006; Mariano & Walter 2015; Roberts et al. 2012). The successively turbulent business environment has stimulated organizations to provide special consideration to new external knowledge as a source of competitive advantage and superior performance (da Costa et al. 2018; Ramayah et al. 2020). Organizations are encouraged to focus on the new external knowledge by acquiring and assimilating it (potential ACAP), then gain the long-term business benefits by transforming and applying the new external knowledge to create a novel opportunity in a timely manner.

Environmental scanning of both external and internal changes and challenges is important to be considered by organizational leaders, through identifying the organizational strengths and weaknesses (internal scanning) and addressing opportunities and threats (external scanning) (Mitsakis 2020).

The respondents of this research study highlighted various significant sources of change and turbulence that their organizations are facing, especially that the survey took place during the pandemic period. The ninth item of the adaptive culture questionnaire, “To what extent is the organization facing significant changes in its industry or environment?” was followed by another open-ended question “If your organization is facing any level of change, briefly describe the changes that the organization may be facing”, were answered by (188) respondents

out of the (406). The following are some of the main sources of organizational turbulence expressed by the respondents of this research study, internal sources: organizational restructuring, employee transitions and attrition, financial constraints, digitalization, new business models, new top management, change of management styles, and many other sources detailed in appendix (29). Additionally, the respondents of this research study highlighted several external sources of turbulence, such as changes in customer demands, market fluctuations, global economic shifts, sophisticated client expectations, constant changes in customer behaviors, aggressive competition with competitors, and many other sources detailed in appendix (29).

In particular, the acquiring aspect of the absorptive capacity construct entails first building the organization's ability to access external knowledge, which requires an extensive knowledge-sharing culture with the external environment, and second, transforming and implementing external knowledge within the organization to augment its fundamental capabilities (Daghfous 2004; Foss, Lyles & Volberda 2009).

Reflecting on the extent to which the adaptive organizational culture questionnaire developed by Costanza et al. (2016) and adopted in this research study emphasizes the external aspects of knowledge creation and sharing culture, the questionnaire includes only one out of the nine items with emphasis on the external focus: "External focus: The organization pays attention to its external environment, especially its customers. The organization values reading and interpreting signals from their environments" Costanza et al. (2016, P.368). This specific item within the adopted scale, indicates a prior important step to the acquiring of knowledge phase, which is reading and interpreting the signals. However, the subsequent items did not include the other crucial parts of the knowledge cycle, such as the cultural aspects of acquiring, assimilating,

transforming, and applying knowledge, which are important for the organizational learning processes.

With regards to examining the second item, which is: “Anticipation the organization proactively works to identify internal and external problems; the organization focuses on future problems or environment changes” Costanza et al. (2016, P.368), the item is limited to the very initial phase of realizing external knowledge which is identification, and it is mainly around the detection of external problems or sources of change. While the other items focus on internal organizational capabilities such as confidence, risk-taking ability, capability development, and openness to change.

The adopted scale Costanza et al. (2016) was the most recent and applicable questionnaire for this research context, which is dynamic capability. Future research studies could build a new knowledge-oriented organizational culture questionnaire that considers the full cycle of knowledge sharing and creation culture with a stronger focus on the external aspects of the organization and beyond the organizational boundary with bold emphasis on the outside-in cultural perspectives. Future research could take into account Hartnell, Ou, and Kinicki (2011)'s perspective on adhocracy culture as dynamic and externally oriented, with high values of evolution, stimulation, diversity, independence, and attention to details. The main organizational outcomes of an adhocracy culture that emanates from these values are agility, adaptability, innovation, and risk-taking (Denison & Spreitzer 1991; Hartnell, Ou & Kinicki 2011).

Additionally, this recommendation is in line with the finding of Felipe, Roldán, and Leal-Rodríguez (2017), where adhocracy culture influenced organizational agility more significantly than all other types of culture (clan and hierarchy), while marketing culture did not have a significant effect. “The adhocracy culture, due to its lack of bureaucratization and complexity,

enables the organization to be flexible and to rapidly reconfigure resources and processes. This fact provides a strong success basis for companies operating in dynamic environments.” (Felipe, Roldán & Leal-Rodríguez 2017, P.17).

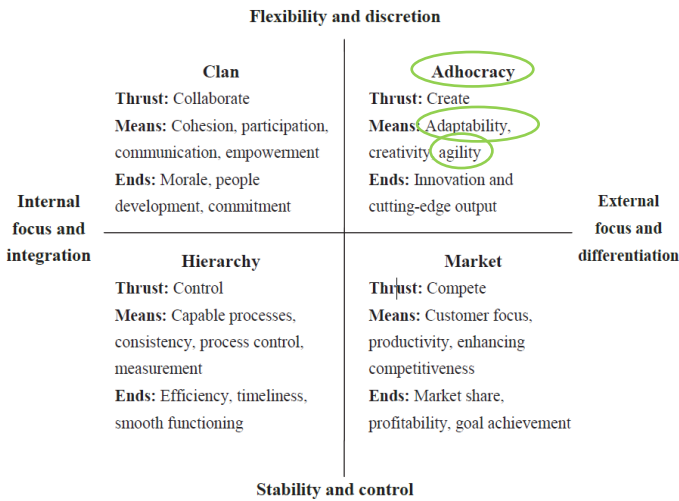


Figure 12: *Competing Values Framework – culture, leadership, value, drivers, and effectiveness.*

Adopted from (Cameron et al. 2014, P. 32).

This research recommendation is applicable whenever a culture is investigated within the agility and dynamic capability context, especially when investigated in relation to any of the meta capability constructs such as absorptive capacity, strategic learning, strategic agility, and others. The above discussion could potentially stimulate scholars who are interested in the dynamic capability of generating a new theoretical framework that would rationally embrace the substantiation of external new knowledge and a more dynamic form of organizational culture, such as the ambidextrous organizational culture, which is still in its early stages (Khan and Mir, 2019; Lee et al. 2017).

On the same vein, Madi Odeh et al. (2021) had another recommendation toward the same scale under discussion based on an empirical investigation, where the focus of the questionnaire is on

the organizations that actually survived, so what about the organizations that actually did not survive? Accordingly, the other part of the true story is apparently missing.

In this research study, the findings indicate that an adaptive organizational culture is able to moderate the relationship between two internal organizational capabilities (dynamic talent management capability, and workforce agility). However, it has a limited ability to moderate the relationship between an internal capability (dynamic talent management capabilities) and an external capability (absorptive capacity). This research finding is subject to further confirmation by qualitative exploration and other quantitative investigations.

Context is another plausible explanation of this unsupported relationship. As Harsch and Festing (2020) indicated that talent management is context dependent and the context keep changing, which makes managing the organizational culture in an adaptable manner very challenging within the VUCA world (volatile, uncertain, complex, and ambiguous). Today's business environment, particularly in the United Arab Emirates (UAE), is better described as being volatile, uncertain, complex, and ambiguous. In fact, the UAE business is considered to have one of the most diversified knowledge-based economies over all the Arabian Gulf region (Sposato & Abdelhamid 2019).

Various talent management research indicated that the soft and social characteristics of the organization are vital for an effective application of talent management practices; a talent- and learning-minded culture which supports creativity, open communications, effective knowledge management, and is built on core values as respect and integrity has a robust outcome on effective talent selection ,attraction, retention, and development (Gallardo-Gallardo, Thunnissen & Scullion 2019; Harsch & Festing 2020).

Additionally, Cohen and Levinthal (1990) during the developmental stage of the absorptive capacity concept pointed out that organizational culture forms absorptive capacity by its impact on both knowledge and communication channels. The rationale is that culture mirrors the values and norms held by the organization, it plays a vital role in defining the areas in which the organization is able to learn easily and those in which it is likely to resist changing its policies. Accordingly, when an event in the environment is consistent with the organization's existing cultural values, the organization will be more likely to reply more quickly than if the event opposes long held values.

Control Variables

As presented in table (18), both control variables (organizational type and size) had no significant effect on any of the relationships investigated in this research study. This conclusion is similar to several other research studies, such as the studies of Zhou et al. (2018) and Duan, Wang and Zhou (2020). Moreover, future research can investigate other potential control variables.

6.11 Summary

In view of the effect of dynamic talent management capability on specific dimensions of an organization's absorptive capacity (knowledge acquisition, assimilation, transformation, and knowledge exploitation), the study found consistent directions of such a relationship among all absorptive capacity dimensions, unlike the finding by Latukha and Veselova (2019), where differences were found among the dimensions. Furthermore, the dynamic talent management capability construct demonstrated a positive and significant effect on workforce agility, both directly and indirectly (via absorptive capacity and strategic agility). Besides that, the direct

relationship between dynamic talent management capability and workforce agility is positively moderated by the adaptive organizational culture construct.

CHAPTER SEVEN: CONTRIBUTIONS AND RECOMMENDATIONS

7.1 Theoretical Contributions

This is the first research study up to the researcher's knowledge that made an attempt toward the operationalization of the dynamic talent management capability construct after the original conceptualization addressed by Harsch and Festing (2020) through qualitative exploration. The construct has been investigated empirically through adopted (26) comprehensive items that cover the complete cycle of dynamic talent management practices from value creation to value protection. These practices were mapped and aligned to various other human resources practices such as agile human resources practices (McMackin & Heffernan 2020), talent management practices (Al Aina & Atan 2020; Mellahi Harsch & Festing 2020; Collings & Cascio 2019), and flexibility human resources practices (Bhattacharya Gibson & Doty 2005; Ketkar & Sett 2009; Martínez-Sánchez, Vicente-Oliva & Pérez-Pérez 2020a; Martínez-Sánchez, Vicente-Oliva & Pérez-Pérez 2020b).

Additionally, the operationalization of the dynamic capability construct was done through adopting a newly developed questionnaire that tackles the talent management practices within the agility and dynamic capability context. Unlike other research studies where only partial adoption of items was used for operationalization (11 items only by Alparslan and Saner 2020), this research study adopted all the proposed items (26) items, where all items have been returned with excellent model fit indexes. Thus, this study contributes to the testing of a newly developed scale by Jayaraman, Talib, and Khan (2018).

This research study proposes that dynamic talent management capabilities are able to influence, directly and indirectly (through mediation effects), organizational outcomes. Unlike the traditional human resources practices which are widely accepted, they hardly lead to a direct

impact on organizational performance. Alternatively, they impact the resources of the business, which are ultimately associated with performance. Moreover, this research study enhances the understanding of the particularities of dynamic talent management with the context of knowledge workers based on quantitative investigation using large sample size, in relation to absorptive capacity, and strategic agility as a robust organizational capability and workforce agility as a desirable organizational outcome, while adaptive organizational culture is a facilitator of the direct relationship.

This multidimensional relationship connected and bridged the gap between the strategic management literature, talent management literature, agility literature, and organizational culture literature. Additionally, the context of knowledge workers has not been a very popular research context in relation to the examined constructs compared to information technology companies, including SEM's (Ajgaonkar, Neelam & Wieman 2022), and manufacturing (Gunasekaran 1999).

Moreover, this is the first study up to the researcher's knowledge that signifies a positive and significant relationship between the realized and potential absorptive capacity, including all knowledge dimensions from acquisition to exploitation with the direct relationship with strategic agility and the mediated relationship with workforce agility, while other studies indicated either a positive relationship with the realized absorptive capacity but not with the potential absorptive capacity dimensions (transformation and exploitation) (Aknar & Başar (2019; Cho et al. 2022).

Besides that, the findings of this research study enrich the agility literature where a specific form of agility was investigated in relation to each other namely strategic agility and workforce

agility. While other studies investigated the overall organizational agility in relation to other factors, that are not agility centered (Cho et al. 2022).

7.2 Practical Contribution

Besides the theoretical development, this study has substantial managerial implications. First, by proving the role of dynamic talent management capabilities in connection with absorptive capacity, strategic agility, and workforce agility, this study builds the cornerstone of the main program components for leaders and managers in KBO with regards to the identification and implementation of key managerial practices within a dynamic talent management capability system to establish knowledge acquisition, assimilation, transformation, and knowledge exploitation processes as well as to support the development of the workforce agility attributes. Second, as the link between dynamic talent management capability, absorptive capacity, and workforce agility was revealed, this research study argues that dynamic talent management capability should be deliberately designed in a systematic approach to stimulate the overall level of the organization's sensing ability through absorptive capacity and strategic agility.

7.3 Theoretical Implication

This research contributes to the theoretical concepts of dynamic capability by investigating the influence of multiple types of dynamic capabilities on each other, including dynamic talent management capability on absorptive capacity, followed by the impact of absorptive capacity on strategic agility and ultimately on workforce agility using structural equation modeling (SEM) as a powerful and robust analytical method. Furthermore, by investigating the moderating effect of adaptive organizational culture, this study deepens the discussion on the relationship between dynamic talent management and workforce agility at the organizational

level. Additionally, the paper expands on existing talent management literature by investigating its role within a dynamic capability context based on a specific type of research context, which is knowledge workers. Besides that, as the empirical results support the relationship between dynamic talent management capabilities ,and absorptive capacity, this research develops a further understanding of how particular talent management practices such as (attraction and selection , training, development , and retention when considered as a system) moderated by adaptive organizational culture influences the organizational ability for effective knowledge sharing from one side and workforce agility, as a desirable organizational outcome from the other side.

This study contributed to the further understanding of the strategic agility construct by empirically investigating each of its dimensions, including both the strategic component and the response component directly in relation to workforce agility as well as a mediator between absorptive capacity and workforce agility.

7.4 Practical Implication

From a managerial point of view, based on the knowledge worker context, this study demonstrates the necessity to develop dynamic talent management practices to enhance knowledge acquisition, knowledge assimilation, transformation, and knowledge exploitation. Additionally, this research study suggests a deeper involvement of talented employees in the knowledge sharing processes after being professionally trained and developed through a bundle of consistent talent management practices. Managers are encouraged to adopt the dynamic talent management capabilities not only to achieve workforce agility as a key success factor for organizations (Breu et al. 2002; Shafer et al. 2001), but also to recognize internal as well as

external business-related knowledge necessary for the organization's survival, and then to effectively integrate the newly assimilated knowledge with current knowledge and to use it for the benefit of the organization.

Moreover, the investigated relationship between absorptive capacity and strategic agility can act as a guide to managers in terms of performance management of knowledge workers especially within the context of agility by considering absorbing existing knowledge, renewing knowledge and developing agile strategies for obtaining knowledge from external world to remain competitive in the market, while viewing strategic agility as a key and underlying catalyst to the process. For example, strategic sensing which refers to the organization's ability to systematically and hurriedly detect and monitor all possible organizational opportunities, including but not limited to strategic events, opportunities, or threats that impact the business environment such as customers, competitors, and technology (Zhou et al. 2018). Successful knowledge-based organizations with high sensing capabilities can reconfigure their resources and mobilize them toward the detected organizational opportunities. When organizations cannot sense, then business opportunities will be missed, resources will be unexploited, and consequently the response capability will not be activated since sensing is considered a system input (Park et al. 2017). Moreover, knowledge-based organizations can adopt several organizational initiatives to maximize their strategic sensitivity such as dynamic teams, subscribe to different business platforms such as "TREND WATCHING", and others.

Additionally, organizations with proper sensing capability are expected to perform better in terms of decision-making. Decision making is an indicator of an organization's response level capability, and it encompasses the organization's ability to collect, restructure, and then critically appraise sensing agility inputs with no delays (Park et al. 2017). After the accumulation of all

relevant information from a variety of sources, the organization can develop an alternative action plan along with a revamped competitive procedure. While sensing agility is all about detecting organizational opportunities, decision-making agility is responsible for preventing or minimizing organizational threads from happening (Teece et al. 2016).

In addition to that, it is important to note that organizations cannot perform well during the decision-making agility phase without successfully passing through the sensing agility phase in order to capture all significant events in a timely manner. Then comes the vital role of decision-making agility, in which all the gathered events will be elucidated within the relevant business context, consequently reshaping the current and future action plans. Following decision-making capability is the role of acting agility, which represents the series of actions that take place in the organization as a response to the information collected during the sensing agility phase and the strategic decisions taken during the decision-making agility phase. Furthermore, acting agility reflects an organization's ability to successfully reconfigure resources, modify business processes, and accept and adopt new innovations on time (Overby et al. 2006).

When a knowledge-based organization practices agility, many changes can be observed in the organization, such as changes to the processes, procedures, policies, and structure (Dutton & Duncan 1987; Thomas et al. 1993). Moreover, when acting agility is practiced by organizations at all levels and in their day-to-day business activities, the following business outcomes can be achieved: constantly providing innovative services, achieving sustainable competitive advantage, and recovering faster than others after any major changes to the organization (Sharifi & Zhang 1999).

Managers working as knowledge workers are expected to promote and adopt an adaptive organizational culture since it acts as an orchestrator between dynamic talent management practices and workforce agility. Managers might take serious steps toward implementing the following actions in order to promote a more discernible adaptive culture, such as paying attention to their external environments by reading and interpreting signals from their environments, identify internal and external, current and future environmental changes; embracing change, being more receptive to innovation, exhibiting flexibility, and willing to take risks.

7.5 Limitations

As with all quantitative investigation studies, this study has a number of limitations, despite the fact of confirming a number of theoretically enriching hypotheses. First, this study followed a cross-sectional study design where both the predictor variable and the outcome variables were investigated at a time, and self-reported data was utilized, which makes this study open for further causality examination. Thus, the recommendation is that future studies apply more longitudinal designs in order to provide more inevitability about the direction of the relationship between the investigated research constructs.

Second, despite using a large sample size and using a bootstrap technique, generalization to other contexts – other than knowledge workers- should be done with caution. The other generalizability concern is to what extent the results of this research study are applicable to other populations in different countries other than the UAE.

Third, the limited available literature on empirical relations between the strategic agility construct and the other research constructs constrained the comparison of this research study

findings with other relevant studies, and this applied to both the direct and the mediation effect of strategic agility.

Fourth, while diverse remedies such as ensuring anonymity of the respondents and diversifying the measurement scale were applied to control for the common method bias in this research study, application of a qualitative exploration is also advisable to not only control the common method bias by presenting a different measurement format (Podsakoff et al. 2003), but also to expand the understanding of the fundamental mechanisms among the relationships . On the other limitation of this research study, data was collected from a single source, the researcher recommends that a multi-method, multi-measure approach be applied to get stronger evidence of relationships.

7.6 Recommendations

This research study suggested further exploration of other possible outcome variables -other than workforce agility- in relation to dynamic talent management capabilities such as innovation, including disruptive innovation, business model innovation, overall organizational agility, and organizational ambidexterity. Innovation is particularly an important and interesting organizational outcome since innovative work behavior (IWB) exemplifies agile employees and agile organizations (Harsch & Festing 2020; Salmen & Festing 2021; Smite et al.2019).

Despite the fact of being explored in relation to traditional human resources practices, specific human resources practices such as training and development, and talent management practices (Latukha et al. 2022), it is worth investigating the proposed outcome variables in relation to the more dynamic version of talent management practices within the context of agility and dynamic capability within the context of knowledge workers as well as other contexts such as governmental organizations, non-governmental organizations, emerging markets, and small

entrepreneurial firms, which in fact are still in their infancy phase (Friedman, Carmeli & Tishler 2016).

This research study investigated empirically the moderating effect of adaptive organizational culture on the dynamic talent management capability, workforce agility and absorptive capacity constructs. Future studies could be initiated to further confirm the significant moderation effect of adaptive organizational culture on the relationship between dynamic talent management capability and workforce agility constructs. Second, additional qualitative exploration is needed to deeply explore the circumstances of the relationship between adaptive organizational culture and absorptive capacity. Moreover, other moderation effects could be investigated such as the role of transformational leadership to further strengthen the strategic element within the tested model, and the other potential moderator is environmental turbulence, since the investigated research constructs might potentially be more crucial in turbulent environments than in more stable ones. Based on Khandwalla (1977), cited in Reed (2020), “A dynamic, unpredictable, expanding, fluctuating environment is a turbulent environment. It is an environment marked by changes. The opposite of a turbulent environment is a stable environment. What little change occurs is highly predictable.” (P. 333).

Considering the sustainability concept as an important dynamic process (Kira & Lifvergren 2014) -rather than stability-, and refereeing it to talented people management, it surely means that sustainability within talent management practices is a constantly changing phenomenon, especially with the newly emerging Industry 4.0 technologies. Accordingly, updated research studies in the field of talent management by taking a sustainability perspective could also be addressed in further research since technology will affect the way we work, including work design and job processes and the agility level.

Besides that, since talent management, traditionally called human resources management, is known for, it is the ability to impact different organizational resources and capabilities, which are eventually linked to various aspects of organizational performance (Delery 1998; Ulrich 1997). It is theoretically and practically valuable to investigate other possible mediators that might positively influence the relationship between dynamic talent management and workforce agility, such as but not limited to intellectual capital (Afshari & Hadian Nasab 2020), and human development capital (Sima et al. 2020).

Also, the researcher of this study senses the need for further testing of the proposed reach model using a wider population from other countries along with a supplementary comparative analysis to attain a deeper understanding of the differences and similarities across various countries.

Given the significant positive direct and mediated relationship, absorptive capacity and strategic agility can be examined in relation to other organizational outcomes, such as sustainable innovation performance (Cillo et al. 2019). Furthermore, the researcher encourages other academics, particularly those interested in talent management, to replicate this study in order to confirm the finding of a direct and significant effect of the dynamic version of talent management on organizational outcomes (workforce agility) or other outcomes, as opposed to traditional human resource practices, which are widely accepted to have little impact on organizational performance. Alternatively, it impacts the resources of the business, which are ultimately associated with performance.

7.7 Conclusions

This paper started with the drive to connect up the missing gaps between various bodies of literature, and the empirical results of this research investigation provide an insight that this study conveys significant deeper understandings into the talent management literature, strategic

management literature, dynamic capability literature, agility literature , and organizational culture literature through probing theoretically and empirically the relationship between dynamic talent management capabilities, absorptive capacity, strategic agility, workforce agility, and adaptive organizational culture. Thus, it is expected that this research will stimulate future quantitative investigations and qualitative explorations in order to provide further insights into the following results: The dynamic talent management capabilities construct has a significant positive effect on absorptive capacity, which in turn has a significant positive effect on strategic agility. Strategic agility has a significant positive effect on workforce agility. Furthermore, the dynamic talent management capabilities construct has a significant positive effect on workforce agility, both direct and sequential through absorptive capacity and strategic agility. Additionally, adaptive organizational culture positively moderates the relationship between dynamic talent management capability and workforce agility.

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Appendices

Appendix (1): HR strategy and knowledge management as a top research themes

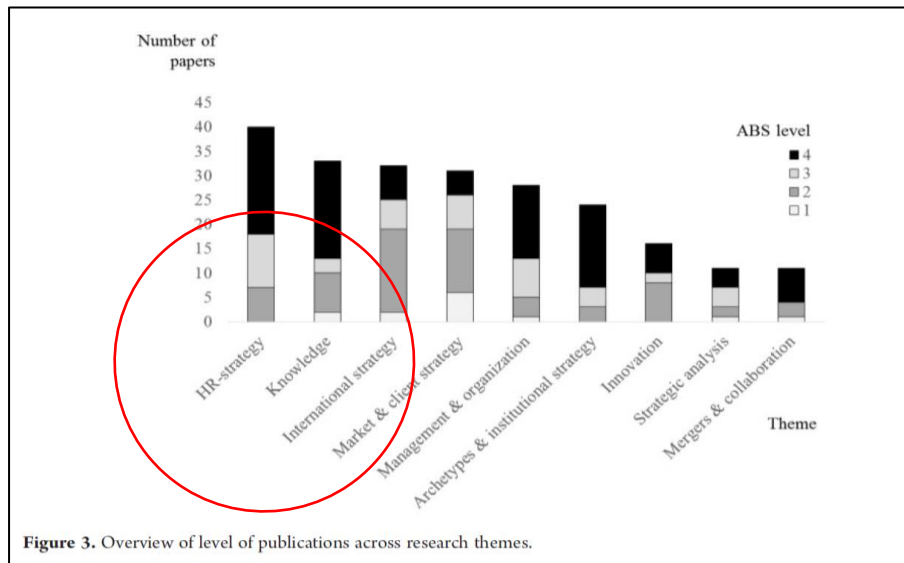
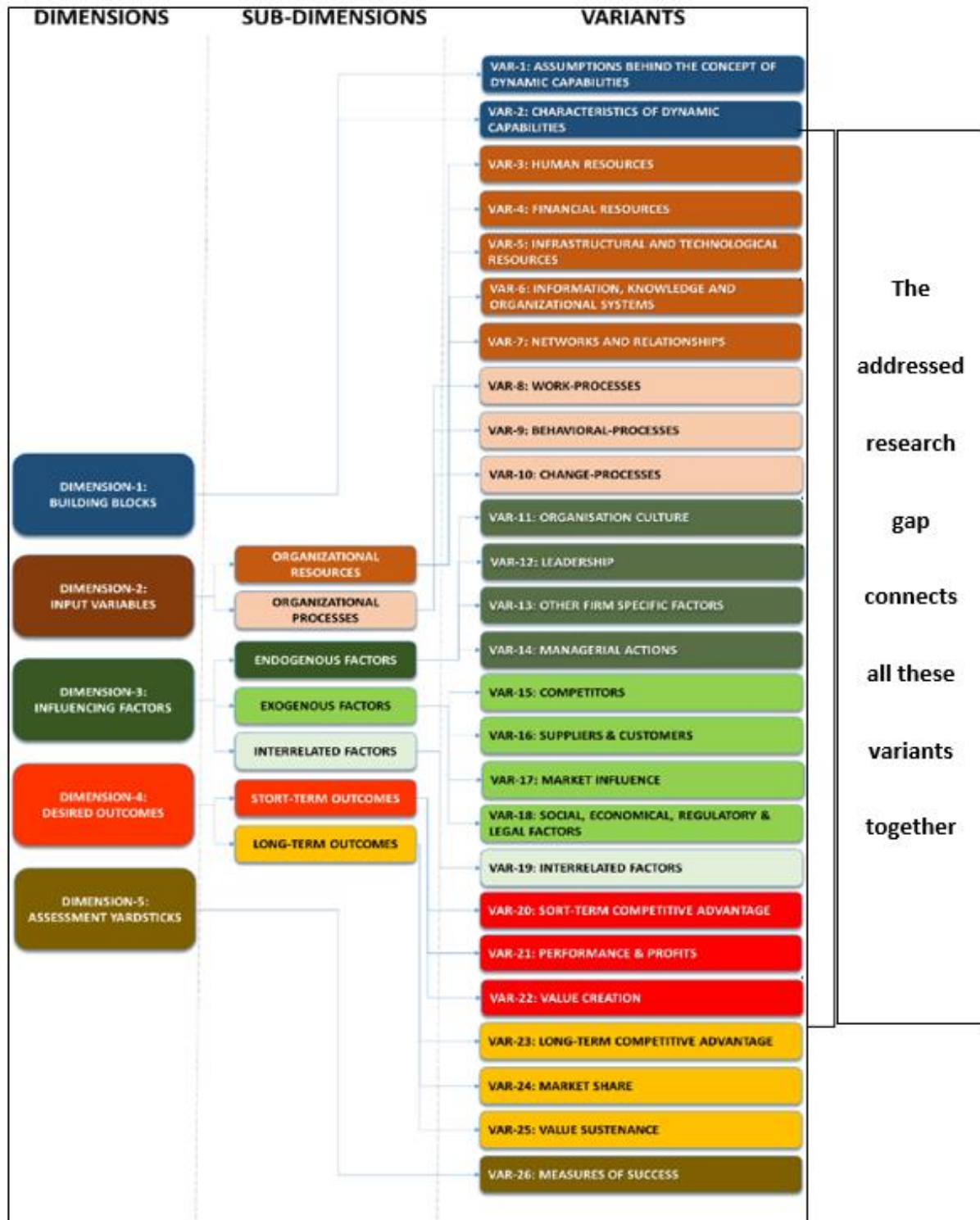


Figure 3. Overview of level of publications across research themes.

(Adopted from Skjølsvik, Perner & Løwendahl 2017).

Appendix (2): Morphological analysis framework.
(Adopted from Vijaya, Ganesh & Rahul 2019).



Appendix (3): Exploratory Factor Analysis for HR Flexibility scales

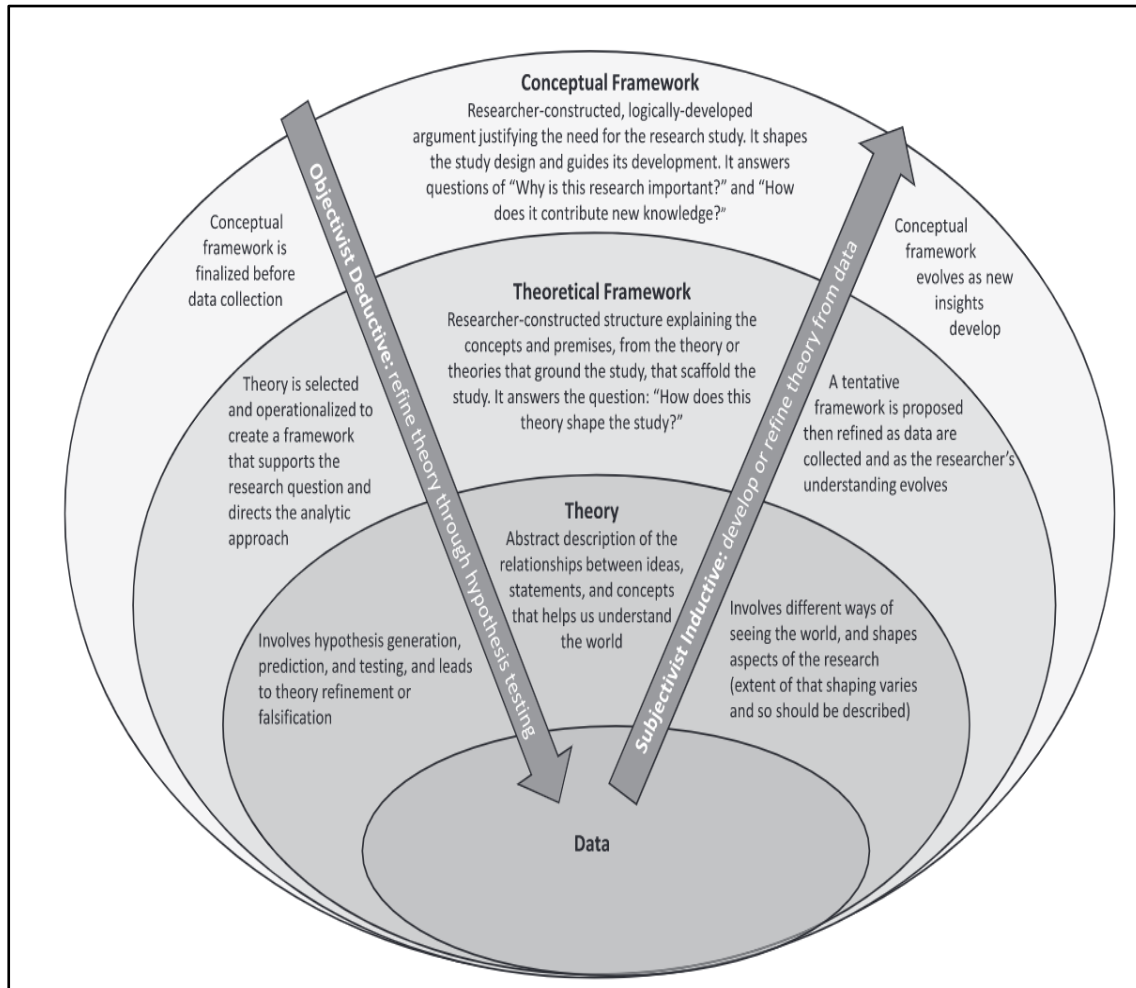
Exploratory Factor Analysis for HR Flexibility Scales

(Skill flexibility = SKF, Behavior flexibility = BEF, HR Practice flexibility = HRPF)

Items	SKF	BEF	HRPF
Our firm can shift employees to different jobs when needed	.80	.08	.12
Our employees can switch to new jobs in our company within a short time	.79	.10	.13
Our employees are capable of putting new skills to use within a short time	.76	.26	.01
Our firm is capable of meeting demand for new skills by retraining or shifting its existing employees	.76	.17	.04
We employ people with a broad variety of skills	.74	.04	.22
Many employees in our firm have multiple skills that are used in various jobs	.71	.15	.17
People in our firm can learn new skills within a short period	.70	.01	.07
The flexibility of our employees' work habits helps us to change according to market demands	.08	.91	.07
People in our firm change their work habits in response to changes in the competitive environment	.09	.85	.03
Our employees respond to changing situations within a short time	.07	.85	.25
People in our firm readily change their work habits as demanded by changes in the working environment	.10	.84	.14
Most of our employees are flexible enough to adjust to dynamic work requirements	.10	.84	.18
Our employees adjust to changing work requirements within a short period	.03	.82	.18
Our employees' response to the changing nature of their jobs helps us remain competitive in the market	.05	.77	.09
People in our firm change their behavior in response to customer requirements	.05	.72	.19
Flexibility of our HR practices helps us to adjust to the changing demands of the environment	.10	.02	.86
Our firm modifies its HR system to keep pace with the changing competitive environment	.07	.06	.85
Our HR practice parameters are designed so that they adjust quickly to changes in business conditions	.10	.11	.85
We make frequent changes in our HR practices to align the HR system with changing work requirements	.09	.03	.82
Changes in our HR practices enable us to remain competitive in the market	.02	.05	.77
Our HR practices adjust meaningfully to changed business scenarios	.06	.07	.76
Our HR practices, as a whole, are flexible	.13	.08	.75
Eigenvalues	2.21	3.48	3.87
Total variance explained by each factor	11%	14%	16%
Cumulative variance explained by the factors	11%	25%	41%

(Adopted from Bhattacharya Gibson & Doty 2005).

Appendix (4): Flow of the reasoning approach



Flow of the reasoning approach for the objectivist deductive and subjectivist inductive approaches to research, adopted form (Varpio et al. 2020, p. 991). (Trochim & Donnelly 2008, p.25).

Appendix (5): Distinction Between Mediator and Moderator.

Table 2 Distinction between mediators and moderators

Concepts/design	Mediator	Moderator
Nature of the variable	A mediator is a state, which is a temporary condition of mentality or mood, transitory level of arousal or drive, and currently evoked activities, behavior, or process <i>Emotionality (i.e., physiological reaction)</i>	A moderator is a trait, which is a relatively stable characteristic, innate attribute, enduring process, or disposition. It can also be a background or contextual variable <i>Subject of the test (e.g., Math) or gender</i>
Function in a causal relationship	A third variable that links a cause and an effect <i>Test difficulty affects emotionality and, in turn, emotionality affects test anxiety</i>	A third variable that modifies a causal effect <i>The effect of test difficulty on test anxiety depends on the subject of the test.</i>
Type of questions	How and why cause leads to effect	For whom and when cause and effect occurs
Analogy	Dominoes	Dimmer switch for lighting
When to model it?	When causal effect is found <i>When the causal relationship between test difficulty and test anxiety is found</i>	When causal effect is found or not found <i>When the causal relationship between test difficulty and test anxiety is not homogeneous for the whole population</i>
Role in a causal relationship	Dual roles: dependent variable for X, independent variable for Y <i>Emotionality is the dependent variable for test difficulty and the independent variable for test anxiety</i>	Single role: auxiliary independent variable for Y <i>Subject of the test is an auxiliary independent variable modifying the effect of test difficulty on test anxiety</i>
Sequence of operation	Follow independent variable and precedes dependent variable <i>Test difficulty precedes emotionality, which precedes test anxiety</i>	Precedes both independent variable and dependent variable <i>Subject of the test precedes test difficulty and test anxiety</i>
Relationship with the independent variable	Correlated with the independent variable <i>Emotionality is correlated with test difficulty</i>	Uncorrelated with the independent variable <i>The subject of test is not correlated with test difficulty (i.e., designing the tests to be equally difficult for math and science before the experiment)</i>
Design control	Manipulated or observed <i>Emotionality can be either measured or manipulated depending on the role and design</i>	Typically observed <i>There is no need to manipulate the subject of the test, the subject of the test is simply observed</i>

Adopted from (Wu & Zumbo 2007, p. 383).

Appendix (6): Study Questionnaire in English and Arabic Language.

Workforce Agility Scale								
مقياس رشاقة القوة العاملة								
Responses to all item's scales were anchored on a seven (7) point Likert scale for each statement, ranging from (7) "Strongly agreement," (6) for "agree," (5) for "somewhat agree," (4) for "Neither agree nor disagree," (3) for "full disagreement", (2) for "Disagree", and (1) for " Strongly disagree". يرجى اختيار الإجابة المناسبة على مقياس ليكرت المكون من سبعة نقاط من 1 – 7 (7 أوافق بشدة) ، 6 (أوافق) ، 5 (أوافق نوعاً ما) ، 4 (محايد) ، 3 (لا أوافق نوعاً ما) ، 2 (لا أوافق) ، 1 (لا أوافق بشدة).								
Proactivity								
الإستباقية								
Scale	المقياس	1	2	3	4	5	6	7
1. Employees in my organization take the initiative in the implementation of activities that improve the work especially when faced with changes in the surrounding environment.	يأخذ الموظفون في مؤسستي زمام المبادرة في تنفيذ الأنشطة التي تعمل على تحسين العمل خاصة عند مواجهة التغيرات في البيئة المحيطة.							
2. Employees in my organization try to solve problems and deal with the crises faced by the company in a creative way.	يحاول الموظفون في مؤسستي حل المشكلات والتعامل مع الأزمات التي تواجهها المؤسسة بطريقة إبداعية.							
3. Employees in my organization looking for ways to help the company to take advantage of the available opportunities to achieve greater success.	يبحث الموظفون في مؤسستي عن طرق لمساعدة المؤسسة على الاستفادة من الفرص المتاحة لتحقيق نجاحات أكبر.							
4. Employees in my organization can predict the problems that the company may face as a result of changes in the environment.								

يستطيع الموظفون في مؤسستي التنبؤ بالمشكلات التي يمكن أن يواجهوها نتيجة التغيير في البيئة.							
Adaptability القدرة على التكيف							
1. Employees in my organization have a high capacity for adaptation that enables me to accept any new responsibilities in my work. لدى الموظفين في مؤسستي القدرة العالية على التكيف مما يمكنهم من تقبل مسؤولياتهم /مهامهم الجديدة في العمل.							
2. Employees in my organization do not mind learning the skills that may be required for new responsibilities in my work. لا مانع لدى الموظفين في مؤسستي من تعلم المهارات المطلوبة للمسؤوليات الجديدة في العمل.							
3. Employees in my organization can work in multiple tasks teamwork. يستطيع الموظفون في مؤسستي من العمل في أنشطة جماعية متعددة المهام.							
4. Employees in my organization have the ability to adapt to the changes that I face in the company and the external لدى الموظفين في مؤسستي القدرة على التكيف مع التغيرات التي يواجهوها في المؤسسة والبيئة الخارجية.							
5. Employees in my organization have adequate professional flexibility that helps me to implement the various tasks within the various teams' work. يتمتع الموظفون في مؤسستي بالمرونة المهنية الكافية التي تساعدهم على تنفيذ المهام المتنوعة ضمن العمل الجماعي المتنوع.							
Resiliency القدرة على التحمل (الصمود)							

1. Employees in my organization accept new ideas and technology at work, and I welcome change in general. يتقبل الموظفون في مؤسستي الأفكار والتكنولوجيا الجديدة في العمل و يرحبوا بالتغيير بصورة عامة.							
2. Employees in my organization do not mind working within an environment of uncertainty, which may prevail in many situations. لا مانع لدى موظفين مؤسستي من العمل في بيئة يكتنفها عدم اليقين مما قد يسود في أوضاع عديدة.							
3. Employees in my organization try to accommodate the different pressures that I face in my job. يحاول الموظفون في مؤسستي أن يستوعبوا الضغوط المختلفة التي أواجهها في عملي .							
4. Employees in my organization accept differences in opinions and understand the different approaches in dealing with business problems. يتقبل الموظفون في مؤسستي الاختلافات في الرأي و يتقنوا الأساليب المتباينة في التعامل مع مشاكل العمل.							
Strategic Agility Scale مقياس الرشاقة الاستراتيجية							
Strategic Sensitivity الحساسية الاستراتيجية							
1. We are very sensitive for external changes (regarding customers, competitors, technologies, etc.) and integrate these into strategic planning of our company. نتميز بالحساسية الشديدة للتغيرات الخارجية (بخصوص المتعاملين والمنافسين والتقنيات ونحو ذلك) كما نعمل على دمجها في التخطيط الاستراتيجي للمؤسسة.							
2. We utilize different mechanisms to become aware of strategic developments early. نستفيد من آليات مختلفة للإطلاع على التطورات الاستراتيجية بصورة مبكرة.							

3. Requirements for strategic adaptations are communicated fast and comprehensively through the organization. ننقل ونوصل متطلبات التكيف الاستراتيجي بسرعة وشمولية في جميع أنحاء المؤسسة.							
Collective Commitment/Leadership Unity الالتزام الجماعي/وحدة القيادة							
1. Our top management team is able to make bold and fast strategic decisions. يستطيع فريق الإدارة العليا اتخاذ قرارات استراتيجية جريئة وسريعة.							
2. Our management board collaborates for strategic decisions. يتعاون مجلس الإدارة من أجل اتخاذ قرارات استراتيجية.							
3. Strategic questions are collectively solved by our management without being bogged down in top-level 'win-lose' politics. تُحل المسائل الاستراتيجية بصورة جماعية من قبل الإدارة دون الخوض في سياسات الربح والخسارة على مستوى القيادة العليا.							
Resource Fluidity سهولة نقل الموارد							
1. We are able to reallocate and utilize capital resources fluidly. يمكننا إعادة تخصيص موارد رأس المال والإستفادة منها بانسيابية.							
2. Our people and their competencies are highly mobile within our organization. يتمتع موظفونا وكفاءاتهم بقدرة كبيرة على الحركة والتنقل ضمن المؤسسة.							
3. Our organizational structure allows for flexible redeployment of our resources. يسمح الهيكل التنظيمي في مؤسستنا بإعادة توزيع الموارد بمرونة.							
Absorptive Capacity Scale							

مقياس الطاقة الإستيعابية							
Acquisition							
الإستحواذ							
Please specify to what extent your company uses external resources to obtain information (e.g., personal networks, consultants, seminars, internet, database, professional journals, academic publications, market research, regulations, and laws concerning environment/technique/health/security): إلى أي مدى تستخدم مؤسستك موارد خارجية للحصول على المعلومات (على سبيل المثال: الشبكات الشخصية والإستشارات والندوات والإنترنت والبيانات والمطبوعات التخصصية والمنشورات الأكاديمية وأبحاث السوق و اللوائح التنظيمية والقوانين المرتبطة بالبيئة والتكنولوجيا والصحة والأمن).							
1. The search for relevant information concerning our industry is every-day business in our company. يعتبر البحث عن معلومات ذات صلة بمجال عملنا نشاط يومي في المؤسسة.							
2. Our management motivates the employees to use information sources within our industry. تدأب إدارتنا على تحفيز الموظفين لاستخدام موارد المعلومات ضمن نفس المجال.							
3. Our management expects that the employees deal with information beyond our industry. تتوقع إدارتنا من الموظفين التعامل مع المعلومات خارج المجال.							
Assimilation							
الاندماج							
Please rate to what extent the following statements fit the communication structure in your company: إلى أي مدى تتوافق العبارات التالية مع هيكل التواصل في مؤسستكم.							
1. In our company performance updates, ideas and concepts are communicated cross-departmental. يتم نقل تطورات الأداء و الأفكار والمفاهيم بين جميع إدارات وأقسام المؤسسة.							

2. Our management emphasizes cross-departmental support to solve problems. تؤكد إدارتنا على الدعم المشترك فيما بين الإدارات لحل المشكلات.							
3. In our company 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. يوجد تدفق سريع للمعلومات في مؤسستنا. على سبيل المثال تحصل وحدات العمل لدينا على المعلومات المهمة وتبادر بنقلها على الفور إلى الوحدات أو الإدارات الأخرى.							
4. Our management demands periodical cross-departmental meetings to interchange new developments, problems, and achievements. تطلب الإدارة عقد اجتماعات دورية بين الإدارات والأقسام لتبادل التطورات والمشكلات والإنجازات.							
Transformation التحول							
Please specify to what extent the following statements fit the knowledge processing in your company: إلى أي مدى تتوافق العبارات التالية مع معالجة المعرفة في مؤسستكم.							
1. Our employees have the ability to structure and to use collected knowledge. يستطيع موظفونا هيكلة المعرفة المكتسبة واستخدامها.							
2. Our employees are used to absorb new knowledge as well as to prepare it for further purposes and to make it available. يُستفاد من موظفينا في اكتساب المعارف الجديدة وإعدادها لأغراض إضافية وإتاحتها للاستخدام.							
3. Our employees successfully link existing knowledge with new insights. ينجح موظفونا في ربط المعرفة الحالية بالأفكار والرؤى الجديدة.							

4. Our employees are able to apply new knowledge in their practical work. بوسع موظفونا تطبيق المعارف الجديدة في عملهم.							
Exploitation الاستثمار/الاستغلال							
Please specify to what extent the following statements fit the commercial exploitation of new knowledge in your company (Please think about all company divisions such as R&D, production, marketing, and accounting): إلى أي مدى تتوافق العبارات التالية مع الاستثمار (الإستغلال) التجاري للمعارف الجديدة في مؤسستكم (يرجى أخذ جميع أقسام المؤسسة في الاعتبار مثل التجزئة و التوزيع والإنتاج والتسويق والمحاسبة).							
1. Our management supports the development of prototypes. تدعم إدارتنا تطوير نماذج أولية.							
2. Our company regularly reconsiders technologies and adapts them accordant to new knowledge. تعيد إدارتنا النظر في التقنيات المستخدمة وتكيفها مع المعرفة الجديدة بصورة منتظمة.							
3. Our company has the ability to work more effective by adopting new technologies. 4. تمتلك المؤسسة القدرة على العمل بكفاءة أكبر باعتماد تقنيات جديدة.							
Dynamic Talent management Scale. المقياس الديناميكي لإدارة المواهب.							
Please specify to what extent your company constantly adopts the following talent management practices as a consistent organizational and strategic routines. اذكر إلى أي مدى تتبنى مؤسستكم باستمرار الممارسات التالية لإدارة المواهب كإجراءات تنظيمية واستراتيجية روتينية Responses to all item's scales were anchored on a seven (7) point Likert scale for each statement, ranging from (7) "Strongly agreement," (6) for "agree," (5) for "somewhat agree," (4) for "Neither agree nor disagree," (3) for "full disagreement", (2) for "Disagree", and (1) for "Strongly disagree". يرجى اختيار الإجابة المناسبة على مقياس ليكرت المكون من سبعة نقاط من 1 – 7 (7 أوافق بشدة) ، 6 (أوافق) ، 5 (أوافق نوعاً ما) ، 4 (محايد) ، 3 (لا أوافق نوعاً ما) ، 2 (لا أوافق) ، 1 (لا أوافق بشدة).							
<u>Talent Attraction and Selection.</u>							
استقطاب المواهب واختيارها							
Scale	1	2	3	4	5	6	7
المقياس							

1. My company identifies the critical positions aligned with business strategies. تحدد مؤسستي الوظائف الحساسة المتوائمة مع استراتيجيات العمل.						
2. My company builds up talent pool in the organization. تبني مؤسستي مخزوناً للمواهب في المؤسسة.						
3. My company differentiates the identified talent on the basis of their contribution levels. تميز مؤسستي بين المواهب المحددة استناداً إلى مستويات مساهماتها.						
4. My company identifies the talent that makes maximum impact on organization success. تحدد مؤسستي المواهب التي تحدث أكبر تأثير على نجاح المؤسسة.						
<u>Talent Training and Development</u> <u>تدريب المواهب و تطويرها</u>						
1. The training activities for the identified talent are focused on required competencies. تركز الأنشطة التدريبية للمواهب المحددة على الكفاءات المطلوبة.						
2. The training activities for identified talent are implemented continuously. تطبق الأنشطة التدريبية للمواهب المحددة بصورة مستمرة.						
3. The content of the training activities for the identified talent are based on job performance. يستند محتوى الأنشطة التدريبية الخاصة بالمواهب المحددة إلى الأداء الوظيفي.						
4. The training activities for the identified talent require time and extensive financial resources.						

تتطلب الأنشطة التدريبية الخاصة بالمواهب الوقت والموارد المالية الكبيرة.							
5. The training activities for the identified talent are designed to develop firm-specific skills/knowledge. تصمم الأنشطة التدريبية الخاصة بالمواهب لتطوير المهارات و المعارف الخاصة بالمؤسسة.							
6. Training activities for the identified talent are in line with assigned critical tasks. تتوافق الأنشطة التدريبية الخاصة بالمواهب مع المهام الحيوية المسندة.							
7. Development needs are identified for talent. تُحدّد الإحتياجات التطويرية للمواهب.							
8. Identified talent have many opportunities for upward mobility. تتضمن المواهب المحددة العديد من الفرص للتطور والإرتقاء.							
9. Talents have clear career paths in this organization. تنطوي المواهب على مسارات وظيفية واضحة في المؤسسة.							
10. Talents have more than one avenue for promotion. تمتلك المواهب أكثر من سبيل للترقية.							
11. Developmental activities include feedback on developmental growth agenda for the identified talents. تتضمن الأنشطة التطويرية ردود تقييمية بشأن أجندة التطوير للمواهب المحددة.							
<u>Talent Retention</u> <u>الإحتفاظ بالمواهب</u>							
1. My company provides recognition, e.g., financial recognition such as cash, paid travel, incentive bonus/variable pay, etc. تقدم مؤسستي التقدير، على سبيل المثال التقدير المالي							

مثل المبالغ النقدية والسفر المدفوع والحوافز الأجور المتغيرة ونحو ذلك.							
2. My supervisor discusses and provides meaningful and helpful feedback on job performance. يقدم مديري الملاحظات المفيدة والهادفة عن الأداء الوظيفي ويناقشها معي.							
3. My company values my work and contribution. تقدر مؤسستي عملي ومساهماتي.							
4. I believe that my company has a fair and just system of rewarding employees. أعتقد أن مؤسستي تمتلك نظاماً عادلاً ومنصفاً لمكافأة الموظفين							
5. My company sets challenging targets in my job. تضع مؤسستي لي أهدافاً وظيفية صعبة.							
6. I have supportive and likeminded colleagues. لدي زملاء عمل داعمين ومشابهين في الميول والأفكار.							
7. My company supports a balanced lifestyle (between my work and personal life). تقدم مؤسستي الدعم للتمتع بأسلوب حياة متوازن (بين العمل والحياة الشخصية).							
8. My company encourages and organizes team building or other social networking activities among employees. تشجع مؤسستي على بناء وتنظيم الفرق وأنشطة الشبكات الإجتماعية بين الموظفين.							
9. My company provides a competitive pay package (i.e., basic salary plus benefits, allowances or variable pay). توفر مؤسستي حُزم تنافسية للرواتب والحوافز (الراتب الأساسي والمزايا والبدلات أو دفعات متغيرة).							
10. My company provides medical aid, retirement, and pension benefits.							

توفر مؤسستي الدعم الطبي والتقاعد والمعاشات التقاعدية.						
11. My company provides recognition via nonfinancial means, e.g., certificates of recognition. تقدم مؤسستي التقدير غير المالي مثل شهادات التقدير و نحو ذلك.						

Adaptive Organizational Culture Scale

مقياس الثقافة المؤسسية التكيفية

Please read the following profile carefully and thoroughly. Then rate the profile on the following characteristics.

يرجى قراءة التوصيف التالي بعناية وشمولية. ثم قيّمه وفقاً للمواصفات التالية:

1. **External Focus.** The organization pays attention to its external environments, especially its customers . The organization is able to read and interpret signals from their environments.

1. التركيز الخارجي. تركز المؤسسة على بيئتها الخارجية، وخصوصاً عملاءها. تستطيع المؤسسة قراءة وتفسير الإشارات الواردة من بيئاتهم.

“Ignores environmental criticism of products/services” تتجاهل النقد البيئي للمنتجات /الخدمات		Aware of a limited supply issue and notifies customers تدرك مشكلة العرض المحدود وتخطر العملاء			“Gets an outside viewpoint in order to identify and understand a problem” تحصل على وجهة نظر خارجية من أجل تحديد وفهم المشكلة	
1	2	3	4	5	6	7

2. **Anticipation.** The organization proactively works to identify internal and external problems; the organization is able to anticipate future problems or environment changes.

2. التنبؤ. تعمل المؤسسة بشكل استباقي لتحديد المشكلات الداخلية و الخارجية ، المؤسسة قادرة على التنبؤ بالمشكلات المستقبلية والتغيرات البيئية

“Competitors in their field make cuts in their prices due to an economic downturn but the organization does not” يخفض المنافسون في مجالاتهم الأسعار بسبب الإنكماش الاقتصادي ، غير أن مؤسستي لا تفعل ذلك		“Considers customer reactions to a new product before it hits the market” تأخذ بعين الاعتبار ردود أفعال المتعاملين للمنتج الجديد قبل توفره في الأسواق			“Anticipates a large market demand for a new product” تتنبأ بالطلب الكبير للمنتج الجديد في الأسواق	
1	2	3	4	5	6	7

3. **Open to Change.** The organization is receptive to innovation, change, and new ideas. The organization is flexible; it does not feel that it is bound by particular rules and procedures for carrying out its business.

3. الانفتاح على التغيير. المؤسسة منفتحة على الابتكار والتغيير والأفكار الجديدة. تتمتع المؤسسة بالمرونة. لا تشعر بأن المؤسسة مقيدة أو ملزمة بقواعد و إجراءات معينة لتنفيذ أعمالها.

Is rigid; unwilling to make changes to business practices صارمة: لا ترغب بإحداث تغييرات على ممارسات العمل			Is willing to make modifications to products as long as the organization sees a demand for it مستعدة لإجراء تعديلات على منتجاتها ما دامت قد رأت ضرورة لذلك		Dedicated to improving existing products, even successful ones, and developing new ones ملتزمة بتحسين المنتجات الحالية بما في ذلك المنتجات الناجحة و تطوير منتجات جديدة	
1	2	3	4	5	6	7

Adaptive Culture Scale

4. **Confidence.** The organization believes that it has the ability to change.

4. الثقة. تؤمن المؤسسة بقدرتها على التغيير

Fears change will lead to failure تخشى من أن التغيير سيؤدي إلى الفشل			Believes that the organizations will be successful تؤمن بأن المؤسسة ستحقق النجاح		Believes the future of the organization is limitless تؤمن بأن مستقبل المؤسسة لا حدود له	
1	2	3	4	5	6	7

5. **Development of Capabilities.** The organization develops the capacity to handle environmental situations.

5. تطوير القدرات. تطور المؤسسة القدرة على معالجة الأوضاع البيئية.

Possesses little available money to develop new capabilities تمتلك القليل من المال المتوفر لتطوير قدرات جديدة			Attracts and hires qualified employees in the field تستقطب وتوظف موظفين مؤهلين في المجال		Develops a training program or apprenticeship program to teach employees new, critical skills to deal with future needs تطور برامج تدريبية أو برامج تدريب مهني لتعليم الموظفين مهارات أساسية جديدة للتعامل مع الاحتياجات المستقبلية	
1	2	3	4	5	6	7

6. **Collaborative Action Planning.** The organization enables collaboration between business units that allow it to proactively and reactively develop solutions to problems.

6. التخطيط التعاوني للعمل. تتيح المؤسسة إمكانية التعاون بين وحدات العمل بما يسمح لها بتطوير حلول استباقية وتفاعلية للمشكلات.

Business units are segmented with little communication or collaboration occurring between units وحدات العمل منفصلة عن بعضها مع القليل من التواصل أو التعاون بينها			Organization's departments work together to develop plans for how to deal with problems تعمل إدارات المؤسسة مع بعضها بعضا لتطوير خطط التعامل مع المشكلات		Conducts intra-organizational research to determine how to make a product distinctive in the industry تقوم المؤسسة بأبحاث داخلية لتحديد كيفية جعل المنتج مميزا	
1	2	3	4	5	6	7

7. **Executing Change.** The organization is able to implement adaptive change.

7. إحداث التغيير. المؤسسة قادرة على إحداث (تنفيذ) التغيير التكيفي

Fails to develop new products or services in changing environments عاجزة عن تطوير منتجات أو خدمات جديدة في بيئة متغيرة			Implements a new change تحدث تغييرات جديدة		Organizations implement new work process ahead of schedule and under budget تطبق المؤسسة إجراءات عمل جديدة قبل الموعد المحدد وضمن الميزانية المخصصة	
1	2	3	4	5	6	7

8. **Sustaining Change.** The organization is able to sustain the change by creating systems that reinforce the change.

8. استدامة (مواصلة) التغيير. المؤسسة قادرة على استدامة التغيير من خلال إنشاء أنظمة تعزز التغيير

Organizational policies do not reinforce the change and the organization goes back to its old			Creates a culture and system that views jobs as a career in order to retain employees		The organization works with external entities to enact policies that benefit them in the long run	
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ways سياسات المؤسسة لا تدعم التغيير وبالتالي تعود المؤسسة إلى نهجها القديم			توجد المؤسسة ثقافة ونظاما ينظر إلى الوظائف بوصفها مساراً مهنيًا من أجل الحفاظ على الموظفين		تعمل المؤسسة مع أطراف خارجية لتشريع سياسات تنفعها على المدى الطويل	
1	2	3	4	5	6	7

9. To what extent is the organization facing significant changes in its industry or environment?
9. إلى أي مدى تواجه المؤسسة تغييرات كبيرة في صناعتها أو بيئتها؟

Not at all لا توجه أية تغييرات					A great extent إلى حد كبير	
1	2	3	4	5	6	7

If so, briefly describe the changes in the environment that the organization may be facing
إذا كان الأمر كذلك، صف بإيجاز التغييرات التي قد تواجهها المؤسسة في بيئتها

Demographics Details			
What is your gender?	☐ Male	☐ Female	
What is your age?	☐ Under 18 years old ☐ 18 – 24 years old ☐ 25 – 34 years old	☐ 35 – 44 years old ☐ 45 – 54 years old	☐ 55 – 64 years old ☐ 65 and above.
What is your marital status?	☐ Single ☐ Married	☐ Widowed ☐ Divorced	☐ Separated ☐ Other
What is the highest educational degree you have completed?	☐ Less than high school or secondary school degree ☐ High school or secondary school degree	☐ Bachelor's degree ☐ Master's degree or diploma	☐ Doctorate ☐ Other
How many years of experience?	☐ Less 5 ☐ 5 – 10	☐ 11 – 15 ☐ 16 and above	
What is the approximate total number of employees?	☐ 1 - 49 ☐ 50 - 999	☐ 1,000 - 4,999 ☐ 5,000 or more	☐ Don't know ☐ Other
Which of the following best describes your role in industry?	☒ Upper Management	☐ Trained Professional	
	☐ Middle Management	☐ Skilled Laborer	
	☐ Junior Management	☐ Consultant	
	☐ Administrative Staff	☐ Temporary Employee	

	☐ Support Staff	☐ Researcher	
	☐ Student	☐ Self-employed/Partner	
	☐ Other		
Which of the following categories best describes the organization you primarily work in?	☐ Service Organization ☐ Product Provider organization	☐ Both product and service ☐ Others	

Appendix (7): Strategic Agility Scale Suggested by Tallon and Pinsonneault (2011).

How easily and quickly can your firm perform the following actions? (1: Do not agree; 7: Agree completely)

Respond to changes in aggregate consumer demand.

Customize a product or service to suit an individual customer.

React to new product or service launches by competitors.

Introduce new pricing schedules in response to changes in competitors' prices.

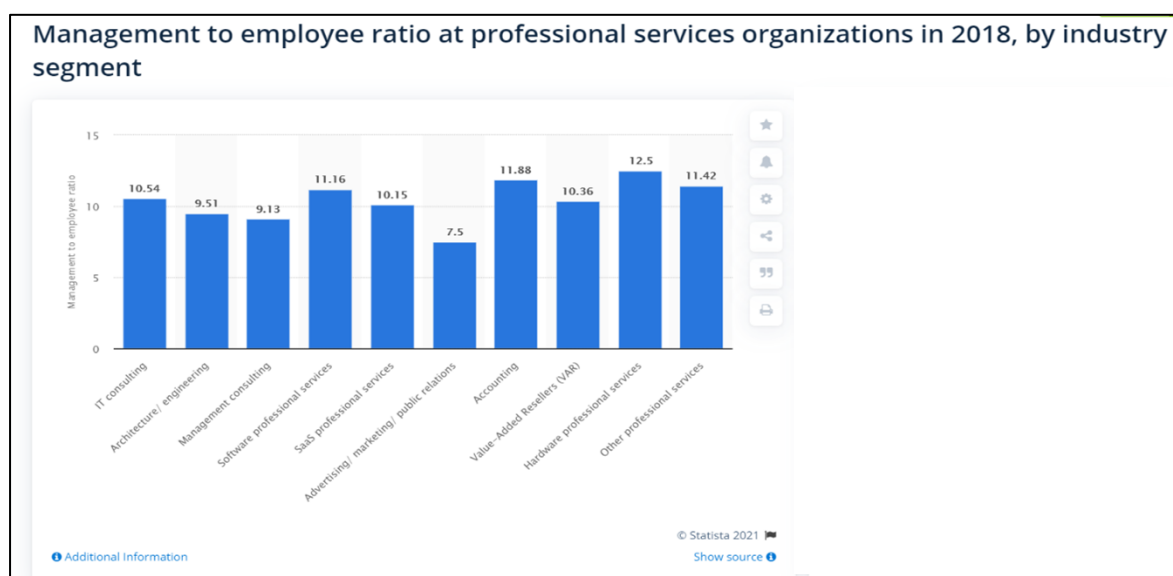
Expand into new regional or international markets.

Change (i.e., expand or reduce) the variety of products / services available for sale.

Adopt new technologies to produce better, faster and cheaper products and services.

Switch suppliers to avail of lower costs, better quality or improved delivery times.

Appendix (8): Management to Employee Ratio in Management Consulting Firms.



Appendix (9): Respondent Consent Form.

Thank you in advance for taking part in this research, your participation is highly valuable for enriching theory and practice.

Research Title: Envisioning Workforce Agility through Dynamic Talent Management Capabilities: Moderated Mediated Model.

Researcher: Nour Hussein Tawfeeq Shakhour.

Researcher Contact Details: nour_damj@hotmail.com.

Institutional Contact Details: The British University of Dubai (BUID), Professor Dr. Bader Yousef Bader Obeidat, bader.obeidat@buid.ac.ae.

Research Objective: the objective if this research study is to investigate the possible enablers of workforce agility (flexibility) in terms of the different organizational resources, including talent management, knowledge, and strategic capabilities. Additionally, the research aims at testing the impact of flexible and adaptive organizational culture on the other relationship within the proposed model.

Risks: there are no known risks, harms, or discomforts associate with this study.

Confidentiality: Your responses are completely anonymous. No personal identifying information or IP addresses will be collected. Data will be aggregated via the “Google Forms” the surveys platform.

Voluntary Participation and Authorization: Your decision to participate in this study is completely voluntary, and you can withdraw at any point if they choose not to continue.

I voluntarily agree to participate in this research study:

☐ Yes

☐ No

Appendix (10): Research Ethics Form.

Research Ethics Form Research Candidate Self-Assessment

Application for Approval of Research Activity involving Human Participants, Human Data, or Human 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 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 at least any one of the high-risk statements, then your research is High Risk. If you answer 'Yes' to at least 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

Research Candidate Name	Nour Hussein Tawfeeq Shakhour
Faculty/Programme	PhD in Business Management
Research Candidate Contact Number	0505263754
Research Candidate Email	20192303@student.buid.ac.ae
Research Type	☐ Research Project ☒ Doctoral/Masters Research ☐ Module Assignment
Research Title	Envisioning Workforce Agility through Dynamic Talent Management Capabilities: Moderated Mediated Model.
Submission Date	23 March 2021
Submitted to (Name)	☐ Faculty Nominated Member (Research Projects):

	☒ Director of Studies (Doctoral Research): ☐ Dissertation Supervisor (Masters Research): ☐ Module Coordinator (Module Assignment):
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II. Research Ethics Details

Background and rationale for study (This should be sufficient to justify the proposed research). Aims and objectives of the research (or the research question/s) and Potential benefits of proposed research: Limit to 500 words
In an attempt to contribute to the knowledge pertaining to the organizational agility paradigm, it is vitally important to understand how organizations can achieve workforce agility, particularly within the context of KBO, since workforce is the bedrock of a successful organization. Accordingly, the study aims to examine how the dynamic talent management capabilities can contribute to the achievement of workforce agility through the mediating effect of strategic agility and absorptive capacity, as both are dynamic organizational capabilities. Moreover, the research is intended to understand the moderating impact of organizational culture on across all the addressed relationships within this study. The central research question for this research study is to what extent do the following dimensions of dynamic talent management capabilities that emphasize (attracting and recruiting talent, identifying and differentiating talent, utilizing talent, developing talent, maintaining a positive relationship with talent, and talent retention) when considered as a comprehensive system influence workforce agility dimensions ? While the investigative research questions are: - To what extent do the following dimensions of dynamic talent management capabilities that emphasize (Talent attraction, Talent selection, Talent development, and Talent retention) when considered as a comprehensive system influence strategic agility dimensions (leadership unity, strategic sensitivity, and resource fluidity)? - To what extent do the following dimensions of dynamic talent management capabilities that emphasize (Talent attraction, Talent selection, Talent development, and Talent retention) when considered as a comprehensive system influence absorptive capacity? - To what extent do the following dimensions of dynamic talent management capabilities that emphasize (Talent attraction, Talent selection, Talent development, and Talent retention) when considered as a comprehensive system influence workforce agility? - To what extent do strategic agility mediate the relationship between dynamic talent management capabilities and workforce agility? - To what extent do absorptive capacity mediate the relationship between dynamic talent management capabilities and workforce agility?

Main Ethical Consideration(s) of the Research

(The ethical matters your research may involve)

There are no known risks, harms, or discomforts associate with this study.

- The proposed target sample consists of educated adult who are knowledge workers holding managerial position within KBOs, accordingly response bias is less likely to happen since the sample does not include young (children), low education level, or from minority population.
- Social validity was maintained by asking and propping into the “so what” aspects when trying to formulate the initial research idea rather than “it is interesting, or no one has studied this before”.
- This research study considers workforce agility as a visible agile performance or behaviors exhibited at the workplace, and not as an agile personality, dispositions, or traits, accordingly, none of the questionnaire items asks about any personal or private attributes it is all about general organizational (not about the individual employee filling the survey) adaptations features.

Methods of data collection:

Please outline in detail how data will be collected and **attach a copy of any questionnaires, interview schedules or observation guidelines** to be used. Limit = 400 words.

This research study will use electronic online survey, in which google forms is the planned platform where the invitations to answer the survey will be sent to the target sample through posting a link in various social media networks such as Linked, in addition to emails. Below is a copy of the questionnaire for all the five constructs under study.

Workforce Agility Scale

مقياس رشاقة القوة العاملة

Responses to all item's scales were anchored on a seven (7) point Likert scale for each statement, ranging from (7) “Strongly agreement,” (6) for “agree,” (5) for “somewhat agree,” (4) for “Neither agree nor disagree,” (3) for “full disagreement”, (2) for “Disagree”, and (1) for “Strongly disagree”.

يرجى اختيار الإجابة المناسبة على مقياس ليكرت المكون من سبعة نقاط من 1 – 7 (7 أوافق بشدة) ، 6 (أوافق) ، 5 (أوافق نوعاً ما) ، 4 (محايد) ، 3 (لا أوافق نوعاً ما) ، 2 (لا أوافق) ، 1 (لا أوافق بشدة) .

Proactivity

الإستباقية

Scale

المقياس

1 2 3 4 5 6 7

5. Employees in my organization take the initiative in the implementation of activities that improve the work especially when faced with changes in the surrounding environment.

يأخذ الموظفون في مؤسستي زمام المبادرة في تنفيذ

الأنشطة التي تعمل على تحسين العمل خاصة عند مواجهة التغيرات في البيئة المحيطة.							
6. Employees in my organization try to solve problems and deal with the crises faced by the company in a creative way. يحاول الموظفون في مؤسستي حل المشكلات والتعامل مع الأزمات التي تواجهها المؤسسة بطريقة إبداعية.							
7. Employees in my organization looking for ways to help the company to take advantage of the available opportunities to achieve greater success. يبحث الموظفون في مؤسستي عن طرق لمساعدة المؤسسة على الاستفادة من الفرص المتاحة لتحقيق نجاحات أكبر.							
8. Employees in my organization can predict the problems that the company may face as a result of changes in the environment. يستطيع الموظفون في مؤسستي التنبؤ بالمشكلات التي يمكن أن يواجهوها نتيجة التغير في البيئة.							
Adaptability القدرة على التكيف							
6. Employees in my organization have a high capacity for adaptation that enables me to accept any new responsibilities in my work. لدى الموظفون في مؤسستي القدرة العالية على التكيف مما يمكنهم من تقبل مسؤولياتهم /مهامهم الجديدة في العمل.							
7. Employees in my organization do not mind learning the skills that may be required for new responsibilities in my work. لا مانع لدى الموظفون في مؤسستي من تعلم المهارات المطلوبة للمسؤوليات الجديدة في العمل.							
8. Employees in my organization can work in multiple tasks teamwork.							

يستطيع الموظفون في مؤسستي من العمل في أنشطة جماعية متعددة المهام.							
9. Employees in my organization have the ability to adapt to the changes that I face in the company and the external لدى الموظفين في مؤسستي القدرة على التكيف مع التغيرات التي يواجهونها في المؤسسة والبيئة الخارجية.							
10. Employees in my organization have adequate professional flexibility that helps me to implement the various tasks within the various teams' work. يتمتع الموظفون في مؤسستي بالمرونة المهنية الكافية التي تساعدهم على تنفيذ المهام المتنوعة ضمن العمل الجماعي المتنوع.							
Resiliency القدرة على التحمل (الصمود)							
5. Employees in my organization accept new ideas and technology at work, and I welcome change in general. يتقبل الموظفون في مؤسستي الأفكار والتكنولوجيا الجديدة في العمل و يرحبوا بالتغيير بصورة عامة.							
6. Employees in my organization do not mind working within an environment of uncertainty, which may prevail in many situations. لا مانع لدى موظفين مؤسستي من العمل في بيئة يكتنفها عدم اليقين مما قد يسود في أوضاع عديدة.							
7. Employees in my organization try to accommodate the different pressures that I face in my job. يحاول الموظفون في مؤسستي أن يستوعبوا الضغوط المختلفة التي أواجهها في عملي .							
8. Employees in my organization accept differences in opinions and understand the different approaches in dealing with business problems. يتقبل الموظفون في مؤسستي الاختلافات في الرأي و يتفهموا الأساليب المتباينة في التعامل مع مشاكل العمل.							

Strategic Agility Scale مقياس الرشاقة الاستراتيجية							
Strategic Sensitivity الحساسية الاستراتيجية							
4. We are very sensitive for external changes (regarding customers, competitors, technologies, etc.) and integrate these into strategic planning of our company. نتميز بالحساسية الشديدة للتغيرات الخارجية (بخصوص المتعاملين والمنافسين والتقنيات ونحو ذلك) كما نعمل على دمجها في التخطيط الاستراتيجي للمؤسسة.							
5. We utilize different mechanisms to become aware of strategic developments early. نستفيد من آليات مختلفة للإطلاع على التطورات الاستراتيجية بصورة مبكرة.							
6. Requirements for strategic adaptations are communicated fast and comprehensively through the organization. ننقل ونوصل متطلبات التكيف الاستراتيجي بسرعة وشمولية في جميع أنحاء المؤسسة.							
Collective Commitment/Leadership Unity الالتزام الجماعي/وحدة القيادة							
4. Our top management team is able to make bold and fast strategic decisions. يستطيع فريق الإدارة العليا اتخاذ قرارات استراتيجية جريئة وسريعة.							
5. Our management board collaborates for strategic decisions. يتعاون مجلس الإدارة من أجل اتخاذ قرارات استراتيجية.							
6. Strategic questions are collectively solved by our management without being bogged down in top-level 'win-lose' politics. تُحل المسائل الاستراتيجية بصورة جماعية من قبل الإدارة دون الخوض في سياسات الربح والخسارة على							

مستوى القيادة العليا.							
Resource Fluidity سهولة نقل الموارد							
4. We are able to reallocate and utilize capital resources fluidly. يمكننا إعادة تخصيص موارد رأس المال والإستفادة منها بانسيابية.							
5. Our people and their competencies are highly mobile within our organization. يتمتع موظفونا وكفاءاتهم بقدرة كبيرة على الحركة والتنقل ضمن المؤسسة.							
6. Our organizational structure allows for flexible redeployment of our resources. يسمح الهيكل التنظيمي في مؤسستنا بإعادة توزيع الموارد بمرونة.							
Absorptive Capacity Scale مقياس الطاقة الإستيعابية							
Acquisition الإستحواذ							
Please specify to what extent your company uses external resources to obtain information (e.g., personal networks, consultants, seminars, internet, database, professional journals, academic publications, market research, regulations, and laws concerning environment/technique/health/security): إلى أي مدى تستخدم مؤسستك موارد خارجية للحصول على المعلومات (على سبيل المثال: الشبكات الشخصية والإستشارات والندوات والإنترنت والبيانات والمطبوعات التخصصية والمنشورات الأكاديمية وأبحاث السوق واللوائح التنظيمية والقوانين المرتبطة بالبيئة والتكنولوجية والصحة والأمن).							
4. The search for relevant information concerning our industry is every-day business in our company. يعتبر البحث عن معلومات ذات صلة بمجال عملنا نشاط يومي في المؤسسة.							
5. Our management motivates the employees to use information sources within our industry. تدأب إدارتنا على تحفيز الموظفين لاستخدام موارد							

المعلومات ضمن نفس المجال.							
6. Our management expects that the employees deal with information beyond our industry. تتوقع إدارتنا من الموظفين التعامل مع المعلومات خارج المجال.							
Assimilation الاندماج							
Please rate to what extent the following statements fit the communication structure in your company: إلى أي مدى تتوافق العبارات التالية مع هيكل التواصل في مؤسستكم.							
5. In our company performance updates, ideas and concepts are communicated cross-departmental. يتم نقل تطورات الأداء و الأفكار والمفاهيم بين جميع إدارات وأقسام المؤسسة.							
6. Our management emphasizes cross-departmental support to solve problems. تؤكد إدارتنا على الدعم المشترك فيما بين الإدارات لحل المشكلات.							
7. In our company 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. يوجد تدفق سريع للمعلومات في مؤسستنا. على سبيل المثال تحصل وحدات العمل لدينا على المعلومات المهمة وتبادر بنقلها على الفور إلى الوحدات أو الإدارات الأخرى.							
8. Our management demands periodical cross-departmental meetings to interchange new developments, problems, and achievements. تطلب الإدارة عقد اجتماعات دورية بين الإدارات والأقسام لتبادل التطورات والمشكلات والإنجازات.							
Transformation التحول							

Please specify to what extent the following statements fit the knowledge processing in your company:							
إلى أي مدى تتوافق العبارات التالية مع معالجة المعرفة في مؤسستكم.							
5. Our employees have the ability to structure and to use collected knowledge. يستطيع موظفونا هيكلة المعرفة المكتسبة واستخدامها.							
6. Our employees are used to absorb new knowledge as well as to prepare it for further purposes and to make it available. يُستفاد من موظفينا في اكتساب المعارف الجديدة وإعدادها لأغراض إضافية وإتاحتها للاستخدام.							
7. Our employees successfully link existing knowledge with new insights. ينجح موظفونا في ربط المعرفة الحالية بالأفكار والرؤى الجديدة.							
8. Our employees are able to apply new knowledge in their practical work. بوسع موظفونا تطبيق المعارف الجديدة في عملهم.							
Exploitation الاستثمار/الاستغلال							
Please specify to what extent the following statements fit the commercial exploitation of new knowledge in your company (Please think about all company divisions such as R&D, production, marketing, and accounting): إلى أي مدى تتوافق العبارات التالية مع الاستثمار (الإستغلال) التجاري للمعارف الجديدة في مؤسستكم (يرجى أخذ جميع أقسام المؤسسة في الاعتبار مثل التجزئة و التوزيع والإنتاج والتسويق والمحاسبة).							
5. Our management supports the development of prototypes. تدعم إدارتنا تطوير نماذج أولية.							
6. Our company regularly reconsiders technologies and adapts them accordant to new knowledge. تعيد إدارتنا النظر في التقنيات المستخدمة وتكيفها مع المعرفة الجديدة بصورة منتظمة.							
7. Our company has the ability to work more effective by adopting new technologies.							

8. تمتلك المؤسسة القدرة على العمل بكفاءة أكبر باعتماد تقنيات جديدة.							
Dynamic Talent management Scale. المقياس الديناميكي لإدارة المواهب							
Please specify to what extent your company constantly adopts the following talent management practices as a consistent organizational and strategic routines. اذكر إلى أي مدى تتبنى مؤسستكم باستمرار الممارسات التالية لإدارة المواهب كإجراءات تنظيمية واستراتيجية مروتينية							
<u>Talent Attraction and Selection.</u> استقطاب المواهب واختيارها							
Scale	1	2	3	4	5	6	7
المقياس							
5. My company identifies the critical positions aligned with business strategies. تحدد مؤسستي الوظائف الحساسة المتوائمة مع استراتيجيات العمل.							
6. My company builds up talent pool in the organization. تبني مؤسستي مخزوناً للمواهب في المؤسسة.							
7. My company differentiates the identified talent on the basis of their contribution levels. تميز مؤسستي بين المواهب المحددة استناداً إلى مستويات مساهماتها.							
8. My company identifies the talent that makes maximum impact on organization success. تحدد مؤسستي المواهب التي تحدث أكبر تأثير على نجاح المؤسسة.							
<u>Talent Training and Development</u> تدريب المواهب و تطويرها							
12. The training activities for the identified talent are focused on required competencies.							

تركز الأنشطة التدريبية للمواهب المحددة على الكفاءات المطلوبة.							
13. The training activities for identified talent are implemented continuously. تطبق الأنشطة التدريبية للمواهب المحددة بصورة مستمرة.							
14. The content of the training activities for the identified talent are based on job performance. يستند محتوى الأنشطة التدريبية الخاصة بالمواهب المحددة إلى الأداء الوظيفي.							
15. The training activities for the identified talent require time and extensive financial resources. تتطلب الأنشطة التدريبية الخاصة بالمواهب الوقت والموارد المالية الكبيرة.							
16. The training activities for the identified talent are designed to develop firm-specific skills/knowledge. تصمم الأنشطة التدريبية الخاصة بالمواهب لتطوير المهارات و المعارف الخاصة بالمؤسسة.							
17. Training activities for the identified talent are in line with assigned critical tasks. تتوافق الأنشطة التدريبية الخاصة بالمواهب مع المهام الحيوية المسندة.							
18. Development needs are identified for talent. تُحدد الاحتياجات التطويرية للمواهب.							
19. Identified talent have many opportunities for upward mobility. تتضمن المواهب المحددة العديد من الفرص للتطور والإرتقاء.							
20. Talents have clear career paths in this organization. تتطوي المواهب على مسارات وظيفية واضحة في المؤسسة.							

21. Talents have more than one avenue for promotion. تمتلك المواهب أكثر من سبيل للترقية.							
22. Developmental activities include feedback on developmental growth agenda for the identified talents. تتضمن الأنشطة التطويرية ردود تقييمية بشأن أجندة التطوير للمواهب المحددة.							
<u>Talent Retention</u> <u>الإحتفاظ بالمواهب</u>							
12. My company provides recognition, e.g., financial recognition such as cash, paid travel, incentive bonus/variable pay, etc. تقدم مؤسستي التقدير، على سبيل المثال التقدير المالي مثل المبالغ النقدية والسفر المدفوع والحوافز الأجور المتغيرة ونحو ذلك.							
13. My supervisor discusses and provides meaningful and helpful feedback on job performance. يقدم مديري الملاحظات المفيدة والهادفة عن الأداء الوظيفي ويناقشها معي.							
14. My company values my work and contribution. تقدر مؤسستي عملي ومساهماتي.							
15. I believe that my company has a fair and just system of rewarding employees. أعتقد أن مؤسستي تمتلك نظاماً عادلاً ومنصفاً لمكافأة الموظفين							
16. My company sets challenging targets in my job. تضع مؤسستي لي أهدافاً وظيفية صعبة.							
17. I have supportive and likeminded colleagues. لدي زملاء عمل داعمين ومشابهين في الميول والأفكار.							

18. My company supports a balanced lifestyle (between my work and personal life). تقدم مؤسستي الدعم للتمتع بأسلوب حياة متوازن (بين العمل والحياة الشخصية).							
19. My company encourages and organizes team building or other social networking activities among employees. تشجع مؤسستي على بناء وتنظيم الفرق وأنشطة الشبكات الإجتماعية بين الموظفين.							
20. My company provides a competitive pay package (i.e., basic salary plus benefits, allowances or variable pay). توفر مؤسستي حُزم تنافسية للرواتب والحوافز (الراتب الأساسي والمزايا والبدلات أو دفعات متغيرة).							
21. My company provides medical aid, retirement, and pension benefits. توفر مؤسستي الدعم الطبي والتقاعد والمعاشات التقاعدية.							
22. My company provides recognition via nonfinancial means, e.g., certificates of recognition. تقدم مؤسستي التقدير غير المالي مثل شهادات التقدير و نحو ذلك.							

Adaptive Organizational Culture Scale

مقياس الثقافة المؤسسية التكيفية

Please read the following profile carefully and thoroughly. Then rate the profile on the following characteristics.

يرجى قراءة التوصيف التالي بعناية وشمولية. ثم قيمه وفقاً للمواصفات التالية:

3. **External Focus.** The organization pays attention to its external environments, especially its customers . The organization is able to read and interpret signals from their environments.

1. التركيز الخارجي. تركز المؤسسة على بيئتها الخارجية، وخصوصاً عملاءها. تستطيع المؤسسة قراءة وتفسير الإشارات الواردة من بيئاتهم.

“Ignores environmental criticism of products/services” تجاهل النقد البيئي للمنتجات /الخدمات	Aware of a limited supply issue and notifies customers تدرك مشكلة العرض المحدود وتخطر العملاء	“Gets an outside viewpoint in order to identify and understand a problem” تحصل على وجهات نظر خارجية من أجل تحديد وفهم المشكلة
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1	2	3	4	5	6	7																																																								
4. Anticipation. The organization proactively works to identify internal and external problems; the organization is able to anticipate future problems or environment changes. 2. التنبؤ. تعمل المؤسسة بشكل استباقي لتحديد المشكلات الداخلية و الخارجية ، المؤسسة قادرة على التنبؤ بالمشكلات المستقبلية والتغيرات البيئية <table> <tr> <td> “Competitors in their field make cuts in their prices due to an economic downturn but the organization does not” يخفض المنافسون في مجالاتهم الأسعار بسبب الإنكماش الاقتصادي ، غير أن مؤسستي لا تفعل ذلك </td><td></td><td></td><td> “Considers customer reactions to a new product before it hits the market” تأخذ بعين الاعتبار ردود أفعال المتعاملين للمنتج الجديد قبل توفره في الأسواق </td><td></td><td> “Anticipates a large market demand for a new product” تتنبأ بالطلب الكبير للمنتج الجديد في الأسواق </td><td></td></tr> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td></tr> </table> 3. Open to Change. The organization is receptive to innovation, change, and new ideas. The organization is flexible; it does not feel that it is bound by particular rules and procedures for carrying out its business. 3. الانفتاح على التغيير. المؤسسة منفتحة على الابتكار والتغيير والأفكار الجديدة. تتمتع المؤسسة بالمرونة. لا تشعر بأن المؤسسة مقيدة أو ملزمة بقواعد و إجراءات معينة لتنفيذ أعمالها. <table> <tr> <td> Is rigid; unwilling to make changes to business practices صارمة: لا ترغب بإحداث تغييرات على ممارسات العمل </td><td></td><td></td><td> Is willing to make modifications to products as long as the organization sees a demand for it مستعدة لإجراء تعديلات على منتجاتها ما دامت قد رأت ضرورة لذلك </td><td></td><td> Dedicated to improving existing products, even successful ones, and developing new ones ملتزمة بتحسين المنتجات الحالية بما في ذلك المنتجات الناجحة و تطوير منتجات جديدة </td><td></td></tr> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td></tr> </table> <i>Adaptive Culture Scale</i> 4. Confidence. The organization believes that it has the ability to change. 4. الثقة. تؤمن المؤسسة بقدرتها على التغيير <table> <tr> <td> Fears change will lead to failure تخشى من أن التغيير سيؤدي إلى الفشل </td><td></td><td></td><td> Believes that the organizations will be successful تؤمن بأن المؤسسة ستحقق النجاح </td><td></td><td> Believes the future of the organization is limitless تؤمن بأن مستقبل المؤسسة لا حدود له </td><td></td></tr> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td></tr> </table> 5. Development of Capabilities. The organization develops the capacity to handle environmental situations. 5. تطوير القدرات. تطور المؤسسة القدرة على معالجة الأوضاع البيئية. <table> <tr> <td> Possesses little available money to develop new capabilities تمتلك القليل من المال المتوفر لتطوير قدرات جديدة </td><td></td><td></td><td> Attracts and hires qualified employees in the field تستقطب وتوظف موظفين مؤهلين في المجال </td><td></td><td> Develops a training program or apprenticeship program to teach employees new, critical skills to deal with future needs تطور برامج تدريبية أو برامج تدريب مهني لتعليم الموظفين مهارات أساسية جديدة للتعامل مع الاحتياجات المستقبلية </td><td></td></tr> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td></tr> </table> 6. Collaborative Action Planning. The organization enables collaboration between business							“Competitors in their field make cuts in their prices due to an economic downturn but the organization does not” يخفض المنافسون في مجالاتهم الأسعار بسبب الإنكماش الاقتصادي ، غير أن مؤسستي لا تفعل ذلك			“Considers customer reactions to a new product before it hits the market” تأخذ بعين الاعتبار ردود أفعال المتعاملين للمنتج الجديد قبل توفره في الأسواق		“Anticipates a large market demand for a new product” تتنبأ بالطلب الكبير للمنتج الجديد في الأسواق		1	2	3	4	5	6	7	Is rigid; unwilling to make changes to business practices صارمة: لا ترغب بإحداث تغييرات على ممارسات العمل			Is willing to make modifications to products as long as the organization sees a demand for it مستعدة لإجراء تعديلات على منتجاتها ما دامت قد رأت ضرورة لذلك		Dedicated to improving existing products, even successful ones, and developing new ones ملتزمة بتحسين المنتجات الحالية بما في ذلك المنتجات الناجحة و تطوير منتجات جديدة		1	2	3	4	5	6	7	Fears change will lead to failure تخشى من أن التغيير سيؤدي إلى الفشل			Believes that the organizations will be successful تؤمن بأن المؤسسة ستحقق النجاح		Believes the future of the organization is limitless تؤمن بأن مستقبل المؤسسة لا حدود له		1	2	3	4	5	6	7	Possesses little available money to develop new capabilities تمتلك القليل من المال المتوفر لتطوير قدرات جديدة			Attracts and hires qualified employees in the field تستقطب وتوظف موظفين مؤهلين في المجال		Develops a training program or apprenticeship program to teach employees new, critical skills to deal with future needs تطور برامج تدريبية أو برامج تدريب مهني لتعليم الموظفين مهارات أساسية جديدة للتعامل مع الاحتياجات المستقبلية		1	2	3	4	5	6	7
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units that allow it to proactively and reactively develop solutions to problems.

6. التخطيط التعاوني للعمل. تتيح المؤسسة إمكانية التعاون بين وحدات العمل بما يسمح لها بتطوير حلول استباقية وتفاعلية للمشكلات.

Business units are segmented with little communication or collaboration occurring between units وحدات العمل منفصلة عن بعضها مع القليل من التواصل أو التعاون بينها	Organization's departments work together to develop plans for how to deal with problems تعمل إدارات المؤسسة مع بعضها بعضاً لتطوير خطط التعامل مع المشكلات	Conducts intra-organizational research to determine how to make a product distinctive in the industry تقوم المؤسسة بأبحاث داخلية لتحديد كيفية جعل المنتج مميزاً
1	2	3
4	5	6
7		

7. Executing Change. The organization is able to implement adaptive change.

7. إحداث التغيير. المؤسسة قادرة على إحداث (تنفيذ) التغيير التكيفي

Fails to develop new products or services in changing environments عاجزة عن تطوير منتجات أو خدمات جديدة في بيئة متغيرة	Implements a new change تحدث تغييرات جديدة	Organizations implement new work process ahead of schedule and under budget تطبق المؤسسة إجراءات عمل جديدة قبل الموعد المحدد وضمن الميزانية المخصصة
1	2	3
4	5	6
7		

8. Sustaining Change. The organization is able to sustain the change by creating systems that reinforce the change.

8. استدامة (مواصلة) التغيير. المؤسسة قادرة على استدامة التغيير من خلال إنشاء أنظمة تعزز التغيير

Organizational policies do not reinforce the change and the organization goes back to its old ways سياسات المؤسسة لا تدعم التغيير وبالتالي تعود المؤسسة إلى نهجها القديم	Creates a culture and system that views jobs as a career in order to retain employees توجد المؤسسة ثقافة ونظاماً ينظر إلى الوظائف بوصفها مساراً مهنيّاً من أجل الحفاظ على الموظفين	The organization works with external entities to enact policies that benefit them in the long run تعمل المؤسسة مع أطراف خارجية لتشريع سياسات تنفعها على المدى الطويل
1	2	3
4	5	6
7		

9. To what extent is the organization facing significant changes in its industry or environment?

9. إلى أي مدى تواجه المؤسسة تغييرات كبيرة في صناعتها أو بيئتها؟

Not at all لا توجه أية تغييرات				A great extent إلى حد كبير		
1	2	3	4	5	6	7

If so, briefly describe the changes in the environment that the organization may be facing

إذا كان الأمر كذلك، صف بإيجاز التغييرات التي قد تواجهها المؤسسة في بيئتها

Workforce Agility Scale

مقياس رشاقة القوة العاملة

Proactivity							
الإستباقية							
Scale	1	2	3	4	5	6	7
المقياس							
9. Employees in my organization take the initiative in the implementation of activities that improve the work especially when faced with changes in the surrounding environment. يأخذ الموظفون في مؤسستي زمام المبادرة في تنفيذ الأنشطة التي تعمل على تحسين العمل خاصة عند مواجهة التغيرات في البيئة المحيطة.							
10. Employees in my organization try to solve problems and deal with the crises faced by the company in a creative way. يحاول الموظفون في مؤسستي حل المشكلات والتعامل مع الأزمات التي تواجهها المؤسسة بطريقة إبداعية.							
11. Employees in my organization looking for ways to help the company to take advantage of the available opportunities to achieve greater success. يبحث الموظفون في مؤسستي عن طرق لمساعدة المؤسسة على الاستفادة من الفرص المتاحة لتحقيق نجاحات أكبر.							
12. Employees in my organization can predict the problems that the company may face as a result of changes in the environment. يستطيع الموظفون في مؤسستي التنبؤ بالمشكلات التي يمكن أن يواجهوها نتيجة التغير في البيئة.							
Adaptability القدرة على التكيف							
11. Employees in my organization have a high capacity for adaptation that enables me to accept any new responsibilities in my work. لدى الموظفون في مؤسستي القدرة العالية على التكيف							

مما يمكنهم من تقبل مسؤولياتهم /مهامهم الجديدة في العمل.							
12.Employees in my organization do not mind learning the skills that may be required for new responsibilities in my work. لا مانع لدى الموظفين في مؤسستي من تعلم المهارات المطلوبة للمسؤوليات الجديدة في العمل.							
13. Employees in my organization can work in multiple tasks teamwork. يستطيع الموظفون في مؤسستي من العمل في أنشطة جماعية متعددة المهام.							
14.Employees in my organization have the ability to adapt to the changes that I face in the company and the external لدى الموظفين في مؤسستي القدرة على التكيف مع التغيرات التي يواجهوها في المؤسسة والبيئة الخارجية.							
15. Employees in my organization have adequate professional flexibility that helps me to implement the various tasks within the various teams' work. يتمتع الموظفون في مؤسستي بالمرونة المهنية الكافية التي تساعدهم على تنفيذ المهام المتنوعة ضمن العمل الجماعي المتنوع.							
Resiliency القدرة على التحمل (الصمود)							
9. Employees in my organization accept new ideas and technology at work, and I welcome change in general. يتقبل الموظفون في مؤسستي الأفكار والتكنولوجيا الجديدة في العمل و يرحبوا بالتغيير بصورة عامة.							
10. Employees in my organization do not mind to work within an environment of uncertainty, which may prevail in many situations. لا مانع لدى موظفين مؤسستي من العمل في بيئة يكتنفها عدم اليقين مما قد يسود في أوضاع عديدة.							

11. Employees in my organization try to accommodate the different pressures that I face in my job. يحاول الموظفون في مؤسستي أن يستوعبوا الضغوط المختلفة التي أواجهها في عملي .							
12. Employees in my organization accept differences in opinions and understand the different approaches in dealing with business problems. يتقبل الموظفون في مؤسستي الاختلافات في الرأي و يتفهموا الأساليب المتباينة في التعامل مع مشاكل العمل.							
Strategic Agility Scale مقياس الرشاقة الاستراتيجية							
Strategic Sensitivity الحساسية الاستراتيجية							
7. We are very sensitive for external changes (regarding customers, competitors, technologies, etc.) and integrate these into strategic planning of our company. نتميز بالحساسية الشديدة للتغيرات الخارجية (بخصوص المتعاملين والمنافسين والتقنيات ونحو ذلك) كما نعمل على دمجها في التخطيط الاستراتيجي للمؤسسة.							
8. We utilize different mechanisms to become aware of strategic developments early. نستفيد من آليات مختلفة للإطلاع على التطورات الاستراتيجية بصورة مبكرة.							
9. Requirements for strategic adaptations are communicated fast and comprehensively through the organization. ننقل ونوصل متطلبات التكيف الاستراتيجي بسرعة وشمولية في جميع أنحاء المؤسسة.							
Collective Commitment/Leadership Unity الالتزام الجماعي/وحدة القيادة							
7. Our top management team is able to make bold and fast strategic decisions. يستطيع فريق الإدارة العليا اتخاذ قرارات استراتيجية							

جريئة وسريعة.							
8. Our management board collaborates for strategic decisions. يتعاون مجلس الإدارة من أجل اتخاذ قرارات استراتيجية.							
9. Strategic questions are collectively solved by our management without being bogged down in top-level 'win-lose' politics. تُحل المسائل الاستراتيجية بصورة جماعية من قبل الإدارة دون الخوض في سياسات الربح و الخسارة على مستوى القيادة العليا.							
Resource Fluidity سهولة نقل الموارد							
7. We are able to reallocate and utilize capital resources fluidly. يمكننا إعادة تخصيص موارد رأس المال والإستفادة منها بانشيائية.							
8. Our people and their competencies are highly mobile within our organization. يتمتع موظفونا وكفاءاتهم بقدرة كبيرة على الحركة والتنقل ضمن المؤسسة.							
9. Our organizational structure allows for flexible redeployment of our resources. يسمح الهيكل التنظيمي في مؤسستنا بإعادة توزيع الموارد بمرونة.							
Absorptive Capacity Scale مقياس الطاقة الإستيعابية							
Acquisition الإستحواذ							
Please specify to what extent your company uses external resources to obtain information (e.g., personal networks, consultants, seminars, internet, database, professional journals, academic publications, market research, regulations, and laws concerning environment/technique/health/security): إلى أي مدى تستخدم مؤسستك موارد خارجية للحصول على المعلومات (على سبيل المثال: الشبكات							

الشخصية والاستشارات والندوات والإنترنت والبيانات والمطبوعات التخصصية والمنشورات الأكاديمية وأبحاث السوق واللوائح التنظيمية والقوانين المرتبطة بالبيئة والتكنولوجية والصحة والأمن).							
7. The search for relevant information concerning our industry is every-day business in our company. يعتبر البحث عن معلومات ذات صلة بمجال عملنا نشاط يومي في المؤسسة.							
8. Our management motivates the employees to use information sources within our industry. تدأب إدارتنا على تحفيز الموظفين لاستخدام موارد المعلومات ضمن نفس المجال.							
9. Our management expects that the employees deal with information beyond our industry. تتوقع إدارتنا من الموظفين التعامل مع المعلومات خارج المجال.							
Assimilation الاندماج							
Please rate to what extent the following statements fit the communication structure in your company: إلى أي مدى تتوافق العبارات التالية مع هيكل التواصل في مؤسستكم.							
9. In our company ideas and concepts are communicated cross-departmental. يتم نقل الأفكار والمفاهيم بين جميع إدارات وأقسام المؤسسة.							
10. Our management emphasizes cross-departmental support to solve problems. تؤكد إدارتنا على الدعم المشترك فيما بين الإدارات لحل المشكلات.							
11. In our company 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.							

يوجد تدفق سريع للمعلومات في مؤسستنا. على سبيل المثال تحصل وحدات العمل لدينا على المعلومات المهمة وتبادر بنقلها على الفور إلى الوحدات أو الإدارات الأخرى.							
12. Our management demands periodical cross-departmental meetings to interchange new developments, problems, and achievements. تطلب الإدارة عقد اجتماعات دورية بين الإدارات والأقسام لتبادل التطورات والمشكلات والإنجازات.							
Transformation التحول							
Please specify to what extent the following statements fit the knowledge processing in your company: إلى أي مدى تتوافق العبارات التالية مع معالجة المعرفة في مؤسستكم.							
9. Our employees have the ability to structure and to use collected knowledge. يستطيع موظفونا هيكلية المعرفة المكتسبة واستخدامها.							
10. Our employees are used to absorb new knowledge as well as to prepare it for further purposes and to make it available. يُستفاد من موظفينا في اكتساب المعارف الجديدة وإعدادها لأغراض إضافية وإتاحتها للاستخدام.							
11. Our employees successfully link existing knowledge with new insights. ينجح موظفونا في ربط المعرفة الحالية بالأفكار والرؤى الجديدة.							
12. Our employees are able to apply new knowledge in their practical work. بوسع موظفونا تطبيق المعارف الجديدة في عملهم.							
Exploitation الاستثمار/الاستغلال							
Please specify to what extent the following statements fit the commercial exploitation of new knowledge in your company (Please think about all company divisions such as R&D, production, marketing, and accounting): إلى أي مدى تتوافق العبارات التالية مع الاستثمار (الاستغلال) التجاري للمعارف الجديدة في مؤسستكم							

(يرجى أخذ جميع أقسام المؤسسة في الاعتبار مثل التجزئة و التوزيع والإنتاج والتسويق والمحاسبة).							
9. Our management supports the development of prototypes. تدعم إدارتنا تطوير نماذج أولية.							
10. Our company regularly reconsiders technologies and adapts them accordant to new knowledge. تعيد إدارتنا النظر في التقنيات المستخدمة وتكيفها مع المعرفة الجديدة بصورة منتظمة.							
11. Our company has the ability to work more effective by adopting new technologies. 12. تمتلك المؤسسة القدرة على العمل بكفاءة أكبر باعتماد تقنيات جديدة.							

Recruitment of participants:

Please outline the number and type (it may be considered vulnerable) of participants involved; give details of how potential participants will be identified and invited to take part in the study; and how informed consent will be obtained. Limit = 300 words

Around 1200 respondents will be contacted in order to get a clean questionnaire of 400 respondents using the 30% response rate via a combination of emails and survey link disseminated through various social media platforms.

Informed Consent

Thank you in advance for taking part in this research, your participation is highly valuable for enriching theory and practice.

Research Title: Envisioning Workforce Agility through Dynamic Talent Management Capabilities: Moderated Mediated Model.

Researcher: Nour Hussein Tawfeeq Shakhour.

Researcher Contact Details: nour_damj@hotmail.com.

Institutional Contact Details: The British University of Dubai (BUID), Professor Dr. Bader Yousef Bader Obeidat, bader.obeidat@buid.ac.ae.

Research Objective: the objective if this research study is to investigate the possible enablers of workforce agility (flexibility) in terms of the different organizational resources, including talent management, knowledge, and strategic capabilities. Additionally, the research aims at testing the impact of flexible and adaptive organizational culture on the other relationship within the proposed model.

Risks: there are no known risks, harms, or discomforts associate with this study.

Confidentiality: Your responses are completely anonymous. No personal identifying information or IP addresses will be collected. Data will be aggregated via the “Google Forms” the surveys platform.

Voluntary Participation and Authorization: Your decision to participate in this study is completely voluntary, and you can withdraw at any point if they choose not to continue.

I voluntarily agree to participate in this research study:

☐

Yes

☐

No

Please attach a copy of your information sheet(s), draft materials such as interview questions etc. and consent form as well as indication of planned time of issue/use. If you are not using a consent form, please explain why.

☐ Attached

Potential adverse effects on participants and steps to deal with them:

Please outline if you anticipate any potential harm or negative consequences including psychological stress, anxiety or upset which may be induced by the study and the steps to be taken to address them.

As outlined in the consent form there are no known risks, harms, or discomforts associate with this study.

Steps to be taken to ensure confidentiality of data:

Please outline steps if you are required to ensure confidentiality, privacy and anonymity of data during collection, storage and publication. Please specifically identify any confidential or personal information, and /or any other party’s protected intellectual property which you need to use and safeguard.

No personal identifying information or IP addresses will be collected, and the questionnaire is anonymous. Data will be kept safe with the principal investigator as a softcopy only, and data will be used only for the purpose of this research study.

Steps to be taken to ensure financial and commercial propriety:

Please specifically identify if any external funding or significant third-party financial involvement with the research.

There is no external funding or significant third-party financial involvement with the research.

Other plans to address a particular ethical matter not mentioned:

None.

III. Research Ethics Checklist

If you answer 'Yes' to at least any one of the high-risk statements, then your research is High Risk. If you answer 'Yes' to at least 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.

High Risk	
Will consent possibly be coerced out of participants by those whom would likely benefit from the research?	☐ Yes ☒ No
Will it be necessary for participants to take part in the study without their knowledge and consent at the time?	☐ Yes ☒ No
Will the study involve some form of invasion of privacy?	☐ Yes ☒ No
Is discomfort or harmful impact to participants likely to result from the	☐ Yes

study?	☒ No
Is there a possibility that the safety of the researcher may be in question?	☐ Yes ☒ No
Will the research require the researcher to be deceptive or dishonest to the participants?	☐ Yes ☒ No
Will financial inducements (other than reasonable expenses and compensation for time) be offered to participants?	☐ Yes ☒ No
Will the research have negative intrusive physical or psychological effects on the participants?	☐ Yes ☒ No
Will the names of the participants or the institution appear in the research?	☐ Yes ☒ No
Medium Risk	
Will the research involve governmental institutions or participants such as, for example, the army or the judiciary?	☐ Yes ☒ No
Will the study involve discussion of sensitive or potentially sensitive topics and issues?	☐ Yes ☒ No
Does the research involve potentially vulnerable participants (for e.g. children, prisoners, or people with disabilities)?	☐ Yes ☒ No
Does the research involve participants that are unable to give consent?	☐ Yes ☒ No
Will the research involve administrative or secure data that requires permission from the appropriate authorities before use?	☐ Yes ☒ No

Risk Level Identified	☒ Low	☐ Medium	☐ High
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The researcher undertakes not to deviate from the original consent granted by the University's Research Ethics Committee. The researcher bears full and sole responsibility for any deviation from this consent and all consequences arising from such deviation. The researcher waives all right of appeal in the event of any penalties applied by the University arising from such deviation.

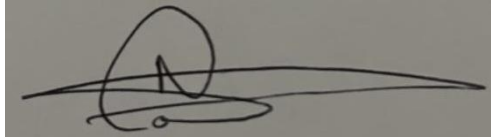
Declaration by the Researcher:

Having read the University's Research Policy I declare that the information contained herein, is to the best of my knowledge and belief, accurate.

I am satisfied that I have attempted to identify all risks related to the research that may arise in conducting this research and acknowledge my obligations as researcher and the rights of participants. I am satisfied that all researchers (including myself) working on the project have the appropriate qualifications, experience and facilities to conduct the research set out in the attached document and that I, as the lead researcher take full responsibility for the ethical conduct of the research in accordance with subject-specific and University Ethical Guidelines (Policies and Procedures Manual), as well as any other condition laid down by the BUiD Ethics Committee. I am fully aware of the timelines and content for participant's information and consent.

Print name: _____ Nour Hussein Tawfeeq Shakhour _____

Signature:



Date: 23- 03- 2021

Appendix (11): Content Validity Reviewers feedback:

Expert 1:

No.	Feedback	Action Taken							
1	I suggest including “Informed Consent” in your introduction prior to survey questions.	Done							
2	Since you translate the complete survey to Arabic language. Thus, I suggest also translating the title of your thesis.	Done							
3	Likert scale, I find it is difficult to differentiate between (3) for “full disagreement”, and (1) for “Strongly disagree”. Also, its preferable to start with strongly disagree to strongly agree. However, I suggest using the below scale: <table><tr><td>1=Strongly disagree.</td><td>2=Disagree.</td><td>3=Somewhat disagree.</td><td>4=Neither agree nor disagree.</td><td>5=Somewhat agree.</td><td>6=Agree.</td><td>7=</td></tr></table>	1=Strongly disagree.	2=Disagree.	3=Somewhat disagree.	4=Neither agree nor disagree.	5=Somewhat agree.	6=Agree.	7=	Done
1=Strongly disagree.	2=Disagree.	3=Somewhat disagree.	4=Neither agree nor disagree.	5=Somewhat agree.	6=Agree.	7=			
4	Some items in the survey used “My company” and that’s fine, but if you target government, semi-government or a non-governmental organization, I suggest using “Organization”.	Noted							
5	The first four questions “Talent Attraction and Selection” (Q1, Q2, Q3, and Q4) are duplicated in your online survey with question numbers (Q5, Q6, Q7, and Q8).	Done							
6	Resiliency has been translated to (القدرة على التحمل الصمود), I prefer to use مرونة. If you agree, I suggest replacing it.	Done							
7	In section Acquisition, I suggest defining scale for selection. e.g., from (1) strongly disagree to (7) strongly agree. The same may applied for “Assimilation”, “Transformation” and “Exploitation”	Done							

Expert 2:

No.	Feedback	Action Taken
1	I suggest adding a few lines before starting the survey to communicate the objective of your study with participants. The introduction could include	Done

	Why are you doing this study? Approximately how long it takes to answer survey questions? Why their participation is important to you study; and Appreciate their time and effort. If there is incentive, you could add it here as well	
2	Item 8 in the (Talent Training and Development): Identified talent have many opportunities for upward mobility. Is not clear.	Done The item has been rephrased Identified talent have many opportunities for further development.
3	This is a new section, so I suggest reintroducing the Likert scale again 1: strongly disagree. 7: strongly agree	Done
4	Adaptive Organizational Culture Scale: Is it only 'supply issue'? I think it doesn't fit with the description criticism (1 and 2 to the left) and the viewpoint (6, 7 to the right). These are more general, while the middle points are specific to 'supply issue'	Done changed to beware of the business issues And notifies customers.
5	Adaptive Organizational Culture Scale: Item 2 & 3 Are all your participant organizations produce things or some of them are only service providers (e.g. public services)? If yes, this question will be not applicable to all participant organization. In this case you need to add "not applicable" option	Done Adjusted to fit service enquiries.
6	Adaptive Organizational Culture Scale: Item 9 I recommend shifting it to the first question within this scale since it is a general introductory question.	Done
7	Demographics Details: How many years of experience? Do you mean working experience? With the current company or in general?	Done Changed to How many years of total working experience?
8	Resources Fluidity Item 1: We are able to reallocate and utilize capital resources fluidly. I recommend it to be changed to organization instead of we.	Done

Expert 3:

No.	Feedback	Action Taken
1	Q1 to Q5 are repeated twice.	Done
2	Q20 is biased to financial rewards.	Non-financial was also included
3	Q24 The Arabic translation does not offer an accurate meaning.	Done changed to My Organization

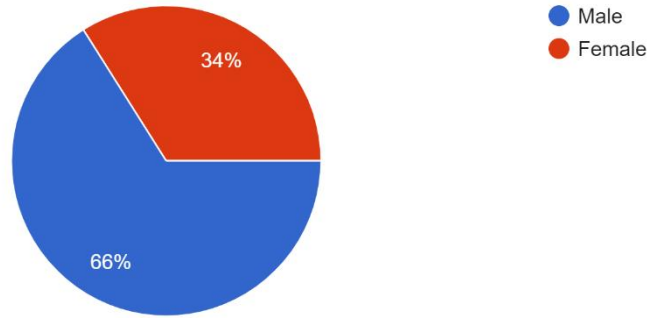
	My company sets challenging targets in my job أهدافاً وظيفية صعبة تضع مؤسستي لي	sets challenging targets in my job. تضع مؤسستي لي مستهدفات وظيفية صعبة.
4	Q29 should be rewarded - "medical aid" could be misinterpreted. My company provides medical aid, retirement, and pension benefits توفر مؤسستي الدعم الطبي والتقاعد والمعاشات التقاعدية	Done changed to My Organization provides medical insurance, retirement, and pension benefits. توفر مؤسستي الضمان الصحي والتقاعد والمعاشات التقاعدية.
5	Adaptive organization culture scale item 9: "If so, briefly describe the changes in the environment that the organization may be facing" - it is not clear which question you are referring to?	Done item moved to the beginning of the survey and paraphrased as follows: If your organization is facing any level of change, briefly describe the changes that the organization may be facing. إذا كانت مؤسستك تواجه أي مستوى من التغيير ، فقم بوصف التغييرات التي قد تواجهها المؤسسة بإيجاز
6	Q 57,58,59 - you should use identical terminologies (you used: top management, management board, management)	Done Unified To top management team
7	Q65 check the Arabic translation تتوقع إدراتنا من الموظفين التعامل مع المعلومات خارج المجال	Done Our management expects that the employees deal with information beyond our industry. تتوقع إدراتنا من الموظفين توظيف المعلومات التي تقع خارج نطاق مجالها.

Appendix (12): Demographic details of the study sample

Descriptive Statistics:

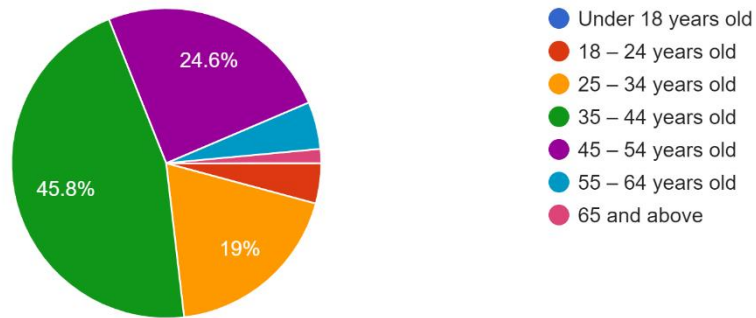
73. What is your gender?

406 responses



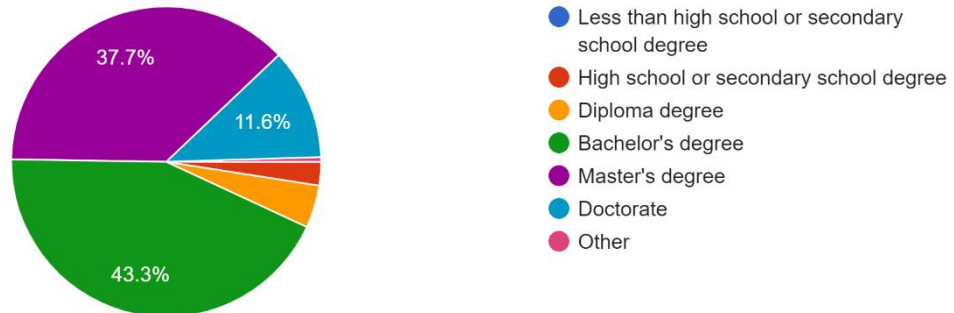
74. What is your age?

406 responses



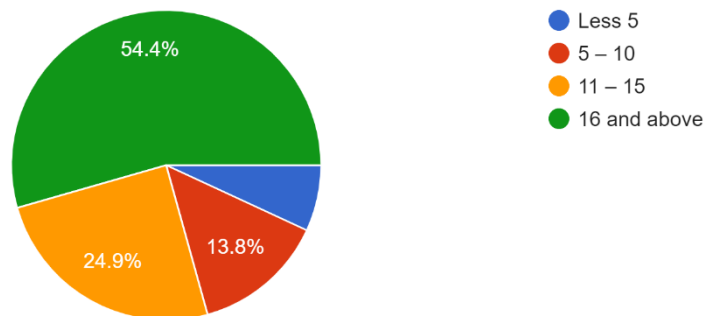
75. What is the highest educational degree you have completed?

406 responses



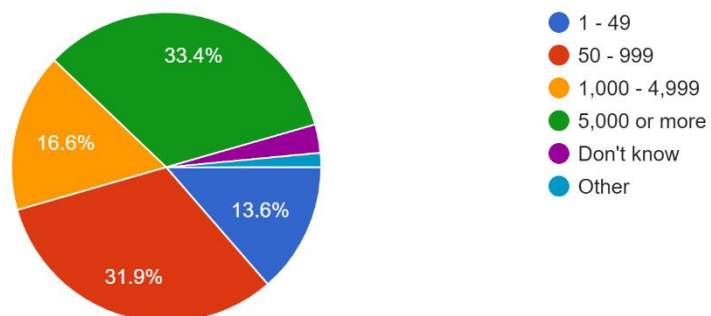
76. How many years of total working experience?

406 responses



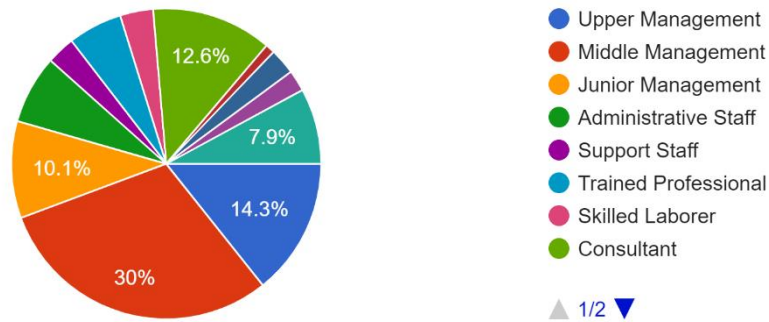
77. What is the approximate total number of employees in your organization?

404 responses



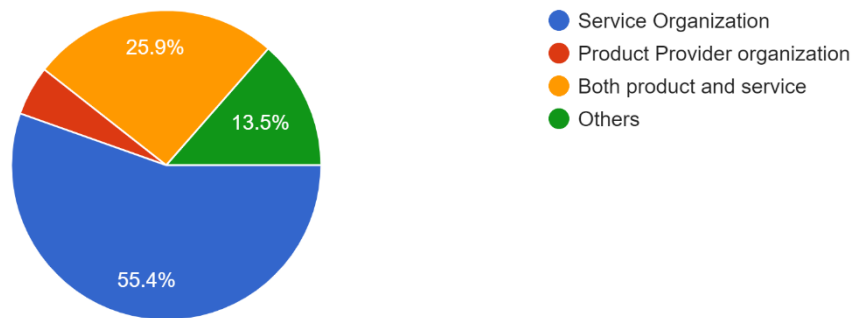
78. Which of the following best describes your role in industry?

406 responses



79. Which of the following categories best describes the organization you primarily work in?

406 responses



Appendix (13): leaven's test result

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
AC_AC2	Between Groups	10.127	1	10.127	5.978	.015
	Within Groups	684.319	404	1.694		
	Total	694.446	405			
AC_AC3	Between Groups	.362	1	.362	.196	.658
	Within Groups	745.963	404	1.846		
	Total	746.325	405			
AC_ASS2	Between Groups	5.476	1	5.476	3.083	.080
	Within Groups	717.502	404	1.776		
	Total	722.978	405			
AC_ASS4	Between Groups	3.948	1	3.948	1.832	.177
	Within Groups	870.860	404	2.156		
	Total	874.808	405			

AC_Exp1	Between Groups	10.445	1	10.445	5.730	.017
	Within Groups	736.434	404	1.823		
	Total	746.879	405			
AC_Exp2	Between Groups	3.867	1	3.867	2.054	.153
	Within Groups	760.714	404	1.883		
	Total	764.581	405			
AC_EXP3	Between Groups	3.067	1	3.067	1.714	.191
	Within Groups	722.923	404	1.789		
	Total	725.990	405			
AC_TS1	Between Groups	5.945	1	5.945	3.335	.069
	Within Groups	720.068	404	1.782		
	Total	726.012	405			
AC_TS2	Between Groups	1.241	1	1.241	.771	.380
	Within Groups	649.774	404	1.608		
	Total	651.015	405			
AC_TS3	Between Groups	1.974	1	1.974	1.227	.269
	Within Groups	649.937	404	1.609		
	Total	651.911	405			
AC_TS4	Between Groups	1.281	1	1.281	.893	.345
	Within Groups	579.734	404	1.435		
	Total	581.015	405			
Age	Between Groups	1.294	1	1.294	1.404	.237
	Within Groups	372.265	404	.921		
	Total	373.559	405			
AOC1	Between Groups	2.092	1	2.092	.852	.357
	Within Groups	992.511	404	2.457		
	Total	994.603	405			
AOC2	Between Groups	.682	1	.682	.373	.541
	Within Groups	738.118	404	1.827		
	Total	738.800	405			
AOC3	Between Groups	7.028	1	7.028	3.115	.078
	Within Groups	911.605	404	2.256		
	Total	918.633	405			
AOC4	Between Groups	8.138	1	8.138	3.598	.059
	Within Groups	913.874	404	2.262		
	Total	922.012	405			
AOC5	Between Groups	1.234	1	1.234	.575	.449
	Within Groups	867.347	404	2.147		
	Total	868.581	405			
AOC6	Between Groups	2.044	1	2.044	.896	.345
	Within Groups	922.067	404	2.282		
	Total	924.111	405			
AOC7	Between Groups	1.231	1	1.231	.607	.436
	Within Groups	819.766	404	2.029		
	Total	820.998	405			
AOC8	Between Groups	5.750	1	5.750	3.008	.084
	Within Groups	772.164	404	1.911		

	Total	777.914	405			
AOC9	Between Groups	2.957	1	2.957	1.400	.237
	Within Groups	853.154	404	2.112		
	Total	856.111	405			
DTM_AS1	Between Groups	.089	1	.089	.045	.832
	Within Groups	802.228	404	1.986		
	Total	802.318	405			
DTM_AS2	Between Groups	1.252	1	1.252	.524	.470
	Within Groups	965.194	404	2.389		
	Total	966.446	405			
DTM_AS3	Between Groups	.462	1	.462	.199	.656
	Within Groups	937.381	404	2.320		
	Total	937.842	405			
DTM_AS4	Between Groups	2.676	1	2.676	1.293	.256
	Within Groups	836.339	404	2.070		
	Total	839.015	405			
DTM_TD1	Between Groups	7.054	1	7.054	3.085	.080
	Within Groups	923.754	404	2.287		
	Total	930.808	405			
DTM_TD10	Between Groups	1.192	1	1.192	.393	.531
	Within Groups	1223.735	404	3.029		
	Total	1224.926	405			
DTM_TD11	Between Groups	.098	1	.098	.039	.844
	Within Groups	1020.995	404	2.527		
	Total	1021.094	405			
DTM_TD2	Between Groups	20.336	1	20.336	7.909	.005
	Within Groups	1038.757	404	2.571		
	Total	1059.094	405			
DTM_TD3	Between Groups	5.587	1	5.587	2.236	.136
	Within Groups	1009.696	404	2.499		
	Total	1015.283	405			
DTM_TD4	Between Groups	1.734	1	1.734	.833	.362
	Within Groups	841.497	404	2.083		
	Total	843.232	405			
DTM_TD5	Between Groups	.330	1	.330	.190	.663
	Within Groups	700.510	404	1.734		
	Total	700.840	405			
DTM_TD6	Between Groups	1.352	1	1.352	.711	.400
	Within Groups	768.608	404	1.902		
	Total	769.961	405			
DTM_TD8	Between Groups	7.422	1	7.422	3.119	.078
	Within Groups	961.396	404	2.380		
	Total	968.818	405			
DTM_TD9	Between Groups	5.280	1	5.280	1.751	.187
	Within Groups	1218.495	404	3.016		
	Total	1223.776	405			
DTM_TR1	Between Groups	.047	1	.047	.013	.908

	Within Groups	1410.288	404	3.491		
	Total	1410.335	405			
DTM_TR10	Between Groups	13.017	1	13.017	4.723	.030
	Within Groups	1113.567	404	2.756		
	Total	1126.584	405			
DTM_TR11	Between Groups	4.040	1	4.040	1.505	.221
	Within Groups	1084.593	404	2.685		
	Total	1088.633	405			
DTM_TR12	Between Groups	11.759	1	11.759	3.704	.055
	Within Groups	1282.566	404	3.175		
	Total	1294.325	405			
DTM_TR2	Between Groups	10.016	1	10.016	3.617	.058
	Within Groups	1118.843	404	2.769		
	Total	1128.860	405			
DTM_TR3	Between Groups	3.093	1	3.093	1.211	.272
	Within Groups	1031.846	404	2.554		
	Total	1034.938	405			
DTM_TR4	Between Groups	.313	1	.313	.094	.759
	Within Groups	1342.987	404	3.324		
	Total	1343.300	405			
DTM_TR5	Between Groups	3.775	1	3.775	1.529	.217
	Within Groups	997.703	404	2.470		
	Total	1001.478	405			
DTM_TR6	Between Groups	7.147	1	7.147	3.482	.063
	Within Groups	829.178	404	2.052		
	Total	836.325	405			
DTM_TR7	Between Groups	2.139	1	2.139	.707	.401
	Within Groups	1221.942	404	3.025		
	Total	1224.081	405			
DTM_TR8	Between Groups	6.741	1	6.741	2.361	.125
	Within Groups	1153.340	404	2.855		
	Total	1160.081	405			
DTM_TR9	Between Groups	4.523	1	4.523	1.473	.226
	Within Groups	1240.423	404	3.070		
	Total	1244.946	405			
Education	Between Groups	4.260	1	4.260	5.259	.022
	Within Groups	327.230	404	.810		
	Total	331.490	405			
Experience	Between Groups	.387	1	.387	.436	.510
	Within Groups	359.349	404	.889		
	Total	359.736	405			
Gender	Between Groups	.004	1	.004	.018	.892
	Within Groups	91.089	404	.225		
	Total	91.094	405			
SA_CC1	Between Groups	10.793	1	10.793	4.189	.041
	Within Groups	1040.961	404	2.577		
	Total	1051.754	405			

SA_CC2	Between Groups	12.919	1	12.919	5.798	.016
	Within Groups	900.234	404	2.228		
	Total	913.153	405			
SA_CC3	Between Groups	2.870	1	2.870	1.205	.273
	Within Groups	962.561	404	2.383		
	Total	965.431	405			
SA_RF1	Between Groups	1.281	1	1.281	.632	.427
	Within Groups	819.234	404	2.028		
	Total	820.515	405			
SA_RF2	Between Groups	4.842	1	4.842	2.657	.104
	Within Groups	736.311	404	1.823		
	Total	741.153	405			
SA_RF3	Between Groups	3.157	1	3.157	1.328	.250
	Within Groups	960.568	404	2.378		
	Total	963.724	405			
SA_SS1	Between Groups	.083	1	.083	.044	.835
	Within Groups	765.752	404	1.895		
	Total	765.835	405			
SA_SS2	Between Groups	5.212	1	5.212	2.743	.098
	Within Groups	767.647	404	1.900		
	Total	772.860	405			
AC_ASS3	Between Groups	7.530	1	7.530	3.609	.058
	Within Groups	842.982	404	2.087		
	Total	850.512	405			
Size	Between Groups	11.632	1	11.632	6.272	.013
	Within Groups	749.237	404	1.855		
	Total	760.869	405			
WFA_A1	Between Groups	8.309	1	8.309	4.548	.034
	Within Groups	738.137	404	1.827		
	Total	746.446	405			
WFA_A2	Between Groups	2.004	1	2.004	1.355	.245
	Within Groups	597.280	404	1.478		
	Total	599.283	405			
WFA_A3	Between Groups	3.030	1	3.030	1.642	.201
	Within Groups	745.551	404	1.845		
	Total	748.581	405			
WFA_A4	Between Groups	4.153	1	4.153	2.477	.116
	Within Groups	677.475	404	1.677		
	Total	681.628	405			
WFA_A5	Between Groups	5.072	1	5.072	2.839	.093
	Within Groups	721.788	404	1.787		
	Total	726.860	405			
WFA_P1	Between Groups	1.754	1	1.754	.803	.371
	Within Groups	882.840	404	2.185		
	Total	884.594	405			
WFA_P2	Between Groups	2.302	1	2.302	1.142	.286
	Within Groups	814.331	404	2.016		

	Total	816.633	405			
WFA_P3	Between Groups	11.468	1	11.468	6.153	.014
	Within Groups	752.978	404	1.864		
	Total	764.446	405			
WFA_P4	Between Groups	.652	1	.652	.312	.577
	Within Groups	844.494	404	2.090		
	Total	845.145	405			
WFA_R1	Between Groups	1.412	1	1.412	.829	.363
	Within Groups	688.637	404	1.705		
	Total	690.049	405			
WFA_R2	Between Groups	.443	1	.443	.186	.667
	Within Groups	961.892	404	2.381		
	Total	962.335	405			
WFA_R4	Between Groups	1.277	1	1.277	.627	.429
	Within Groups	822.282	404	2.035		
	Total	823.559	405			
AC_ASS1	Between Groups	7.592	1	7.592	3.397	.066
	Within Groups	902.852	404	2.235		
	Total	910.443	405			
WFA_R3	Between Groups	3.550	1	3.550	2.034	.155
	Within Groups	705.083	404	1.745		
	Total	708.633	405			

Appendix (13a): Skewness and Kurtosis Results SPSS output.

Descriptive Statistics					
	N	Skewness		Kurtosis	
	Statistic	Statistic	Std. Error	Statistic	Std. Error
ZAC_AC1	406	-.835	.121	.294	.242
ZAC_AC2	406	-.853	.121	.421	.242
ZAC_AC3	406	-.671	.121	.093	.242
ZAC_ASS1	406	-.604	.121	-.323	.242
ZAC_ASS2	406	-.819	.121	.480	.242
ZAC_ASS3	406	-.638	.121	-.293	.242
ZAC_ASS4	406	-.821	.121	.070	.242
ZAC_Exp1	406	-.932	.121	.574	.242
ZAC_Exp2	406	-.933	.121	.637	.242
ZAC_EXP3	406	-1.094	.121	1.109	.242
ZAC_TS1	406	-.857	.121	.485	.242
ZAC_TS2	406	-.896	.121	.721	.242
ZAC_TS3	406	-1.019	.121	1.114	.242
ZAC_TS4	406	-1.207	.121	1.835	.242
ZAOC1	406	-.913	.121	.300	.242
ZAOC2	406	-.766	.121	.474	.242
ZAOC3	406	-.484	.121	-.333	.242
ZAOC4	406	-.636	.121	-.277	.242
ZAOC5	406	-.910	.121	.507	.242
ZAOC6	406	-.547	.121	-.277	.242
ZAOC7	406	-.568	.121	-.147	.242
ZAOC8	406	-.686	.121	.210	.242

ZAOC9	406	-.566	.121	-.307	.242
ZDTM_AS1	406	-1.050	.121	.703	.242
ZDTM_AS2	406	-.724	.121	-.175	.242
ZDTM_AS3	406	-.682	.121	-.259	.242
ZDTM_AS4	406	-.919	.121	.442	.242
ZDTM_TD1	406	-.746	.121	-.226	.242
ZDTM_TD10	406	-.304	.121	-1.044	.242
ZDTM_TD11	406	-.539	.121	-.529	.242
ZDTM_TD2	406	-.537	.121	-.749	.242
ZDTM_TD3	406	-.504	.121	-.668	.242
ZDTM_TD4	406	-.914	.121	.305	.242
ZDTM_TD5	406	-1.079	.121	1.071	.242
ZDTM_TD6	406	-.948	.121	.446	.242
ZDTM_TD7	406	-.655	.121	-.298	.242
ZDTM_TD8	406	-.734	.121	-.236	.242
ZDTM_TD9	406	-.318	.121	-.971	.242
ZDTM_TR1	406	-.293	.121	-1.142	.242
ZDTM_TR10	406	-.931	.121	-.068	.242
ZDTM_TR11	406	-1.025	.121	.179	.242
ZDTM_TR12	406	-.241	.121	-1.158	.242
ZDTM_TR2	406	-.745	.121	-.365	.242
ZDTM_TR3	406	-.899	.121	.078	.242
ZDTM_TR4	406	-.300	.121	-1.017	.242
ZDTM_TR5	406	-.240	.121	-.905	.242
ZDTM_TR6	406	-1.122	.121	.865	.242
ZDTM_TR7	406	-.590	.121	-.702	.242
ZDTM_TR8	406	-.495	.121	-.757	.242
ZDTM_TR9	406	-.424	.121	-.883	.242
ZSA_CC1	406	-.814	.121	-.195	.242
ZSA_CC2	406	-.913	.121	.201	.242
ZSA_CC3	406	-.488	.121	-.462	.242
ZSA_RF1	406	-.633	.121	-.085	.242
ZSA_RF2	406	-.852	.121	.324	.242
ZSA_RF3	406	-.655	.121	-.249	.242
ZSA_SS1	406	-.758	.121	.276	.242
ZSA_SS2	406	-.857	.121	.266	.242
ZSA_SS3	406	-.774	.121	.027	.242
ZWFA_A1	406	-.948	.121	.656	.242
ZWFA_A2	406	-1.382	.121	2.553	.242
ZWFA_A3	406	-1.242	.121	1.407	.242
ZWFA_A4	406	-1.020	.121	.984	.242
ZWFA_A5	406	-.904	.121	.494	.242
ZWFA_P1	406	-.746	.121	-.025	.242
ZWFA_P2	406	-.858	.121	.200	.242
ZWFA_P3	406	-.951	.121	.636	.242
ZWFA_P4	406	-.746	.121	.115	.242
ZWFA_R1	406	-1.121	.121	1.189	.242
ZWFA_R2	406	-.616	.121	-.370	.242
ZWFA_R3	406	-1.054	.121	1.105	.242
ZWFA_R4	406	-.765	.121	.062	.242
ZType	406	.566	.121	-1.331	.242
ZSize	406	.490	.121	-.821	.242
Valid N (listwise)	406				

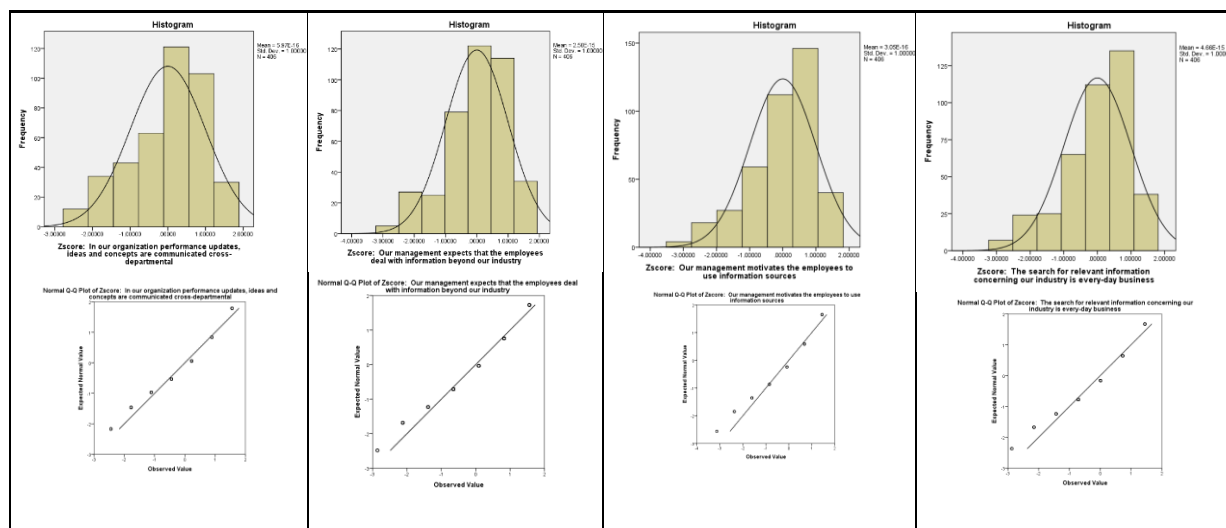
Appendix (13b): Skewness and Kurtosis Results AMOS output.

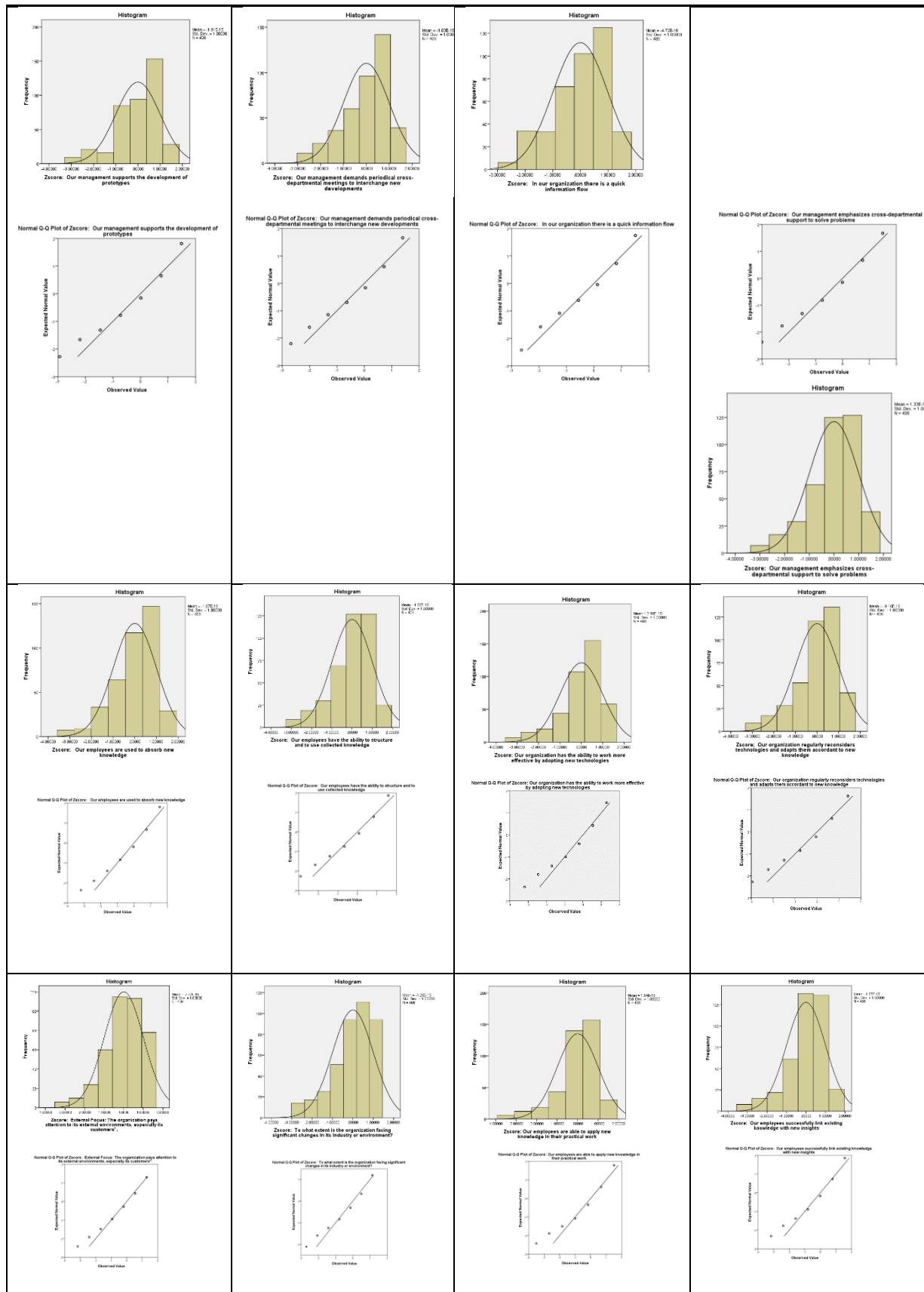
Items	Skewness	Std. Error of Skewness	Kurtosis	Std. Error of Kurtosis	Minimum	Maximum
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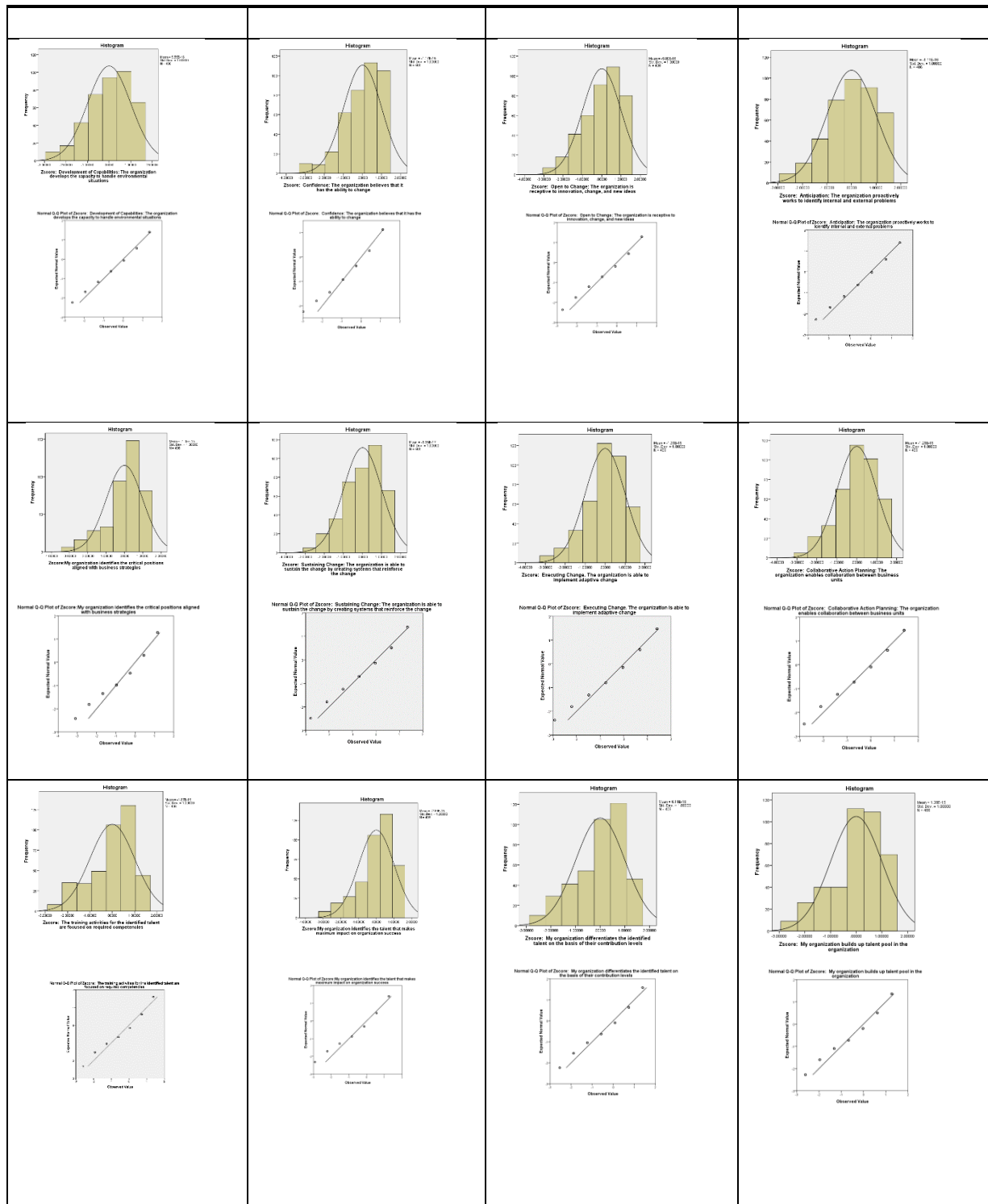
ZAC_AC1	-0.835	0.121	0.294	0.242	-2.87528	1.44829
ZAC_AC2	-0.853	0.121	0.421	0.242	-3.13558	1.44647
ZAC_AC3	-0.671	0.121	0.093	0.242	-2.85952	1.5604
ZAC_ASS1	-0.604	0.121	-0.323	0.242	-2.44443	1.55734
ZAC_ASS2	-0.819	0.121	0.48	0.242	-2.99935	1.49138
ZAC_ASS3	-0.638	0.121	-0.293	0.242	-2.63447	1.5059
ZAC_ASS4	-0.821	0.121	0.07	0.242	-2.68477	1.39769
ZAC_Exp1	-0.932	0.121	0.574	0.242	-2.93283	1.48546
ZAC_Exp2	-0.933	0.121	0.637	0.242	-2.95425	1.41259
ZAC_EXP3	-1.094	0.121	1.109	0.242	-3.19732	1.28408
ZAC_TS1	-0.857	0.121	0.485	0.242	-2.90477	1.57656
ZAC_TS2	-0.896	0.121	0.721	0.242	-3.1938	1.53862
ZAC_TS3	-1.019	0.121	1.114	0.242	-3.16443	1.56474
ZAC_TS4	-1.207	0.121	1.835	0.242	-3.47000	1.5094
ZAOC1	-0.913	0.121	0.3	0.242	-2.69551	1.13321
ZAOC2	-0.766	0.121	0.474	0.242	-3.15671	1.28566
ZAOC3	-0.484	0.121	-0.333	0.242	-2.60523	1.37866
ZAOC4	-0.636	0.121	-0.277	0.242	-2.72452	1.25207
ZAOC5	-0.91	0.121	0.507	0.242	-2.98366	1.11341
ZAOC6	-0.547	0.121	-0.277	0.242	-2.61706	1.355
ZAOC7	-0.568	0.121	-0.147	0.242	-2.80769	1.40644
ZAOC8	-0.686	0.121	0.21	0.242	-2.92349	1.40576
ZAOC9	-0.566	0.121	-0.307	0.242	-2.78339	1.34341
ZDTM_AS1	-1.05	0.121	0.703	0.242	-3.10268	1.16022
ZDTM_AS2	-0.724	0.121	-0.175	0.242	-2.61331	1.27078
ZDTM_AS3	-0.682	0.121	-0.259	0.242	-2.54766	1.39522
ZDTM_AS4	-0.919	0.121	0.442	0.242	-2.91257	1.25607
ZDTM_TD1	-0.746	0.121	-0.226	0.242	-2.58001	1.37774
ZDTM_TD2	-0.537	0.121	-0.749	0.242	-2.24203	1.46829
ZDTM_TD3	-0.504	0.121	-0.668	0.242	-2.25723	1.5323
ZDTM_TD4	-0.914	0.121	0.305	0.242	-2.84724	1.31096
ZDTM_TD5	-1.079	0.121	1.071	0.242	-3.19239	1.3687
ZDTM_TD6	-0.948	0.121	0.446	0.242	-2.89389	1.45766
ZDTM_TD7	-0.655	0.121	-0.298	0.242	-2.57528	1.45128
ZDTM_TD8	-0.734	0.121	-0.236	0.242	-2.50023	1.37911
ZDTM_TD9	-0.318	0.121	-0.971	0.242	-1.93412	1.51754
ZDTM_TD10	-0.304	0.121	-1.044	0.242	-1.92896	1.52108
ZDTM_TD11	-0.539	0.121	-0.529	0.242	-2.30509	1.47364
ZDTM_TR1	-0.293	0.121	-1.142	0.242	-1.79506	1.42021
ZDTM_TR2	-0.745	0.121	-0.365	0.242	-2.33541	1.25843
ZDTM_TR3	-0.899	0.121	0.078	0.242	-2.50995	1.24342
ZDTM_TR4	-0.3	0.121	-1.017	0.242	-1.77709	1.51743
ZDTM_TR5	-0.24	0.121	-0.905	0.242	-2.23044	1.58512
ZDTM_TR6	-1.122	0.121	0.865	0.242	-2.86583	1.30951
ZDTM_TR7	-0.59	0.121	-0.702	0.242	-2.04722	1.40401
ZDTM_TR8	-0.495	0.121	-0.757	0.242	-2.10293	1.44222
ZDTM_TR9	-0.424	0.121	-0.883	0.242	-1.9752	1.44698

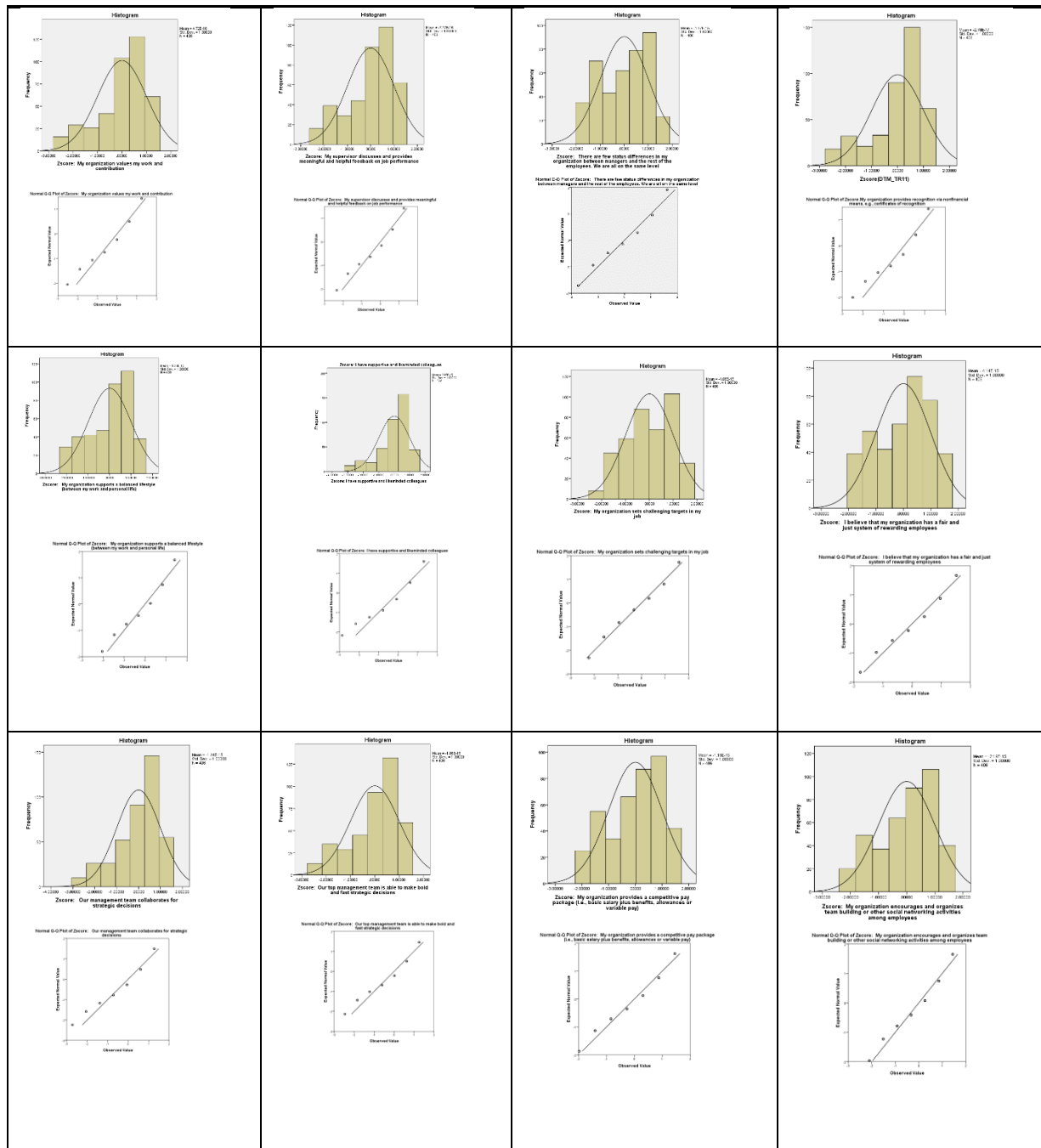
ZDTM_TR10	-0.931	0.121	-0.068	0.242	-2.50316	1.0943
ZDTM_TR11	-1.025	0.121	0.179	0.242	-2.48633	1.17331
ZDTM_TR12	-0.241	0.121	-1.158	0.242	-1.74427	1.612
ZSA_CC1	-0.814	0.121	-0.195	0.242	-2.46688	1.25637
ZSA_CC2	-0.913	0.121	0.201	0.242	-2.71966	1.27617
ZSA_CC3	-0.488	0.121	-0.462	0.242	-2.37858	1.50755
ZSA_RF1	-0.633	0.121	-0.085	0.242	-2.59394	1.62143
ZSA_RF2	-0.852	0.121	0.324	0.242	-2.89497	1.54034
ZSA_RF3	-0.655	0.121	-0.249	0.242	-2.36951	1.52006
ZSA_SS1	-0.758	0.121	0.276	0.242	-2.79958	1.56368
ZSA_SS2	-0.857	0.121	0.266	0.242	-2.82249	1.5209
ZSA_SS3	-0.774	0.121	0.027	0.242	-2.59587	1.54257
ZWFA_A1	-0.948	0.121	0.656	0.242	-2.97359	1.44597
ZWFA_A2	-1.382	0.121	2.553	0.242	-3.63859	1.29386
ZWFA_A3	-1.242	0.121	1.407	0.242	-3.21392	1.19933
ZWFA_A4	-1.02	0.121	0.984	0.242	-3.23327	1.39166
ZWFA_A5	-0.904	0.121	0.494	0.242	-3.06119	1.41752
ZWFA_P1	-0.746	0.121	-0.025	0.242	-2.59822	1.4616
ZWFA_P2	-0.858	0.121	0.2	0.242	-2.76315	1.46223
ZWFA_P3	-0.951	0.121	0.636	0.242	-2.93837	1.42885
ZWFA_P4	-0.746	0.121	0.115	0.242	-2.64111	1.51237
ZWFA_R1	-1.121	0.121	1.189	0.242	-3.34368	1.25294
ZWFA_R2	-0.616	0.121	-0.37	0.242	-2.36803	1.52436
ZWFA_R3	-1.054	0.121	1.105	0.242	-3.08169	1.45426
ZWFA_R4	-0.765	0.121	0.062	0.242	-2.72387	1.4837

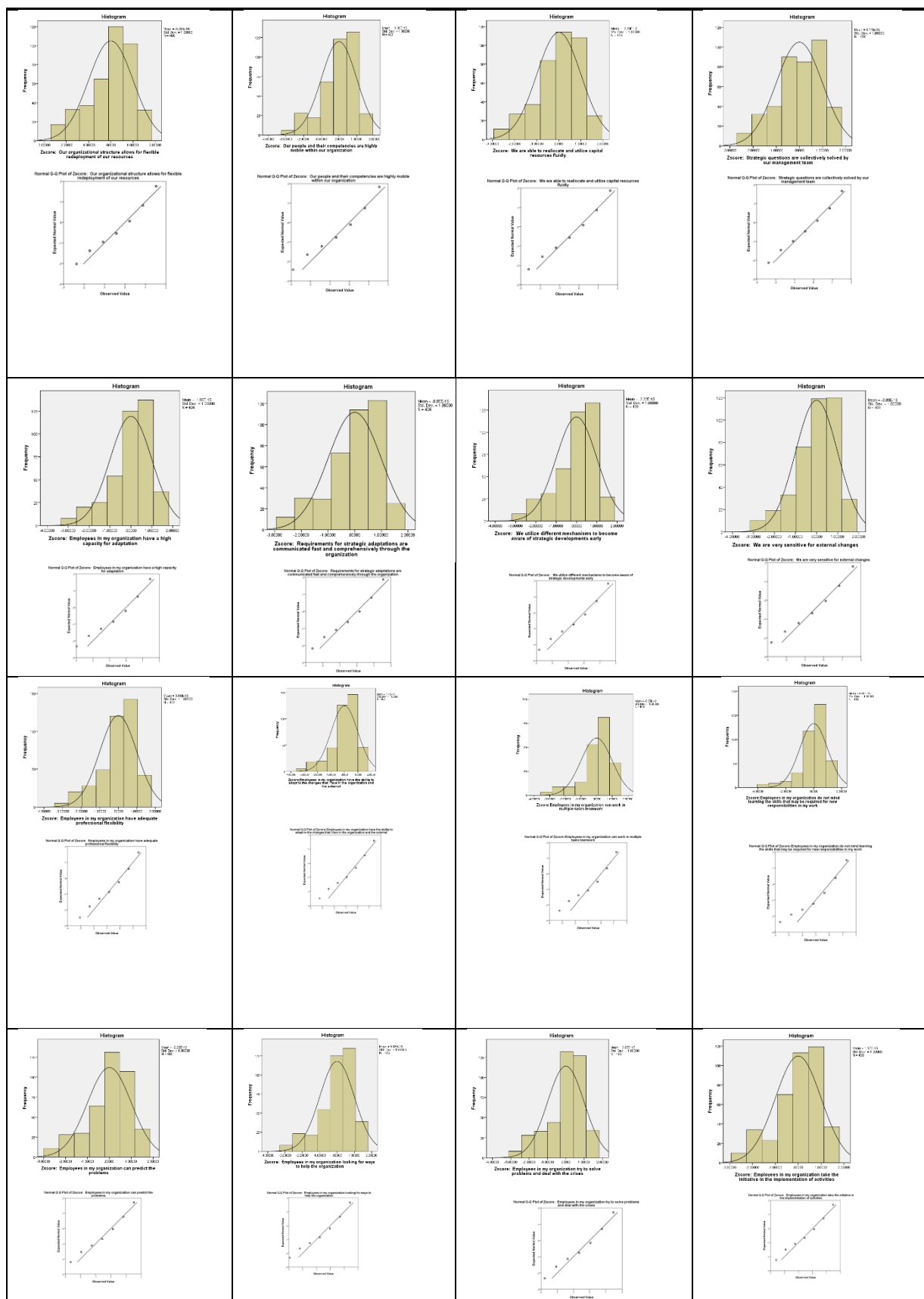
Appendix (14): Assessing Univariate normality graphically using the histogram

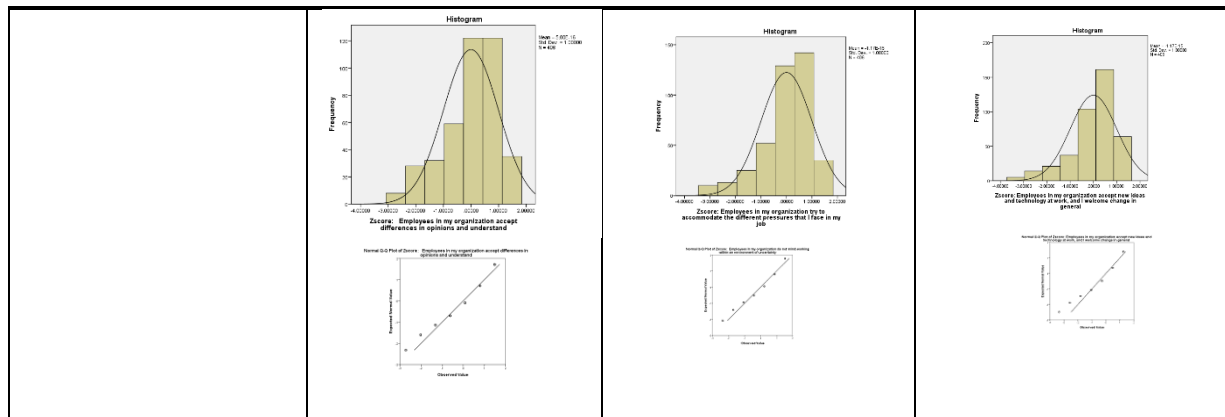












Appendix (15): Assessing Univariate outlier using z-scores, all scores are with +_4

Descriptive Statistics

	N	Minimum	Maximum
ZAC_AC1	406	-2.87528	1.44829
ZAC_AC2	406	-3.13558	1.44647
ZAC_AC3	406	-2.85952	1.56040
ZAC_ASS1	406	-2.44443	1.55734
ZAC_ASS2	406	-2.99935	1.49138
ZAC_ASS3	406	-2.63447	1.50590
ZAC_ASS4	406	-2.68477	1.39769
ZAC_Exp1	406	-2.93283	1.48546
ZAC_Exp2	406	-2.95425	1.41259
ZAC_EXP3	406	-3.19732	1.28408
ZAC_TS1	406	-2.90477	1.57656
ZAC_TS2	406	-3.19380	1.53862
ZAC_TS3	406	-3.16443	1.56474
ZAC_TS4	406	-3.50000	1.50940
ZDTM_AS1	406	-3.10268	1.16022
ZDTM_AS2	406	-2.61331	1.27078
ZDTM_AS3	406	-2.54766	1.39522
ZDTM_AS4	406	-2.91257	1.25607
ZDTM_TD1	406	-2.58001	1.37774
ZDTM_TD10	406	-1.92896	1.52108
ZDTM_TD11	406	-2.30509	1.47364
ZDTM_TD2	406	-2.24203	1.46829
ZDTM_TD3	406	-2.25723	1.53230
ZDTM_TD4	406	-2.84724	1.31096
ZDTM_TD5	406	-3.19239	1.36870
ZDTM_TD6	406	-2.89389	1.45766
ZDTM_TD7	406	-2.57528	1.45128
ZDTM_TD8	406	-2.50023	1.37911
ZDTM_TD9	406	-1.93412	1.51754
ZDTM_TR1	406	-1.79506	1.42021
ZDTM_TR10	406	-2.50316	1.09430
ZDTM_TR11	406	-2.48633	1.17331
ZDTM_TR12	406	-1.74427	1.61200
ZDTM_TR2	406	-2.33541	1.25843
ZDTM_TR3	406	-2.50995	1.24342
ZDTM_TR4	406	-1.77709	1.51743
ZDTM_TR5	406	-2.23044	1.58512
ZDTM_TR6	406	-2.86583	1.30951
ZDTM_TR7	406	-2.04722	1.40401

ZDTM_TR8	406	-2.10293	1.44222
ZDTM_TR9	406	-1.97520	1.44698
ZSA_CC1	406	-2.46688	1.25637
ZSA_CC2	406	-2.71966	1.27617
ZSA_CC3	406	-2.37858	1.50755
ZSA_RF1	406	-2.59394	1.62143
ZSA_RF2	406	-2.89497	1.54034
ZSA_RF3	406	-2.36951	1.52006
ZSA_SS1	406	-2.79958	1.56368
ZSA_SS2	406	-2.82249	1.52090
ZSA_SS3	406	-2.59587	1.54257
ZWFA_A1	406	-2.97359	1.44597
ZWFA_A2	406	-3.63859	1.29386
ZWFA_A3	406	-3.21392	1.19933
ZWFA_A4	406	-3.23327	1.39166
ZWFA_A5	406	-3.06119	1.41752
ZWFA_P1	406	-2.59822	1.46160
ZWFA_P2	406	-2.76315	1.46223
ZWFA_P3	406	-2.93837	1.42885
ZWFA_P4	406	-2.64111	1.51237
ZWFA_R1	406	-3.34368	1.25294
ZWFA_R2	406	-2.36803	1.52436
ZWFA_R3	406	-3.08169	1.45426
ZWFA_R4	406	-2.72387	1.48370
ZAOC1	406	-2.69551	1.13321
ZAOC2	406	-3.15671	1.28566
ZAOC3	406	-2.60523	1.37866
ZAOC4	406	-2.72452	1.25207
ZAOC5	406	-2.98366	1.11341
ZAOC6	406	-2.61706	1.35500
ZAOC7	406	-2.80769	1.40644
ZAOC8	406	-2.92349	1.40576
ZAOC9	406	-2.78339	1.34341
Valid N (listwise)	406		

Appendix (16): Assessment of Multicollinearity

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	-9.455E-16	.029		.000	1.000		
ZAC_AC1	.034	.045	.034	.752	.453	.412	2.429
ZAC_AC2	-.068	.054	-.068	-1.250	.212	.278	3.592
ZAC_AC3	.058	.039	.058	1.468	.143	.537	1.861
ZAC_ASS1	.111	.051	.111	2.158	.032	.312	3.209
ZAC_ASS2	-.045	.049	-.045	-.906	.366	.342	2.925
ZAC_ASS3	-.052	.050	-.052	-1.035	.301	.333	3.006
ZAC_ASS4	-.044	.048	-.044	-.912	.363	.353	2.834
ZAC_ExP1	-.012	.044	-.012	-.287	.774	.435	2.301
ZAC_ExP2	-.089	.055	-.089	-1.609	.108	.272	3.681
ZAC_EXP3	-.026	.051	-.026	-.524	.601	.323	3.093
ZAC_TS1	.082	.059	.082	1.379	.169	.234	4.278
ZAC_TS2	.135	.058	.135	2.331	.020	.248	4.040
ZAC_TS3	.151	.053	.151	2.871	.004	.296	3.373
ZAC_TS4	.080	.049	.080	1.645	.101	.347	2.884
ZAOC1	.025	.035	.025	.734	.464	.684	1.461

ZAOC2	-.116	.047	-.116	-2.468	.014	.376	2.656
ZAOC3	.070	.053	.070	1.325	.186	.294	3.404
ZAOC4	.058	.053	.058	1.083	.279	.288	3.467
ZAOC5	-.082	.056	-.082	-1.481	.139	.266	3.757
ZAOC6	.100	.052	.100	1.941	.053	.308	3.248
ZAOC7	-.031	.054	-.031	-.567	.571	.279	3.583
ZAOC8	-.034	.057	-.034	-.599	.550	.256	3.905
ZAOC9	-.010	.055	-.010	-.174	.862	.274	3.649
ZDTM_AS1	.104	.043	.104	2.434	.015	.450	2.222
ZDTM_AS2	.022	.051	.022	.420	.674	.314	3.189
ZDTM_AS3	.008	.047	.008	.167	.868	.366	2.730
ZDTM_AS4	.001	.054	.001	.020	.984	.279	3.578
ZDTM_TD1	.093	.051	.093	1.824	.069	.316	3.168
ZDTM_TD10	.013	.054	.013	.244	.807	.280	3.575
ZDTM_TD11	-.069	.055	-.069	-1.269	.205	.275	3.630
ZDTM_TD2	.009	.053	.009	.171	.864	.295	3.394
ZDTM_TD3	.037	.047	.037	.793	.428	.372	2.688
ZDTM_TD4	-.057	.035	-.057	-1.638	.102	.679	1.473
ZDTM_TD5	-.044	.044	-.044	-1.001	.318	.423	2.366
ZDTM_TD6	.041	.053	.041	.770	.442	.289	3.466
ZDTM_TD7	.007	.050	.007	.137	.891	.328	3.048
ZDTM_TD8	-.067	.051	-.067	-1.319	.188	.316	3.165
ZDTM_TD9	-.088	.057	-.088	-1.547	.123	.255	3.925
ZDTM_TR1	-.054	.045	-.054	-1.204	.230	.408	2.452
ZDTM_TR10	.060	.038	.060	1.556	.121	.562	1.781
ZDTM_TR11	-.023	.041	-.023	-.572	.568	.496	2.015
ZDTM_TR12	-.013	.042	-.013	-.315	.753	.475	2.105
ZDTM_TR2	.090	.047	.090	1.901	.058	.368	2.720
ZDTM_TR3	-.032	.054	-.032	-.591	.555	.288	3.477
ZDTM_TR4	.041	.064	.041	.638	.524	.200	4.988
ZDTM_TR5	.056	.034	.056	1.645	.101	.711	1.406
ZDTM_TR6	.100	.039	.100	2.572	.011	.544	1.838
ZDTM_TR7	.041	.045	.041	.913	.362	.400	2.498
ZDTM_TR8	-.023	.047	-.023	-.484	.629	.366	2.730
ZDTM_TR9	.069	.047	.069	1.449	.148	.366	2.732
ZSA_CC1	.052	.054	.052	.948	.344	.278	3.592
ZSA_CC2	.098	.056	.098	1.768	.078	.268	3.738
ZSA_CC3	-.043	.049	-.043	-.884	.377	.348	2.872
ZSA_RF1	-.022	.047	-.022	-.455	.649	.369	2.709
ZSA_RF2	.161	.048	.161	3.392	.001	.364	2.746
ZSA_RF3	.057	.048	.057	1.180	.239	.352	2.842
ZSA_SS1	.104	.044	.104	2.388	.017	.433	2.310
ZSA_SS2	.003	.056	.003	.059	.953	.266	3.766
ZSA_SS3	.121	.056	.121	2.168	.031	.266	3.761

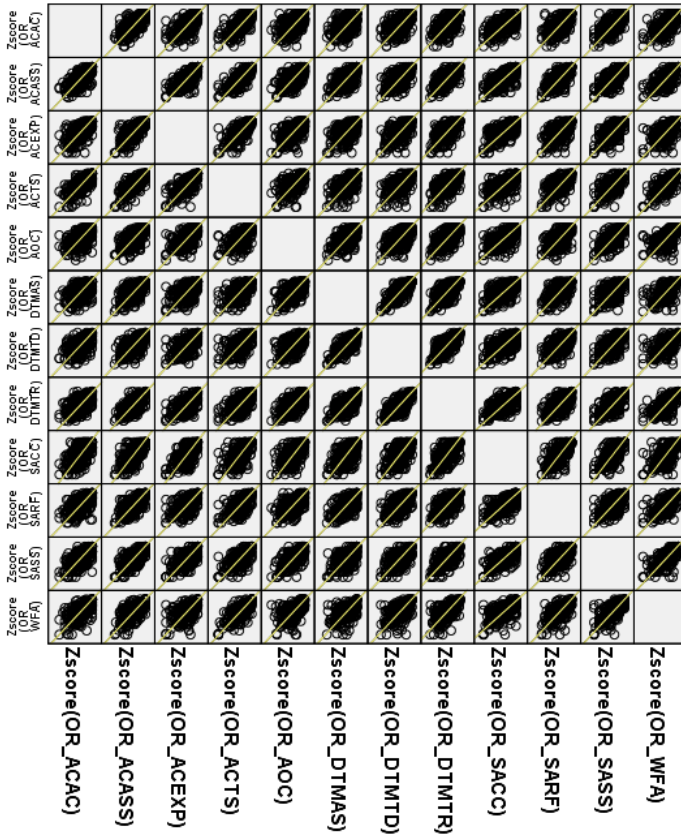
a. Dependent Variable: ZOR_WFA

Appendix (17): Common Latent Method Factor Approach and results table

3	Standardized Regression Weights: (None)				Standardized Regression Weights: (With CLF)				Estimate	Delta/Difference
4	ZWFA_A1	<---	WFA	0.797	ZWFA_A1	<---	WFA	0.744		0.053
5	ZWFA_A2	<---	WFA	0.767	ZWFA_A2	<---	WFA	0.725		0.042
6	ZWFA_A3	<---	WFA	0.81	ZWFA_A3	<---	WFA	0.77		0.04
7	ZWFA_A4	<---	WFA	0.824	ZWFA_A4	<---	WFA	0.784		0.04
8	ZWFA_A5	<---	WFA	0.8	ZWFA_A5	<---	WFA	0.751		0.049
9	ZWFA_P1	<---	WFA	0.713	ZWFA_P1	<---	WFA	0.661		0.052
10	ZWFA_P2	<---	WFA	0.793	ZWFA_P2	<---	WFA	0.743		0.05
11	ZWFA_P3	<---	WFA	0.796	ZWFA_P3	<---	WFA	0.745		0.051
12	ZWFA_P4	<---	WFA	0.733	ZWFA_P4	<---	WFA	0.674		0.059
13	ZWFA_R1	<---	WFA	0.767	ZWFA_R1	<---	WFA	0.715		0.052
14	ZWFA_R3	<---	WFA	0.747	ZWFA_R3	<---	WFA	0.693		0.054
15	ZWFA_R4	<---	WFA	0.723	ZWFA_R4	<---	WFA	0.67		0.053
16	ZAOC2	<---	AOC	0.689	ZAOC2	<---	AOC	0.632		0.057
17	ZAOC3	<---	AOC	0.791	ZAOC3	<---	AOC	0.743		0.048
18	ZAOC4	<---	AOC	0.806	ZAOC4	<---	AOC	0.757		0.049
19	ZAOC5	<---	AOC	0.834	ZAOC5	<---	AOC	0.88		-0.046
20	ZAOC6	<---	AOC	0.819	ZAOC6	<---	AOC	0.773		0.046
21	ZAOC7	<---	AOC	0.844	ZAOC7	<---	AOC	0.794		0.05
22	ZAOC8	<---	AOC	0.856	ZAOC8	<---	AOC	0.809		0.047
23	ZAOC9	<---	AOC	0.852	ZAOC9	<---	AOC	0.807		0.045
24	ZDTM_AS2	<---	DTMTD	0.73	ZDTM_AS2	<---	DTMTD	0.679		0.051
25	ZDTM_AS3	<---	DTMTD	0.638	ZDTM_AS3	<---	DTMTD	0.586		0.052
26	ZDTM_AS4	<---	DTMTD	0.739	ZDTM_AS4	<---	DTMTD	0.689		0.05
27	ZDTM_TD1	<---	DTMTD	0.806	ZDTM_TD1	<---	DTMTD	0.764		0.042
28	ZDTM_TD2	<---	DTMTD	0.811	ZDTM_TD2	<---	DTMTD	0.766		0.045
29	ZDTM_TD3	<---	DTMTD	0.759	ZDTM_TD3	<---	DTMTD	0.719		0.04
30	ZDTM_TD5	<---	DTMTD	0.7	ZDTM_TD5	<---	DTMTD	0.65		0.05
31	ZDTM_TD6	<---	DTMTD	0.785	ZDTM_TD6	<---	DTMTD	0.742		0.043
32	ZDTM_TD7	<---	DTMTD	0.772	ZDTM_TD7	<---	DTMTD	0.728		0.044
33	ZDTM_TD8	<---	DTMTD	0.761	ZDTM_TD8	<---	DTMTD	0.712		0.049
34	ZDTM_TR1	<---	DTMTR	0.713	ZDTM_TR1	<---	DTMTR	0.669		0.044
35	ZDTM_TR2	<---	DTMTR	0.732	ZDTM_TR2	<---	DTMTR	0.675		0.057
36	ZDTM_TR3	<---	DTMTR	0.829	ZDTM_TR3	<---	DTMTR	0.785		0.044
37	ZDTM_TR4	<---	DTMTR	0.886	ZDTM_TR4	<---	DTMTR	0.845		0.041
38	ZDTM_TR7	<---	DTMTR	0.699	ZDTM_TR7	<---	DTMTR	0.641		0.058
39	ZDTM_TR8	<---	DTMTR	0.724	ZDTM_TR8	<---	DTMTR	0.667		0.057
40	ZDTM_TR9	<---	DTMTR	0.712	ZDTM_TR9	<---	DTMTR	0.661		0.051
41	ZAC_ASS3	<---	ACap	0.74	ZAC_ASS3	<---	ACap	0.685		0.055
42	ZAC_ASS2	<---	ACap	0.788	ZAC_ASS2	<---	ACap	0.735		0.053
43	ZAC_EXP3	<---	ACap	0.669	ZAC_EXP3	<---	ACap	0.607		0.062
44	ZAC_TS1	<---	ACap	0.848	ZAC_TS1	<---	ACap	0.807		0.041
45	ZAC_TS2	<---	ACap	0.868	ZAC_TS2	<---	ACap	0.827		0.041
46	ZAC_TS3	<---	ACap	0.824	ZAC_TS3	<---	ACap	0.78		0.044
47	ZAC_TS4	<---	ACap	0.778	ZAC_TS4	<---	ACap	0.734		0.044
48	ZSA_FF1	<---	SARF	0.76	ZSA_FF1	<---	SARF	0.717		0.043
49	ZSA_FF2	<---	SARF	0.812	ZSA_FF2	<---	SARF	0.761		0.051
50	ZSA_FF3	<---	SARF	0.8	ZSA_FF3	<---	SARF	0.76		0.04
51	ZSA_SS2	<---	SASSCC	0.858	ZSA_SS2	<---	SASSCC	0.817		0.041
52	ZSA_SS3	<---	SASSCC	0.858	ZSA_SS3	<---	SASSCC	0.813		0.045
53	ZSA_CC1	<---	SASSCC	0.751	ZSA_CC1	<---	SASSCC	0.688		0.063
54	ZSA_CC2	<---	SASSCC	0.747	ZSA_CC2	<---	SASSCC	0.689		0.058
55	ZSA_SS1	<---	SASSCC	0.721	ZSA_SS1	<---	SASSCC	0.675		0.046
56					ZWFA_A1	<---	CLF	0.266		

All Values are below the cut off criteria 0.2

Appendix (18): Linearity assumption for Factor Analysis



Appendix (19): The initial EFA and CFA of the DTM Construct (Four Components).

Pattern Matrix^a

	Component			
	1	2	3	4
ZDTM_AS1	.660			-.327
ZDTM_AS2	.768			
ZDTM_AS3	.729			
ZDTM_AS4	.747			
ZDTM_TD1	.798			
ZDTM_TD10	.485	.412		
ZDTM_TD11	.491	.375		
ZDTM_TD2	.732			
ZDTM_TD3	.843			
ZDTM_TD4	.317			.603
ZDTM_TD5	.746			
ZDTM_TD6	.781			
ZDTM_TD7	.743			
ZDTM_TD8	.616			
ZDTM_TD9	.526	.397		
ZDTM_TR1		.665		
ZDTM_TR2		.762		
ZDTM_TR3		.738		
ZDTM_TR4		.722		
ZDTM_TR5		.479		.707
ZDTM_TR6		.610		
ZDTM_TR7		.670	.317	
ZDTM_TR8		.648	.369	
ZDTM_TR9		.575	.369	
ZDTM_TR10			.622	
ZDTM_TR11			.622	

Extraction Method: Principal Component Analysis.
Rotation Method: Promax with Kaiser Normalization.
a. Rotation converged in 10 iterations.

Model Validity Measures

	CR	AVE	MSV	MaxR(H)	Training	Retention	Selection	Dvelp
Training	0.864	0.524	0.792	0.887	0.724			
Retention	0.890	0.440	0.666	0.923	0.716***	0.663		
Selection	0.860	0.607	0.702	0.873	0.838***	0.746***	0.779	
Dvelp	0.907	0.661	0.792	0.910	0.890***	0.816***	0.836***	0.813

Validity Concerns

Discriminant Validity: the square root of the AVE for Training is less than its correlation with Selection.
Discriminant Validity: the square root of the AVE for Retention is less than its correlation with Training.
Discriminant Validity: the square root of the AVE for Retention is less than its correlation with Dvelp.
Discriminant Validity: the square root of the AVE for Selection is less than its correlation with Dvelp.
Discriminant Validity: the square root of the AVE for Dvelp is less than its correlation with Retention.
Discriminant Validity: the square root of the AVE for Training is less than the MSV.
Discriminant Validity: the AVE for Retention is less than 0.50. Try removing ZDTM_TR4 to improve AVE.
Discriminant Validity: the AVE for Training is less than the MSV.
Discriminant Validity: the AVE for Selection is less than the MSV.
Discriminant Validity: the AVE for Dvelp is less than the MSV.

References

Significance of Correlations:

† p < 0.100
* p < 0.050
** p < 0.010
*** p < 0.001

Thresholds From:

Hu, L., Bentler, P.M. (1999). "Cutoff Criteria for Fit Indexes in Covariance Structure Analysis: Conventional Criteria Versus New Alternatives" SEM vol. 6(1), pp. 1-55.

Dynamic Talent Management Capability (Three Components)

Pattern Matrix^a

	Component		
	1	2	3
ZDTM_AS1	.665		
ZDTM_AS2	.716		
ZDTM_AS3	.828		
ZDTM_AS4	.857		
ZDTM_TD1	.742		
ZDTM_TD11	.667		
ZDTM_TD2	.690		
ZDTM_TD3	.699		
ZDTM_TD4		.697	
ZDTM_TD5	.575	.410	
ZDTM_TD6	.703	.318	
ZDTM_TD7	.710		
ZDTM_TD8	.704		
ZDTM_TD9	.743		
ZDTM_TD10	.711		
ZDTM_TR1	.377	.438	
ZDTM_TR2	.466	.444	
ZDTM_TR3	.403	.546	
ZDTM_TR4	.416	.575	
ZDTM_TR5			
ZDTM_TR6		.429	
ZDTM_TR7		.752	
ZDTM_TR8		.784	
ZDTM_TR9		.739	
ZDTM_TR10	-.411	.769	.445
ZDTM_TR11		.754	

Extraction Method: Principal Component Analysis.
Rotation Method: Promax with Kaiser Normalization.

Appendix (20): final EFA and CFA of the DTM construct

Pattern Matrix^a

	Component	
	1	2
ZDTM_AS1	.542	
ZDTM_AS2	.685	
ZDTM_AS3	.779	
ZDTM_AS4	.870	
ZDTM_TD1	.961	
ZDTM_TD11	.690	
ZDTM_TD2	.848	
ZDTM_TD3	.969	
ZDTM_TD4	.617	
ZDTM_TD5	.901	
ZDTM_TD6	.968	
ZDTM_TD7	.888	
ZDTM_TD8	.679	
ZDTM_TD9	.713	
ZDTM_TD10	.687	
ZDTM_TR1		.567
ZDTM_TR2		.653
ZDTM_TR3		.750
ZDTM_TR4		.762
ZDTM_TR6		.554
ZDTM_TR7		.973
ZDTM_TR8		.989
ZDTM_TR9		.899
ZDTM_TR10		.830
ZDTM_TR11		.893

Extraction Method: Principal Component Analysis.
Rotation Method: Promax with Kaiser Normalization.
a. Rotation converged in 3 iterations.

Model Validity Measures

	CR	AVE	MSV	MaxR(H)	DTM_AS_TD	DTM_TR
DTM_AS_TD	0.929	0.569	0.567	0.932	0.754	
DTM_TR	0.904	0.576	0.567	0.918	0.753***	0.759

Validity Concerns

No validity concerns here.

References

Significance of Correlations:

† p < 0.100

* p < 0.050

** p < 0.010

*** p < 0.001

Thresholds From:

Hu, L., Bentler, P.M. (1999), "Cutoff Criteria for Fit Indexes in Covariance Structure Analysis: Conventional Criteria Versus New Alternatives" SEM vol. 6(1), pp. 1-55.

--If you would like to cite this tool directly, please use the following: Gaskin, J. & Lim, J. (2016), "Master Validity Tool", AMOS Plugin. [Gaskination's StatWiki](#).

Appendix (21): EFA of the ACAP construct

Pattern Matrix ^a			
	Factor		
	1	2	3
AC_ASS1	.640		
AC_ASS2	.643		
AC_ASS3	.768		
AC_ASS4	.398	.347	
AC_TS1	.725		
AC_TS2	.835		
AC_TS3	.775		
AC_TS4	.695		
AC_AC1		.821	
AC_AC2		.825	
AC_AC3		.419	
AC_Exp1			.465
AC_Exp2			.629
AC_Exp3			.977
Extraction Method: Maximum Likelihood. Rotation Method: Promax with Kaiser Normalization. a. Rotation converged in 6 iterations.			

Appendix (22): CFA of the ACAP Construct

Model Validity Measures

	CR	AVE	MSV	MaxR(H)	ACap_ASS_TS	ACap_AC	ACap_Exp
ACap_ASS_TS	0.918	0.651	0.648	0.925	0.807		
ACap_AC	0.824	0.703	0.606	0.859	0.778***	0.838	
ACap_Exp	0.853	0.661	0.648	0.869	0.805***	0.717***	0.813

Validity Concerns

No validity concerns here.

References

Significance of Correlations:

† p < 0.100

* p < 0.050

** p < 0.010

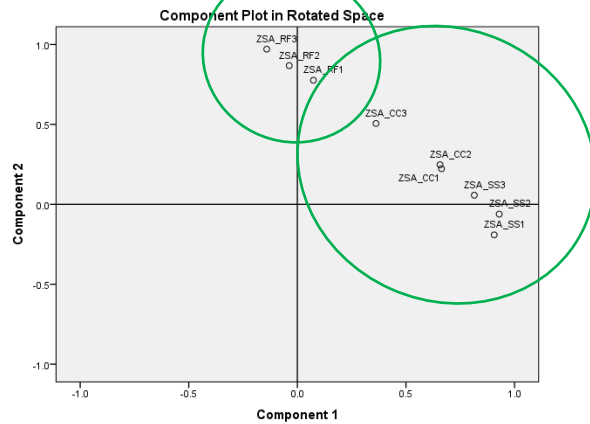
*** p < 0.001

Thresholds From:

Hu, L., Bentler, P.M. (1999), "Cutoff Criteria for Fit Indexes in Covariance Structure Analysis: Conventional Criteria Versus New Alternatives" SEM vol. 6(1), pp. 1-55.

--If you would like to cite this tool directly, please use the following: Gaskin, J. & Lim, J. (2016), "Master Validity Tool", AMOS Plugin. [Gaskination's StatWiki](#).

Appendix (23): EFA and CFA of the strategic agility construct



Pattern Matrix ^a		
	Component	
	1	2
ZSA_SS1	.906	
ZSA_SS2	.929	
ZSA_SS3	.815	
ZSA_CC1	.664	
ZSA_CC2	.657	
ZSA_CC3	.362	.506
ZSA_RF1		.776
ZSA_RF2		.868
ZSA_RF3		.970

Extraction Method: Principal Component Analysis.
Rotation Method: Promax with Kaiser Normalization.
a. Rotation converged in 3 iterations.

Model Validity Measures

	CR	AVE	MSV	MaxR(H)	SA_CC	SA_RF
SA_CC	0.912	0.633	0.541	0.920	0.796	
SA_RF	0.833	0.625	0.541	0.833	0.736***	0.790

Validity Concerns

No validity concerns here.

References

Significance of Correlations:

† p < 0.100

* p < 0.050

** p < 0.010

*** p < 0.001

Thresholds From:

Hu, L., Bentler, P.M. (1999), "Cutoff Criteria for Fit Indexes in Covariance Structure Analysis: Conventional Criteria Versus New Alternatives" SEM vol. 6(1), pp. 1-55.

--If you would like to cite this tool directly, please use the following: Gaskin, J. & Lim, J. (2016), "Master Validity Tool", AMOS Plugin. [Gaskination's StatWiki](#).

Appendix (24): EFA and CFA of the workforce agility construct.

Correlation Matrix ^a														
		WFA_P1	WFA_P2	WFA_P3	WFA_P4	WFA_A1	WFA_A2	WFA_A3	WFA_A4	WFA_A5	WFA_R1	WFA_R2	WFA_R3	WFA_R4
Correlation	WFA_P1	1.000	.753	.663	.572	.552	.476	.505	.566	.557	.513	.297	.546	.513
	WFA_P2	.753	1.000	.786	.653	.623	.561	.586	.609	.589	.577	.337	.560	.586
	WFA_P3	.663	.786	1.000	.655	.636	.587	.552	.632	.595	.571	.358	.568	.553
	WFA_P4	.572	.653	.655	1.000	.605	.547	.477	.545	.519	.519	.353	.531	.540
	WFA_A1	.552	.623	.636	.605	1.000	.633	.600	.646	.629	.674	.377	.599	.585
	WFA_A2	.476	.561	.587	.547	.633	1.000	.681	.653	.569	.633	.310	.552	.559
	WFA_A3	.505	.586	.552	.477	.600	.681	1.000	.733	.720	.640	.349	.587	.549
	WFA_A4	.566	.609	.632	.545	.646	.653	.733	1.000	.779	.626	.366	.649	.558
	WFA_A5	.557	.589	.595	.519	.629	.569	.720	.779	1.000	.617	.395	.648	.579
	WFA_R1	.513	.577	.571	.519	.674	.633	.640	.626	.617	1.000	.387	.584	.618
	WFA_R2	.297	.337	.358	.353	.377	.310	.349	.366	.395	.387	1.000	.518	.451
	WFA_R3	.546	.560	.568	.531	.599	.552	.587	.649	.648	.584	.518	1.000	.685
WFA_R4	.513	.586	.553	.540	.585	.559	.549	.558	.579	.618	.451	.685	1.000	
a. Determinant = 6.611E-5														

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.947
Bartlett's Test of Sphericity	Approx. Chi-Square	3848.069
	df	78
	Sig.	.000

Communalities

	Initial	Extraction
WFA_P1	1.000	.560
WFA_P2	1.000	.674
WFA_P3	1.000	.663
WFA_P4	1.000	.556
WFA_A1	1.000	.663
WFA_A2	1.000	.600
WFA_A3	1.000	.636
WFA_A4	1.000	.700
WFA_A5	1.000	.670
WFA_R1	1.000	.629
WFA_R2	1.000	.273
WFA_R3	1.000	.632
WFA_R4	1.000	.593

Extraction Method: Principal Component Analysis.

Model Fit Measures

Measure	Estimate	Threshold	Interpretation
CMIN	110.891	--	--
DF	39	--	--
CMIN/DF	2.843	Between 1 and 3	Excellent
CFI	0.977	>0.95	Excellent
SRMR	0.032	<0.08	Excellent
RMSEA	0.067	<0.06	Acceptable
PClose	0.025	>0.05	Acceptable

Congratulations, your model fit is acceptable.

Cutoff Criteria*

Measure	Terrible	Acceptable	Excellent
CMIN/DF	> 5	> 3	> 1
CFI	<0.90	<0.95	>0.95
SRMR	>0.10	>0.08	<0.08
RMSEA	>0.08	>0.06	<0.06
PClose	<0.01	<0.05	>0.05

*Note: Hu and Bentler (1999, "Cutoff Criteria for Fit Indexes in Covariance Structure Analysis: Conventional Criteria Versus New Alternatives") recommend combinations of measures. Personally, I prefer a combination of CFI>0.95 and SRMR<0.08. To further solidify evidence, add the RMSEA<0.06.

Appendix (25): EFA of the adaptive organizational culture construct.

Factor Analysis

Correlation Matrix

	ZAOC1	ZAOC2	ZAOC3	ZAOC4	ZAOC5	ZAOC6	ZAOC7	ZAOC8	ZAOC9
Correlation									
ZAOC1	1.000	.246	.164	.150	.161	.169	.068	.180	.107
ZAOC2	.246	1.000	.688	.627	.580	.569	.587	.570	.546
ZAOC3	.164	.688	1.000	.658	.683	.640	.651	.660	.664
ZAOC4	.150	.627	.658	1.000	.755	.653	.655	.688	.676
ZAOC5	.161	.580	.683	.755	1.000	.698	.683	.712	.718
ZAOC6	.169	.569	.640	.653	.698	1.000	.715	.697	.692
ZAOC7	.068	.587	.651	.655	.683	.715	1.000	.727	.728
ZAOC8	.180	.570	.660	.688	.712	.697	.727	1.000	.749
ZAOC9	.107	.546	.664	.676	.718	.692	.728	.749	1.000

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy	.938
Bartlett's Test of Sphericity	Approx. Chi-Square
	2570.769
	df
	36
	Sig.
	.000

Communalities

	Initial	Extraction
ZAOC1	1.000	.964
ZAOC2	1.000	.619
ZAOC3	1.000	.700
ZAOC4	1.000	.720
ZAOC5	1.000	.753
ZAOC6	1.000	.710
ZAOC7	1.000	.752
ZAOC8	1.000	.748
ZAOC9	1.000	.751

Extraction Method: Principal Component Analysis

Appendix (26): Research Measurement Model

Model Validity Measures

	CR	AVE	MSV	MaxR(H)	WFA	AOC	DTMTD	DTMTR	ACap	SARF	SASSCC
WFA	0.947	0.598	0.593	0.948	0.773						
AOC	0.940	0.661	0.573	0.943	0.575***	0.813					
DTMTD	0.928	0.565	0.561	0.931	0.595***	0.582***	0.752				
DTMTR	0.904	0.577	0.561	0.918	0.617***	0.665***	0.749***	0.759			
ACap	0.920	0.625	0.621	0.928	0.770***	0.633***	0.627***	0.679***	0.790		
SARF	0.834	0.626	0.583	0.836	0.721***	0.657***	0.655***	0.686***	0.764***	0.791	
SASSCC	0.891	0.622	0.621	0.902	0.747***	0.757***	0.695***	0.696***	0.788***	0.745***	0.789

Validity Concerns

No validity concerns here.

References

Significance of Correlations:

† p < 0.100

* p < 0.050

** p < 0.010

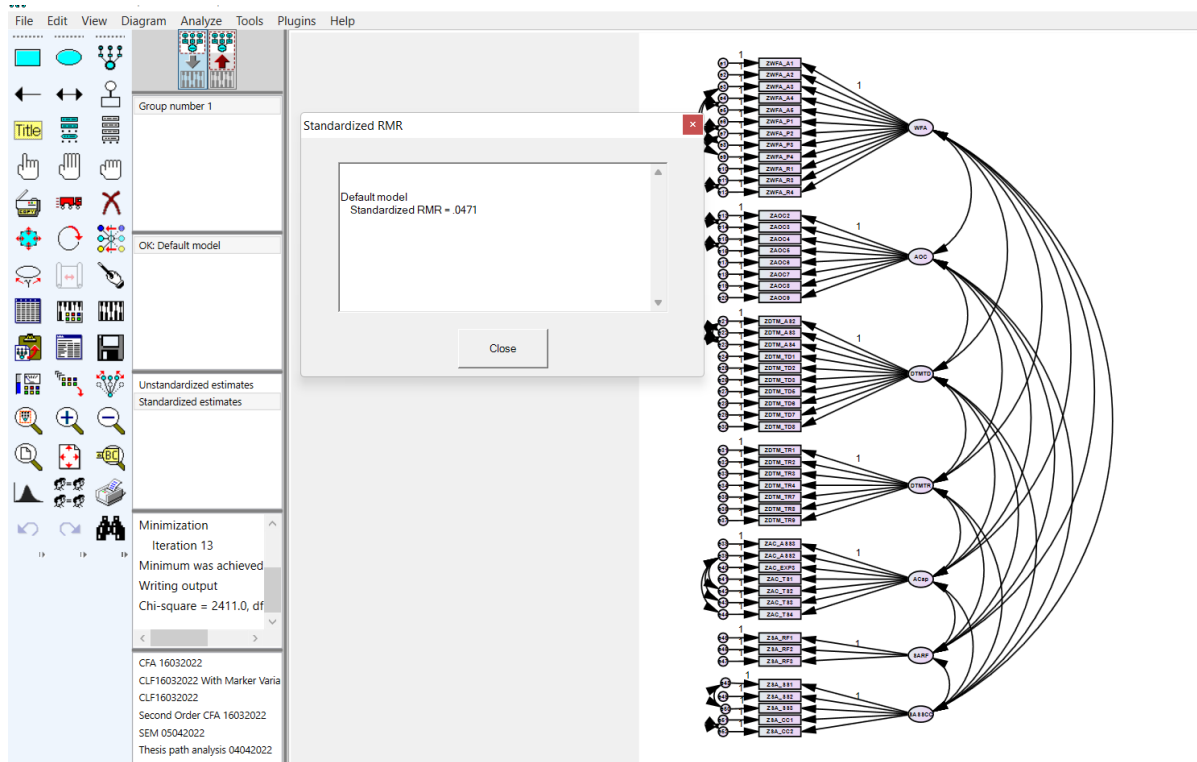
*** p < 0.001

Thresholds From:

Hu, L., Bentler, P.M. (1999), "Cutoff Criteria for Fit Indexes in Covariance Structure Analysis: Conventional Criteria Versus New Alternatives" SEM vol. 6(1), pp. 1-55.

--If you would like to cite this tool directly, please use the following: Gaskin, J. & Lim, J. (2016), "Master Validity Tool", AMOS Plugin. [Gaskination's StatWiki](#).

Appendix (27): Research Model fit indices



Appendix (28): strategic agility discriminant validity concerns

Model Validity Measures

	CR	AVE	MSV	MaxR(H)	WFA	AOC	DTMTD	DTMTR	ACap	SASSCC
WFA	0.947	0.598	0.628	0.948	0.773					
AOC	0.940	0.661	0.605	0.943	0.575***	0.813				
DTMTD	0.928	0.565	0.561	0.931	0.596***	0.582***	0.752			
DTMTR	0.905	0.577	0.562	0.917	0.617***	0.665***	0.749***	0.760		
ACap	0.921	0.625	0.703	0.928	0.770***	0.633***	0.627***	0.679***	0.790	
SASSCC	0.905	0.545	0.703	0.910	0.792***	0.778***	0.736***	0.749***	0.839***	0.738

Validity Concerns

Discriminant Validity: the square root of the AVE for WFA is less than its correlation with SASSCC.
Discriminant Validity: the square root of the AVE for SASSCC is less than its correlation with WFA.
Discriminant Validity: the square root of the AVE for SASSCC is less than its correlation with DTMTR.
Discriminant Validity: the AVE for WFA is less than the MSV.
Discriminant Validity: the AVE for ACap is less than the MSV.
Discriminant Validity: the AVE for SASSCC is less than the MSV.

References

Significance of Correlations:

† p < 0.100

* p < 0.050

** p < 0.010

*** p < 0.001

Thresholds From:

Hu, L., Bentler, P.M. (1999), "Cutoff Criteria for Fit Indexes in Covariance Structure Analysis: Conventional Criteria Versus New Alternatives" SEM vol. 6(1), pp. 1-55.

The above issues resulted after merging the two variables under the construct.

Appendix (29): Main sources of organizational turbulence- Q9 of the AOC scale.

No.	If your organization is facing any level of change, briefly describe the changes that the organization may be facing
1	Infrastructure changes
2	1) Seasoned staff are always resistant to change. 2) Ensuring the right people are at the table prior to decide on a change. 3) Executive decisions are biased. 4) Frontline staff input is crucial; however, it's not always welcomed.
3	A lot of new projects and a lot of people leaving, and new staff joined
4	Adapting to a pandemic.
5	Adapting to market needs and vision of the organization
6	adapting with environmental conditions
7	Adaptiveness of new business model
8	Blending the teaching method and starting the online teaching strategies
9	Brand positioning
10	Budget cuts
11	Building new facility
12	Challenges in labor recruitment and retention
13	Change in direction - strategy - aim and goals and management style
14	Change in management and workforce as well as business demand in the market.
15	Change in management, strategies, departmental restructure and reorganization
16	Change in staff structure due to Covid-19's

17	Change of chairman or president every 4 years
18	Change the hierarchy with Digital transformation and the new and future need of the market
19	Change the management style
20	Change the scope of services.
21	Changes in solution offerings.
22	Changes in technology and business priorities leading to changes in leadership and strategy
23	Changes in the available financial resources
24	Changes in top management
25	Changes on the functional structure in line with changes in external environment
26	Changes related to Covid synchronized as remote working options
27	Changing priorities by the customer, new project (Maintenance), New vehicles' platforms
28	Competition in the banking sector is increasing
29	continuous technology changes
30	Continuously and rapidly changing technologies and new forms of competition
31	Cost cutting
32	External Economic Crises
33	customer satisfaction, strategic priorities, service providing
34	Cutting down on expenses and raises to employees
35	External changes
36	Development of untrained thru management positions
37	Digital
38	Digital transformation
39	Digital Transformation
40	digital transformation, structural changes, government mandated changes etc
41	Digitalization and work still
42	Digitization
43	Downsizing
44	Downsizing (They call it rightsizing) due to services being hit with the pandemic. There have been (and still ongoing) many meetings on terminations, allowance and salary cuts.
45	Due to COVID-19 our industry (aviation, transportation & logistics) faced so many challenges, therefore we need to adapt in terms of our offerings and market approach.
46	Dwindling enrollments, competitive markets, fiscal resources decreasing steadily
47	External changes in terms of the world shift towards technology, which requires matching the people's talents and the organization's infrastructure to be able to adapt to the change and its impact.
48	Fast base technology advancements
49	financial challenges due to COVID pandemic and union contracts
50	Following the market trends and customer demands results with a frequent change on the business model used and products to work on
51	Global economics shifts, digitization, talents availability

52	Global restructure, amalgamation & business unit transformation
53	High competition among peers. Ne banks and FinTech's. Increased cost of compliance
54	High competition and ability to employ new resources.
55	Higher client expectations and low prices
56	Indirect competition from non-traditional companies
57	Industry changes that can impact its future growth due to changing customer behavior underpinned with new technologies
58	Inexperienced Management
59	Innovation and globalization
60	Internal reorientation
61	Issues with revenue lead to restructure and offering new courses. Also, online teaching made a big difference in higher education.
62	It's growing
63	Keeping restructuring for ever
64	Mainly matters related to covid and the new work week
65	Major change as training is shifting online.
66	Management Changes
67	Management changes /cutting cost /technology changes /competition with competitors /customer needs
68	Management changes structure
69	Manpower cost cutting, business center in India for lower costs
70	External Market requirements changes
71	Merger or acquisition
72	Moving to online learning, integrating technology in teaching and learning, facing competition, and changing recruitment trends.
73	Need to cope with evolving technology which is moving at a very fast!
74	New mandate and new strategy
75	Often structure changes
76	Org chart - strategic direction and priorities
77	organization is facing a change in developing a renewed service
78	Organizational structure changes are basically made
79	Organizational Structure changes, new assigned roles, or shifting some roles to become centralized from Governing entity in Abu Dhabi
80	outsourcing
81	Ownership changes
82	Pandemic teaching methods
83	People moving around business tactics
84	Positive change and expansion
85	Positive change and expansion
86	Proper system
87	Re structure
88	Recovery from the pandemic

89	Remote working makes us rethink the interaction with the client
90	Re-organization
91	Reponses to the pandemic and the increased competition and cost
92	Restructuring
93	Restructuring
94	Restructuring and financial term changes, negatively.
95	Rules and regulations
96	Securing new business opportunities in the region
97	Service delivery mechanisms have transformed
98	Shift to office life post pandemic
99	Shifting into more computer-based reviews, meaning that it is headed in the direction of more automation
100	Shortage of budget, remote work, Emiratization of jobs
101	Significant expansion
102	Staff development to be a destination medical center
103	strategic
104	Strategic change and Org reform
105	Strategy and vision to grow continuously by adopting the latest practices and technologies platform
106	Structural changes to improve agility, customer experience, and efficiency
107	Structural design, right sizing manpower, and Regionalization of the services
108	survival mode to cut losses and achieve targets
109	Technological advancements bring more business opportunities
110	Technological disruptions
111	Technology changes
112	Technology changes
113	Technology disruption
114	Technology shift towards cloud adoption & empowering the nation to fight against COVID by achieving work from home.
115	The challenge of being a new competitor in the market
116	The organization is facing a blend of enforced changes by external higher authorities and planned changes forecasted and implemented by internal authorities both aimed at reaching certain goals whether to support the Abu Dhabi plan or ADP strategic plan. However, there does not seem to be any work done on adapting the different changes to work in parallel with the organizational goals.
117	The pandemic forced all the organizations to adopt cloud solutions and we are not an exception.
118	There is a daily development in all policies
119	They are reorganizing the job responsibilities for few employees
120	Top management change
121	Transferring to distance learning
122	Transformation
123	Transforming totally to virtual working environment

124	Unclear messages from Insurance Company on patient care. Corruption challenging ethical practices. DoH practices changes without clear communication on pathway/timelines.
125	unfair changes
126	We are greatly impacted by the recent pandemic and that forced us to the way we deliver with all the cutting cost initiatives we had to adopt to a more agile framework to compensate and survive.
127	We are moving into new markets and has several developments under progress
128	We are trying to enhance our sales force and grow outside our region and industry
129	Wishing employees stability
130	work from office to hybrid
131	The requirements and expectations of customers differ greatly
132	Increasing population density and increasing crime rates
133	digital transformation
134	Privatization and transition to the private sector system
135	Rapid application of technology and software
136	permanent development
137	Adjustment and organizational change, change in corporate identity
138	Continuous change at the administrative level and the transfer of employees
139	Economic changes due to the financial crisis that the country is going through, which led to the suspension of some financial and moral incentive programs for employees
140	Significant changes in the type of crime, urban development and the social fabric
141	Organizational change - changes in the external environment and their reflection on the role of the department
142	Continuous change in the organizational structure
143	Change in terms of how to attract employees and how to keep pace with the strategic changes that praise jobs
144	Change must be in line with the requirements of the labor market, development and competitiveness
145	Continuous leadership changes
146	structural changes
147	technology
148	merge
149	Consolidation and Budget
150	Government work is completely separate from the reality of private work or even the work systems of the surrounding countries
151	Great competition in the market
152	financial budget
153	The institution adapts to the change from a formal point of view only to protect from legal accountability, not caring about the real values of change in line with the interest of the company and the employee
154	Job structure for example

155	The working hours are flexible, in which there is equality in dealing and training courses for all employees without exception, and motivating employees and progress in dealing, and in which there is a career ladder and increases in salaries, and in which there is credibility in dealing, clarity and participation of employees in the development of the company, taking their ideas and respecting their ideas, not reducing and creating an attractive environment for employees to earn their loyalty for the institution
156	Automation of general procedures of correspondence and requests to the target audience
157	Given the nature of the company's work, the business has suddenly and hugely boomed due to the pandemic
158	makeover program
159	Some changes must be considered, and many aspects studied before they are implemented
160	Some competencies are not given attention and their work is not appreciated. Also, everyone is not treated with the same level of importance in the event that any service is requested, bearing in mind that the law in the country includes everyone and applies to everyone. Likewise, the treatment is dealt with the poor in the country at the same level, but with work there is no such
161	Always striving to improve and develop
162	Changing laws and school tendencies
163	Constant change of staff - lack of consistency
164	change for the better
165	Security changes and developments and the development of modern capabilities and technologies
166	Changing the vision, mission and strategic goals Change the corporate culture Leadership style change
167	staff change
168	Changing the administrative structure
169	Change for the better and create a work environment suitable for all nationalities
170	Change on the security, technical and strategic level according to a future plan
171	Changes at the level of the organizational structure and the work system in order to cope with the challenges of the working day. Changes at the level of staff responsibilities to mobilize the missing resources.
172	Changes in laws, legislation and policies
173	Leadership + Financial Changes
174	big changes
175	structural changes
176	Organizing discussion meetings
177	Keep pace with development and administrative changes to keep pace with the event
178	According to the requirements of life, for example, Corona
179	incapable of making a change

180	Not hiring new employees
181	The latest changes may be like health changes
182	Electronic Services Department and On Payne System
183	There is no fundamental change in the type of activity, but there are significant changes in tools and work methodologies to adapt to external changes
184	new requirements
185	ongoing structure changes
186	Facing the repercussions of Corona
187	Keeping pace with external market requirements, especially flexibility
188	Employees are transferred to join external recruitment companies